

European Agency for Safety and Health at Work

ESENER 2024: Technical report



Safety and health at work is everyone's concern. It's good for you. It's good for business.

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1 Introduction

1.1 Objectives of the European Survey of Enterprises on New and Emerging Risks (ESENER)

ESENER is an ongoing Europe-wide survey about workplace health and safety management practices with the aim of contributing to the occupational health and safety evidence base. As there is no other EU-level information source on how occupational safety and health (OSH) is managed in businesses, the ESENER survey is of great importance for policymakers to take decisions related to the allocation of means for the prevention of health and safety risks. The ESENER survey provides insights into:

- General safety and health risks in the workplace and how they are managed;
- Psychosocial risk, such as stress, bullying and harassment;
- Drivers of and barriers to OSH management; and
- Worker participation in safety and health practices.

First run in 2009, ESENER involved nearly 36,000 interviews with managers and OSH representatives in all EU Member States in addition to Turkey, Norway and Switzerland and covered private and public sector establishments with 10 or more employees. In 2014, the second round of ESENER provided an even more detailed look at workplace risks in the EU (and the other surveyed countries), with a new questionnaire and a single respondent per workplace, the person who knows best about OSH at the establishment. The survey collected insights from almost 50,000 establishments across 36 countries covering private and public sector establishments with at least five employees. Workplaces in agriculture, forestry and fishing were included too. Run in 2019 for the third time, ESENER followed the methodological approach of ESENER 2014, completing more than 45,000 surveys in all EU Member States at the time (including Croatia and the United Kingdom), in addition to Norway, Switzerland, Iceland, North Macedonia, and Serbia, and covered private and public sector establishments with five or more employees. Questions on digitalisation were included for the first time.

The results of the ESENER surveys are published in descriptive overview reports and accessible via interactive dashboards on the EU-OSHA website¹. In addition, the survey results also contribute to other in-depth follow-up studies.

The current, fourth round of the ESENER Europe-wide survey, ESENER 2024, builds further on the previous waves of this survey with a central aim of collecting robust current evidence from across Europe while providing the capability for rigorous analysis of trend data over time. While the requirement to be able to make like-for-like trend comparisons with previous data places an emphasis on consistency of methodology and survey questionnaire, it was equally important to ensure the survey remains current, reflecting the latest issues relating to safety and health practices in the workplace.

Like in previous ESENER waves, EU-OSHA allowed for an increase in the national sample size by at least 20% of the reference sample size. In the ESENER 2024 survey, these sample size increases were implemented in Austria, Germany, Italy, and Slovenia. These top-ups were funded separately by the respective national authorities through individual contracts with Ipsos. This separate funding also

¹ www.esener.eu

granted these national authorities the opportunity to incorporate additional country-specific questions into the survey.

1.2 The survey in brief

The fourth European Survey of Enterprises on New and Emerging Risks (ESENER) was carried out in 2024, covering over 41,458 establishments across all business size classes and activity sectors in 30 European countries (EU27, Norway, Iceland and Switzerland). A random sample of between 450 and 3,150 establishments – with 5 or more employees – in each country participated. The person within the establishment ‘who knows best’ about safety and health in their establishment answered questions about OSH management, psychosocial risks, worker representation, and drivers and barriers to OSH. Based on the responses to those questions, EU-OSHA aims to:

- Contribute to OSH strategies at national and EU level
 - Potential source of indicators and a ‘snapshot’ against which to measure progress.
- Improve effectiveness of policy implementation
 - Identifying factors that encourage preventative measures and those that discourage or impede them.
- Provide better support for enterprises
 - Defining enterprises’ needs according to their characteristics – size, sector, location, age, etc.
- Ensure more efficient communication
 - Improved targeting of measures such as support, guidance, information, campaigns, etc.

The survey was conducted as a telephone survey using the CATI technology (CATI = Computer Assisted Telephone Interviewing), although there is also a small number of interviews that were conducted as CAWI interviews (CAWI = Computer Assisted Web Interviewing) by respondents who refused to take part in the telephone interview but were willing to complete the online version of the survey.

As explained above, three previous waves of the survey were carried out in 2009, 2014 and 2019. The data for the 2024 wave may be used for comparison against the data collected in 2014 and 2019². A pilot test was carried out from Monday, 18 March 2024 through Friday, 29 March³ 2024. The main stage field took place from 20 May 2024 to 27 September 2024⁴. A cleaned and weighted dataset was delivered on 31 October 2024.

In all countries, the same methodology was applied. All national language versions of the survey questionnaire were strictly harmonized, thus allowing for full comparability of survey results between countries. Further methodological details can be found in the following chapters of this report.

1.3 Technical documentation available on ESENER 2024

This Technical Report is the primary technical resource for information about ESENER 2024. It offers comprehensive explanations of the key stages involved in preparing for and carrying out the data collection for ESENER 2024.

² After the first ESENER wave in 2009 some key methodological changes were adopted (questionnaire and target respondent, among others) which do not allow comparisons with subsequent waves.

³ In Bulgaria the last pilot contact was on April 2nd.

⁴ Some exceptions see further below.

Learnings from ESENER 2024 are described in the final chapter as well as recommendations for a possible next wave.

In addition, the Technical Report contains short summaries on the cognitive pre-test, on the translation process, the pilot phase and the sampling process. These steps are dealt with more detail in additional specific reports:

- Pre-test Report (cognitive pre-test)
- Translation Report
- Pilot Report

1.4 Survey organisation

1.4.1 Roles and responsibilities

On the contractor's side, the Ipsos European Public Affairs (EPA) unit in Leuven (Belgium), led the overall coordination, preparation and fieldwork of the survey, in close collaboration with staff from the International Social Research unit at Ipsos United Kingdom.

Throughout the project the Ipsos central team collaborated with EU-OSHA as well as EU-OSHA's network of Focal Points⁵ in each of the countries covered in the survey.

Furthermore, the following Ipsos teams and external partners were involved:

- The cognitive pre-test was conducted in collaboration with research teams at Ipsos Germany, Ipsos Poland and Ipsos Spain and expert input from Prof. David Rees Walters (University of Cardiff) and Prof. Emma Wadsworth (Solent University).
- The translation of the main questionnaire, the glossary and the fieldwork materials was carried out by cApStAn. cApStAn specialises in the translation and verification of research instruments for high-quality cross-national/cross-cultural surveys. Ipsos has a strong working relationship with cApStAn having collaborated on many multi-country studies.
- The samples were obtained from different sample providers as listed further in the report.
- Ipsos operation teams at Ipsos Bulgaria was responsible for the scripting of the questionnaire.

1.4.2 Local fieldwork agencies

The fieldwork for both the pilot and main field was carried out by the following local fieldwork agencies, as reflected in Table 1:

Table 1: Local fieldwork agencies in charge of fieldwork for ESENER 2024⁶

Country	Agency
Austria	FFIND ⁷
Belgium	Ipsos Belgium

⁵ <https://osha.europa.eu/en/about-eu-osha/national-focal-points/focal-points-index>

⁶ The fieldwork agencies in Cyprus, Luxembourg, Malta, and Switzerland also conducted fieldwork in these countries in ESENER 2019.

⁷ FFIND conducted fieldwork in Austria, France and Germany, with separate, country-specific interviewer teams, fieldwork supervisors and national project managers.

Bulgaria	Ipsos Bulgaria
Croatia	Ipsos Adria
Cyprus	CYMAR Cyprus
Czechia	Data Collect Czechia
Denmark	Norstat Denmark
Estonia	Norstat Estonia
Finland	Norstat Finland
France	FFIND
Germany	FFIND
Greece	Ipsos-Opinion SA Greece
Hungary	Median Hungary
Ireland	Ipsos Ireland
Italy	Ipsos Italy
Latvia	Norstat Latvia
Lithuania	Norstat Lithuania
Luxembourg	Ilres Luxembourg
Malta	MISCO Malta
Netherlands	GDCC Netherlands
Poland	Norstat Poland
Portugal	Best Forecast
Romania	Ipsos Romania
Slovakia	Ipsos Czechia
Slovenia	Ipsos Adria
Spain	Ipsos Spain
Sweden	Ipsos Sweden
Iceland	SSRI HI Iceland
Norway	Norstat Norway
Switzerland	MIS TREND

2 Development of the survey instrument

The ESENER 2024 master questionnaire was developed in close cooperation with EU-OSHA, following a series of tests and milestones, as described in this chapter. The final questionnaire emerging from the pilot test had to be shortened slightly to fit into the envisaged average 25 minutes interview duration. Among others and because EU-OSHA had no intention to conduct follow-up research among all 30 countries, the 're-contact' questions were dropped in several countries and only asked to every other respondent in the countries where they were kept.

2.1 Testing of the master questionnaire

The draft questionnaire was tested via:

- A translatability assessment of the master questionnaire carried out for three languages (Croatian, Finnish and Greek)
- A cognitive pre-test of the master questionnaire carried out in three countries (Germany, Poland and Spain), with a total of 47 in-depth interviews.
- A pilot test in all 30 countries.

2.1.1 Translatability assessment

Following the development of the master questionnaire cApStAn conducted a translatability assessment (TA). The aim of this TA was to make the source material fit for translation, solve possible translation difficulties before the actual translation process started, and raise EU-OSHA's awareness of potential hurdles for the adaptation of certain questions into certain languages.

The TA for ESENER 2024 consisted of collecting feedback from a pool of linguists (Croatian, Finnish and Greek), representing three different language groups (Slavic, Uralic and Hellenic), who reviewed the draft version of the new and adapted questionnaire items, identified potential translation, adaptation or cultural issues and provided recommendations for alternative wording and proposals for translations in a consolidated translatability report. It is important to note that the languages chosen for the TA were intentionally different from those used in the cognitive testing - Germany (German language group), Spain (Roman language group), and Poland (Slavic language group) -, ensuring a broader representation of language families and potential linguistic challenges. Based on this report, EU-OSHA and Ipsos decided which of the suggestions or recommendations had to be incorporated in the master questionnaire.

The translatability assessment of the ESENER 2024 questionnaire is documented in the ESENER 2024 Translation report.

2.1.2 Cognitive pre-test of the questionnaire

The fieldwork of the cognitive pre-test in Germany, Spain and Poland was completed between 10 and 30 November 2023. A total of 47 interviews were conducted -16 in Germany, 16 in Poland and 15 in Spain- with quotas set by sector and size characteristics. With the exception of three Spanish in depth interviews that were conducted online, all other in depth-interviews were conducted face-to-face.

The central aim of the cognitive interviews was to test some amendments to existing questions and some potential new questions for ESENER 2024. The primary purpose of such interviews is to examine how respondents react to amended question wording, clarification text and response categories as well as how participants understand and interpret new questions. The cognitive interviews also aimed to capture more general views on the way the survey is introduced and framed. A total of 21 questions were included for testing in the cognitive interviews, some of which were not tested but included to route respondents into questions that were being tested. The specific objectives of the cognitive interviews were to consider and highlight any potential issues with the following:

- The way the survey was presented to potential participants when it was being introduced;
- Whether the survey was sufficiently engaging to encourage participation;
- That tried and tested reassurances over anonymity and use of data/ data protection rights were clear and concise;
- Any particular problems with comprehension (e.g. ambiguous terms or unfamiliar concepts) or interpretation of questions;
- Any new questions which participants may find difficult to answer because they did not have sufficient knowledge or may find difficult to recall;
- Any new questions where participants felt there was a 'right' answer (leading to social desirability bias);
- Any participants including/excluding incorrect interpretations in their answer; and
- Any amended response categories in existing questions or new response categories in new questions which were ambiguous or did not cover the likely range of responses.

The cognitive pre-test led to a number of modifications to the questionnaire, leading to a finalised questionnaire version on 15 December 2023. This version was then used for the programming of the questionnaire by Ipsos.

A detailed description of the set-up, execution and outcomes of the cognitive pre-test of ESENER 2024 questionnaire is provided in the ESENER 2024 Cognitive testing report.

2.2 Programming of the questionnaire

A clean and finalised version of the master questionnaire was sent to the Ipsos Scripting team with scripting work starting on 18 December 2023. In parallel, Ipsos transferred the final translations from ESENER 2019 into the format of an extract of the Dimensions script (the so-called "MRT" format). This way the existing translations were retained throughout the next ESENER 2024 survey round. Later on, the translated version of the script was tested by the Ipsos central team and deployed to the local fieldwork agencies after the pilot training seminar (11-12 March 2024). The national versions were in turn extensively tested on screen and via dummy data.

3 Development of the national questionnaires

3.1 Translation of the master questionnaire

For the translation of the survey questionnaire (and fieldwork material), Ipsos translation partner cApStAn followed the TRAPD⁸ approach which involves multiple stages of review and editing to ensure a very high level of accuracy and quality of the translations. cApStAn developed ad hoc technological solutions allowing efficient management of the TRAPD process.

The TRAPD procedure in ESENER 2024 ran from end January to mid-March 2024 and consisted of the following steps:

- Translation: following a translation briefing, two independent draft translations were produced in parallel, taking into account the existing translations of the existing questions/answers; the linguists documented their translations hurdles, doubts and their choices.
- Reconciliation (referred to as “Review” in TRAPD model): a senior and experienced translator merged the two translations into an optimal version that incorporated the best elements of each of the initial translations, or came up with a third version. The reconciler flagged the issues that needed to be discussed at the adjudication meeting.
- Adjudication meeting: the issues were discussed and addressed at a web-based adjudication meeting with the team of the two translators, the survey questionnaire authors and EU-OSHA. One senior cApStAn linguist attended each adjudication meeting as a moderator. The adjudicator (the reconciler) finalised the translation based on the adjudicated decisions. The decision-making process was documented.
- Expert review: a review of the document included the feedback from national experts. In addition to the regular TRAPD steps, national expert (EU-OSHA’s Focal Point network) and EU-OSHA review was added after the adjudication. Before the proofreading, the adjudicators reflected the national expert feedback in the translation.
- Proof-reading: a proof-reader checked the linguistic correctness (spelling, phraseology, grammar), but they refrained from substantial changes.
- Quality assurance: before delivery, cApStAn ran automated quality assurance routines to ensure that the translation was complete, that repeated segments were translated consistently while keeping deviations where necessary and to ensure consistency in translation of agreed key terms.

In total 40 national language versions of ESENER 2024 questionnaire were produced. For each of the language versions, the whole process (draft translations, exchange of comments between the translators, the reconciler, adjudication meeting, feedback from the pilot, and the final translation) has been documented in the ESENER 2024 Translation report. Table 2: presents the national language versions per country.

Table 2: National language versions for ESENER 2024

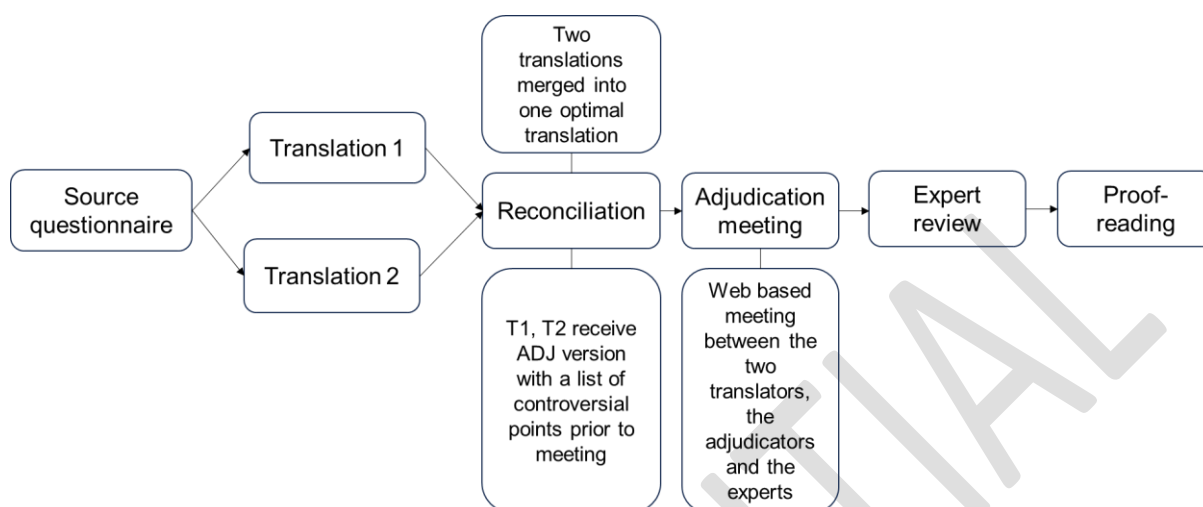
Country	Agency
Austria	German
Belgium	Dutch, French
Bulgaria	Bulgarian

⁸ TRAPD stands for Translation, Review, Adjudication, Pretesting, and Documentation.

Croatia	Croatian
Cyprus	Greek
Czechia	Czech
Denmark	Danish
Estonia	Estonian, Russian
Finland	Finnish, Swedish
France	French
Germany	German
Greece	Greek
Hungary	Hungarian
Ireland	English
Italy	Italian
Latvia	Latvian, Russian
Lithuania	Lithuanian, Russian
Luxembourg	Luxembourgish, French, German
Malta	Maltese, English
Netherlands	Dutch
Poland	Polish
Portugal	Portuguese
Romania	Romanian
Slovakia	Slovak
Slovenia	Slovenian
Spain	Spanish
Sweden	Swedish
Iceland	Icelandic
Norway	Norwegian
Switzerland	French, German, Italian

Figure 1 presents the translation process of ESENER 2024 questionnaire with the various steps involved.

Figure 1: Translation process of ESENER 2024 questionnaire



3.2 Translation of the fieldwork materials

The fieldwork materials, other than the questionnaire, underwent a single translation and review by the local field agencies. The fieldwork materials included:

- Motivation letter
- CAWI-invitation email
- CAWI Reminder email
- Privacy notice
- Briefing manual for the interviewers

As indicated above, a detailed description of the translation process for ESENER 2024 is described in the ESENER 2024 Translation report.

The final national language versions of the questionnaire and fieldwork materials were tested during a pilot in all 30 countries. Based on the pilot outcomes the national versions were optimized.

3.3 Pilot

The pilot test focused on assessing the following:

- Overall project management and survey administration of ESENER 2024.
- Questionnaire performance.
- Technical performance.
- Interviewer performance.
- Sampling and contacting performance.
- Activity sector (NACE⁹) coding performance.
- Data quality.

⁹ NACE Rev. 2, Statistical classification of economic activities in the European Community (Eurostat).

The pilot started with an in-person supervisor briefing in Berlin on 11 and 12 March 2024 (see section 5.2.1), attended by the national project managers and fieldwork supervisors of each of the 30 countries, followed by interviews starting in the week of 18 March 2024.

Table 3: Pilot fieldwork periods

Country	Start pilot fieldwork	End pilot fieldwork
Austria	18 March 2024	29 March 2024
Belgium	19 March 2024	29 March 2024
Bulgaria	18 March 2024	2 April 2024
Croatia	18 March 2024	28 March 2024
Cyprus	19 March 2024	29 March 2024
Czechia	18 March 2024	28 March 2024
Denmark	18 March 2024	27 March 2024
Estonia	18 March 2024	28 March 2024
Finland	18 March 2024	27 March 2024
France	18 March 2024	28 March 2024
Germany	18 March 2024	28 March 2024
Greece	19 March 2024	28 March 2024
Hungary	19 March 2024	28 March 2024
Ireland	19 March 2024	28 March 2024
Italy	18 March 2024	28 March 2024
Latvia	18 March 2024	27 March 2024
Lithuania	18 March 2024	27 March 2024
Luxembourg	18 March 2024	29 March 2024
Malta	20 March 2024	28 March 2024
Netherlands	19 March 2024	29 March 2024
Poland	18 March 2024	29 March 2024
Portugal	18 March 2024	28 March 2024
Romania	18 March 2024	28 March 2024
Slovakia	18 March 2024	28 March 2024
Slovenia	18 March 2024	28 March 2024
Spain	18 March 2024	26 March 2024
Sweden	18 March 2024	27 March 2024
Iceland	19 March 2024	27 March 2024
Norway	18 March 2024	27 March 2024
Switzerland	18 March 2024	27 March 2024

3.3.1 Approach

A total of 900 interviews were intended for the pilot, with a goal of 30 interviews per country. In the end, 943 interviews were successfully conducted.

Taking into account the varying responses to the questionnaire flow and survey answers by different sectors and sizes, as observed in previous ESENER waves, pilot targets were established per sector and size. This was done to gain experience from all size classes and sectors, with the following distribution recommended (see Table 4:). For certain countries where sample volumes were limited, smaller targets were set to maintain sufficient samples for the main field.

Table 4: Pilot targets by size and sector

Establishment characteristic	Proposed target	Reduced target		
		5 interviews	2 interviews	1 interview
SIZE				
Micro (5-9 empl.)	10			
Small, medium (10-49 and 50-249 empl.)	10			
Large (250+ empl.)	10	BG, CZ, EE, FI, HU, LT	EL, HR, IS, LV, LU, SI, SK	CY, MT
SECTOR				
Agriculture, forestry and fishing (NACE A)	5		CY, EL, IE, IS, SI	LU, MT
Mining, waste management, water and electricity supply, construction (NACE B, D, E, F)	5			
Manufacturing (NACE C)	5			
Trade, transport, food / accommodation and arts / entertainment activities (NACE G, H, I, R)	5			
Information and communication, financial / insurance, real estate, professional / scientific / administrative activities, other services (NACE J, K, L, M, N, S)	5			
Education, human health, and social work (NACE O, P, Q)	5		IS	

More details on the pilot targets and the number of interviews achieved per size and sector, by survey mode and by language, as well as the number of establishment interviews in company frame countries can be consulted in the ESENER 2024 pilot report.

3.3.2 Results

Overall, the results of the pilot study showed that the ESENER 2024 questionnaire provides a valid and reliable instrument to collect data on OSH.

Training and survey administration

The fieldwork seminar in Berlin (11-12 March 2024) and subsequent local trainings were found intensive but practical and very helpful for interviewers to get fully familiar with the questionnaire.

The pilot showed that the fieldwork monitoring and quality check tools worked correctly.

Questionnaire

In terms of length, the questionnaire turned out to be substantially longer than foreseen. In general, the survey duration in all countries surpassed the anticipated 25 minutes, averaging around 30 minutes. To address this issue, EU-OSHA agreed to remove the following questions from the questionnaire to reduce its length:¹⁰:

- Q103: Besides these employees on the payroll: Are there any additional persons working in your establishment such as subcontractors, temporary agency workers or volunteers? Yes / No / No answer
- Q105: About what proportion of the employees is aged 55 years or older? Is that...None at all / Less than a quarter / A quarter to half or / More than half or your workforce / No answer.
- Q111: Does this establishment belong to the public sector? Yes / No / No answer,
- Q114: Is health and safety your main task or is it just one of a number of tasks you have at this establishment? Main task / One of a number of tasks / No answer.
- Q153: How would you, all in all, rate the health and safety services you obtained from external providers? Very good / Quite good / Neither good nor bad / Quite bad / Very bad / This differs by provider or service / No answer,
- Q255: Do risk assessments cover only people on the payroll of your establishment or do they also cover other types of workers at your establishment? On the payroll, Other types of workers are also covered, No answer.
- Q257: Has it (=the last workplace risk assessment carried out) been documented in written form? Yes / No / No answer
- Q358: Has your establishment used health and safety information from any of the following organisations? Employers' organisations; Trade unions; Contracted health and safety experts; Insurance providers; The labour Inspectorate; Other official institutes for health and safety at work Yes/ No / No answer
- Q400: How would you rate the current economic situation of this establishment? Is it very good, quite good, neither good nor bad, quite bad or very bad? Very good / Quite good / Neither good nor bad / Quite bad / Very bad / No answer.

Additional updates included removing redundant instructions and checks that were already adequately covered elsewhere in the questionnaire:

- T050: Before starting with the actual interview, we have some questions that are important for statistical reasons.
- T104: Please refer all following questions only to the employees on the payroll.
- Q090: I understand that you do not want us to conduct further interviews in this organisation. May I however continue the interview with you? Yes/No
- Q081_assess1: Interviewer: Please classify the provided address 1: Complete address / Incomplete address, with possibility to call back for address details / Incomplete address, with possibility to investigate details / Refused.
- Q081_assess2: Interviewer: Please classify the provided address 2: Complete address / Incomplete address, with possibility to call back for address details / Incomplete address, with possibility to investigate details / Refused.

¹⁰ Note: Q114, Q153, Q255, Q257, T050, T104, Q090, Q081_assess1, Q081_assess2, Q314 and Q252 were filter questions, asked only to a subset of the establishments. The full questionnaire used during the pilot survey can be consulted in the pilot report.

On question Q314 "Have any of the following aspects been consulted on with employees in your establishment? Yes / No / No answer", the following changes were made:

- Item 2 "The impact of digital technologies on safety and health of employees" was retained.
- Items 1 and 3 were dropped:
 - 1. "The introduction of digital technologies into work processes"
 - 3. "The measures to prevent risks to employees' safety and health from digital technologies"

For question Q252, items 10 and 11 were merged:

- Original items:
 - 10. "Use of digital technologies like systems that allocate tasks or shifts or help manage staff time or performance, including those using algorithms or artificial intelligence"
 - 11. "Use of digital technologies like systems that assist work tasks such as smart or collaborative robots or smart applications"
- Merged into: "Use of digital technologies - Interviewer: Add as necessary: Such as robots, systems, computers, devices, or apps, that interact with workers, allocate work automatically, or monitor the worker's environment or performance"

The recontact questions (Q401 and Q402) were skipped for Cyprus, Estonia, Hungary, Iceland, Lithuania, Luxembourg, Malta, Norway, Portugal, Romania, Slovakia, and Switzerland, and asked in every other interview in the remaining countries. The country-specific questions in Switzerland and Austria were modified to better fit the desired duration. The Swiss country specific questions were updated to avoid repetition with the main questionnaire. A similar approach was adopted for the German boost questions.

The pilot questionnaire of ESENER 2024 incorporated a limited series of questions intended for individuals or establishments declining to partake in the survey. Non-response questions were initiated in response to criticisms from users of the survey results, who viewed the ESENER data as not wholly representative but rather a favourable selection of establishments with superior OSH infrastructure and/or heightened health and safety awareness. The hypothesis would be that given the voluntary nature of the survey, those better performing establishments would be more willing to participate. In an attempt to gauge if and to what extent the OSH culture in participating establishments deviates from that of non-participants, EU-OSHA aimed to introduce a limited series of questions for both groups – participants and non-participants. A similar exercise was carried out in 2019 but due to the low response rate back then, with only 14% of all refusals answering the non-response questions, these questions were omitted from the main field. As a result, the 2024 nonresponse questions were revised and shortened with the aspiration of achieving a higher response rate. Regrettably, the response rate was quite similar, with n=460 organisations agreeing to answer the non-response questions (not necessarily completing them all), which is 16% of those having received the questions. Given that responses for these non-response questions were only received from a minority of the refusals, it was agreed to remove the non-response questions from the main field questionnaire.

Whilst some countries reported that they had to devote more time to the new and altered questions on digital technologies - section Q310 to Q314, reading out the examples or repeat the questions/items multiple times, there were no significant textual issues reported, apart from some minor translation errors.

For the altered Q313 question a rotation was added to the items to ensure no order effect was causing a higher share of "no answer" in item 10.

The Icelandic team did report several incorrect translations on the 2019 version of the questionnaire, with the translation of the word "establishment" being the most prominent one. EU-OSHA agreed to alter the 2019 version of the translations to better reflect the Icelandic situation.

All translation comments were reported in detail in the pilot report and a sign off on the changes for the main field was obtained from EU-OSHA.

According to the interviewers, the questionnaire flowed well, and also felt logical and consistent.

Generally speaking, the CAWI version of the questionnaire provided reliable data with a very limited number of the CAWI interviews being flagged for quality related issues: a combination of speeding, and/or straight lining and/or higher item non-response were noticed.

Due to the low number of cases flagged as potentially bad quality (CATI+CAWI), the threshold for flagging interviews as high item non-response was lowered from 30% to 10% during the main field phase to flag and investigate more cases.

Training materials

The fieldwork materials were generally regarded as high-quality and contained the necessary information. However, a few points of additional feedback were provided:

- Switzerland suggested that it would be beneficial to not solely refer to the EU in the motivational letter. This suggestion was valid and considered also advantageous for Iceland and Norway, although these teams did not explicitly raise this point.
- Several organisations requested a motivational letter, even multiple times, but rather used this option as a soft refusal. Sweden suggested that if such a situation occurred too frequently, it might be more beneficial to record the organisation as a refusal to CATI, thereby creating the opportunity to offer a CAWI invitation instead. It was therefore decided that if ten motivation letters were shared, such a contact was presented the opportunity to participate via CAWI.
- In the online invitations an extra sentence was added – only shown to smaller companies – mentioning the relevance that also smaller companies complete the survey, despite some questions not seeming to be targeted to them.

Technical performance

The questionnaire routing and the programming of the script ran well (no issues were detected by the checking syntax which ran on a daily basis). Final pilot data (tables and datafile) were delivered in good order to EU-OSHA. Still, the following changes were made to the script:

- Addition of a progress bar, both for interviewers and online respondents.
- If Q102 “number of employees” equals “don’t know”, a follow-up question Q102b was added where the organisation indicates the relevant size-class category, instead of immediately screening out the organisation.
 - under 5 employees (SCREENOUT),
 - 5-9 employee,
 - 10-19 employees,
 - 10-49 employees,
 - 50-249 employees,
 - 250+ employees,
 - don’t know (SCREENOUT = END3).
- Merge the answer option 4 “Respondent names another person to call” from Q001 together with the answer option “Appointment for later call” to have it identical as in the next questions (otherwise redundant/confusing).
- In Q001, Q002 and Q003 add the answer option “Refused because health and safety is managed at the headquarters of the organisation, not at the local level” to allow routing to Q005
- In Q001, Q002 and Q003 an additional answer option “Refused because health and safety services are outsourced to a service provider” was foreseen to allow routing to Q006
- In Q001 the answer option “language problem, not the company/ household, company no longer exists” was added. This data is available in more granularity in the contact database, but to avoid interviewers having to exit the screen without entering anything in the questionnaire, this option was added.

- Foreseeing a “return to general introduction (Q001)” answer option in Q003. And similarly return to Q002 in Q004b.
- A language switch option was implemented throughout the introduction questions and in the online option.
- An answer option was added in Q005/Q006 to share the motivation letter.
- Establishment name from sample displayed in Q001, Q002, Q003, Q004b.

Sector coding

Some of the interviewers pointed out that the 'search as you type' option was deemed more cumbersome than selecting the relevant NACE code from a list. A script modification was made for the main field whereby interviewers would receive the 1-digit NACE list in case the 2-digit sample frame classification (according to the business register) was not matching the actual sector provided by the respondent during the interview. Once interviewers clicked on the corresponding 1-digit NACE code, the corresponding 2-digit NACE sectors folded out for interviewers to select the right one. Interviewers could still apply the control find function to search through the NACE lists. Only in exceptional cases, where the corresponding NACE code could not be found, the interviewer had to describe the main activity in an open-ended way.

Sampling performance

Table 5: presents an overview of the number of stratum jumpers on size and sector per country. Indicating that the sample information of size and/or sector did not always correspond to respondents' answers.

Table 5: Stratum jumpers (difference between frame classification and respondent information)

Country	Screening	Attributed to another NACE 1-digit sector			Attributed to a different size class		
		2024 % sample	2024 % completed valid interviews	2019 % interviews	2024 % sample	2024 % completed valid interviews	2019 % interviews
TOTAL		6%	5%	6%	36%	31%	30%
Austria	Yes	14%	10%	10%	23%	19%	24%
Belgium	No	18%	16%	7%	56%	48%	34%
Bulgaria	Yes	5%	3%	7%	40%	31%	20%
Croatia	Yes	0%	0%	7%	30%	20%	23%
Cyprus	Yes	6%	7%	7%	47%	47%	35%
Czechia	Yes	10%	8%	7%	33%	33%	23%
Denmark	No	0%	0%	3%	33%	33%	39%
Estonia	Yes	0%	0%	2%	24%	23%	20%
Finland	No	0%	0%	4%	38%	39%	29%
France	No	0%	0%	3%	26%	22%	26%
Germany	No	6%	6%	10%	21%	23%	38%
Greece	Yes	11%	9%	2%	39%	34%	25%
Hungary	Yes	20%	19%	8%	23%	28%	24%
Ireland	No	15%	18%	5%	42%	42%	32%
Italy	Yes	0%	0%	6%	42%	28%	32%
Latvia	Yes	11%	10%	3%	38%	38%	23%
Lithuania	Yes	2%	0%	4%	5%	0%	16%
Luxembourg	No	0%	0%	3%	46%	50%	29%
Malta	Yes	12%	10%	6%	50%	50%	35%
Netherlands	No	6%	6%	8%	60%	46%	37%

Poland	Yes	9%	4%	9%	62%	53%	39%
Portugal	Yes	7%	7%	2%	34%	16%	23%
Romania	Yes	0%	0%	2%	24%	19%	24%
Slovakia	No	7%	9%	7%	31%	33%	26%
Slovenia	Yes	0%	0%	1%	32%	20%	21%
Spain	No	2%	3%	10%	41%	23%	35%
Sweden	No	6%	3%	2%	47%	32%	27%
Iceland	Yes	0%	0%	9%	12%	13%	36%
Norway	No	3%	0%	3%	38%	32%	27%
Switzerland	No	7%	6%	4%	28%	31%	24%

Upon closer examination of discrepancies per size class, it was more common for organisations with 250+ employees to fall into a smaller size class. This was surprisingly less prevalent among screening countries, with a company sample frame (37%) compared to samples with an establishment sample (53%).

Table 6: Stratum jumping within size-class

Size-class sample	Number of organisations for which information was obtained	Share of sample attributed to different size class	Number of employees according to interview			
			5-9	10-49	50-249	250+
5-9 employees	548	35%	65%	26%	7%	2%
10-49 employees	436	31%	17%	69%	12%	3%
50-249 employees	106	33%	5%	21%	67%	8%
250+ employees	369	45%	4%	16%	25%	55%
Company sample						
5-9 employees	340	35%	65%	24%	8%	3%
10-49 employees	297	29%	15%	71%	10%	3%
50-249 employees	74	31%	4%	20%	69%	7%
250+ employees	184	37%	3%	9%	26%	63%
Establishment sample						
5-9 employees	208	35%	65%	30%	5%	0%
10-49 employees	139	36%	20%	64%	14%	1%
50-249 employees	32	38%	6%	22%	63%	9%
250+ employees	185	53%	5%	23%	25%	47%

4 Sampling

This chapter outlines the sampling approach used to deliver the main fieldwork of ESENER 2024. It covers the population definition, sample sizes and general sample requirements; the sampling frames and sample coverage; the sample design and selection procedures and the sample management.

4.1 Population and sample requirements

This section sets out the overarching requirements for the sample: the target population and sample size.

The population and unit of analysis were to remain consistent with the previous survey waves. Specifically, the universe to be represented was the population of establishments employing 5 people or more in each of the countries covered by the survey, and operating in any sector of economic activity with the exception of NACE rev. 2 categories T (households) and U (extraterritorial organisations). The inclusion of micro (5-9 employees) and public sector establishments in particular brought specific sets of challenges, which are discussed further in this section.

The countries covered by the survey were the 27 EU Member States plus Iceland, Norway and Switzerland¹¹.

The unit of analysis was the establishment. 'Establishments' refer to local businesses and the local units of multi-establishment companies. Within each establishment, "the person who knows best about health and safety in the establishment" was interviewed.

Table 7: provides the target sample sizes per country and agreed top-up samples.

Table 7: ESENER 2024 sample sizes

Country	Target sample size	Top-up sample size ¹²
TOTAL	39,450	1,200
Austria	1,500	300
Belgium	1,500	
Bulgaria	750	
Croatia	750	
Cyprus	750	
Czechia	1,500	
Denmark	1,500	
Estonia	750	
Finland	1,500	
France	2,250	
Germany	2,250	900
Greece	1,500	
Hungary	1,500	
Ireland	750	
Italy	2,250	450 ¹³

¹¹ Switzerland is covered under a separate contract.

¹² Top-up samples are equally undertaken under separate contracts with national stakeholders.

¹³ The top-up sample for Italy differs from those in other countries. While the same ESENER 2024 questionnaire was used, the 450 sample records were not randomly selected from a business register. Instead, these were provided by the Fondazione Rubes Triva, which had obtained prior consent from these establishments to participate. Additionally, no screening based on size or sector was applied, and some establishments were contacted directly with a CAWI survey invitation instead of by phone.

Latvia	750	
Lithuania	750	
Luxembourg	750	
Malta	450	
Netherlands	1,500	
Poland	2,250	
Portugal	1,500	
Romania	1,500	
Slovakia	750	
Slovenia	750	300
Spain	2,250	
Sweden	1,500	
Iceland	750	
Norway	1,500	
Switzerland	1,500	

The samples were drawn randomly, using a sampling matrix based on sector (19 cells from NACE A to S) and size (four cells with 5-9, 10-49, 50-249 and 250+ employees), giving a total of 76 sampling cells. Interview targets were set for each of the 76 cells in each country, weighted towards the establishment level as at ESENER 2019, in the ratio two-thirds to one-third, establishment to employee level, based on population reference statistics. Across the cells the targets summed to the interview targets for each country. The sampling matrix is shown in Table 8: below, while the selection of reference statistics used to set the targets are described in section **Error! Reference source not found.**, and the sample selection procedures in section **Error! Reference source not found.**

Table 8: Cell sampling and weighting matrix for ESENER 2024

NACE Rev. 2 division	1 5-9 employees	2 10-49 employees	3 50-249 employees	4 250+ employees
1 A				
2 B				
3 C				
4 D				
5 E				
6 F				
7 G				
8 H				
9 I				
10 J				
11 K				
12 L				
13 M				
14 N				
15 O				
16 P				
17 Q				
18 R				
19 S				

The data collection period also differs from that of all other countries. Consequently, the data collected from this Italian top-up sample, yielding in n=153 completed interviews, was excluded from the ESENER 2024 publication.

4.2 Selection of sampling frames

One of the most important considerations for the quality of the survey is the selection of high-quality sampling frames in each of the countries. During the preparation phase for ESENER 2024, the quality of the available sampling frames was evaluated following a rigorous, documented selection procedure. In all cases the ESENER 2019 sampling frame was checked and where necessary/advisable further options were also evaluated. The evaluation employed was based on the following criteria:

1. Coverage of the survey population (frame totals divided by population totals), both at an overall level and across size/sector cells to identify if there were particular gaps in coverage. This is one of the most important indicators of sample quality hence it receives substantial attention in the sections which follow.
2. Level of the frame (establishment or company), favouring establishment level frames where available.
3. How up-to-date the frame was.
4. Availability of necessary information for sampling and stratification – at a minimum the size category (number of employees) and NACE sector of each case on the frame.
5. Availability and quality of telephone contact details.

Table 9: presents the selected sampling frames in each country, showing the level of the frame, the coverage assessment, and a final column which describes any notes on the selection. The coverage assessment is based on a comparison with the ESENER 2024 reference statistics (see Table 12:). This means that in some countries the comparisons are between company-level frame counts and establishment-level statistics. For such comparisons, coverage of around 80%-90%, when comparing a company-level frame to establishment statistics, equates to actual coverage at establishment level of close to 100%. It should be noted that where coverage is over 100% this is likely due to the sampling frame consisting of a substantial proportion of ineligible cases, affecting fieldwork efficiency rather than sample quality.

Where coverage is fair or low we have also provided in the text a comparison with ESENER 2019 coverage: if coverage was also low at ESENER 2019 this provides an indication that better sources are not available, notably this is the case in Greece. The ESENER 2019 coverage estimation follows the same approach: the total frame count (provided in Table 20 of the 2019 technical report¹⁴) divided by the ESENER 2019 establishment population count.

The selections in Austria, Italy and Poland represent a change in level to the company level rather than establishment, implying a loss in quality given the difficulty identifying subsidiaries during fieldwork.

Additionally, the providers in both Cyprus and Malta were not able to provide company size or phone number. These frames were enriched using other sources.

Table 9: Selection of sampling frames for ESENER 2024

Country	Recommended frame	Frame level	Coverage assessment	Notes on the selection
Austria	Dun & Bradstreet	Companies (ESENER 2019 establishment)	High coverage (95%), lower for public sector	Herold (ESENER 2019) had stopped providing sample for telephone surveys, due to a ruling from the

¹⁴ EU-OSHA, 2020. https://oshwiki.osha.europa.eu/sites/oshwiki/files/2022-09/Technical_Report_ESENER3_Final.pdf

Country	Recommended frame	Frame level	Coverage assessment	Notes on the selection
				market research association (data owner)
Belgium	Sample Solutions, sourced from Federale Overheidsdienst Economie, K.M.O., Middenstand en Energie	Establishment	Good: 86%, lower for NACE O	
Bulgaria	Dun & Bradstreet (ESENER 2019)	Companies	Good: 88%, lower for NACE O & P	
Croatia	Dun & Bradstreet, formerly Bisnode d.o.o. (ESENER 2019)	Companies	High: 94%	D&B and FINA were compared, D&B selected due to superior coverage
Cyprus	Central Statistical Office: Registry of Companies (ESENER 2019)	Companies	Good: 68%, given comparing sources at different levels	Company size and phone number not available, however this could be added from other sources
Czechia	Sample Solutions, sourced from Public Register, Ministry of Justice	Companies	High: 94%	Albertina (ESENER 2019), checked and inferior to new source due to sector and size mismatches
Denmark	Sample Solutions, sourced from Central Business Register, Danish Business Authority	Establishment	High: 98%	Experian (KOB) (ESENER 2019) has inferior coverage and misallocation across cells
Estonia	Sample Solutions, sourced from E-Business Register	Companies	High: 108%	
Finland	Dun & Bradstreet	Establishment	High: 98%	Fonecta BtoB (ESENER 2019) has poor coverage (59%), hence D&B preferred
France	Dun & Bradstreet	Establishment	Good: 84%	Sample Solutions, sourced from INSEE, also checked and INSEE did not cover the correct size categories, so D&B slightly better

Country	Recommended frame	Frame level	Coverage assessment	Notes on the selection
Germany	Heins & Partner	Establishment	Good: 79%	Coverage assessment based on cases with phone numbers, unlike other countries in this table, given H&P only provided such cases
Greece	Dun & Bradstreet	Companies	Poor: 27% (ESENER 2019 same low coverage)	ICAP (ESENER 2019) also checked and had the same number of cases. D&B preferred as ICAP used different size categories.
Hungary	KSH (central Statistical Office) (ESENER 2019)	Companies	High: 92%	
Ireland	Bill Moss Bureau (ESENER 2019)	Establishment	Good: 81%	
Italy	Dun & Bradstreet (ESENER 2019)	Company (ESENER 2019 establishment)	High: 100%, low NACE P	Sample Solutions also considered and inferior coverage to D&B
Latvia	Dun & Bradstreet	Companies	Good: 84%, , low public sector	Sample Solutions, sourced from Register of Enterprises (ESENER 2019), also checked and inferior to D&B
Lithuania	Creditinfo Lietuva (ESENER 2019)	Companies	Good: 88%	
Luxembourg	Editus (provider of Yellow Pages in Luxembourg) (ESENER 2019)	Establishment	Fair: 65%, coverage higher than ESENER 2019	
Malta	National Statistics Office (NSO) (ESENER 2019)	Companies	Good after enrichment: 84%, including cases without size	The NSO provided a full list of companies in Malta, including ineligible cases, with company name and sector only. All other information was enriched from other sources
Netherlands	Sample Solutions, with D&B for micro	Establishment	High: 107%	Kamers van Koophandel

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Country	Recommended frame	Frame level	Coverage assessment	Notes on the selection
				(ESENER 2019) substantial over-coverage
Poland	Dun & Bradstreet	Company (ESENER 2019 establishment)	High (113%) and better than ESENER 2019 (c.77%)	Sample Solutions also checked (inferior coverage). PCM (ESENER 2019 source) not contactable and appeared to no longer be operating
Portugal	Informa Dun & Bradstreet (ESENER 2019)	Companies	High: 82%, given comparing sources at different levels	
Romania	Lista Firme (ESENER 2019)	Companies	Good: 74%, given comparing sources at different levels	
Slovakia	Dun & Bradstreet, formerly Albertina (ESENER 2019)	Companies	High: 107%	
Slovenia	Bisnode d.o.o. (Dun & Bradstreet d.o.o.) (ESENER 2019)	Companies	Good: 74%, given comparing sources at different levels	
Spain	Sample Solutions, sourced from Registro Mercantil	Establishment	Good: 83%	Data Centric (Schober) (ESENER 2019) also checked and worse coverage.
Sweden	PARAD databank of the provider Bisnode (ESENER 2019)	Establishment	Fair: 73% (same coverage as ESENER 2019)	Sample Solutions also considered and provided inferior coverage
Iceland	Credit Info (ESENER 2019)	Company	Fair: 60%, but will be better as comparing with establishments (ESENER 2019 same coverage)	Sample Solutions provided an alternative at establishment level but lots of size/sector misallocation
Norway	Bisnode Matchit (ESENER 2019)	Establishment	High: 104%	
Switzerland	BUR (Establishment register of the Federal Statistical Office) (ESENER 2019)	Establishment	Perfect (frame and population same source)	

In summary, compared to ESENER 2019, changes in the sample frame were implemented for the following countries in ESENER 2024: Austria, Belgium, Czechia, Denmark, Finland, France, Greece, Latvia, the Netherlands, Poland, and Spain.

4.2.1 Supplementary sample sources

Prior to fieldwork additional sample cases were sourced from other sources, by Sample Solutions, for sectors with low coverage. The sectors were selected based on an evaluation of coverage levels (number of cases available for the survey divided by population count) and considering whether the ratio of available sample would be sufficient to reach the sampling targets in the cell. Additional enrichment was undertaken during fieldwork, late July, to ensure there would be sufficient sample to reach the fieldwork targets. Table 10: provides the countries, sectors and sources of additional sample used.

Table 10: Case enrichment, sectors, sources and moment of enrichment

Country	Sectors	Sources consulted	Moment of enrichment
Austria	NACE P	business directory, google validation, Sample Solutions internal database, yellow pages	During fieldwork
Belgium	NACE O	business directory, google validation, Sample Solutions internal database, yellow pages	Before fieldwork
Bulgaria	NACE O, P	business directory, google validation, Sample Solutions internal database, yellow pages	Before fieldwork
Croatia	NACE O	business directory, google validation, Sample Solutions internal database, yellow pages	Before and during fieldwork
Cyprus	All sectors except NACE C	business directory, google validation, Sample Solutions internal database, yellow pages	During fieldwork
Czechia	NACE A, G/H/I/R	business directory, google validation, Sample Solutions internal database, yellow pages	During fieldwork
Finland	NACE O, P	business directory, google validation, Sample Solutions internal database, yellow pages	During fieldwork
Greece	NACE A, O, P, Q, R, S	business directory, google validation, Sample Solutions internal database, yellow pages	Before fieldwork and additional NACE A, Q during fieldwork
Ireland	NACE A, O	business directory, google validation, Sample Solutions internal database, yellow pages	Before fieldwork
Latvia	NACE O, P, Q	business directory, google validation, Sample Solutions internal database, yellow pages	Before and during fieldwork
Luxembourg	NACE O, P, Q	business directory, google validation, Sample Solutions internal database, yellow pages	Before fieldwork
Malta	NACE O, P, Q	business directory/registry, google validation, Sample Solutions internal database, yellow pages, kompass	Before fieldwork
Romania	NACE O, P, Q	business directory, google validation, Sample Solutions internal database, yellow pages	Before and during fieldwork
Slovakia	NACE P	business directory, google validation, Sample Solutions internal database, yellow pages	During fieldwork
Spain	NACE O	business directory, google validation, Sample Solutions internal database, yellow pages	Before fieldwork
Sweden	NACE O	business directory, google validation, Sample Solutions internal database, yellow pages	Before fieldwork
Iceland	NACE O, P, Q, R, S	business directory, google validation, Sample Solutions internal database, yellow pages, government website	Before fieldwork
Iceland	NACE A	business directory, google validation, Sample Solutions internal database, yellow pages, government directory	During fieldwork

4.2.2 Including cases without an indication of size in the survey

In some countries it was necessary to launch the fieldwork including cases where it was not possible to determine the case size (number of employees). Although low eligibility¹⁵ was expected in this sample, as typically businesses with undetermined size are small, this approach was necessary where there were insufficient cases available with size to make the target, or in sectors with low coverage. This strategy was used to provide sample in Bulgaria, Croatia, Cyprus, Greece, Ireland, Iceland, Latvia, Luxembourg, Malta and Romania. Most often the cases belonged to the public sector: NACE O (Public administration and defence; compulsory social security), P (Education), and Q (Human health and social work activities).

4.2.3 Enriching the samples with additional telephone numbers

Coverage was also enhanced by asking register providers to include cases in the gross sample where a telephone number was not available and then attempting to look these up using alternative sources. The coverage assessments in Table 9: consider all cases on the frames (with and without phone numbers), and as such achieving a high match rate means the stated coverage was accurate. This work was undertaken by Sample Solutions. Unlike ESENER 2019, sample without phone numbers was requested in all countries, not only those with a lower phone availability rate (the previous threshold was 80%).

Prior to fieldwork, a total of 71,607 cases were sent for phone lookup, across 20 countries. In four of the remaining countries Sample Solutions provided the sample and carried out enrichment at the same time, and so numbers of looked up cases are not available. In the other countries, Ireland, Germany, Norway and Sweden, no cases with missing phone numbers were provided, per the register owner's policy or practices. Phone numbers were found for a total of 28,446 cases, giving a success rate of 40%.

Additional phone number lookups were conducted during fieldwork for 174,070 records in countries experiencing issues with phone number accuracy. For 46,735 (27%) of these records, new telephone numbers were successfully identified. The phone number lookup process was carried out twice during the fieldwork period for all countries:

1. The first lookup addressed wrong numbers obtained up to June 20, 2024.
2. The second lookup focused on wrong numbers identified up to September 2, 2024.

Each time, the priority was given to phone number lookups for open target cells.

In some countries – Estonia, Latvia, Lithuania, Finland, Norway, Poland, and Denmark – the phone number lookup was also performed for numbers that repeatedly resulted in "busy" or "no answer" responses, in addition to addressing wrong numbers.

For some countries, the high final count of wrong numbers is attributed to the opening of additional sample batches after the second wrong number enrichment. This was the case in Belgium, Ireland, Italy, Latvia, and Poland.

Germany followed a slightly different approach. Due to the previous frame provider no longer being in operation, there was a switch in the sample frame between ESENER 2019 and 2024. The new frame provider initially yielded a high proportion of incorrect numbers. Consequently, all prepared sample batches in Germany were enriched, not just the contacted records that resulted in wrong phone numbers.

¹⁵ Eligibility in this context primarily refers to establishments having at least 5 employees, as those with fewer are considered ineligible for the survey. It is worth noting that across the survey, ineligible cases also include private households, extinguished organisations, duplicate addresses, or establishments outside the defined universe due to their sector.

Table 11: Phone number lookup during fieldwork

Country	Number of phone numbers looked up	Number of phone numbers found	Final number of wrong phone numbers after enrichment	Final proportion of wrong phone numbers out of all contact outcomes ¹⁶	Proportion wrong phone numbers in ESENER 2019
TOTAL	174,070	46,735	153,595	22.6%	10.9%
Austria	764	103	740	3.0%	1.8%
Belgium	1,322	420	1,819	17.8%	11.3%
Bulgaria	286	28	1,002	14.7%	17.3%
Croatia	1,326	311	3,320	25.6%	6.3%
Cyprus	902	67	1,207	13.1%	12.7%
Czechia	6,376	2,497	9,448	20.1%	11.5%
Denmark	1,541	636	1,216	9.2%	13.7%
Estonia	833	717	677	14.5%	7.3%
Finland	1,214	193	1,273	8.0%	4.8%
France	2,447	1,055	1,960	6.3%	10.1%
Germany	117,948	30,371	24,191	30.1%	2.9%
Greece	417	29	738	6.2%	8.4%
Hungary	841	67	1,424	12.5%	22.6%
Ireland	359	47	682	9.5%	2.6%
Italy	2,942	103	5,443	19.1%	11.0%
Latvia	6,432	4,128	1,675	18.0%	5.5%
Lithuania	73	5	231	4.1%	7.3%
Luxembourg	204	25	396	7.3%	5.9%
Malta	391	136	648	12.8%	17.1%
Netherlands	1251	140	1723	10.7%	11.7%
Poland	13,745	2,823	73,754	39.0%	14.3%
Portugal	281	81	418	4.6%	6.4%
Romania	3,553	582	5,684	18.4%	4.7%
Slovakia	87	27	4,673	20.1%	22.5%
Slovenia	169	82	119	2.8%	7.9%
Spain	5,735	1,055	5,891	18.6%	19.3%

¹⁶ Final number of wrong phone numbers after enrichment divided by the total number of contacted numbers

Sweden	614	283	1,198	10.0%	7.0%
Iceland	80	6	217	7.7%	8.8%
Norway	1,487	481	1,280	10.2%	11.1%
Switzerland	450	237	548	6.9%	5.9%

4.3 Selection of reference statistics

Reliable reference statistics on the target population are not only needed to assess frame coverage, but also to inform the sample design and for the weighting. As was the case for ESENER 2019, the reference statistics needed to be transformed in a number of ways for ESENER 2024, including:

- Extrapolating company-level statistics to the establishments level (required for 17 countries);
- Estimation of missing sectors using other sources. Supplementation was mainly required for public sector (NACE P, O and Q), A and K (required in 19 countries); and
- Estimation of the ESENER size-class categories in countries where the reference statistics covered different categories (nine countries).

This part of the work involved the following steps:

1. Up to date statistics (business population counts) were obtained, based on the ESENER 2019 sources, across the 76 ESENER sampling cells (see Table 8: above).
2. Employee counts were obtained from the Labour Force Survey (2022) across the 76 cells. For most countries these were used as the source of statistics for the employee-level population, sense-checked against ESENER 2019.
3. Eurostat statistics (Structural Business statistics (SBS), available at company level for most of the sectors covered in ESENER 2024) were sourced to provide an additional measure of population change between survey waves. The years 2018 (likely the latest available for ESENER 2019) and 2022 (the most recent available for ESENER 2024) were used for this purpose. Although SBS does not cover the micro size class or sectors A, K, O-S, the sectors it does cover make up around 70% of the business population in most countries, giving a helpful sense check on changes over time for the business population employing 10 or more people.
4. An assessment was made of the expected difference between the company and establishment level. This was based on data sourced from Dun & Bradstreet across the countries where they had valid establishment (and company) level counts¹⁷. Ratios were derived from these figures, with differentiation by sizes and sectors, that could be applied to the countries with only company-level statistics. These adjustments are highly dependent on the selection of countries¹⁸ and also rely on the distributions being similar between the countries used to determine the ratios and the countries they are applied to, which may not reflect reality. Given this, the result of the adjustments on the cell distribution was carefully checked, in particular against the LFS employee-level distribution, and were modified at the size class level where warranted.
5. LFS statistics were used to estimate counts on missing or implausibly low sectors (primarily required for NACE O, P and Q, and sometimes K or A) or sizes (micro size class), in line with the cells where this was required at ESENER 2019.

¹⁷ Extrapolation estimates based on Denmark, Finland, France, Netherlands, Norway, Sweden and Switzerland.

¹⁸ Which may differ from ESENER 2019.

6. Missing size categories were estimated, or those with the incorrect categories re-apportioned from the available data, by sense-checking the size proportions based on LFS employee-level data extrapolated to the establishment level, and the ESENER 2019 proportions.
7. Importantly, the updated reference statistics and best estimates were compared to the statistics used at ESENER 2019. Given the importance of maintaining comparability over time, any major deviations were investigated by sense-checking against LFS changes from ESENER 2019 to 2024, by comparing with the sampling frame counts, and SBS changes between survey waves.

The sources and approaches used are outlined in Table 12: below. At the time that the sampling targets were set there remained unsolved issues in four countries, where ESENER 2019 establishment statistics were used for target setting: Latvia, Netherlands, Poland and Spain. These countries were resolved during fieldwork so that up-to-date sources were ready for the weighting.

Table 12: Sources of references statistics for the establishment-level population, ESENER 2024

Country	Main source	Source level	Comments and main estimation	Additional sources used
Austria	Statistics Austria: Arbeitsstätten-zählung 2021	Establishment	Relatively more recent source, at ESENER 2019 the 2011 version was most recent	n/a
Belgium	Statbel 2022 (official statistics): VAT registered establishments	Company	Good source but with several sectors with low coverage: D, K, L, O-Q	Low coverage sectors estimated using LFS data
Bulgaria	National Statistical Institute, Annual Business Statistics and Business Registers, end-2022	Establishment	As at ESENER 2019 these statistics were made available on request	n/a
Croatia	FINA - Financial Agency, 2022	Company	Company-level statistics suggested unrealistic growth in NACE O, P, Q	LFS 2022 used to estimate NACE O, P, Q
Cyprus	2021 Statistical Service of the Republic of Cyprus, Registry of Companies	Company	Company-level statistics produced reasonable estimates, unreasonable growth in NACE P and Q reduced slightly	n/a
Czechia	Czech Statistical Office: company register, 2021	Company	Company-level statistics based on different size classes, requiring additional estimation to reach establishment-level	LFS 2022 used to estimate NACE O, P, Q
Denmark	Statistical Office: workplaces by time, industry and size of workplace, 2022	Establishment	Official statistics based on different size classes with top 100+, requiring estimation	n/a
Estonia	Baltic target, 2022	Company	Company-level statistics considered unreliable for NACE O, P, Q	LFS 2022 used to estimate NACE O, P, Q
Finland	Statistics Finland: establishments by industry and	Establishment	Missing NACE O, low coverage NACE P, Q	LFS 2022 used to estimate NACE O, P, Q

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Country	Main source	Source level	Comments and main estimation	Additional sources used
	personnel size, 2021			
France	INSEE (National statistical office): Sirene anonymisée, établissements, 2023	Establishment	Official statistics based on 6-9 for micro size class, as at ESENER 2019	5-9 estimated from 6-9 statistics
Germany	German Federal Statistical Office, Business Register, 2023	Establishment	ESENER 2019 source not accessible (based on Kantar survey), official statistics used; NACE A, O and micro missing	LFS 2022 used to estimate NACE A, O and Micro (5-9)
Greece	Hellenic Statistical Authority, 2020	Company	Company-level statistics based on different size classes, requiring additional estimation to reach establishment-level. Low coverage NACE K, O, P, Q	LFS 2022 used to estimate NACE K, O, P, Q
Hungary	Hungarian Central Statistical Office database, 2023	Company	Company-level statistics suggested large increases in NACE R, S, confirmed by SBS statistics. NACE O, P, Q considered unreliable	LFS 2022 used to estimate P, Q. NACE O still too low using LFS (smaller than ESENER 2019), set to size of sampling frame
Ireland	LFS 2022, CSO and Bill Moss also checked	Establishment	CSO figures well out of line with ESENER 2019 and not usable, Bill Moss considered unreliable at ESENER 2019.	LFS 2022 used to estimate all cells, meaning NACE A, , B, D, E, L set to ESENER 2019 given LFS missing on these cells
Italy	ISTAT 2021	Establishment	NACE A, O missing, low coverage NACE P and Q, micro missing (0-9 only)	LFS 2022 used to estimate NACE A, O, P, Q and Micro (5-9)
Latvia	Central Statistical Bureau of the Republic of Latvia, 2022	Company	CSB statistics prepared on request, as at ESENER 2019, no estimation required	n/a
Lithuania	Lithuanian Department of Statistics, 2022	Company	Company-level statistics suggested under-coverage for NACE O and over-coverage NACE P, Q. More reliable than ESENER 2019 when R, S also under-covered	LFS 2022 used to estimate NACE O, P, Q
Luxembourg	STATEC (National statistical office):	Company	Company-level statistics based on different size classes affecting micro and small,	LFS 2022 used to estimate NACE O, P, Q

Country	Main source	Source level	Comments and main estimation	Additional sources used
	business demography, 2020		requiring additional estimation to reach establishment-level. Low coverage NACE O, P, Q	
Malta	National Statistics Office (NSO): Business Demographics, 2021	Company	Company-level statistics provided no coverage for NACE O and NACE P, Q considered unreliable.	LFS 2022 estimates also problematic, NACE O, P, Q set to ESENER 2019
Netherlands	Nederlandse Kamers van Koophandel, 2023	Establishment	Kamers van Koophandel was not able to provide comparable data to 2019. Alternative data that could be sourced implied a substantial growth in both establishment and employee level numbers, not supported by actual changes in the economy. Therefore it was agreed to estimate the 2024 data by multiplying each cell by the growth rate from 2019 to 2024 shown in CBS company-level data.	
Poland	National Statistical Office, REGON register, 2022	Establishment	REGON provides 10+ population only (as ESENER 2019), 5-9 estimated from sampling frame	D&B sampling frame for size 5-9
Portugal	INE (Instituto Nacional Estatística): Sistema de Contas Integradas das Empresas, 2022	Company	Company-level statistics provided no coverage for NACE K, O and under-coverage of NACE P, Q.	LFS 2022 used to estimate NACE K, O, P, Q
Romania	National Statistics Institute: Lista firme, 2023	Company	Company-level statistics provided under-coverage of NACE O, P and NACE Q considered unreliable	LFS 2022 used to estimate NACE O, P, Q
Slovakia	D&B Hoovers, 2023	Company	Company-level statistics considered unreliable for NACE O, P and Q	LFS 2022 used to estimate NACE O, P, Q
Slovenia	Statistical office of Republic of Slovenia, 2021	Company	Company-level statistics produced large increases in NACE O, P and appeared to under-cover NACE K. Increases in NACE O, P supported by LFS statistics	As official source used for ESENER 2019 preference given to maintain approach. LFS 2022 used to estimate NACE K
Spain	INE (National Statistical office), DIRCE Directorio Central de Empresas, Unidades locales activas, 2022	Establishment	INE statistics missing NACE A and O, underrepresent P and Q (as at ESENER 2019). Smallest category 6+ and medium/large break at 200 instead of 250	LFS 2022 used to estimate NACE A, O, P and Q. Size categories estimated from existing information and company-level

Country	Main source	Source level	Comments and main estimation	Additional sources used
				INE data with the correct size breaks
Sweden	SCB (Statistical Office Sweden): Establishment statistics Arbetsstellen och Sysselsatta, 2022	Establishment	Official statistics based on different size classes with top 200+, requiring estimation, and NACE B, E, I not covered. Large increases in NACE D, H not supported by SBS. Early July, a request for bespoke statistics was submitted to the statistical office but no reply was yet received. This will be followed up.	LFS 2022 used to estimate NACE B, D, E, H, I
Iceland	Creditinfo 2023	Company	Company statistics based on different size classes with top 100+, requiring estimation. Low coverage of NACE O-S	LFS 2022 used to estimate NACE O-S
Norway	Statistical Office, 2022	Establishment	n/a	n/a
Switzerland	Business and Enterprise Register (BER), 2023	Establishment	n/a	n/a

Table 13: below gives the sources used to estimate the employee-level population, based wherever feasible on the latest Eurostat LFS data. In most countries some of the LFS cells were suppressed, a practice which is applied to small cells which are considered unreliable. Such cells were estimated by extrapolation from the establishment-level statistics prepared as described above. The missing cells were most commonly in NACE B or A. Where the text describes a “small number” of missing cells this means between 1 and 10 out of 76.

At the time of target setting unresolved issues remained in Latvia, Netherlands and Poland, which were subsequently resolved in time for weighting the survey data.

Table 13: Sources of reference statistics for the employee-level population, ESENER 2024

Country	Source	Comments and estimation
Austria	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics
Belgium	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics
Bulgaria	Establishment statistics (see Table 12:)	LFS data not considered reliable against ESENER 2019, lots of missing cells. Distribution estimated from establishment statistics
Croatia	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics
Cyprus	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics
Czechia	LFS 2022	n/a

Country	Source	Comments and estimation
Denmark	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics
Estonia	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics
Finland	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics
France	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics
Germany	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics
Greece	LFS 2022	More substantial numbers of cells missing (suppressed in LFS data), set based on extrapolation from establishment statistics
Hungary	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics
Ireland	LFS 2022	Substantial numbers of cells missing, including all of NACE A, B, D, E, L. Given lack of reliable establishment statistics, missing cells set to ESENER 2019
Italy	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics
Latvia	CSB Latvia via bespoke request	LFS data not considered reliable. Bespoke request made to CBS for updated statistics, same approach as ESENER 2019
Lithuania	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics
Luxembourg	Establishment statistics (see Table 12:)	LFS 2022 data showed substantial changes from ESENER 2019, specially on size class, which appeared unreliable. Figures extrapolated from establishment level figures
Malta	Establishment statistics (see Table 12:)	LFS 2022 data showed substantial changes from ESENER 2019, specially on size class, which appeared unreliable. Figures extrapolated from establishment level figures
Netherlands	Same sources as establishment statistics (see Table 12:)	LFS 2022 data showed large and unrealistic (based on economy changes) growth compared with 2019. CBS company-level data used to estimate changes to 2024 across cells
Poland	Establishment statistics (see Table 12:)	LFS 2022 data showed substantial changes from ESENER 2019, specially on size class, which appeared unreliable. Figures extrapolated from establishment level figures
Portugal	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics
Romania	LFS 2022	More substantial numbers of cells missing (suppressed in LFS data), set based on extrapolation from establishment statistics
Slovakia	LFS 2022	More substantial numbers of cells missing (suppressed in LFS data), set based on extrapolation from establishment statistics
Slovenia	LFS 2022	More substantial numbers of cells missing (suppressed in LFS data), set based on extrapolation from establishment statistics
Spain	LFS 2022	n/a
Sweden	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics

Country	Source	Comments and estimation
Iceland	LFS 2022	More substantial numbers of cells missing (suppressed in LFS data), set based on extrapolation from establishment statistics
Norway	LFS 2022	Small number of missing cells (suppressed in LFS data) set based on extrapolation from establishment statistics
Switzerland	Establishment statistics (see Table 12:)	LFS data suggested reduction in population size, not supported by other statistics, extrapolated from establishment statistics

4.4 Sampling strategy

To plan and select the samples for the main survey, the following steps were undertaken, all in line with the approach followed for ESENER 2019:

1. Establishment and employee-level statistics were sourced and/or estimated, as described in the previous section.
2. Interview targets were set for each of the 76 cells in each country, weighted towards the establishment level as at ESENER 2019, in the ratio two-thirds to one-third, establishment to employee level, to sum to the interview targets for each country.
3. The overall gross sample required in each of the 76 cells was then calculated, i.e. the numbers of cases expected to be needed to reach the interview targets, according to the following steps. All steps were designed to provide more realistic gross sample numbers to achieve the interview targets, otherwise they did not affect the sampling directly given the fieldwork approach was to meet the interview targets. Based on the information provided, the same procedures were followed to estimate gross sample numbers at ESENER 2019.
 - a. The yield rates¹⁹ from ESENER 2019 were used to estimate the expected yield rate across the 76 cells in each country for ESENER 2024. Cells which were estimated based on fewer than 30 cases dialled at ESENER 2019 were instead based on the sector average, or if this was also based on under 30 cases, the size class average. The sector averages were used in the first instance as there is more variation in yield rates at this level than for size classes.
 - b. A matrix was estimated based on ESENER 2019 data to account for stratum jumpers, which occurs during fieldwork where cases 'jump' (change) from the size or sector given on the sampling frame to a different one when interviewed in the survey. The majority of such changes happen as moves between size rather than sector categories. Given these estimations rely on interviewed case data, rather than gross data, the latter which could be used for yield rate estimations, the majority of cells across the full 76-cell matrix were too small to make reliable jumper estimates at this level of granularity. Therefore, the matrix for stratum jumper adjustment was estimated based on ESENER 2019 data on moves across sizes, extrapolated to the individual sector cells.
 - c. An adjustment was made for company-level frame countries, given the necessity to screen for establishments in such countries, which alters the profile of the cases compared with the sampling frame and should be accounted for in the gross samples.
 - d. Gross sample cells were capped to the size of the sampling frame, so that sample orders did not request numbers above those available. An inflation factor was then applied to account for

¹⁹ Completed interviews divided by cases dialled in the survey

reductions due to this capping, and to increase the overall size of the gross sample by 20% compared to ESENER 2019: the change expected to account for declining response rates between surveys.

4. Some changes to the fieldwork targets were agreed with EU-OSHA prior to fieldwork launch, where the targets were unrealistic given the available sample ratios, following enrichment efforts. These modifications were applied to the targets in Croatia, Greece, Latvia and Malta.

The gross sample counts across the 76 cells were then used to request sample from the chosen sampling frames. Providers were asked to provide random samples of the counts requested from each cell, across cases with and without phone numbers. Further enrichment of the samples was then undertaken by Sample Solutions, as described above in sections 4.2.2 and 4.2.3.

4.4.1 Sampling strategy in countries using company-level frames

The ESENER 2019 approach was used in ESENER 2024. This involved the following:

- If the initial contacted establishment (i.e. the one listed on the sampling frame for the company) had five or more employees, it was eligible for interview. If it was not eligible then the selection would be made out of the other establishments.
- Of the remaining/all eligible establishments in the organisation, up to two from all of those with five or more employees would be selected at random to be included in the survey. The following rules would be applied:
 - One additional establishment for companies with between two and five units, or two additional establishments if the contacted site was not eligible (both options two in total).
 - Two additional establishments (three in total) for companies with six or more units. However, a maximum of two additional units were asked for, meaning that the total to interview was two units if the initially contacted establishment was not eligible.
- To facilitate randomisation and identification of the selected site by the person completing the screening questions, the following steps were followed:
 - Respondents asked to give counts of additional sites in each of the four ESENER size categories (5-9, 10-49, 50-249, 250+).
 - One size class containing additional establishments was selected randomly by the interview script. Depending on the number of sites in this category and the number to select, respondents were asked for the only establishment (select one from one), the smallest establishment (select one from many), or the smallest and largest establishments (select two from many).
 - If the selected size class contained one establishment only and two were required, a second establishment was requested from a further randomly selected size class following the rules directly above.
- Interviewers were able to defer collection of the contact information to the end of the main interview (for eligible contacted sites).

These procedures were used for the pilot and main fieldwork. After the pilot some changes were made to the script, in particular to attempt collection of contact details again at the end of the interview if the respondent refused to provide them at the start²⁰. The pilot also showed that respondents were more

²⁰ During the pilot phase, contact details were only collected at the beginning of the interview. Based on pilot results, the script was modified for the main fieldwork to allow for collection of contact details both at the beginning and at the end of the interview if respondents initially declined to provide this information.

likely to provide contact information if asked up front. The flexibility to ask at the end or up front was retained for the main survey but field teams were encouraged to prioritise up-front collection.

4.5 Sampling efficiency

For surveys targeting establishments or companies, particularly those employing disproportionate stratified sampling or focusing on a specific subset of the overall business landscape, accurate sector and size information in the sampling frame is crucial for efficient fieldwork execution. In addition, for countries with a company level frame, where screening was necessary, discrepancies in establishment size are often unavoidable, as the sampling frames typically provide employee counts for entire organisations, while the survey may target only one or a few individual units within larger entities.

Table 14: highlights the occurrence of stratum jumpers at both sector and size levels. On average, across all 30 ESENER 2024 participating countries, 8% of the sector attributions in the sampling frame were found to be incorrect among the organisations completing the survey. This figure aligns closely with the ESENER 2019 results of 10%. However, considerable differences persist across countries. Eastern European countries such as Croatia, Bulgaria, and Slovenia, as well as Cyprus, Denmark, and Portugal, experienced only 2% to 3% sector jumpers. In contrast, Austria, the Netherlands, and Poland reported higher rates, with 16% stratum jumpers.

The proportion of completed interviews where size jumping occurred is notably higher, averaging 29% in the 2024 survey. This represents an increase from the 2019 survey, which reported 24% size jumpers across 33 participating countries. Lithuania reported the lowest proportion of size jumping at 8%, while Malta, Luxembourg, Cyprus, Poland, the Netherlands, Ireland, and Belgium all reported more than 40% size jumpers.

Table 14: Stratum jumpers (difference between frame classification and respondent information)

Country	Screening country	Share of interviews with a switch in the NACE 1-digit	Share of interviews with a switch in the size-class
TOTAL		8%	29%
Austria	Yes	16%	18%
Belgium	No	13%	41%
Bulgaria	Yes	3%	23%
Croatia	Yes	2%	28%
Cyprus	Yes	3%	47%
Czechia	Yes	8%	22%
Denmark	No	3%	30%
Estonia	Yes	7%	17%
Finland	No	5%	33%
France	No	8%	18%
Germany	No	14%	14%
Greece	Yes	6%	40%
Hungary	Yes	7%	23%
Ireland	No	9%	42%
Italy	Yes	4%	29%
Latvia	Yes	8%	30%
Lithuania	Yes	4%	9%
Luxembourg	No	6%	52%
Malta	Yes	14%	56%
Netherlands	No	16%	45%

Poland	Yes	16%	46%
Portugal	Yes	3%	23%
Romania	Yes	5%	26%
Slovakia	No	12%	34%
Slovenia	Yes	2%	20%
Spain	No	6%	30%
Sweden	No	5%	29%
Iceland	Yes	13%	38%
Norway	No	4%	26%
Switzerland	No	4%	31%

In addition to the stratum jumpers, Table 24: in section 6.5.1 provides information on organisations that turned out to have fewer than 5 employees.

Altogether, the misclassification of organisations has significant implications:

1. Eligibility Impact: Organisations found to have fewer than 5 employees affect the overall eligibility rate of the sample. This impact is discussed in more detail in section 6.5 of the report.
2. Response Rate Effects: Some organisations that were found to belong to a different size or sector category than initially reported in the sample were eventually classified under the "quota full" outcome code. This occurred particularly towards the end of the fieldwork period when several target quotas had already been achieved. This reclassification has an effect on the calculated response rates, which is also elaborated upon in section 6.5.

These findings underscore the challenges in maintaining accurate size and sector classifications in business registers and highlight the importance of verifying such information during the survey process.

5 Fieldwork preparation

5.1 Local interviewer teams

For both the pilot and the main field the local fieldwork agencies allocated for each country a field team consisting of a project manager and experienced supervisors and interviewers. Both the project manager and main supervisor had at least four years of experience in leading fieldwork for CATI business surveys, were (near-)native speakers of the main interviewing language in the country and were highly proficient in English.

During the main field a total of 761 interviewers were involved. All interviewers had at least two years of interviewer experience in CATI business surveys, had followed extensive, tailored ESENER interviewing training and had passed at least one test interview prior to start interviewing.

Each interviewer was requested to conduct a sizable number of interviews – in practice a minimum of 50 and a maximum of 120 interviews (not including the pilot). This was done to ensure that over the course of the fieldwork interviewers became deeply familiar with the questionnaire and developed routines in addressing common challenges (such as objections to participation from respondents, correctly assigning the sector and responding to common questions about the content of the questions). At the same time, the size of the fieldwork teams was carefully balanced. While individual interviewers needed to conduct enough interviews to gain proficiency, the teams were also kept large enough to minimize the potential impact of individual interviewer bias or systematic differences in interviewing style on the overall data quality. This balance aimed to ensure consistency in data collection while reducing the risk of any single interviewer's approach disproportionately influencing the results.

Deviations were agreed with EU-OSHA for a small number of interviewers.

Table 15: provides an overview of the total number of interviewers involved per country.

Table 15: Size of national interviewer teams

Country	Number of interviewers per country
Austria	36
Belgium	22
Bulgaria	23
Croatia	23
Cyprus	11
Czechia	40
Denmark	30
Estonia	12
Finland	15
France	44
Germany	63
Greece	15
Hungary	28
Ireland	11
Italy	42

Country	Number of interviewers per country
Latvia	7
Lithuania	9
Luxembourg	14
Malta	12
Netherlands	41
Poland	66
Portugal	30
Romania	22
Slovakia	21
Slovenia	13
Spain	17
Sweden	22
Iceland	39
Norway	18
Switzerland	20

5.2 Training

5.2.1 Pilot

The pilot field was preceded by two training sessions: one for the national fieldwork manager and the supervisors of each country, and one for the interviewers. The train-the-trainer principle was used, an approach to multi-country surveys with a large fieldwork staff that has proven to be an efficient and effective way of training all staff for their survey work. The manager and supervisor training was mandatory for all fieldwork managers and supervisors of the national fieldwork centres.

The training seminar was held in Berlin on 11 and 12 March 2024. EU-OSHA participated in the training and presented the part on the background and objectives of ESENER 2024.

The training seminar covered:

- The background of ESENER 2024 and its purpose.
- Introduction of the central project team and field agencies.
- The contact phase.
- The main questionnaire.
- Screening and main questionnaire role play.
- Screening establishments (only for countries with a company frame).
- Sampling.
- Technical fieldwork organisation.
- Pilot feedback report.
- Fieldwork monitoring and fieldwork report.
- Field strategies.
- Selection of B2B interviewers, training and interviewing techniques.
- Interactive quiz.
- Question and answers (Q&A).

- Wrap-up.
- Country specific questions (only for Austria, Germany, Italy, Slovenia and Switzerland).

Before the training seminar all national fieldwork agencies received a set of training materials: the fieldwork manual in the local language, test links of the programmed national versions of the questionnaire, and the full master questionnaire in Word format.

The subsequent interviewer training was organised by the national fieldwork managers and their supervisors for each of the country teams. Each interviewer had to pass a test interview before the interviewer was allowed to start live interviewing.

5.2.2 Main field

The same train-the-trainer approach was taken for the main field. The centrally organized training seminar for the local project managers and supervisors took place in Berlin on 16 and 17 May 2024. EU-OSHA again participated in the seminar and presented the use of ESENER and impact on policy making.

The training seminar covered:

- Pilot survey results.
- Sampling insights and strategies for the main field.
- Workshop I – navigating sample/target challenges and solutions.
- Refinement of the (establishment) screening process.
- Workshop IIa – Practicing the establishment screening process.
- Workshop IIb – Discussing specific elements of field organisation for enhanced efficiency.
- Use of ESENER and impact on policy making.
- Optimisation of the contact phase.
- Optimisation of the main questionnaire.
- Workshop III – High quality fieldwork management and strategies.
- Main fieldwork milestones.
- Main fieldwork monitoring.
- Q&A and Recap by means of a short quiz.
- Wrap up.

Following the in-person training of the national supervisors and the project managers, a detailed Q&A document was distributed with the questions and their corresponding answers as discussed during the seminar. Consequently, the interviewers from each country were briefed by their supervisor and/or project manager.

5.3 Quality control measures

Fieldwork monitoring

The central project team at Ipsos monitored fieldwork progress across the 30 countries on a daily basis: they looked at the percentage of completes; at the country level, by sector and size, by survey mode, by interviewer, etc. Also, adherence to the call design was monitored. The local fieldwork agencies could access the fieldwork dashboard for their own monitoring purposes.

At the individual country level, the fieldwork agency supervisors monitored the quality of the interviews by listening in to live interviews or to recordings of interviews. In each country teams monitored:

- Minimum 10% of all calls where a successful contact was made.
- At least 10% of completed interviews were checked and listened for quality purposes.

Checks were spread in time and over different interviewers.

If an interview was 'suspicious', the interviewer (and his/her other work) was followed up closely. The interviewer was then provided with relevant feedback and, if the issues persisted, he/she was removed from the survey.

The emerging survey data was directly stored in Ipsos's central database and was checked throughout the fieldwork by the Ipsos central project team. This ensured that any issue was detected as quickly as possible, and that a large proportion of the data was already validated before the fieldwork ended.

The quality control of the interviews at the central level included checking interview length, item non-response, straight lining, missing data and the sector coding of the open ends. When the Ipsos central team identified suspicious interviews, the national fieldwork agencies were requested to investigate further so that an informed decision could be made as to whether these interviews should be retained or discarded. See also section 7.2.1 for details on the data quality checks.

National fieldwork centre visits

EU-OSHA visited the fieldwork agency Ipsos NV in their call centre in Gent (Belgium) on 11 June 2024. Dutch and French speaking supervisors and interviewers exchanged with EU-OSHA and Ipsos on challenges and learnings and difficulties of the fieldwork. Also, sessions with live listening in to interviews were organised.

This field visit was regarded as very instructive and motivating for the local interviewers.

6 Main fieldwork

6.1 Fieldwork period

The fieldwork period took approximately 18.5 weeks and lasted from May to September 2024. Fieldwork was paused in several countries during the summer period. In four countries the telephone fieldwork continued in the beginning of October, with the Netherlands being the last country to close fieldwork on 9 October 2024. Online interviews that were completed up to the end of day on 28 October were still included in the final fieldwork numbers.

Table 16: Fieldwork period by country

Country	Start date fieldwork	End date fieldwork	Additional information
Austria	24.05.2024.	27.09.2024.	
Belgium	22.05.2024.	30.09.2024.	
Bulgaria	22.05.2024.	27.09.2024.	Limited capacity available between 1 to 7 July 2024 due to the need to finalise fieldwork for another project.
Croatia	22.05.2024.	27.09.2024.	Limited fieldwork progress due to summer holiday period (15 to 21 July 2024).
Cyprus	22.05.2024.	27.09.2024.	The fieldwork was stopped for one week (12 to 18 August 2024) due to summer break closure of the call centre and from 19 August to 1 September there was limited field progress due to summer holiday period.
Czechia	20.05.2024.	27.09.2024.	
Denmark	21.05.2024.	27.09.2024.	Limited fieldwork progress due to summer holiday period (1 to 28 July 2024).
Estonia	27.05.2024.	27.09.2024.	Limited fieldwork progress due to summer holiday period (1 to 7 July 2024).
Finland	21.05.2024.	30.09.2024.	Limited fieldwork progress due to summer holiday period (8 to 28 July 2024).
France	24.05.2024.	27.09.2024.	Limited fieldwork progress due to summer holiday period (12 to 18 August 2024).
Germany	24.05.2024.	27.09.2024.	Limited fieldwork progress due to summer holiday period (12 to 18 August 2024).
Greece	21.05.2024.	01.10.2024.	The fieldwork was stopped for 3.5 weeks (26 July to 21 August 2024) due to summer holidays. The office of the local fieldwork team was relocated, which unfortunately also

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			caused technical problems and related to a fieldwork break for 1.5 week (5 to 16 September 2024).
Hungary	22.05.2024.	27.09.2024.	Limited fieldwork progress due to summer holiday period (15 to 21 July 2024).
Ireland	23.05.2024.	27.09.2024.	Limited fieldwork progress due to summer holiday period (19 to 25 August 2024). The fieldwork was stopped for one week (2 to 8 September) due to the need to finalise fieldwork for another project.
Italy	21.05.2024.	30.09.2024.	Fieldwork break for one week due to summer holidays (12 to 18 August 2024).
Latvia	21.05.2024.	27.09.2024.	
Lithuania	21.05.2024.	27.09.2024.	Due to the need to finalise fieldwork for other project and mid-summer period, limited capacity available for two weeks (17 to 30 June 2024).
Luxembourg	22.05.2024.	27.09.2024.	Limited fieldwork progress due to summer holiday period (5 to 18 August 2024).
Malta	22.05.2024.	04.10.2024.	Fieldwork break for one week due to summer holidays (12 to 18 August 2024).
Netherlands	21.05.2024.	09.10.2024.	
Poland	21.05.2024.	08.10.2024.	
Portugal	21.05.2024.	27.09.2024.	
Romania	22.05.2024.	27.09.2024.	
Slovakia	21.05.2024.	27.09.2024.	
Slovenia	22.05.2024.	27.09.2024.	
Spain	21.05.2024.	27.09.2024.	Fieldwork break for four weeks due to summer holidays (5 August to 1 September 2024).
Sweden	21.05.2024.	27.09.2024.	Limited fieldwork progress due to summer holiday period (24 to 30 June 2024), followed by a fieldwork break for five weeks due to summer holidays (1 July to 4 August 2024).
Iceland	28.05.2024.	27.09.2024.	Limited fieldwork progress due to summer holiday period (29 July to 11 August 2024).

Norway	21.05.2024.	27.09.2024.	Fieldwork break for five weeks due to summer holidays (24 June to 28 July 2024).
Switzerland	21.05.2024.	01.10.2024.	

6.2 Targeted and achieved sample sizes

The total target sample size for ESENER 2024 was 40,950 interviews. After completion of the fieldwork, 41,458 valid interviews were achieved, including 2,746 online.

Table 17: Target and achieved sample size by country

Country	Target sample size	Valid interviews achieved	Of which valid telephone interviews	Of which valid online interviews	Balance
TOTAL	40,950	41,458	38,712	2,746	+508
Austria	1,800 (1,500+300)	1,829	1,814	15	+29
Belgium	1,500	1,504	1,452	52	+4
Bulgaria	750	765	725	40	+15
Croatia	750	776	684	92	+26
Cyprus	750	753	739	14	+3
Czechia	1,500	1,526	1,172	354	+26
Denmark	1,500	1,506	1,431	75	+6
Estonia	750	768	619	149	+18
Finland	1,500	1,510	1,346	164	+10
France	2,250	2,273	2,241	32	+23
Germany	3,150 (2,250+900)	3,159	3,152	7	+9
Greece	1,500	1,501	1,500	1	+1
Hungary	1,500	1,510	1,502	8	+10
Ireland	750	761	755	6	+11
Italy	2,250	2,255	2,172	83	+5
Latvia	750	756	669	87	+6
Lithuania	750	762	682	80	+12
Luxembourg	750	759	691	68	+9
Malta	450	453	409	44	+3
Netherlands	1,500	1,505	1,385	120	+5
Poland	2,250	2,268	2,114	154	+18
Portugal	1,500	1,545	1,377	168	+45

Romania	1,500	1,537	1,510	27	+37
Slovakia	750	786	575	211	+36
Slovenia	1,050 (750+300)	1,056	1,008	48	+6
Spain	2,250	2,259	2,114	145	+9
Sweden	1,500	1,536	1,376	160	+36
Iceland	750	810	721	89	+60
Norway	1,500	1,523	1,459	64	+23
Switzerland	1,500	1,507	1,318	189	+7

6.3 Structure of the achieved sample

Establishment size and sector of activity are crucial characteristics for analysing survey data from organisations. For ESENER 2024, the primary address sources used for sample selection in participating countries already contained information on the number of employees (size-class) and sector of activity for each listed organisation. Although this information served as the basis for drawing the gross samples, respondents were asked to verify and, if necessary, update this information at the beginning of the interview.

The verification process focused on two key areas:

1. Establishment Size (Question Q102):

Respondents were asked to report the number of employees on their establishment's payroll. They were instructed to count part-time employees as full employees (head count) and, for multi-site organisations, to refer only to the number of employees in the local unit. Additionally, they were told to include employees with temporary contracts if they held a direct work contract with the interviewed company/organisation at the time of the interview.

2. Sector of Activity (Question Q108 – Q110):

Respondents were first asked to confirm the sector attribution from the business register. If confirmed, this information was used in the dataset. If not confirmed, respondents were asked to describe their establishment's sector of activity. The interviewer would immediately allocate the sector to the corresponding NACE 2-level code and confirm with the respondent if the selected code matched the described sector. In cases where the relevant code could not be found, the interviewer would record the sector description as a verbatim response. These verbatim responses were subsequently coded into NACE Rev.2 categories by the research team. When verbatim descriptions did not allow for clear sector attribution, the organisation was recontacted.

The tables below present the final distribution of completed interviews by:

- Size-class
- Sector of activity
- Size by sector

These distributions are based on the verified information provided by respondents during the interviews, ensuring the most accurate representation of the participating establishments.

6.3.1 Completed interviews by size

Table 18: gives an overview on the total number of interviews achieved per country by size class in comparison to the initial target set.

Table 18: Interviews completed by size (+/- with respect to target)

Country	Total Achieved	5-9 empl.	10-49 empl.	50-249 empl.	250+ empl.
TOTAL	4,1458 (+508)	13,461 (-480)	17,333 (+226)	6,994 (+797)	3,670 (-35)
Austria	1,829 (+29)	629 (+2)	790 (+46)	240 (+3)	170 (-22)
Belgium	1,504 (+4)	449 (+58)	664 (-26)	291 (+28)	100 (-56)
Bulgaria	765 (+15)	256 (-14)	278 (+2)	138 (+29)	93 (-2)
Croatia	776 (+26)	233 (-24)	327 (+7)	143 (+26)	73 (+17)
Cyprus	753 (+3)	261 (-28)	340 (+32)	124 (+6)	28 (-7)
Czechia	1,526 (+26)	394 (-7)	752 (+37)	275 (+3)	105 (-7)
Denmark	1,506 (+6)	456 (+27)	637 (-32)	270 (+30)	143 (-19)
Estonia	768 (+18)	231 (-7)	321 (-7)	160 (+42)	56 (-10)
Finland	1,510 (+10)	544 (-15)	634 (-47)	228 (+43)	104 (+29)
France	2,273 (+23)	838 (+59)	860 (-30)	335 (-4)	240 (-2)
Germany	3,159 (+9)	1,252 (+110)	1,050 (-136)	493 (+41)	364 (-6)
Greece	1,501 (+1)	561 (-26)	643 (-6)	227 (+36)	70 (-3)
Hungary	1,510 (+10)	521 (+2)	653 (+36)	201 (+1)	135 (-29)
Ireland	761 (+11)	239 (-23)	333 (+30)	95 (+1)	94 (+3)
Italy	2,255 (+5)	834 (+2)	930 (-40)	314 (+12)	177 (+31)
Latvia	756 (+6)	283 (-9)	270 (+1)	145 (+19)	58 (-5)
Lithuania	762 (+12)	227 (-1)	299 (-3)	150 (+13)	86 (+3)
Luxembourg	759 (+9)	184 (-57)	367 (+66)	149 (+19)	59 (-19)
Malta	453 (+3)	114 (-33)	187 (-4)	108 (+39)	44 (+1)
Netherlands	1505 (+5)	433 (-60)	618 (+42)	276 (+44)	178 (-21)
Poland	2,268 (+18)	433 (-376)	1,079 (+222)	493 (+149)	263 (+23)
Portugal	1,545 (+45)	525 (-43)	639 (+40)	255 (+46)	126 (+2)
Romania	1,537 (+37)	528 (+49)	649 (-36)	258 (+17)	102 (+7)
Slovakia	786 (+36)	242 (-37)	361 (+34)	122 (+29)	61 (+10)
Slovenia	1,056 (+6)	302 (-16)	438 (-12)	223 (+30)	93 (+4)
Spain	2,259 (+9)	819 (-28)	872 (-31)	363 (+53)	205 (+15)
Sweden	1,536 (+36)	507 (+50)	676 (-7)	239 (+11)	114 (-18)
Iceland	810 (+60)	234 (+13)	390 (+65)	145 (-18)	41 (0)
Norway	1,523 (+23)	417 (-19)	698 (+2)	273 (+20)	135 (+20)
Switzerland	1,507 (+7)	515 (-29)	578 (-19)	261 (+29)	153 (+26)

6.3.2 Completed interviews by sector

The below table (Table 19:) gives an overview on the total number of interviews achieved per country by sector in comparison to the initial target set.

Table 19: Interviews completed by sector (+/- with respect to target)

Country	Total Achieved	A	B,D,E,F	C	G,H,I,R	J, K, L, M, N, S	O	P	Q
TOTAL	41,458 (+508)	1,012 (+87)	4,293 (+135)	5,701 (+327)	12,665 (-500)	8,464 (+163)	2,149 (+170)	3,148 (+78)	4,026 (+48)
Austria	1,829 (+29)	25 (+3)	217 (+20)	217 (+2)	629 (+11)	377 (+8)	89 (-2)	109 (-14)	166 (+1)
Belgium	1,504 (+4)	13 (+2)	137 (+5)	156 (+1)	473 (-21)	299 (-13)	116 (+22)	139 (+4)	171 (+4)
Bulgaria	765 (+15)	32 (+3)	74 (+7)	125 (+4)	270 (-38)	153 (+24)	23 (0)	48 (+5)	40 (+10)
Croatia	776 (+26)	22 (+6)	99 (0)	131 (+5)	219 (-19)	136 (+4)	40 (+7)	74 (+14)	55 (+9)
Cyprus	753 (+3)	9 (-9)	86 (-2)	72 (+10)	284 (+6)	200 (+10)	29 (-10)	47 (+5)	26 (-7)
Czechia	1,526 (+26)	46 (+1)	145 (+4)	358 (+26)	380 (-18)	241 (+6)	96 (+6)	143 (+6)	117 (-5)
Denmark	1,506 (+6)	40 (-2)	131 (-5)	137 (+4)	464 (-23)	310 (-11)	61 (+16)	96 (+4)	267 (+23)
Estonia	768 (+18)	20 (0)	99 (+2)	139 (+14)	222 (-17)	126 (-9)	31 (+1)	89 (+24)	42 (+3)
Finland	1,510 (+10)	38 (+14)	143 (-4)	172 (+6)	439 (+9)	325 (+27)	78 (+21)	85 (-16)	230 (-47)
France	2,273 (+23)	46 (+5)	230 (+9)	238 (+13)	665 (-28)	499 (+19)	172 (+17)	147 (-28)	276 (+16)
Germany	3,159 (+9)	49 (+5)	319 (+20)	477 (+35)	890 (-17)	729 (+5)	146 (+18)	130 (-28)	419 (-29)
Greece	1,501 (+1)	50 (-1)	91 (+14)	143 (0)	662 (-9)	232 (+12)	112 (-3)	130 (+4)	81 (-16)
Hungary	1,510 (+10)	46 (-4)	200 (+26)	230 (-8)	484 (-24)	261 (+2)	99 (+6)	112 (+9)	78 (+3)
Ireland	761 (+11)	10 (+2)	81 (+18)	74 (+6)	204 (-44)	158 (-17)	29 (+2)	95 (+37)	110 (+7)
Italy	2,255 (+5)	85 (+2)	214 (-2)	472 (+16)	628 (-48)	424 (+17)	85 (-9)	162 (+12)	185 (+17)
Latvia	756 (+6)	46 (+16)	90 (+12)	108 (+23)	253 (-12)	126 (-19)	42 (-4)	43 (-19)	48 (+9)
Lithuania	762 (+12)	16 (+1)	92 (+6)	106 (+4)	259 (-20)	135 (+5)	30 (0)	71 (+7)	53 (+9)
Luxembourg	759 (+9)	4 (0)	124 (+4)	47 (+6)	240 (-5)	215 (+10)	40 (-9)	30 (-1)	59 (+4)
Malta	453 (+3)	1 (-3)	36 (-1)	74 (+33)	182 (-11)	125 (-2)	10 (-6)	18 (-4)	7 (-3)
Netherlands	1,505 (+5)	33 (+5)	129 (+16)	158 (+17)	419 (-26)	367 (-22)	65 (+1)	97 (-2)	237 (+16)
Poland	2,268 (+18)	40 (+5)	216 (-15)	363 (-11)	540 (-87)	579 (+68)	127 (+42)	270 (-2)	133 (+18)
Portugal	1,545 (+45)	39 (+3)	169 (+13)	268 (+18)	493 (-24)	242 (+9)	81 (+5)	111 (+10)	142 (+11)
Romania	1,537 (+37)	75 (+22)	217 (-4)	267 (+13)	561 (-7)	239 (+28)	69 (+9)	42 (-30)	67 (+6)
Slovakia	786 (+36)	19 (+2)	69 (+7)	148 (+10)	220 (-11)	133 (+6)	60 (+9)	80 (+7)	57 (+6)
Slovenia	1,056 (+6)	7 (0)	125 (-2)	185 (-25)	321 (+17)	177 (-2)	54 (+5)	113 (+9)	74 (+4)
Spain	2,259 (+9)	86 (-3)	168 (-23)	360 (+72)	731 (-35)	461 (+3)	78 (-39)	189 (+22)	186 (+12)
Sweden	1,536 (+36)	26 (0)	187 (+19)	141 (+9)	426 (+9)	361 (-4)	73 (+12)	159 (+9)	163 (-18)
Iceland	810 (+60)	23 (+3)	85 (0)	71 (+8)	241 (+18)	178 (+23)	77 (+38)	82 (-1)	53 (-29)
Norway	1,523 (+23)	27 (+8)	174 (-13)	100 (+6)	466 (-10)	272 (-12)	69 (+5)	124 (+27)	291 (+12)
Switzerland	1,507 (+7)	39 (+1)	146 (+4)	164 (+10)	400 (-16)	384 (-12)	68 (+10)	113 (+8)	193 (+2)

6.3.3 Completed interviews by size and sector

Table 20: gives an overview on the total number of interviews achieved by size and sector.

The tables in Annex I give an overview on the total number of interviews achieved per country by sector and size in comparison to the initial target.

Table 20: Structure of the net sample by size and sector

	5-9	10-49	50-249	250+	Total	Total in %
TOTAL	13,461	17,333	6,994	3,670	41,458	100.0%
Total in %	32.5%	41.8%	16.9%	8.9%	100.0%	
A - Agriculture, forestry and fishing	468	404	109	31	1,012	2.4%
B - Mining and quarrying	39	58	36	32	165	0.4%
C - Manufacturing	1,306	2,162	1,292	943	5,703	13.8%
D - Electricity, gas, steam and air conditioning supply	48	122	79	44	293	0.7%
E - Water supply; sewerage; waste management and remediation activities	80	199	121	49	449	1.1%
F - Construction	1,396	1,542	344	107	3,389	8.2%
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	3,451	3,033	652	223	7,359	17.8%
H - Transporting and storage	561	917	387	210	2,075	5.0%
I - Accommodation and food service activities	905	1,136	263	69	2,373	5.7%
J - Information and communication	378	567	238	113	1,296	3.1%
K - Financial and insurance activities	331	361	173	132	997	2.4%
L - Real estate activities	301	276	73	23	673	1.6%
M - Professional, scientific and technical activities	1,127	1,110	355	169	2,761	6.7%

N - Administrative and support service activities	505	610	274	159	1,548	3.7%
O - Public administration and defence; compulsory social security	245	792	646	466	2,149	5.2%
P - Education	453	1,530	947	218	3,148	7.6%
Q - Human health and social work activities	1,052	1,666	736	572	4,026	9.7%
R - Arts, entertainment and recreation	275	411	133	35	854	2.1%
S - Other services activities	540	437	136	75	1,188	2.9%

6.3.4 Completed establishment interviews among company frame countries

Data for the ESENER 2024 survey were gathered at the establishment level across all participating countries, not at the company or enterprise level. However, many countries lack a sample frame that classifies business addresses at the establishment level, as mentioned in section 4.1. As in previous ESENER waves, company sampling frames were used in these countries. If a company with multiple sites was called, the contact details for two sites were collected and these were also contacted. This method was applied to create a comprehensive sample of subsidiaries. This strategy was crucial to ensure comparability with non-screening countries (those using an establishment-level sample), considering that multi-site organisations differ from single-site organisations and that subsidiaries of multi-sites differ from their headquarters. Among the company sample countries, n=4,351 multi-site companies were reached where interviewers attempted to obtain contact details from one or two additional sites. 611 companies shared contact details of one or more additional sites, which is 14% of all eligible multi-site organisations asked about additional addresses. At the end of the questionnaire, 40 companies had withdrawn their consent to contact the other sites.

Out of the 571 additional establishment addresses that were obtained, 189 completed the survey, which results in a 33% success rate, in line with the ESENER 2019 success rate (33%).

Table 21: Additional contacts- and interviews in multi-site organisations

Country	Number of multi-site companies reached ²¹	New addresses picked up	New addresses picked up allowed for recontact	Completes with new addresses
TOTAL	4,351	611	571	189
Austria	238	26	23	3
Bulgaria	95	14	14	10

²¹ Includes completed and incomplete interviews that reached the question Q050.

Croatia	146	17	16	9
Cyprus	60	10	9	2
Czechia	332	48	47	10
Estonia	117	17	17	6
Greece	372	42	41	16
Hungary	345	52	51	24
Italy	596	92	80	25
Latvia	42	3	2	2
Lithuania	87	10	10	2
Malta	83	5	5	4
Poland	624	48	44	4
Portugal	476	125	114	51
Romania	370	38	38	5
Slovakia	98	21	18	2
Slovenia	195	32	31	11
Iceland	75	11	11	3

6.4 Interview duration

The initial projection for interview durations in the ESENER 2024 survey was 25 minutes. As indicated in Table 22, the actual average duration of telephone interviews was 23 minutes. It is important to consider that the survey timer began only when the interviewer started the questionnaire itself, not including the introductory phase of the interview. Therefore, the total interview time, including the introduction, was slightly longer than the recorded 23 minutes. The table also shows the average duration for the different questionnaire sections.

Table 22: Interview average duration (telephone, in minutes)

Country	Total	Screener	Q100 to Q115	Q150 to Q164	Q200 to Q202	Q250 to Q263	Q300 to Q314	Q350 to Q358	Q400 to Q404	Country specific
TOTAL	22.9	0.7	2.4	3.8	2.9	3.8	5.0	2.0	1.2	0.7
Austria	22.8	0.5	2.3	3.6	2.2	3.2	4.4	2.0	1.6	0.5
Belgium	24.2		3.2	4.0	3.1	4.1	5.2	2.0		
Bulgaria	23.6	0.5	1.9	3.8	3.0	4.0	4.8	2.1		0.5
Croatia	22.3	0.7	2.1	3.8	3.2	3.6	4.9	2.0		0.7
Cyprus	20.6	0.4	1.9	3.5	2.9	3.3	5.0	1.8		0.4
Czechia	21.6	0.6	2.2	3.5	3.0	3.9	4.8	2.0		0.6
Denmark	21.8		2.4	3.9	3.1	3.9	5.2	2.1		
Estonia	24.4	0.7	2.4	4.3	3.5	4.3	5.8	2.4		0.7
Finland	23.7		2.8	3.8	3.2	4.2	5.8	2.2		
France	20.5		2.6	3.6	2.2	3.1	4.4	1.7		
Germany	21.2		2.6	3.6	2.2	3.2	4.4	2.0	0.7	
Greece	17.8	0.7	1.6	2.7	2.2	2.6	3.6	1.3		0.7
Hungary	21.5	0.6	1.9	3.6	3.2	3.7	5.2	2.0		0.6
Ireland	18.6		2.0	3.1	2.6	3.3	4.2	1.9		
Italy	24.3	0.8	2.2	3.7	3.1	4.0	4.7	2.1	0.7	0.8
Latvia	22.0	0.3	1.9	4.1	3.3	4.1	5.3	1.8		0.3
Lithuania	23.6	0.6	2.1	4.1	3.3	4.2	5.5	2.4		0.6
Luxembourg	25.8		2.8	4.4	3.5	4.1	5.8	2.5		

Malta	25.2	0.8	2.6	4.3	3.2	4.3	5.2	2.2		0.8
Netherlands	24.8		3.3	3.7	3.0	4.1	5.1	2.0		
Poland	21.8	0.7	2.3	3.8	3.0	4.0	4.9	1.8		0.7
Portugal	24.2	1.1	2.4	3.9	3.3	4.0	5.3	1.9		1.1
Romania	25.2	0.7	2.5	4.0	3.2	4.6	5.2	2.7		0.7
Slovakia	22.7	0.7	2.4	3.9	3.1	4.3	5.2	2.3		0.7
Slovenia	22.5	0.5	1.8	3.6	3.2	3.8	5.2	1.8	1.1	0.5
Spain	21.0		2.2	3.4	2.7	3.5	4.5	1.7		
Sweden	27.0		3.1	4.7	3.6	4.7	5.9	2.5		
Iceland	24.5	0.4	2.1	3.9	3.1	3.7	5.0	2.0		0.4
Norway	22.4		2.9	3.8	3.2	4.0	5.4	2.2		
Switzerland	32.3	1.9	3.3	4.6	3.6	5.3	6.7	2.4	2.7	1.9

6.4.1 Differences by size

As observed in prior ESENER surveys, larger establishments are more likely to have implemented a wider range of health and safety measures compared to smaller establishments. Given that the ESENER 2024 survey includes several filtered questions, which delve into the specifics of implemented measures, variations in interview duration based on establishment size were anticipated. Additionally, contacting the appropriate respondent within larger organisations often proves more complex, requiring interviewers to be redirected multiple times. As presented in Table 23, the interview duration did vary considerably depending on establishment size, ranging from an average of 21 minutes for the smallest size-class to 26 minutes for the largest. This variation is expected due to several factors. First, certain questions²² were only asked to establishments with 20 or more or 50 or more employees, naturally leading to longer interviews for larger establishments. Additionally, larger establishments carry out workplace risk assessments more often, are more likely to report psychosocial risk factors in the establishment, or take measures to prevent psychosocial risks²³. This results in these establishments qualifying for and responding to more questions²⁴, further contributing to increased interview duration. Thus, the size of the establishment impacts both the number of applicable questions and the depth of OSH practices discussed, collectively influencing the overall length of the interview.

Table 23: Duration telephone interviews ESENER 2024, by size-class

Size - class	Completed cases (telephone)	Total duration (mean in minutes)
TOTAL	38,712	22.9
5 to 9 employees	12,742	21.4
10 to 49 employees	16,200	22.7
50 to 249 employees	6,440	25.0
250+ employees	3,330	25.7

6.4.2 Differences by sector

As pointed out above, the average telephone interview duration across all sectors in the ESENER 2024 survey was 23 minutes. While most sectors hovered around this average, some showed slight deviations.

²² Such as Q161, Q162, Q163, Q300, Q301, Q302, Q303a.

²³ Relates to questions: Workplace risk assessments (Q250), psychosocial risk factors (Q201), measures to prevent psychosocial risks (Q304).

²⁴ More specifically Q251, Q252, Q253, Q254, Q256, Q248 are follow-up questions of Q250. Q302, Q303a and Q307 are follow-up questions of Q201, and Q305 and Q306 are follow-up questions of Q304.

For instance, "Mining and quarrying" (B), "Electricity, gas, steam and air conditioning supply" (D), and "Administrative and support service activities" (N) had longer average durations, exceeding 24 minutes. Conversely, "Financial and insurance activities" (K) had the shortest average duration at 21.8 minutes. The remaining sectors fell within a range of approximately 22 to 24 minutes, indicating relatively minor variations in interview length across different industries.

Table 24: Duration telephone interviews ESENER 2024, by sector

Sector	Completed cases (telephone)	Total duration (mean in minutes)
TOTAL	38,712	22.9
A - Agriculture, forestry and fishing	967	22.4
B - Mining and quarrying	157	24.0
C - Manufacturing	5,231	23.3
D - Electricity, gas, steam and air conditioning supply	277	24.8
E - Water supply; sewerage; waste management and remediation activities	416	23.6
F - Construction	3,179	22.3
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	6,926	22.0
H - Transporting and storage	1,969	23.6
I - Accommodation and food service activities	2,230	22.5
J - Information and communication	1,198	23.0
K - Financial and insurance activities	947	22.4
L - Real estate activities	634	21.8
M - Professional, scientific and technical activities	2,570	2.4
N - Administrative and support service activities	1,465	23.4
O - Public administration and defence; compulsory social security	2,004	24.1
P - Education	2,881	23.4
Q - Human health and social work activities	3,743	23.7
R - Arts, entertainment and recreation	787	22.7
S - Other services activities	1,131	23.3

6.5 Fieldwork success in terms of cooperation and response rates

6.5.1 (Non-) response by reasons

Table 1: shows how the 680,117 addresses that were touched for the survey distribute over the various reasons of (non-)response.

Table 25: (Non-) response by reasons

	No answer	Answer device	Busy	Wrong number/Information tone / fax	General appointment	Definite appointment with target person	Refusal by target person	Refusal by contact person	Private household	Inactive establishment
Austria	7,295	3,136	0	740	4,140	0	1,207	5,673	56	0
Belgium	810	1,312	54	1,819	716	0	377	1,989	115	119
Bulgaria	2,064	132	160	1,002	409	0	187	997	123	0
Croatia	2,242	404	530	3,320	525	0	156	2,886	82	140
Cyprus	619	179	178	1,207	1,103	0	2,030	1,585	306	0
Czechia	7,094	253	1,763	9,448	8,961	0	211	12,038	347	394
Denmark	854	2,011	0	1,216	1,401	0	577	2,854	115	185
Estonia	986	34	0	677	239	1	59	702	1	33
Finland	3,962	95	0	1,273	1,338	0	591	4,336	24	178
France	7,393	3,300	0	1,960	6,665	0	1,414	6,945	70	0
Germany	15,662	7,329	0	24,191	15,170	0	2,025	9,325	203	0
Greece	1,660	164	135	738	1,546	0	776	4,799	36	21
Hungary	2,604	0	392	1,424	1,239	0	27	3,123	174	27
Ireland	860	1,996	89	682	897	0	70	611	3	0
Italy	4,569	1,501	471	5,443	1,463	0	665	7,409	0	132
Latvia	1,225	175	0	1,675	339	0	169	3,600	4	98
Lithuania	1,305	215	0	231	215	27	330	1,604	7	46
Luxembourg	821	224	32	396	931	0	109	981	44	59
Malta	1,115	26	126	648	177	0	75	1,394	17	171

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Netherlands	3,600	1,010	171	1,723	1,926	0	383	3,574	67	214
Poland	25,793	6,644	1,572	73,754	14,185	5	1,004	25,403	1,672	2,746
Portugal	1,347	159	8	418	728	0	134	2,512	104	0
Romania	1,850	1,065	1,699	5,684	8,429	18	572	6,103	665	319
Slovakia	4,301	1,237	550	4,673	973	0	72	3,691	279	0
Slovenia	80	13	52	119	1,088	1	147	1,071	0	51
Spain	4,206	2,559	1,635	5,891	1,036	50	2,069	6,999	2,848	45
Sweden	1,837	997	844	1,198	408	10	350	2,466	0	0
Iceland	297	46	17	217	373	0	128	325	122	0
Norway	1,052	1,881	0	1,280	1,417	10	336	3,500	2	76
Switzerland	1,001	601	49	548	170	0	611	1,502	175	0
Total	108,504	38698	10,527	153,595	78,207	122	16,861	129,997	7,661	5,054

Country	Already questioned	CATI Complete	Quota full	CATI Complete invalid	Refusal - DNC	Partial interview – call back	Partial interview – do not call back	No appointment with target possible during FW	Target person speaks other language	Less than 5 employees or refusal size
Austria	0	1,814	88	2	144	1	12	2	1	204
Belgium	32	1,452	125	1	98	70	38	1	67	479
Bulgaria	0	725	131	0	215	50	29	2	6	465
Croatia	0	684	60	0	337	11	26	167	28	639
Cyprus	21	739	13	0	477	11	53	0	363	244
Czechia	53	1,172	48	1	296	111	60	0	248	2,260

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Denmark	54	1,431	70	3	166	25	19	269	91	877
Estonia	5	619	64	0	28	27	18	17	19	280
Finland	28	1,346	17	0	260	16	10	60	314	1,186
France	0	2,241	22	2	113	0	13	0	7	165
Germany	0	3,152	128	5	2,199	0	10	0	6	357
Greece	0	1,500	77	0	4	2	38	1	18	237
Hungary	6	1,502	88	76	72	47	16	123	14	324
Ireland	0	755	122	0	462	43	14	0	5	493
Italy	0	2,172	18	0	2,612	28	99	0	89	1,193
Latvia	1	669	14	0	50	15	39	37	11	500
Lithuania	5	682	20	0	17	52	45	57	49	158
Luxembourg	77	691	106	0	0	7	10	83	32	339
Malta	0	409	35	0	338	13	13	0	5	153
Netherlands	29	1,385	81	0	18	152	86	0	79	752
Poland	36	2,114	346	10	798	305	65	170	113	28,411
Portugal	0	1,377	420	2	36	57	198	0	19	294
Romania	0	1,510	127	2	491	98	178	960	77	737
Slovakia	26	575	2,400	0	1,388	70	10	0	85	1,303
Slovenia	0	1,008	109	2	186	49	4	0	0	74
Spain	0	2,114	46	0	378	91	122	0	0	483
Sweden	0	1,376	101	0	9	54	53	35	152	1,038
Iceland	0	721	17	0	0	13	0	4	10	186
Norway	22	1,459	42	2	307	64	67	40	174	465

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Switzerland	14	1,318	46	2	12	13	13	0	32	784
Total	409	38,712	4,981	110	11,511	1,495	1,358	2,028	2,114	45,080

Country	Refuse to share sector info	No single establishment with 5 or more employees	Size of 1st contacted company out of scope, but interview possible at subsidiary	Online invitation without complete	CAWI complete	CAWI complete invalid	Online refusal	Screenout Sector	Total sample contacted	Sample ratio
Austria	2	7	3	159	15	1	76	0	24,778	14
Belgium	9	0	0	410	52	0	48	2	10,195	7
Bulgaria	1	6	5	57	40	2	10	0	6,818	9
Croatia	6	5	3	585	92	0	38	0	12,966	17
Cyprus	3	1	3	74	14	0	23	2	9,248	12
Czechia	15	17	30	1,504	354	1	386	0	47,065	31
Denmark	6	0	0	727	75	0	168	1	13,195	9
Estonia	4	8	4	633	149	0	60	0	4,667	6
Finland	6	0	0	617	164	4	147	1	15,973	11
France	2	0	0	612	32	0	33	1	30,990	14
Germany	2	0	0	470	7	0	63	0	80,304	25
Greece	5	13	3	49	1	0	5	0	11,828	8
Hungary	7	25	9	60	8	0	7	0	11,394	8
Ireland	1	0	0	66	6	0	0	2	7,177	9
Italy	8	20	15	389	83	1	65	1	28,446	13

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Latvia	4	3	2	489	87	1	122	0	9,329	12
Lithuania	2	3	1	412	80	1	126	0	5,690	7
Luxembourg	4	0	0	418	68	1	14	0	5,447	7
Malta	3	2	2	268	44	1	22	0	5,057	11
Netherlands	33	0	0	670	120	2	88	1	16,164	11
Poland	22	30	26	3,009	154	1	529	3	188,920	83
Portugal	11	26	8	1,029	168	4	106	0	9,165	6
Romania	3	42	16	184	27	2	10	1	30,869	20
Slovakia	5	4	6	1,216	210	2	160	0	23,236	30
Slovenia	3	12	2	77	48	1	42	1	4,240	4
Spain	3	0	0	681	145	1	202	3	31,607	14
Sweden	20	0	0	690	160	0	160	0	11,958	8
Iceland	3	1	1	241	89	1	19	1	2,832	3
Norway	6	0	0	286	64	2	46	0	12,600	8
Switzerland	10	0	0	719	189	3	146	0	7,958	5
Total	209	225	139	16,801	2,745	32	2,921	20	680,116	16

6.5.2 Calculation of eligibility, response and cooperation rate

The survey metrics discussed in this report – eligibility rate, response rate, and cooperation rate – are essential tools for understanding the quality and reach of the ESENER 2024 survey. They provide valuable context for interpreting the survey results and offer insights for improving future waves of the survey.

Eligibility rate (e)

The eligibility rate is a metric that indicates what percentage of contacted establishments met the criteria to participate in the survey. For ESENER, an establishment is considered eligible if it has five or more employees and falls within the 19 defined sectors.

The eligibility rate was calculated with the following formula: $(\text{Completed Interviews} + \text{Partial Interviews}) / (\text{Completed Interviews} + \text{Partial Interviews} + \text{Ineligible Units})^{25}$.

As shown in Table 27:, in the ESENER 2024 survey, the overall eligibility rate was 43%, meaning fewer than half of the contacted establishments were suitable for participation. However, excluding Poland, this rate rises significantly to 62%. The eligibility rate is a key indicator of the sampling frame's quality and its alignment with the target population. Compared to the ESENER 2019 survey, where the overall eligibility was 56%, 18 out of 30 countries saw an increase in their eligibility rate in 2024. Two countries experienced a minor decrease of 2%, while three countries, notably Croatia (-22%), Ireland (-23%), and Poland (-36%), showed considerably larger drops. It is important to note that among these three Poland was the only country using a different sampling frame in 2024 due to the previous provider ceasing operations. This change in sampling frame contributed significantly to the shift in Poland's eligibility rate, as the new frame resulted in a substantial number of ineligible establishments, primarily those with fewer than five employees.

Response rate (RR)

Response rate is a metric that measures how many eligible establishments completed the survey out of all those contacted during the fieldwork. These rates help to measure the overall success of the data collection efforts. For ESENER 2024, two types of response rates are calculated:

- **RR1** is the most conservative measure of response rates. It is calculated by dividing the number of complete interviews by the total number of cases in the sample, excluding only those that are identified as ineligible.

The RR1 was calculated with the following formula:

$\text{Complete Interviews} / (\text{Complete Interviews} + \text{Partial Interviews} + \text{Refusals} + \text{Non-Contacts} + \text{Other Non-Interviews}^{26} + \text{Unknown Eligibility})^{27}$.

This rate assumes that all cases where no eligibility could be determined were eligible. As a result, RR1 is likely to underestimate the true response rate, especially in countries with lower-quality sample frames or in countries with high business turnover.

- **RR3** provides a more nuanced view of response rates by estimating the proportion of eligible cases among those with unknown eligibility. This rate is generally higher than RR1 and may offer a more realistic picture of survey participation.

The RR3 was calculated with the following formula:

²⁵ In Table 26: the sum of outcome codes 18,22,35,36,52,53 divided by the sum of outcome codes 18, 22, 35, 36, 52, 53, 13, 14, 15, 42, 44, 45 and 99.

²⁶ Other non-interviews are appointments, including respondents that had requested a CAWI invite and did not complete it without explicitly refusing to participate.

²⁷ The sum of outcome codes 18 and 52 divided by the sum of outcome codes 1, 2, 3, 5, 6, 7, 8, 9, 18, 21, 22, 34, 35, 36, 37, 38, 43, 51, 52, 53 and 58 -see Table 26:.

Complete Interviews / [(Complete Interviews + Partial Interviews + Refusals + Non-Contacts + Other Non-Interviews) + e(Unknown Eligibility)]²⁸, where e is the eligibility rate.

This approach assumes that the eligibility rate among cases of unknown eligibility is similar to that of cases where eligibility was determined.

RR3 is often considered a more accurate representation of the true response rate, as it accounts for the likelihood that some portion of the unknown cases would have been ineligible if their status had been determined.

As shown in Table 27., the ESENER 2024 survey achieved an overall Response Rate 1 (RR1) of 7%. Poland recorded the lowest RR1 at 1%, while Iceland achieved the highest at 32%. In comparison, the ESENER 2019 survey reported an overall RR1 of 11%. Despite the general decrease, 10 out of 30 countries maintained or improved their RR1 in 2024 compared to 2019: Bulgaria, Czechia, Hungary, the Netherlands, Portugal, Slovakia, Slovenia, Spain, Iceland, and Norway.

The difference in fieldwork periods between the two surveys is noteworthy:

- - The 2024 survey was conducted from late May to late September, with 9 out of 18 fieldwork weeks overlapping with the summer period.
- - The 2019 survey ran from early April to early August, with only 5 out of 18 weeks coinciding with the summer period.

The summer period typically presents greater challenges in reaching businesses. In some sectors, such as schools, it can be impossible to establish contact for extended periods during the summer. This seasonal effect was reflected in the 2024 results, with more organisations receiving final outcomes such as "no contact" or "appointment" compared to the 2019 survey, negatively affecting the response rate.

In the ESENER 2024 survey, the overall Response Rate 3 (RR3) was 14%, compared to 18% in the ESENER 2019 survey. Despite this general decrease, 6 out of 30 countries maintained or improved their RR3 in 2024: Bulgaria, Czechia, Hungary, Slovakia, Slovenia, and Spain. Norway and Iceland experienced only a minor drop of 1 percentage point. Notably, despite the sample issues encountered in Poland, its RR3 remained relatively stable at 16% (compared to 18% in 2019).

As with Response Rate 1, the difference in fieldwork periods between the 2019 and 2024 survey played a role in this overall decrease. However, it is equally important to note that increased eligibility rates in Austria, Cyprus, France, Germany, Lithuania, and Luxembourg actually had a negative effect on their Response Rate 3 figures.

It is also worth noting that in some countries additional samples were released towards the end of the fieldwork period to ensure timely completion. Consequently, not all of the released sample was fully called out, leading to lower response rates, due to a higher share of "no answer" and "appointment" in certain instances. This situation particularly affected Poland, Malta, Greece, Italy, Lithuania, and Switzerland, where 30% or more of the last released sample²⁹ ended up as recallable sample (e.g. no answer, appointment).

Cooperation rate (CR)

Cooperation rates reflect the proportion of establishments that agreed to participate in the survey among those successfully contacted. These rates provide insights into the willingness of establishments to

²⁸ The sum of the outcome codes 18, 22, 52 and 53 divided by ((eligibility rated * (sum of the outcome codes 1, 2, 3, 5, 6, 7, 8, 9, 21, 34, 37, 38, 43 and 58)) + (sum of the outcome codes 18, 22, 52, 53, 35 and 36)).

²⁹ Aside from Poland's continuous supply of additional sample, other countries released significant portions of their sample in the final weeks of fieldwork: Malta (17%), Greece (14%), Italy (7%), Lithuania (4%), and Switzerland (3%). These late-released samples showed higher rates of non-productive outcomes (no answer, answering device, busy signal, general appointment) compared to the overall sample: Greece (45% vs 30%), Italy (42% vs 28%), Lithuania (40% vs 30%), Malta (33% vs 29%), and Switzerland (30% vs 23%).

participate once contact has been established. The ESENER 2024 survey calculates three different types of cooperation rates.

- **CR1** is the most conservative cooperation rate. It measures the proportion of interviews among all eligible units contacted, including partial interviews as failures to cooperate.

The CR1 was calculated with the following formula:

Complete Interviews / (Complete Interviews + Partial Interviews + Refusals + Other non-interviews)³⁰.

This rate helps assess the effectiveness of interviewers in securing full participation from eligible establishments. A higher CR1 suggests greater success in obtaining complete interviews.

As shown in Table 27: , Poland exhibits the lowest Cooperation Rate 1 (CR1). It is important to note that this rate is still somewhat influenced by the release of a substantial sample batch towards the end of the fieldwork period, which was necessary to complete fieldwork on time. This late release resulted in a significant number of outcomes that could potentially affect the cooperation rate:

- A considerable number of general appointments were registered. Some of these may still turn out to be ineligible, for example, if the establishment does not meet the minimum criterion of having at least 5 employees.
- A substantial number of refusals were recorded. In line with best practices, it is typically recommended to recontact soft refusals in an attempt to still conduct an interview. However, the late timing of the sample release has limited the opportunity for such follow-up attempts.

These factors should be taken into account when interpreting the CR1³¹ of Poland, Greece and Italy, as they may not fully reflect the true cooperation rate had there been more time for follow-up and resolution of these cases.

- **CR3** is a less conservative measure than CR1 and provides a slightly more optimistic view of cooperation. The key difference is in how open contacts are treated, in particular appointments are excluded (including CAWI invites for which no explicit refusal was shared).

The CR3 was calculated with the following formula:

(Complete Interviews) / (Complete Interviews + Partial Interviews + Refusals)³²

- For ESENER 2024, we have also calculated a **modified** version of **CR3**. This tailored approach considers the specific characteristics of the survey and provides a middle ground between CR1 and the standard CR3. In this modified version the other non-interviews and refusals are multiplied by the eligibility rate.

The modified CR3 was calculated with the following formula:

(Complete Interviews) / ((Complete Interviews + Partial Interviews) + ((e * (Other non-interviews + Refusals)))³³

Cooperation rates are particularly valuable because they focus on the willingness of establishments to participate once contacted. They can indicate:

- The perceived value or burden of the survey among the target population.
- The effectiveness of interviewer training and persuasion techniques.
- The clarity and appeal of the initial survey introduction and invitation.

³⁰ The sum of the outcome codes 18,22,52,53 divided by the sum of the outcome codes 18, 22, 52, 53, 6, 7, 8, 9, 34, 35, 36, 43, 51 and 58.

³¹ And the modified CR3.

³² The sum of the outcome codes 18, 22, 52 and 53 divided by the sum of the outcome codes 18, 22, 52, 53, 8, 9, 34, 35, 36, 43 and 58.

³³ The sum of the outcome codes 18, 22, 52 and 53 divided by the sum of the outcome codes 18, 22, 52, 53, 35, 36 and 46 and the sum of the outcome codes 6, 7, 8, 9, 34, 43, 51 and 58 multiplied by the eligibility rate.

- Potential cultural differences in survey participation across countries.

Higher cooperation rates suggest that once contact is made, establishments are more likely to agree to participate. This can be particularly important in surveys like ESENER, where the topic (workplace safety and health) might be seen as sensitive or time-consuming by some respondents.

As shown in Table 27:, the ESENER 2024 survey achieved an overall Cooperation Rate 1 (CR1) of 14%. Poland recorded the lowest CR1 at 5%, closely followed by Czechia at 6%. Interestingly, Czechia had the lowest CR1 in the 2019 survey, indicating a persistent challenge in this country. Iceland achieved the highest CR1 at 42%, followed by Switzerland (32%), Estonia (30%), Belgium (29%), Slovenia (28%), and Bulgaria (28%). In comparison, the ESENER 2019 survey reported an overall CR1 of 16%. Notably, 13 out of 30 countries maintained or improved their CR1 in 2024 compared to 2019: Austria, Belgium, Bulgaria, Croatia, Czechia, Germany, Hungary, the Netherlands, Slovakia, Spain, Sweden, Iceland, and Norway. It is worth noting that Iceland also had the second-highest CR1 in 2019, demonstrating consistent strong performance across both survey waves.

A similar trend was observed for the Cooperation Rate 3 (CR3). The ESENER 2024 survey achieved a CR3 of 20% compared to 22% in 2019, with 13 countries maintaining or improving their CR3: Austria, Bulgaria, Croatia, Czechia, Germany, Hungary, Luxembourg, the Netherlands, Slovakia, Slovenia, Spain, Iceland, and Norway.

Regarding the modified Cooperation Rate 3 (modified CR3), a slight increase was noted from 25% in ESENER 2019 to 27% in 2024. The most significant increases were observed in Poland and Slovakia (both +13%), followed by Bulgaria, Spain, Croatia, Hungary, Ireland, Sweden, Czechia, the Netherlands, Belgium, and Italy, all of which either increased or maintained their modified CR3.

While the eligibility, response and cooperation metrics provide valuable insights, they should still be interpreted cautiously and in context:

- Comparability across countries: Differences in business cultures, survey climates, and the quality of sampling frames can lead to variations in these metrics between countries. A lower rate in one country does not necessarily indicate poorer survey implementation.
- Relationship to data quality: Lower response or cooperation rates do not automatically imply poor data quality. The key is ensuring that the responding sample remains representative of the target population. This is achieved through careful sample design, targeted follow-up efforts, and post-stratification weighting.
- Temporal factors: For ESENER 2024, a significant portion of fieldwork was conducted during summer months, which typically see lower response rates due to holiday periods. This should be considered when comparing to previous ESENER waves or other surveys.
- Impact of external factors: The ongoing effects of the COVID-19 pandemic, changes in work patterns (e.g., increased remote work), and economic conditions can all influence survey participation and should be considered when interpreting the results.
- Methodological changes: Any changes in survey methodology, sampling approach, or contact strategies between ESENER waves should be taken into account when comparing metrics over time. However, for ESENER 2024, efforts were made to maintain consistency with previous waves, particularly ESENER 2019. While some minor adjustments are inevitable in large-scale, multi-national surveys conducted over time (such as necessary updates to sampling frames or variations in fieldwork timing), the core methodology, questionnaire structure, and overall contact strategy remained largely unchanged. These minor variations are typical in longitudinal survey research and while they may influence metrics such as eligibility, response rates, and cooperation rates to some degree, they are not expected to impact the overall comparability of the survey results themselves.

Table 26: Definition of response and cooperation rates as applied to ESENER 2024

Contact Outcome	Eligibility rate	Response Rate 1	Response Rate 3	Cooperation rate 1	Cooperation rate 3	Modified Cooperation rate 3
1 No answer		denominator	denominator * e			
2 Answer device		denominator	denominator * e			
3 Busy		denominator	denominator * e			
5 Wrong number/Information tone / fax		denominator	denominator * e			
6 General appointment		denominator	denominator * e	denominator		denominator * e
7 Definite appointment with target person		denominator	denominator * e	denominator		denominator * e
8 Refusal by target person		denominator	denominator * e	denominator	denominator	denominator * e
9 Refusal by contact person		denominator	denominator * e	denominator	denominator	denominator * e
13 Private household	denominator					
14 Inactive establishment	denominator					
17 Already questioned	denominator					
18 CATI Complete	numerator + denominator	numerator + denominator	numerator + denominator	numerator + denominator	numerator + denominator	numerator + denominator
21 Quota full	numerator + denominator	denominator	denominator * e			
22 CATI Complete invalid		denominator	numerator + denominator	numerator + denominator	numerator + denominator	numerator + denominator
34 Refusal - Do not call register		denominator	denominator * e	denominator	denominator	denominator * e
35 Partial interview – call back	numerator + denominator	denominator	denominator	denominator	denominator	
36 Partial interview – do not call back	numerator + denominator	denominator	denominator	denominator	denominator	
37 No appointment with target possible during FW		denominator	denominator * e			
38 Target person speaks other language		denominator	denominator * e			
42 Less than 5 employees or refusal size	denominator					

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43 Refuse to share sector info		denominator	denominator * e	denominator	denominator	denominator * e
44 No single establishment with 5 or more employees	denominator					
45 Size of 1st contacted company out of scope, but interview possible at subsidiary	denominator					
51 Online invitation without complete		denominator		denominator		denominator * e
52 CAWI complete	numerator + denominator	numerator + denominator	numerator + denominator	numerator + denominator	numerator + denominator	numerator + denominator
53 CAWI complete invalid	numerator + denominator	denominator	numerator + denominator	numerator + denominator	numerator + denominator	numerator + denominator
58 Online refusal		denominator	denominator * e	denominator	denominator	denominator * e
99 Screen out Sector	denominator					

6.5.3 Eligibility, response and cooperation rate by country

The survey metrics presented in Table 27: - Eligibility rate, Response rates (R1 and RR3), and Cooperation rates (CR1, CR3, and modified CR3) - offer valuable insights into the ESENER 2024 survey process. These standardized metrics, calculated using the methodology described in section 6.5.2, allow for performance assessment across countries and over time.

As pointed out above, while these metrics are important indicators of survey quality, they should be interpreted within their broader context. Factors such as sample release timing, sampling frame quality, and country-level variations in survey receptiveness can significantly influence these rates. For a comprehensive understanding of the survey's performance, these quantitative metrics should be considered alongside qualitative information about survey implementation and country-specific contexts.

Note that a significant portion of the 2024 fieldwork was conducted during summer months, which typically see lower response rates due to holiday periods. This should be considered when comparing to ESENER 2019 or other surveys.

Table 27: Eligibility, response and cooperation rates by country

	ESENER 2024						ESENER 2019					
Country	Eligibility rate	RR1	RR3	CR1	CR3 modified	CR3	Eligibility rate	RR1	RR3	CR1 ³⁴	CR3 modified	CR3
TOTAL	43%	7%	14%	14%	27%	20%	56%	11%	18%	16%	25%	22%
<i>Total excl. Poland</i>	62%	8%	13%	16%	23%	22%	NA	NA	NA	NA	NA	NA
Austria	87%	7%	8%	14%	16%	20%	67%	10%	14%	13%	19%	16%
Belgium	68%	16%	22%	29%	37%	36%	67%	18%	25%	27%	36%	39%
Bulgaria	59%	12%	19%	28%	39%	34%	54%	11%	19%	18%	28%	21%
Croatia	48%	6%	12%	15%	26%	18%	70%	11%	15%	14%	19%	18%
Cyprus	59%	9%	14%	12%	19%	15%	31%	15%	36%	22%	47%	27%
Czechia	35%	3%	9%	6%	15%	10%	46%	3%	7%	5%	10%	7%
Denmark	56%	13%	21%	20%	31%	28%	72%	18%	24%	28%	35%	45%
Estonia	71%	18%	23%	30%	38%	46%	70%	36%	45%	48%	57%	60%
Finland	52%	10%	18%	17%	28%	22%	66%	24%	33%	33%	42%	46%
France	91%	7%	8%	13%	14%	21%	73%	15%	19%	21%	26%	34%
Germany	85%	4%	5%	10%	11%	19%	25%	5%	18%	6%	21%	9%
Greece	83%	13%	15%	17%	20%	21%	69%	15%	20%	19%	26%	25%
Hungary	74%	14%	19%	26%	32%	32%	67%	10%	14%	19%	26%	25%
Ireland	62%	11%	17%	26%	36%	39%	85%	23%	25%	27%	30%	57%
Italy	64%	8%	12%	15%	22%	17%	80%	14%	17%	18%	22%	24%
Latvia	57%	9%	14%	14%	21%	16%	55%	26%	38%	30%	44%	48%
Lithuania	80%	14%	17%	21%	25%	26%	73%	23%	29%	31%	38%	50%
Luxembourg	60%	15%	23%	24%	34%	40%	51%	20%	34%	28%	43%	39%
Malta	58%	10%	15%	16%	25%	20%	43%	17%	33%	27%	45%	40%
Netherlands	62%	10%	15%	18%	26%	26%	50%	10%	19%	14%	24%	18%
Poland	7%	1%	16%	5%	38%	7%	43%	9%	18%	12%	25%	14%
Portugal	81%	18%	21%	24%	28%	34%	66%	18%	25%	26%	35%	40%
Romania	51%	5%	10%	9%	16%	17%	61%	8%	13%	15%	23%	19%

³⁴ It is important to note that there is a slight discrepancy in the CR1 for ESENER 2019 when compared to those reported in the original technical report. Specifically, when Ipsos recalculated the rates using the non-response reason counts by country provided in Annex 1 of the ESENER 2019 report, we found that the Cooperation Rate 1 (CR1) is 1 to 2 percentage points higher for several countries. This upward adjustment in CR1 applies to Austria, Denmark, Finland, France, Lithuania, Malta, Spain, Iceland, and Norway.

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Slovakia	35%	4%	10%	9%	23%	13%	46%	3%	7%	5%	10%	6%
Slovenia	89%	26%	28%	28%	31%	41%	88%	24%	26%	30%	33%	39%
Spain	42%	8%	17%	16%	31%	19%	44%	6%	14%	12%	23%	15%
Sweden	61%	14%	21%	27%	37%	33%	71%	19%	26%	24%	31%	43%
Iceland	73%	32%	39%	42%	50%	62%	70%	32%	40%	42%	51%	54%
Norway	75%	13%	16%	20%	25%	26%	58%	11%	17%	18%	27%	26%
Switzerland	61%	22%	31%	32%	43%	40%	63%	29%	39%	39%	50%	59%

6.5.4 Eligibility, response and cooperation rate by size

Smaller establishments often have lower eligibility rates, possibly due to higher turnover rates or more frequent changes in employee numbers that may push them below the five-employee threshold. Additionally, they are more likely to be private households instead of businesses or to have ceased operations compared to organisations in larger size classes.

Compared to the ESENER 2019 survey, the eligibility rates for establishments with 10-49 and 50-249 employees are generally consistent. However, there are notable differences at the extremes of the size spectrum:

- The eligibility rate for the smallest organisations (5-9 employees) is substantially lower in 2024, at 27% compared to 41% in 2019.
- For establishments with 250 or more employees, the eligibility rate is higher in 2024, at 85% compared to 79% in 2019.

If we exclude Poland from the calculations due to the sample issues reported in section 6.7.2, the eligibility rate among the smallest establishments increases to 47%.

In terms of response and cooperation rates, we observe patterns similar to the 2019 survey:

- Establishments with 10-49 employees show lower Response Rate 3 (RR3) and modified Cooperation Rate 3 (modified CR3) compared to other size categories.
- Response Rate 1 (RR1), Cooperation Rate 1 (CR1), and modified CR3 are almost double for establishments with 250+ employees compared to those with 5-9 employees.

The overall higher rates among larger companies (50-249 and 250+ employees) can be attributed to the fact that in these size categories, the survey is more often answered by health and safety experts. Notably, 73% of the completed ESENER surveys among establishments with 250+ employees were answered by an OSH expert, compared to just 24% among establishments with 5-9 employees³⁵. These health and safety specialists are typically more willing to dedicate time to the topic of OSH. In contrast, in smaller establishments, owners or general managers often respond to the survey, and for them, OSH may not be their primary responsibility.

Table 28: Eligibility, response and cooperation rates by size (size indication from address source)

Size class	Eligibility rate	RR1	RR3	CR1	CR3 modified	CR3
TOTAL	43%	7%	14%	14%	27%	20%
<i>Total excl. Poland</i>	62%	8%	13%	16%	23%	22%
5-9 employees	27%	5%	16%	11%	31%	16%
<i>5-9 employees exc. Poland</i>	47%	6%	13%	13%	23%	18%
10-49 employees	74%	8%	11%	15%	19%	23%
50-249 employees	83%	12%	14%	20%	23%	31%
250+ employees	85%	12%	14%	20%	23%	29%

6.5.5 Eligibility, response and cooperation rate by sector

The eligibility, response, and cooperation rates vary across sectors, consistent with findings from previous ESENER waves. Overall, the highest response and cooperation rates are observed in the

³⁵ Percentage of OSH experts (Q113 = 3,4,5,6,7) responding to the ESENER survey by establishment size (unweighted figures): 5-9 employees: 24%; 10-49 employees: 36%; 50-249 employees: 58%; 250+ employees: 73%.

Public Administration sector (NACE O), while the lowest rates are found in the Accommodation and Food Service Activities sector (NACE I).

Table 29: Eligibility, response and cooperation rates by sector

NACE Sector	Eligibility rate	RR1	RR3	CR1	CR3 modified	CR3
TOTAL	43%	7%	14%	14%	27%	20%
A - Agriculture, forestry and fishing	31%	6%	17%	13%	32%	19%
B - Mining and quarrying	56%	9%	16%	18%	28%	23%
C - Manufacturing	59%	8%	13%	15%	23%	22%
D - Electricity, gas, steam and air conditioning supply	52%	10%	18%	20%	31%	28%
E - Water supply; sewerage; waste management and remediation activities	63%	12%	18%	22%	31%	31%
F - Construction	43%	6%	13%	13%	25%	18%
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	37%	5%	13%	11%	26%	16%
H - Transporting and storage	41%	6%	13%	13%	26%	18%
I - Accommodation and food service activities	47%	5%	11%	11%	21%	16%
J - Information and communication	34%	5%	14%	12%	29%	18%
K - Financial and insurance activities	35%	6%	16%	13%	29%	18%
L - Real estate activities	21%	5%	20%	11%	38%	17%
M - Professional, scientific and technical activities	33%	5%	14%	12%	29%	17%
N - Administrative and support service activities	46%	6%	13%	13%	25%	20%
O - Public administration and defence; compulsory social security	77%	14%	18%	25%	30%	38%
P - Education	72%	10%	14%	21%	27%	33%
Q - Human health and social work activities	66%	9%	13%	17%	24%	28%
R - Arts, entertainment and recreation	46%	9%	18%	19%	34%	27%
S - Other services activities	22%	5%	20%	13%	40%	20%

6.6 Enhancement of response rates

6.6.1 Measures

In order to enhance response rates, Ipsos and EU-OSHA implemented the following measures.

Sample management and call strategy

Sufficient sample was selected in each country factoring in the response rate and stratum jumping obtained in ESENER 2019. In each country, the sample was batched into balanced sample replicates and loaded iteratively during fieldwork to maximise the response rate while ensuring that all dialled

sample was fully worked according to the fieldwork rules. The first of these batches was the largest. The subsequent batches were smaller, to allow careful management of the final sample size.

Releasing new batches depended on the fieldwork realisation with earlier batches and the field team schedule in the following period. This approach was used to ensure the sample was fully worked, to improve sample quality, and to maximise response rates. Sample quality would be compromised if large numbers of cases were left open at the end of the survey, given the sample would consist of relatively more of the 'easier to reach' respondents.

The fieldwork protocols consisted of a minimum of five phone calls to each number before it could be coded as non-contact. There was also an interval of at least 15 days between the first and last call attempt. To optimize the response rate, the teams recalled all open sample once more after the summer break, going beyond the foreseen 5 call attempts. Across all countries, 47% of the sample records were contacted 5 times or more, and 19% were contacted 10 times or more. Going beyond the minimum foreseen calls had a highly positive effect on participation. Specifically, 44% of the completed interviews were realized after the 5th call attempt, with 16% occurring after the 10th call attempt. While it is important to maintain a respectful approach and avoid excessive contact attempts, the impact on participation is significant.

Making multiple call attempts, however, also extends the required fieldwork period. To properly call out each batch and make all necessary call attempts, considerable time is needed. For ESENER 2024, the timeline was somewhat constrained. Looking ahead to future waves, it may be beneficial to consider a slightly extended fieldwork period to allow for additional contact attempts, if feasible within the overall project framework. Such an extension would need to be carefully evaluated in the context of available resources, including budgetary considerations, and overall project goals. Additional contact attempts require more interviewer time and effort, which has implications for project costs. The potential benefits of improved response rates through these extra efforts could be weighed against other project priorities and resource allocations.

Table 30: Five or more call attempts by country

Country	Proportion of organisations receiving 5 or more call attempts among all used addresses	Proportion of organisations receiving 5 or more call attempts among successful interviews only
TOTAL	47%	44%
Austria	64%	35%
Belgium	45%	37%
Bulgaria	35%	29%
Croatia	46%	49%
Cyprus	39%	41%
Czechia	41%	35%
Denmark	49%	51%
Estonia	40%	27%
Finland	44%	43%
France	59%	32%
Germany	47%	28%
Greece	25%	21%
Hungary	29%	29%
Ireland	49%	33%
Italy	67%	65%
Latvia	38%	40%
Lithuania	45%	38%
Luxembourg	48%	48%
Malta	16%	13%

Netherlands	40%	41%
Poland	41%	51%
Portugal	79%	88%
Romania	49%	54%
Slovakia	64%	49%
Slovenia	66%	67%
Spain	52%	55%
Sweden	55%	48%
Iceland	30%	30%
Norway	55%	52%
Switzerland	50%	43%

Table 31: illustrates the average number of call attempts made during the ESENER 2024 fieldwork to obtain a successful interview, which was 6.4 overall. Larger organisations (250+ employees) required more call efforts to achieve a successful interview compared to smaller workplaces, with an average of 7 versus 6 call attempts, respectively.

The number of call attempts also varied across sectors. Notably:

- NACE I "Accommodation and food service activities," which had the lowest response and cooperation rates (as discussed in section 6.5.5), required an average of 6.8 call attempts.
- NACE O "Public administration," which had the highest response and cooperation rates, required 6.1 call attempts on average.

This disparity may be attributed to the often non-standard working hours in the accommodation and food service sector, making it more challenging to reach appropriate respondents.

Table 31: Number of call attempts by size and sector³⁶ among successful interviews

	Average number of call attempts
Total 2024	6.4
SIZE CLASS	
5 to 9 employees	6.0
10 to 49 employees	6.5
50 to 249 employees	6.8
250+ employees	6.9
NACE SECTOR	
A - Agriculture, forestry and fishing	6.1
B - Mining and quarrying	6.4
C - Manufacturing	6.6
D - Electricity, gas, steam and air conditioning supply	6.0
E - Water supply; sewerage; waste management and remediation activities	6.6
F - Construction	6.4
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	6.4

³⁶ Size and sector classes based on information from the survey

H - Transporting and storage	6.7
I - Accommodation and food service activities	6.8
J - Information and communication	6.4
K - Financial and insurance activities	6.4
L - Real estate activities	6.5
M - Professional, scientific and technical activities	6.1
N - Administrative and support service activities	6.5
O - Public administration and defence; compulsory social security	6.1
P - Education	6.6
Q - Human health and social work activities	6.4
R - Arts, entertainment and recreation	6.5
S - Other services activities	6.3

The achieved sample profile in terms of size and sector was monitored throughout the fieldwork and any major deviations discussed with the fieldwork teams and EU-OSHA.

Fieldwork monitoring

Fieldwork was monitored centrally (in addition to the checks of fieldwork quality done locally), using the same tools and templates for all countries. For a more comprehensive overview of the quality assurance measures implemented, please refer to the detailed Quality Report.

Information about ESENER 2024 on EU-OSHA's website

EU-OSHA also placed information about ESENER 2024 on their website³⁷ which potential respondents could consult if interested. This information was available in all languages used in the survey.

Furthermore, the contacted organisations could obtain a motivation letter. If establishments asked for more information, interviewers could propose to share this letter, which contained detailed information about the survey (see Annex II in section 9.2). To receive the motivation letter, establishments were required to provide an email address. The process of sending the letter was automated, with the central script immediately dispatching the motivation letter upon the entry of the email address. Smaller establishments³⁸ were more likely to request and receive the motivation letter:

- 39% of establishments with 5-9 employees
- 31% of establishments with 10-49 employees
- 16% of establishments with 50-249 employees
- 14% of establishments with 250+ employees

It is noteworthy that 12% of those who received the motivation letter completed the ESENER survey, with 11% doing so via telephone. In some countries, the completion rate was even higher among those who requested the letter. In Iceland, Slovenia, Estonia, Switzerland and Malta, more than one in five establishments that requested and received the motivation letter went on to complete the ESENER 2024 survey.

The use of a motivational letter has proven to be a valuable asset in boosting response and cooperation rates, thereby enhancing overall survey participation. Its importance is underscored by the fact that multiple establishments requested the letter more than once, a capability that was newly implemented in ESENER 2024 as an enhancement to the survey process. The ability to request and receive multiple motivation letters is particularly beneficial given that different gatekeepers or personnel may answer calls at different times. This multiple-request phenomenon highlights the letter's role in overcoming initial hesitation and providing consistent information across various points of contact within an organisation.

³⁷ www.esener.eu

³⁸ Establishment size according to the sample frame.

The positive impact of the motivational letter on survey completion rates, particularly in countries like Iceland, Slovenia, Estonia, Switzerland, and Malta, demonstrates its effectiveness as a tool for engagement. However, the varying rates of letter requests across different countries suggest an opportunity for improvement in future waves of the ESENER survey. For upcoming survey iterations, it is recommended to proactively offer the motivational letter when respondents show signs of declining participation, especially in countries where the current proportion of shared motivational letters is low. This proactive approach could potentially increase engagement and participation rates in areas where the letter's use has been underutilised. By strategically offering this letter, particularly in the initial stages of contact or when faced with reluctance, future waves of the survey may see improved participation. Similarly, it is important to note that implementing this strategy by default would increase the time spent on refusal conversion. This additional time is needed for offering the motivation letter, accurately noting down the email address, and sending the letter.

Table 32: Organisations receiving a motivation letter

Country	Proportion of organisations receiving a motivation letter	Proportion of organisations completing the survey following the receipt of the motivation letter
TOTAL	4%	12%
Austria	4%	2%
Belgium	6%	17%
Bulgaria	6%	14%
Croatia	8%	8%
Cyprus	1%	1%
Czechia	1%	7%
Denmark	7%	18%
Estonia	1%	24%
Finland	<1%	18%
France	1%	1%
Germany	1%	3%
Greece	4%	11%
Hungary	3%	2%
Ireland	2%	6%
Italy	11%	14%
Latvia	<1%	0%
Lithuania	5%	13%
Luxembourg	14%	16%
Malta	10%	22%
Netherlands	15%	10%
Poland	1%	6%
Portugal	22%	18%
Romania	2%	5%
Slovakia	5%	3%
Slovenia	12%	26%
Spain	2%	10%
Sweden	5%	11%
Iceland	21%	28%
Norway	2%	11%
Switzerland	25%	23%

Survey languages

Offering the ESENER survey in multiple languages within multilingual countries is a crucial strategy to enhance participation rates and ensure comprehensive representation. This approach acknowledges the linguistic diversity present in many European nations and removes language barriers that might otherwise exclude significant portions of the target population. By providing respondents with the option to complete the survey in their preferred language, we increase the likelihood of their engagement and the accuracy of their responses. This is particularly important in countries with official bilingual or multilingual policies, such as Belgium, Switzerland, or Luxembourg, as well as in nations with substantial linguistic minorities. The availability of multiple language options not only demonstrates respect for cultural and linguistic diversity but also improves the survey's accessibility and inclusivity. Consequently, this practice helps to minimize non-response bias that could arise from language-based exclusion, leading to a more representative sample and more reliable data. Furthermore, it allows for a more nuanced understanding of workplace safety and health issues across different linguistic communities within the same country, potentially revealing important cultural or regional variations in practices and perceptions. As stipulated in chapter 3.1 the ESENER survey is designed to be available to respondents in all official EU languages spoken in the participating countries. For the 30 countries involved in the survey, a total of 40 language versions were created. In seven of these countries, multiple language versions were made available.

Table 33: Overview of the usage of the language versions

Country	Language	Completed interviews
Belgium	Dutch	1,045
Belgium	French	459
Estonia	Estonian	705
Estonia	Russian	63
Finland	Finnish	1,508
Finland	Swedish	2
Latvia	Latvian	694
Latvia	Russian	62
Lithuania	Lithuanian	762
Lithuania	Russian	0
Luxembourg	Luxembourgish	286
Luxembourg	French	420
Luxembourg	German	53
Malta	Maltese	180
Malta	English	273
Switzerland	French	408
Switzerland	German	1,016
Switzerland	Italian	83

Online completion option

Respondents refusing participation in the CATI interview were offered the possibility to complete the questionnaire online at a moment convenient for them. This additional completion mode was offered in all countries (see the following section for details on the CAWI option).

6.6.2 Online completed interviews

During fieldwork respondents who refused to take part in the telephone interview were offered the possibility to complete the questionnaire online by themselves via a unique link to the CAWI questionnaire.

To maximise response rates and ensure equal participation opportunities, respondents who received an online survey link were not restricted by quota limits, a lesson learned from EU-OSHA's Workers' Exposure survey³⁹. The initial protocol included sending two email reminders to non-respondents. However, to further boost response rates, additional reminder emails were sent beyond the original two. For those who still had not completed the survey after these reminders, a follow-up telephone call was made. During this call, respondents were offered three options: participate in the survey via phone, receive another online invitation, or decline participation altogether.

This telephone reminder strategy resulted in only 1.3% of those who had requested and received an online invite completing the survey by phone. While this percentage is limited, the overall effect of the telephone reminder on online completion should not be underestimated. It provided an opportunity to resend the CAWI invite and, if necessary, correct the email address. Notably, on average, 22% of all online completions were from respondents who received more than one CAWI invite from the script (beyond the CAWI reminders sent from the central mailing software). This indicates that the persistent follow-up strategy, combining email reminders and telephone callbacks, played a significant role in boosting online participation rates.

In total, 23,153 establishments provided their email address, indicating their preference for online completion rather than telephone participation. Of these, 13% resulted in successful interviews. While Bulgaria and, to some extent, Slovenia collected proportionally fewer email addresses from respondents willing to complete the survey online, their conversion rate from CAWI invite to successful interview was the highest.

Only 32 of the online completed interviews were removed due to straight lining, speeding, or high item non-response (details in section 7.2.1).

Overall, 7% of the completed interviews in the ESENER 2024 survey were conducted online, a slight increase from ESENER 2019, where 5% of all valid interviews were completed online. The proportion of online completes varied across countries. In 2019, Czechia had the most interviews completed online (35%), followed by Luxembourg (22%) and the Netherlands (19%). In the 2024 survey, the top three countries were Slovakia (27%), Czechia (23%), and Estonia (19%). Most countries (18 out of 30) saw an increase in online participants. The most notable increases were in the Baltic countries (Estonia, Latvia, Lithuania), Finland, Croatia, and Poland, which had a maximum of 3% online completions in 2019 (6% for Estonia) and increased by at least 8 percentage points.

³⁹ <https://osha.europa.eu/en/facts-and-figures/workers-exposure-survey-cancer-risk-factors-europe>

Table 34: Conversion to online participation by country

Country	Number of establishments requesting a CAWI invitation across all used addresses	Number of CAWI invites completed online across all successful interviews	Number of CAWI invites completed by phone across all successful interviews	Number of invalid CAWI completes	Proportion of valid online completed interviews in 2024	Proportion of valid online completed interviews in 2019
TOTAL	23,153	2,745	296	32	7%	5%
Austria	254	15	1	1	1%	3%
Belgium	522	52	3	0	3%	5%
Bulgaria	113	40	1	2	5%	3%
Croatia	726	92	4	0	12%	2%
Cyprus	116	14	5	0	2%	4%
Czechia	2,309	354	8	1	23%	35%
Denmark	1,008	75	33	0	5%	8%
Estonia	874	149	16	0	19%	6%
Finland	965	164	15	4	11%	3%
France	679	32	0	0	1%	2%
Germany	543	7	0	0	<1%	4%
Greece	58	1	1	0	<1%	<1%
Hungary	78	8	1	0	1%	2%
Ireland	73	6	0	0	1%	1%
Italy	553	83	8	1	4%	1%
Latvia	728	87	16	1	12%	3%
Lithuania	644	80	13	1	10%	3%
Luxembourg	517	68	7	1	9%	22%
Malta	346	44	3	1	10%	3%
Netherlands	955	120	47	2	8%	19%
Poland	3,741	154	24	1	7%	1%
Portugal	1,344	168	21	4	11%	3%
Romania	228	27	0	2	2%	0%
Slovakia	1,601	210	0	2	27%	8%
Slovenia	175	48	3	1	5%	7%
Spain	1,055	145	13	1	6%	5%
Sweden	1,042	160	12	0	10%	6%
Iceland	368	89	0	1	11%	2%
Norway	417	64	7	2	4%	1%
Switzerland	1,121	189	34	3	13%	4%

Differences in online completion were also observed across establishment sizes and sectors. There is a clear trend showing that larger establishments were more likely to complete the survey online. While only 5% of establishments with 5 to 9 employees completed the survey online, this proportion increased steadily with establishment size. Among establishments with 10 to 49 employees, 7% completed the survey online, rising to 8% for those with 50 to 249 employees. The largest establishments, those with 250 or more employees, had the highest proportion of online completions at 9%.

The proportion of online completed interviews also varied across different sectors. The sectors with the highest rates of online completion (8%) were:

- Manufacturing (NACE C).
- Information and communication (NACE J).
- Education (NACE P).
- Arts, entertainment and recreation (NACE R).

In contrast, the sector with the lowest rates of online completion (4%) was Agriculture, forestry and fishing (NACE A).

These variations in online completion rates across country, size classes and sectors highlight the importance of offering an online survey option. By providing this alternative method of participation, ESENER 2024 was able to capture responses from establishments that had refused to take part in a telephone interview. This flexibility not only enhances the representativeness of the survey by including a broader range of respondents but also has a positive effect on overall response and cooperation rates. The online option serves as a valuable tool in maximizing participation across different establishment sizes and sectors, contributing to a more comprehensive and representative dataset.

Table 35: Proportion of successful online interviews by size and sector

	Proportion of online completed interviews
TOTAL	7%
SIZE CLASS	
5 to 9 employees	5%
10 to 49 employees	7%
50 to 249 employees	8%
250+ employees	9%
NACE SECTOR	
A - Agriculture, forestry and fishing	4%
B - Mining and quarrying	5%
C - Manufacturing	8%
D - Electricity, gas, steam and air conditioning supply	5%
E - Water supply; sewerage; waste management and remediation activities	7%
F - Construction	6%
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	6%
H - Transporting and storage	5%
I - Accommodation and food service activities	6%
J - Information and communication	8%
K - Financial and insurance activities	5%
L - Real estate activities	6%
M - Professional, scientific and technical activities	7%
N - Administrative and support service activities	5%
O - Public administration and defence; compulsory social security	7%
P - Education	8%
Q - Human health and social work activities	7%
R - Arts, entertainment and recreation	8%
S - Other services activities	5%

6.7 Observations from fieldwork

In this section we provide a summary of the observations Ipsos included in weekly reports provided to EU-OSHA during the main fieldwork.

6.7.1 Field progress

Overall, the fieldwork progressed smoothly. Two interim milestones were established: the first to complete at least 40% of the interview targets by 21 June, 2024, prior to the summer break, and the second to reach at least 80% by 1 September, immediately after the summer break. The final deadline to achieve 100% of the fieldwork was set for 27 September, 2024.

Several countries experienced unique challenges or implemented specific strategies during the fieldwork period, which are noteworthy:

- Bulgaria: The team faced capacity issues in May and June but brought in additional resources in July, ensuring good fieldwork progress thereafter.
- Germany: The fieldwork started slowly, with a high number of wrong numbers in the sample from the smallest companies. A wrong number lookup conducted by Sample Solutions in June helped increase fieldwork productivity.
- Greece: In response to unforeseen technical challenges, the Cyprus fieldwork team was enlisted to support Greek fieldwork on 19 September. Cymar successfully conducted 26 interviews (25 CATI and 1 online). While productivity calling Greece from Cyprus was limited, this collaboration helped complete the fieldwork on time.
- Hungary: In June, 67 interviews from one interviewer were disqualified after detailed quality checks. As further training seemed unfruitful, the interviewer was removed from the project as a precautionary measure.
- Iceland: The team continued working on the sample even after targets were achieved to ensure all previously scheduled appointments were honoured. This resulted in an additional 60 completed interviews by fieldwork closure, positively affecting response and cooperation rates. This approach was deemed necessary due to Iceland's limited number of establishments, often resulting in interviewers contacting the same businesses for various surveys. It was considered more respectful to pursue scheduled interviews even if it meant exceeding targets. In some countries, such as Belgium, interviewers also took the courtesy to recall definite appointments and explain that targets had been reached in the meantime.
- Malta: Although fieldwork generally progressed well, a substantial extra batch of sample had to be released towards the end. This again highlighted the prevalence of "post box" addresses in the country - businesses registered in Malta without actual activity - which accounted for approximately 8% of the used addresses.
- Netherlands: Despite strong initial progress, fieldwork stagnated towards the end. Discussions with the local team about additional sample needs and target adjustments led to late agreements. Consequently, the Dutch call centre, heavily occupied with other projects, could only work on ESENER 2024 at a very low pace with limited interviewers, finishing fieldwork last, beyond the 27 September 2024 deadline.

6.7.2 Poland – specific case of poor-quality sample

In Poland, the initial sample source was Dun and Bradstreet (D&B). However, this source yielded unexpected results: 19% of the sample records represented companies with fewer than 5 employees, and this proportion rose to 25% among sample records flagged as 5-9 employees. For comparison, the overall average across all other 29 countries was only 3% in total and 5% among sample records flagged as 5-9 employees. Additionally, 22% of the D&B sample records resulted in wrong numbers, with this figure reaching 23% among the 5-9 employee category.

These issues led to unsatisfactory interview completion rates for establishments with 5 to 9 employees. In response, several measures were implemented to address the unique challenges presented by the initial sample source in Poland and to improve the efficiency and accuracy of the data collection process:

- Two additional sample sources were included: Orbis (formerly Bureau Van Dijck) and AMN Solution (formerly ZN Direct)⁴⁰. Prior to adding these sources, each sample was deduplicated based on VAT numbers.
- Sample Solutions Europe (SSE) was engaged to enrich the size information of all 21,563 open sample records (as of 10 September 2024) in the 5-9 employee category. This process resulted in 16,418 records being flagged as having fewer than 5 employees. Records that could not be enriched by Sample Solutions were retained in the sample. Records flagged as having fewer than 5 employees were no longer called but were included as "less than 5 employees" in the final contact outcome (and thus counted in the response rate calculation). This measure slightly improved interviewer productivity by reducing time spent contacting ineligible companies. The enrichment process was preceded by a successful test on 200 records previously called during fieldwork and classified as having fewer than 5 employees.
- Targets for the 5-9 employee category were decreased, while maintaining the overall target across all size classes for Poland.
- Starting from 12 September 2024, an additional sentence "targeting establishments with 5 or more employees" was added to the introduction for Polish companies listed as having 5-9 employees in the sample frame. This addition allowed interviewers to immediately identify establishments not meeting the size criteria, rather than only logging this information in Q051. Any establishment that indicated they did not have 5 or more employees was coded accordingly. *Q001 Good morning / afternoon. My name is ... from (INSTITUTE) in (location of institute). We are conducting the fourth European study on health and safety at work, **targeting establishments with 5 or more employees**.*
- Ipsos Poland was trained on 12 September 2024, to supplement the interviewer capacity of Norstat. The Ipsos central coordination team directly managed Ipsos Poland, providing them with a separate sample. Using this sample, Ipsos Poland successfully completed 127 interviews.
- An online recruitment via the Norstat panel was set up to obtain additional completes. The recruitment script, which did not initially mention ESENER, contained six qualifying questions:

QP1. According to our panel data, you are currently active in a company. To ensure we reach the right person for this survey, please select your role within the company from the following options:

- 1. Senior Management (e.g., Owner, Managing Director, Branch Manager)*
- 2. Human Resources (e.g., Personnel Manager, HR Director)*
- 3. Technical or Operations (e.g., Technical Director, Operations Manager)*
- 4. Health and Safety (e.g., Health and Safety Officer, EHS Manager, Employee representative in charge of occupational safety and health (OSH))*
- 5. I work in one of the above departments but not in a managerial role*

⁴⁰ The Polish sample records were sourced from three providers: 21% from Dun & Bradstreet (D&B), with 69% of these classified as having 5-9 employees; 76% from Orbis, with 75% classified as having 5-9 employees; and 4% from AMN Solution, with all records classified as having 5-9 employees.

6. *I work in another department, such as Sales, Marketing, Finance, ...*
7. *Technician, nurse, Production worker, Manufacturing employee, Craftsperson or artisan, Service industry worker, ...*
8. *Other*

If QP1 ≤ 4 QP2. Based on your role within your company, we believe you may have valuable insights to share about health and safety practices in the workplace. As part of our ongoing research, we are conducting telephone interviews to gather more detailed information. Would you be willing to participate in a brief telephone interview at a time convenient for you?

1. *Yes, I am willing to participate in a telephone interview.*
2. *No, I prefer not to participate in a telephone interview.*

If QP2 = 1 QP3. Before I ask you for a telephone number. How many employees work at your company? With employees we mean all people on the payroll of the location you work, i.e. those directly employed by the company or organization. Each part-time worker is to be counted as 1 person (headcount).

Min 1, max 100000

If QP3 ≥ 5 QP4. Please specify the company name you are working for:

1. *Open end*
2. *Not willing to share*

If QP4 < 2 QP5. On which telephone number can we reach you?

1. *Open end (specify format of the phone nr)*
2. *Not willing to share*

If QP5 = 1 QP6. Numer Identyfikacji Podatkowej (NIP) = the VAT number?

3. *Open end*
4. *Not willing to share*

Qualified respondents who provided a valid VAT number were contacted by phone, following the regular ESENER survey flow.

This approach, launched on 20 September 2024, resulted in 33 panel members agreeing to participate, of which 19 completed the ESENER survey after interviewer contact. However, as the overall sample size was achieved via the traditional random probabilistic sample, these establishments were not retained in the final deliverables. This information is shared for completeness regarding measures taken for Poland.

7 Data

7.1 Data structure

ESENER 2024 data were delivered to EU-OSHA in one integrated SPSS dataset containing the data of the 30 participating countries.

Three types of datafiles were delivered:

- An interview datafile containing the questionnaire data of the valid completed interviews and the weighting variables.
- A raw data datafile including the contact data.
- An interview datafile with the 2024 interview data merged with the ESENER 2019 and ESENER 2014 interview data.

7.2 Data validation and editing

7.2.1 Data quality checks

The data collected for ESENER 2024 were subject to several checks on technical correctness, response quality and consistency.

Check of final scripts with dummy data

Between the pilot and the mainstage survey, a number of changes were implemented in the script and this script was again thoroughly tested by both the programmers and the central project team. This included tests on dummy data via syntaxes (e.g. to identify unforeseen codes or missing data). Any issue detected at this stage was corrected before the launch of fieldwork.

Check of the main field survey data

For the main field, several data quality control checks were programmed in a data checking syntax that was run daily on the datafile, auto-flagging if a completed interview required further quality control.

The programmed checks included:

- *Routing checks*
- *Permitted values*

With regards to routing and permitted values there were no mistakes identified in the checks of the survey data.

Interviews were subject to further quality control, evaluating, by default, three parameters:

- Speeding
- Straight lining
- Item non-response

This quality control was applicable to both CATI and CAWI interviews.

For **speeding**, an interview that was completed in less than half of the average duration for the country was flagged as speeding.

Regarding **straight lining**, an interview was flagged if more than half of the grid questions received the same answer. In the ESENER 2024 survey, only two questions, Q262 and Q263, were considered as grid questions for this check. If the items within a grid received the same answer, they were counted as straight lining for that grid. In the event both grids (i.e. more than half) were flagged as straight lining, the interview was flagged for straight lining. Questions like Q313 that only have answer options of yes/no/no answer were not considered grid questions, as they are essentially multiple-response

questions. For Austria and Switzerland, additional questions Q366bo, Q367bo and Q369bobis were included in the straight lining count. As a result, Austria had four grid questions: Q262, Q263, Q366bo, Q367bo.

An interview was flagged as item-**non-response** if at least 10% of the questions/items were answered with no answer, don't know, or refusal.

Bearing this in mind, an interview was flagged as **potentially bad quality** if at least two of the above "violations" occurred. For example, speeding and straight lining, or speeding and high item non-response, etc. Consequently, 178 such interviews were marked as potentially bad quality. If a CATI interview was marked low quality, the local field agency was required to review the interview. If a CAWI interview was flagged as low quality, it was automatically deemed invalid and excluded from the completed interview count.

In addition to these quality checks, local field agencies also performed additional checks by listening to recorded or live interviews. At least 10% of all completed interviews in each country underwent this additional quality control, resulting in the removal of 142 interviews in total.

For example, in Austria, three interviews were flagged for further quality control due to meeting at least two violation criteria. As there were no cases flagged for speeding in Austria, these interviews were identified for both straight-lining and high item non-response. While there were 81 interviews flagged for straight lining and 13 for item non-response individually, only three met both criteria simultaneously. A total of 457 interviews underwent quality control checks, including the three flagged for potential bad quality. Following comprehensive review of all 457 quality-controlled interviews, three interviews were ultimately removed from the final dataset. This example demonstrates how to interpret the information presented in the table, showing the process from initial flagging to final removal of interviews based on quality control measures.

Table 36: Number of interviews flagged per reason by country

Country	Interviews flagged for further quality control	Flagged for speeding	Flagged for straight lining	Flagged for item non-response	Quality controlled interviews	Interviews removed after quality control
TOTAL	178	115	4076	482	6934	142
Austria	3	0	81	13	457	3
Belgium	2	2	92	11	312	1
Bulgaria	4	1	108	16	86	2
Croatia	3	4	148	16	201	0
Cyprus	0	0	81	6	161	0
Czechia	1	10	136	15	278	2
Denmark	7	3	112	17	147	3
Estonia	1	5	85	6	107	0
Finland	6	6	106	2	213	4
France	2	0	41	39	543	2
Germany	5	0	41	49	736	5
Greece	9	0	294	13	442	0
Hungary	31	1	169	25	159	76 ⁴¹

⁴¹The high number of removed interviews in Hungary (76) is primarily due to a specific incident where 67 interviews conducted by a single interviewer were disqualified in June after detailed quality checks, as mentioned in section 6.7.1.

Ireland	1	0	73	6	193	0
Italy	7	10	268	9	306	1
Latvia	6	2	72	12	128	1
Lithuania	3	4	100	6	91	1
Luxembourg	10	8	81	23	95	1
Malta	3	6	59	6	61	1
Netherlands	3	4	194	17	213	2
Poland	13	4	113	57	345	11
Portugal	10	12	216	27	154	6
Romania	4	1	238	3	164	4
Slovakia	2	4	41	4	96	2
Slovenia	3	0	113	1	174	3
Spain	3	3	212	10	355	1
Sweden	5	2	90	34	158	0
Iceland	13	12	73	7	105	1
Norway	5	1	199	18	229	4
Switzerland	13	10	440	14	225	5

7.3 Coding of NACE information

Respondents were first asked to confirm the sector attribution from the business register. If confirmed, this information was used in the dataset. If not confirmed, respondents were asked to describe their establishment's sector of activity. The interviewer would immediately allocate the sector to the corresponding NACE 2-level code and confirm with the respondent if the selected code matched the described sector. In cases where the relevant code could not be found, the interviewer would record the sector description as a verbatim response. These verbatim responses were subsequently coded into NACE Rev.2 categories by the research team. When verbatim descriptions did not allow for clear sector attribution, the establishment was recontacted.

This revised approach has proven successful, as it significantly reduced the number of manually coded verbatims from 4,302 in 2019⁴² to 306 in 2024.

Table 37: Number of verbatim codes in relation to sector

Country	Number of verbatims coded by the research team
TOTAL	306
Austria	8
Belgium	12
Bulgaria	1
Croatia	1
Cyprus	1
Czechia	4
Denmark	17
Estonia	1

⁴² It is important to note that the ESENER 2019 survey covered 33 countries, compared to 30 in 2024. As we only have access to information from the technical report, we cannot recalculate the 2019 figures to match the same set of countries as in 2024. Despite this limitation, the substantial reduction in manual coding requirements demonstrates the effectiveness of the new approach.

Finland	2
France	0
Germany	48
Greece	6
Hungary	12
Ireland	4
Italy	5
Latvia	1
Lithuania	0
Luxembourg	47
Malta	6
Netherlands	26
Poland	5
Portugal	30
Romania	3
Slovakia	0
Slovenia	6
Spain	4
Sweden	19
Iceland	13
Norway	21
Switzerland	3

7.4 Weighting

The ESENER 2024 weighting approach was closely based on the approach used for ESENER 2019. As in previous rounds of the survey, the aim of the weighting strategy was to adjust the participating sample of establishments within each country to match population estimates for establishments and employees (two separate weights). It is essential that weights are applied to all ESENER analyses given the sampling is not set to represent either of these populations⁴³ and so unweighted sample estimates are not representative.

Each of the stages of the weighting is described below.

7.4.1 Weighting approach

Step 1: Selection probability weights

As in previous rounds of the survey, selection probability weights were calculated to adjust for establishment selection in countries which used a company-level sampling frame, where multi-site companies are listed just once. For these companies interviews were attempted at the initially contacted establishment (if eligible) – usually the head office – and at one or two other establishments selected at random. A weight was calculated for the additional establishments which were selected at random, calculated as the reciprocal of the probability of selection for each additional site. For example, for a company with an eligible head office (the initially contacted site) and 10 further sites with five or more

⁴³ The sampling was set in between the establishment and employee level populations, as a compromise which allows analyses at either level without substantial loss of efficiency for either set of weights. As most analysis is conducted on the establishment-level sample, since ESENER 2019 the sampling has been set to be closer to this population to improve the efficiency of the establishment-level weights.

employees, the procedure was to select two additional establishments out of the 10, giving a selection probability of 1/5 (2/10) and selection weight of 5 for each additional establishment.

This weight was capped at a maximum of 5 to avoid extreme weights.

As noted the sample was also selected disproportionately to the survey population, a step which could be resolved by applying an additional selection probability weight. However, in line with previous survey rounds this was handled within the step 2 adjustment.

Step 2: Cell weighting across the full set of cells

The second stage of weighting was to adjust each country sample to the two relevant survey populations (establishment and employee level). The population data sources used are listed in Table 12:⁴⁴. As this step was across the full set of sector by size interlocking cells the adjustment is based on cell weighting, as the ESENER 2019 approach. The adjustment is applied at the level of weighting cells, initially considering the 76 sampling cells (19 top-level NACE sectors by the 4 size classes). The formula for the adjustment, to population totals, is:

- Cell weight_{iy} = N_{iy} / n_{iy}
- Where
 - N_{iy} = the total population count (establishments or employees) within weighting cell i within country y.
 - n_{iy} = the sample count within weighting cell i within country y.

The adjustment was applied to the design weighted (step 1) sample.

Prior to calculating the cell weights small cells were merged, as is good practice, to avoid excessive weight variation which can be introduced with small weighting cells. In order to ensure comparability with ESENER 2019 the same rules for the merging of weighting cells was applied:

1. A desirable minimum cell size of 30 was set.
2. As a first step small top-level NACE sectors were merged (<30 cases). These merges were considered within the field target sector groups only, as per the ESENER 2019 rules. This meant that, for example, sectors B, D, E and F could be merged in any desirable combination, as could NACE C, G, H and I, but NACE A could not be merged with other sector cells.
3. As a second step, for cells where the minimum threshold had not yet been met, merges across size classes were considered, again without violating the rule of staying within sector groups.

Fairly extensive cell merging was required to meet these requirements. Overall, across a potential maximum of 2,280 cells (30 countries x 19 sectors x 4 sizes) 572 merged weighting cells were created for the cell weighting stage. Moreover, in practice the rules for NACE A meant that for the majority of countries this sector was merged across all sizes, and small cells remained across the combined NACE A cells in 14 of the countries, with four of these consisting of very small cells of under 10 cases (Cyprus, Luxembourg, Malta and Slovenia). Ordinarily we would recommend further merging of these cells given the potential for outlier weights, however as the ESENER 2019 report indicates that the sector grouping rule was fully adhered to, in order to replicate the same weighting approach, we instead dealt with this by reviewing the NACE A weights at each stage and considering trimming if extreme. In practice it was not considered necessary to trim the NACE A weights in these countries as they were within the range of the other weights.

The step 2 weight serves a dual purpose of adjusting the sample to correct the disproportionate sampling, and to account for further deviations from the survey population which occurred during the data collection due to differential rates of response. However, it should be noted that most of the

⁴⁴ In Cyprus and Latvia, respectively, the NACE D and NACE K populations were removed from the adjustment targets throughout the weighting steps given that no interviews were achieved with NACE D establishments in Cyprus, or with NACE K establishments in Latvia. For weighting purposes it is necessary to consider these cells as uncovered by the survey. They are both small, making up 0.1% and 1% of the establishment populations respectively.

adjustment was to correct the sampling, given the sampling targets were well met across the fieldwork cells.

Step 3: Calibration weighting to sector and size marginals

The third weighting stage was to calibrate the sample to the 19 sectors and 4 size classes as separate weighting targets. This is advantageous to ensure that the weighted sample is representative across sectors and sizes overall, given the amount of cell merging required at the individual cell level at step 2. Nevertheless, some merging was required of the sector marginals to deal with small cells, overall a total 379 sectors were created out of maximum $30 \times 19 = 570$ cells. The same rules for merging were applied, as per the ESENER 2019 rules. Applying these rules meant that small NACE A weighting cells resulted in the same 14 countries, given that the NACE A weighting cells were the same at step 2 and step 3 in these countries.

The calibration was conducted in STATA using the 'logistic' method (logistic regression weighting), which is a generalised regression estimation approach. The cell weights generated at step 2 were used as the entry weight. The ESENER 2019 technical report notes the use of bounding to control the range of the weights. We considered and tested using a bounded calibration approach, with the lower and upper bounds set at 0.3 and 3, as requested in the tender specifications as a desirable range. However, this approach did not produce satisfactory results as it often failed to converge, meaning the weighted samples missed the population targets, and the bounding did not meet the specified range in most of the countries, due to the wide range of the entry weight (the step 2 weight). Moreover, there was very little difference in weighting efficiency between the two approaches (logistic and bounded).

The problem with using the bounded approach to control the range of weights is that most of the variation comes from the cell weighting stage, which should be applied in full, if possible, as its main purpose is to correct the disproportionate sampling. Without this correction the survey results do not properly represent the population. Therefore, we instead trimmed the calibration adjustment separately, by separating it from the step 2 weight and trimming at the 1st and 99th percentile of the range in each country, and then multiplying the step 2 weights back in. This brought most countries within the desired range of 0.3 to 3 on the calibration adjustment component. Once combined with the full step 2 weight the ranges are considerably wider, as was also the case at ESENER 2019.

The final weights were carefully reviewed, considering their efficiency in comparison to ESENER 2019, and by reviewing the weighted sample profile against the population to ensure the weights had converged correctly and to assess whether any individual cells were far off the population. These checks were performed on the weights at each step. A notable issue in some of the countries was that the calibration correction adjusted the 250+ size class to levels well beyond population totals on some of the smallest 250+ sector cells on the establishment-level weights. Those mostly affected NACE A, and sometimes also NACE B. As in some cases this could produce unrealistic survey estimates⁴⁵ we decided to trim the final weights in these cells so that the weighted sample was no more than 12 times the population value on any cell. This adjustment was made in 12 countries on one or two of the 76 cells. This issue was very limited on the employee-level weights, which were not adjusted.

Provided weighting factors

The following weights have been provided, following the ESENER 2019 naming conventions:

- **estex** - Population total establishment weight. The weights for each country sum to the establishment population totals. This weight will provide the correct proportions for both cross-country and within-country analysis.

⁴⁵ To illustrate by explanation on the most extreme case, in France the initial weighted 250+ NACE B cell was 256 establishments, against a population total for this cell of 2 establishments, putting the untrimmed weighted sample at 128 times the population value. Without trimming this cell would account for 5% of the NACE B sample, which has the potential to influence survey estimates on France NACE B, whereas after trimming it to take a maximum value of 24 (12 times the population) it accounts for 0.6%.

- **estwei** - Within country scaled establishment weight. Each country is scaled to its total sample size. This weight can only be used for within-country analysis only.
- **estprop** - Internationally scaled establishment weight. The total sample is scaled to the total sample size. As estex, this weight can be used for within or cross-country analysis.

The same structure is followed for the employee-level weights:

- **empex** - Population total employee weight.
- **empwei** - Within country scaled employee
- **empprop** - Internationally scaled employee weight

7.4.2 Weighting efficiency

The efficiency and range of the weights is reported in this section, for both the establishment and employee level. Weighting efficiency is a measure of weight variation which gives the impact on a sample's precision due to it requiring weighting. As an example, a sample of 1,000 interviews with 80% efficiency will have the same precision as a sample of 800 interviews which does not require any weighting. Given the ESENER disproportional sampling design we expect fairly sizeable losses in precision given the need to correct this to represent the survey population accurately, most notably for the employee-level weights.

Table 38: presents the efficiency and range of weights (the largest weight divided by the smallest). The average establishment weighting efficiency is 77% for the establishment-level weighting and 59% for the employee-level, which is an improvement on the ESENER 2019 figures of 71% and 50%. As the weighting is based on the same approach this improvement is likely due to a better performance on meeting the sampling targets during fieldwork.

Poland and Malta, and to a lesser extent Greece, had particularly low efficiency on the establishment-proportional weight: 54% in Poland, 56% in Malta, and 67% in Greece. All other countries had efficiencies on this weight of over 70%. Malta and Greece also had low efficiency at ESENER 2019 (both 50%) while Poland was much better (80%). Lower efficiency can be attributed to relatively larger deviations between sampling targets and actual numbers of interviews, meaning more extensive corrections were required to align the weighted samples to the population. In Poland in particular there were serious challenges in meeting the micro (5-9 employees) size class, due to sampling frame quality issues (see section 6.7.2), following a change in the sampling frame since the 2019 frame was no longer available.

Table 38: Weighting efficiency and range of weights

Country	Establishment-proportional weighting		Employee-proportional weighting	
	Efficiency	Ratio (largest weight / smallest weight)	Efficiency	Ratio (largest weight / smallest weight)
TOTAL	77%	97	59%	63
Austria	84%	142	55%	47
Belgium	85%	20	47%	85
Bulgaria	73%	72	55%	90
Croatia	76%	81	66%	57
Cyprus	81%	24	64%	36
Czechia	83%	72	67%	33
Denmark	83%	44	57%	37
Estonia	80%	36	62%	67
Finland	80%	165	75%	9
France	82%	33	58%	28
Germany	79%	75	56%	119

Country	Establishment-proportional weighting		Employee-proportional weighting	
	Efficiency	Ratio (largest weight / smallest weight)	Efficiency	Ratio (largest weight / smallest weight)
Greece	67%	204	63%	27
Hungary	81%	103	45%	241
Ireland	78%	51	59%	16
Italy	81%	325	65%	50
Latvia	80%	63	60%	73
Lithuania	77%	41	59%	48
Luxembourg	71%	45	48%	152
Malta	56%	137	48%	45
Netherlands	77%	49	48%	198
Poland	54%	148	64%	60
Portugal	75%	235	53%	42
Romania	83%	91	58%	71
Slovakia	74%	70	68%	71
Slovenia	79%	184	63%	56
Spain	72%	102	61%	25
Sweden	84%	91	54%	33
Iceland	84%	51	55%	43
Norway	81%	66	70%	15
Switzerland	80%	102	65%	25

8 Challenges and recommendations

This chapter outlines the challenges experienced during ESENER 2024 and provides detailed recommendations for future editions of the survey. These insights are organized by key dimensions of the project, offering a comprehensive view of potential improvements and considerations for upcoming waves.

8.1 Questionnaire development

The development of the questionnaire for ESENER 2024 presented several challenges, primarily centred around balancing the need for comparability across waves with the desire to introduce new, relevant questions. This balance is crucial for maintaining trend data while also ensuring the survey remains responsive to emerging OSH issues.

One key challenge was ensuring that new questions aligned with respondent capabilities and were suitable for telephone interviews. The complexity of OSH topics sometimes led to the proposal of questions that, while interesting from a research perspective, were difficult for respondents to answer accurately over the phone.

For future waves, it is strongly recommended to clearly define and communicate which questions are essential for cross-wave comparability and cannot be changed. When involving external OSH experts in questionnaire design, it is crucial to ensure alignment on these key questions and to communicate the constraints of the survey methodology.

The use of translatability assessment, cognitive testing, and pilot studies proved invaluable in ESENER 2024. Despite their time and resource requirements, these steps should be maintained in future waves. The translatability assessment helps identify potential issues in cross-country comparability early in the process. Cognitive testing provides insights into how respondents interpret and answer questions, allowing for refinements that improve data quality. The pilot study offers a final check of the questionnaire in real-world conditions, allowing for last-minute adjustments before full fieldwork begins.

8.2 Training

The decision to conduct two face-to-face training seminars for ESENER 2024 proved highly beneficial for this complex project. These extended sessions provided sufficient time to ensure local teams thoroughly understood the project details. The in-depth discussions and practical exercises enhanced the overall preparedness of the teams, leading to improved data collection quality.

An additional benefit of the in-person seminars was the opportunity for the central team to meet the field agencies face-to-face. Given the typically high costs associated with such meetings, these interactions are rare. The personal connections formed during these seminars enhanced communication throughout the project, improving collaboration beyond what is typically achieved through phone, email, or video meetings.

For future waves, it is recommended to maintain the practice of in-person seminars. However, to optimize time and resources, consideration could be given to shortening the second meeting to one day.

The creation of a Q&A document based on frequently asked questions from local teams proved to be another valuable training tool. This document served as a quick reference for interviewers, field supervisors and project managers, helping them address common issues and maintain consistency in their approach. In future waves, the development and regular updating of such a document should be continued.

8.3 Sample management

The sample management approach for ESENER 2024 generally worked well, but there is room for improvement. One challenge was balancing the need for sufficient sample with efficient resource allocation. Providing the entire estimated sample at the start of fieldwork, without yet opening all of these batches, sometimes led to inefficiencies and difficulties in managing additional sample needs.

For future waves, it is recommended to provide approximately 75% of the estimated sample at the start of fieldwork, still divided in some batches. Once this initial sample has been fully called out, additional sample needs could be calculated based on remaining size/sector targets. This approach would allow for more precise calculation of additional samples, rather than splitting the additional part of the sample into specific size and sector batches, as was the case in ESENER 2024, whilst only part of the additional sector and/or size batch was needed instead of the full sector and/or size batch.

The strategy of starting fieldwork with a mixed sample of establishments with 5 to 9 employees and 10 to 49 employees proved effective and should be maintained. This approach allows interviewers to familiarise themselves with the questionnaire across different establishment sizes. After about two weeks, prioritizing calls to companies with 50 to 249 employees and 250 or more employees, as well as sectors O, P, and Q, helps maximize field time for the most challenging targets. This phased approach to sample management should be retained in future waves.

Another key observation from ESENER 2024 was the positive impact of making multiple call attempts on response rates. For future waves, it is recommended to consider extending the overall fieldwork period. This extension would allow for more call attempts, which has proven highly effective in boosting response rates. A longer fieldwork period could also help mitigate some of the challenges associated with conducting fieldwork during holiday periods, as it would provide more flexibility in scheduling calls around respondents' availability.

Furthermore, it is strongly recommended to continue the practice of looking up wrong numbers, as was done during the 2024 wave. Despite the additional work involved, this process has a beneficial effect on eligibility, response and cooperation rates, and overall representativity of the sample. The effort invested in updating and correcting contact information pays off in terms of improved data quality and more efficient use of the sample. However, in some countries, the final proportion of wrong numbers remained relatively high and could have benefited from an additional wrong number lookup. Unfortunately, the tight fieldwork schedule, with the final deadline set for 27 September 2024, and the last wrong number lookup starting on 2 September, did not allow for a third lookup round. This constraint stems from the need to allocate sufficient time not only for the lookup process itself (approximately one to two weeks) but also for making the necessary call attempts to these newly found numbers.

Lastly, an important lesson learned from ESENER 2024 relates to the timing of sample quality assessments. During the pilot phase, it became apparent that some samples yielded high ineligibility rates or high rates of stratum jumping. However, due to the strict timeline, there was no opportunity to adjust the sampling strategy at this stage. For future waves, it would be beneficial to allocate time and resources to discuss and address these challenges prior to the main fieldwork or if not possible early in the main fieldwork, possibly looking for additional sources or enrichment methods. While this approach may have cost implications in terms of both budget and time, given that sample is typically ordered and prepared in one go prior to the field start, the potential improvements in sample quality and fieldwork efficiency could justify this investment. This proactive approach to sample management could lead to more representative data and more efficient use of resources throughout the fieldwork period.

8.4 Targets

For future waves of ESENER, it is recommended to consider implementing flexible targets for the smallest countries (Luxembourg, Malta, Cyprus, Iceland) from the start of fieldwork. This approach acknowledges the reality that the universe of eligible companies is very limited in these countries. Consequently, to achieve a representative sample, it may be necessary to contact almost every eligible company for the project. Implementing flexible targets in these countries would allow for a more realistic

and efficient fieldwork strategy. It would give local teams the ability to adapt their approach based on the actual availability and responsiveness of the limited pool of eligible establishments, without being constrained by quotas that might be challenging to meet given the small population of businesses.

Furthermore, it could be beneficial to allow more flexible crossed (size/sector) targets for sectors O, P, and Q (Public administration, Education, and Human health and social work activities) in countries where the available sample for these sectors is limited. This flexibility would help ensure a more representative sample while acknowledging the practical limitations of the sampling frame in certain countries and sectors.

Another effective strategy from ESENER 2024 was not stopping online interviews and interviews from the picked-up establishment sample due to targets being reached.

8.5 Field progress

While acknowledging that conducting fieldwork during the summer was the only option to meet the deadline for results, this period proved quite challenging for business-to-business research. Many key respondents were on holiday, leading to lower response rates and slower progress than might have been achieved during other times of the year.

If possible, for future waves, it is strongly recommended to plan for the majority of fieldwork to be conducted outside holiday periods. This adjustment would likely increase response rates and improve the efficiency of data collection and field organisation/resource allocations. However, this may not always be feasible due to project timelines and other constraints.

A particular challenge was noted in the education sector (P), where school holidays vary greatly between countries. In Nordic countries, for example, the education sector has a long break in June and July, while in southern Europe, it is typically closed in August. Additionally, there are differences within the education sector itself; universities often remain contactable for a longer period during summer holidays compared to primary and secondary schools. While efforts were made in ESENER 2024 to accommodate these regional and institutional differences by emphasizing to local teams the importance of prioritizing contact with educational institutions during their operational periods, further tailoring of the fieldwork schedule could yield several benefits. For future waves, it is recommended to continue organizing the fieldwork for the education sector based on local situations as much as possible, taking into account the varying accessibility of different types of educational institutions. This could involve creating country-specific schedules for contacting educational institutions, aligned with their academic calendars and institutional types. For instance, planning longer contact windows for universities and shorter, more targeted periods for primary and secondary schools. Such a nuanced approach would enhance overall field organisation, improve the efficiency of the fieldwork process, lead to more successful outreach to respondents in the education sector, and reduce the risk of missing completes in some target cells.

8.6 Field monitoring and quality checks

The provision of daily detailed fieldwork reports to local teams worked well in ESENER 2024, enabling real-time or near-real-time field monitoring and quick adjustments to field strategies where applicable. This practice should be continued and potentially enhanced in future waves.

It proved particularly beneficial to maximize the Quality Control checks of contacts in the first month of fieldwork. This approach provided valuable learning opportunities for fieldwork teams for the remainder of the fieldwork period, allowing for continuous improvement in data collection techniques and interview quality. For future waves, it is recommended to maintain this focus on early and intensive quality control, potentially expanding it to include more detailed feedback sessions with interviewers based on these early checks.

8.7 Interviewer performance

In ESENER 2024, a minimum requirement of 50 interviews per interviewer was set. While this ensured that interviewers became very familiar with the questionnaire, it also presented some challenges in terms of fieldwork organisation and interviewer fatigue.

For future waves, it could be considered adjusting this minimum requirement to 30 interviews per interviewer. This adjustment would allow for a larger fieldwork team to be involved and make it easier to plan and organise shifts throughout the elaborate fieldwork period, leading to more efficient field organisation. The increased flexibility in interviewer assignments could also help maintain interviewer motivation and reduce fatigue over the course of the project, while still ensuring that interviewers benefit from learning effects on the survey.

8.8 Online completion mode

The online completion mode, offered alongside the preferred CATI method, proved to be a valuable asset during fieldwork for ESENER 2024. This alternative mode offered several benefits: it helped multiple countries when faced with respondents who could not allocate time for telephone interviews, and it increased overall response rates by capturing data from respondents who would have otherwise been CATI refusals.

Moreover, it was reassuring to find that the quality of online responses was generally high, with very few interviews removed due to issues, such as speeding through questions, straight lining or a high item non-response. This suggests that the online mode can be a reliable complement to CATI interviews.

For future waves, it is strongly recommended to continue offering this online option. The multi-mode approach, combining CATI with an online option, appears to be an effective strategy for maximising participation while maintaining data quality. However, it remains important to carefully analyse any mode effects to ensure comparability between telephone and online responses.

8.9 Use of the motivation letter

In ESENER 2024, motivation letters were provided upon request to respondents who wanted more information about the survey. For future waves, it could be interesting to take a more proactive approach with these letters. When respondents show signs of hesitation or are about to refuse participation, interviewers could proactively offer to send a motivation letter via email. The interviewer should then call back after sending the letter. This strategy is based on the observation that those who received motivation letters in ESENER 2024 had substantial conversion rates to completed interviews.

While implementing this strategy would undoubtedly increase the time spent on refusal conversion and require additional interviewer resources, the potential boost in response rates could justify this investment. However, the allocation of these additional resources should be carefully considered in the overall survey planning and execution process.

8.10 Raising OSH awareness

An interesting, albeit unintended, consequence of the survey was its role in raising awareness about OSH issues among participating establishments. Many respondents reported that the survey made them think more deeply about OSH and triggered actions within their establishments. For future waves, consider how this awareness-raising aspect could be leveraged or enhanced, perhaps through the provision of general OSH information to all participants during or after the survey.

9 Annex

9.1 Annex I: Interviews completed by country, sector and size

Table 39: Interviews completed by sector and size

9.1.1 Austria

Country	Target group	Achieved	Target
Austria	Total	1829	1800
Austria	5 to 9 employees/Sector A	13	12
Austria	5 to 9 employees/Sector B,D,E,F	84	68
Austria	5 to 9 employees/Sector C	47	43
Austria	5 to 9 employees/Sector G,H,I,R	245	254
Austria	5 to 9 employees/Sector J, K, L, M, N, S	145	153
Austria	5 to 9 employees/Sector O	11	13
Austria	5 to 9 employees/Sector P	27	27
Austria	5 to 9 employees/Sector Q	57	57
Austria	10 to 49 employees/Sector A	8	8
Austria	10 to 49 employees/Sector B,D,E,F	98	87
Austria	10 to 49 employees/Sector C	76	69
Austria	10 to 49 employees/Sector G,H,I,R	290	278
Austria	10 to 49 employees/Sector J, K, L, M, N, S	162	141
Austria	10 to 49 employees/Sector O	46	40
Austria	10 to 49 employees/Sector P	56	68
Austria	10 to 49 employees/Sector Q	54	53
Austria	50 to 249 employees/Sector A	2	1
Austria	50 to 249 employees/Sector B,D,E,F	25	27
Austria	50 to 249 employees/Sector C	38	44
Austria	50 to 249 employees/Sector G,H,I,R	65	59
Austria	50 to 249 employees/Sector J, K, L, M, N, S	44	42
Austria	50 to 249 employees/Sector O	25	20
Austria	50 to 249 employees/Sector P	17	19
Austria	50 to 249 employees/Sector Q	24	25
Austria	250+ employees/Sector A	2	1
Austria	250+ employees/Sector B,D,E,F	10	15
Austria	250+ employees/Sector C	56	59
Austria	250+ employees/Sector G,H,I,R	29	27
Austria	250+ employees/Sector J, K, L, M, N, S	26	33

Austria	250+ employees/Sector O	7	18
Austria	250+ employees/Sector P	9	9
Austria	250+ employees/Sector Q	31	30

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9.1.2 Belgium

Country	Target group	Achieved	Target
Belgium	Total	1504	1500
Belgium	5 to 9 employees/Sector A	4	4
Belgium	5 to 9 employees/Sector B,D,E,F	53	43
Belgium	5 to 9 employees/Sector C	36	28
Belgium	5 to 9 employees/Sector G,H,I,R	198	169
Belgium	5 to 9 employees/Sector J, K, L, M, N, S	102	96
Belgium	5 to 9 employees/Sector O	9	7
Belgium	5 to 9 employees/Sector P	11	11
Belgium	5 to 9 employees/Sector Q	36	33
Belgium	10 to 49 employees/Sector A	5	5
Belgium	10 to 49 employees/Sector B,D,E,F	62	63
Belgium	10 to 49 employees/Sector C	67	60
Belgium	10 to 49 employees/Sector G,H,I,R	227	254
Belgium	10 to 49 employees/Sector J, K, L, M, N, S	132	138
Belgium	10 to 49 employees/Sector O	29	35
Belgium	10 to 49 employees/Sector P	77	72
Belgium	10 to 49 employees/Sector Q	65	63
Belgium	50 to 249 employees/Sector A	4	1
Belgium	50 to 249 employees/Sector B,D,E,F	18	16
Belgium	50 to 249 employees/Sector C	37	36
Belgium	50 to 249 employees/Sector G,H,I,R	39	48
Belgium	50 to 249 employees/Sector J, K, L, M, N, S	54	46
Belgium	50 to 249 employees/Sector O	50	28
Belgium	50 to 249 employees/Sector P	44	44
Belgium	50 to 249 employees/Sector Q	45	44
Belgium	250+ employees/Sector A	0	1
Belgium	250+ employees/Sector B,D,E,F	4	10
Belgium	250+ employees/Sector C	16	31
Belgium	250+ employees/Sector G,H,I,R	9	23
Belgium	250+ employees/Sector J, K, L, M, N, S	11	32
Belgium	250+ employees/Sector O	28	24
Belgium	250+ employees/Sector P	7	8
Belgium	250+ employees/Sector Q	25	27

9.1.3 Bulgaria

Country	Target group	Achieved	Target
Bulgaria	Total	765	750
Bulgaria	5 to 9 employees/Sector A	13	13
Bulgaria	5 to 9 employees/Sector B,D,E,F	24	22
Bulgaria	5 to 9 employees/Sector C	28	27
Bulgaria	5 to 9 employees/Sector G,H,I,R	118	142
Bulgaria	5 to 9 employees/Sector J, K, L, M, N, S	61	52
Bulgaria	5 to 9 employees/Sector O	0	1
Bulgaria	5 to 9 employees/Sector P	4	5
Bulgaria	5 to 9 employees/Sector Q	8	8
Bulgaria	10 to 49 employees/Sector A	13	13
Bulgaria	10 to 49 employees/Sector B,D,E,F	29	25
Bulgaria	10 to 49 employees/Sector C	36	44
Bulgaria	10 to 49 employees/Sector G,H,I,R	109	119
Bulgaria	10 to 49 employees/Sector J, K, L, M, N, S	52	38
Bulgaria	10 to 49 employees/Sector O	4	4
Bulgaria	10 to 49 employees/Sector P	25	24
Bulgaria	10 to 49 employees/Sector Q	10	9
Bulgaria	50 to 249 employees/Sector A	5	2
Bulgaria	50 to 249 employees/Sector B,D,E,F	13	12
Bulgaria	50 to 249 employees/Sector C	32	27
Bulgaria	50 to 249 employees/Sector G,H,I,R	28	29
Bulgaria	50 to 249 employees/Sector J, K, L, M, N, S	25	16
Bulgaria	50 to 249 employees/Sector O	8	6
Bulgaria	50 to 249 employees/Sector P	15	11
Bulgaria	50 to 249 employees/Sector Q	12	6
Bulgaria	250+ employees/Sector A	1	1
Bulgaria	250+ employees/Sector B,D,E,F	8	8
Bulgaria	250+ employees/Sector C	29	23
Bulgaria	250+ employees/Sector G,H,I,R	15	18
Bulgaria	250+ employees/Sector J, K, L, M, N, S	15	23
Bulgaria	250+ employees/Sector O	11	12
Bulgaria	250+ employees/Sector P	4	3
Bulgaria	250+ employees/Sector Q	10	7

9.1.4 Croatia

Country	Target group	Achieved	Target
Croatia	Total	776	750
Croatia	5 to 9 employees/Sector A	6	6
Croatia	5 to 9 employees/Sector B,D,E,F	31	38
Croatia	5 to 9 employees/Sector C	29	32
Croatia	5 to 9 employees/Sector G,H,I,R	84	98
Croatia	5 to 9 employees/Sector J, K, L, M, N, S	60	64
Croatia	5 to 9 employees/Sector O	6	4
Croatia	5 to 9 employees/Sector P	9	5
Croatia	5 to 9 employees/Sector Q	8	10
Croatia	10 to 49 employees/Sector A	12	7
Croatia	10 to 49 employees/Sector B,D,E,F	48	43
Croatia	10 to 49 employees/Sector C	47	49
Croatia	10 to 49 employees/Sector G,H,I,R	86	104
Croatia	10 to 49 employees/Sector J, K, L, M, N, S	49	48
Croatia	10 to 49 employees/Sector O	20	15
Croatia	10 to 49 employees/Sector P	41	37
Croatia	10 to 49 employees/Sector Q	24	17
Croatia	50 to 249 employees/Sector A	0	2
Croatia	50 to 249 employees/Sector B,D,E,F	16	13
Croatia	50 to 249 employees/Sector C	37	29
Croatia	50 to 249 employees/Sector G,H,I,R	32	23
Croatia	50 to 249 employees/Sector J, K, L, M, N, S	18	12
Croatia	50 to 249 employees/Sector O	10	11
Croatia	50 to 249 employees/Sector P	20	17
Croatia	50 to 249 employees/Sector Q	10	10
Croatia	250+ employees/Sector A	4	1
Croatia	250+ employees/Sector B,D,E,F	4	5
Croatia	250+ employees/Sector C	18	16
Croatia	250+ employees/Sector G,H,I,R	17	13
Croatia	250+ employees/Sector J, K, L, M, N, S	9	8
Croatia	250+ employees/Sector O	4	3
Croatia	250+ employees/Sector P	4	1
Croatia	250+ employees/Sector Q	13	9

9.1.5 Cyprus

Country	Target group	Achieved	Target
Cyprus	Total	753	750
Cyprus	5 to 9 employees/Sector A	4	11
Cyprus	5 to 9 employees/Sector B,D,E,F	24	37
Cyprus	5 to 9 employees/Sector C	30	24
Cyprus	5 to 9 employees/Sector G,H,I,R	106	117
Cyprus	5 to 9 employees/Sector J, K, L, M, N, S	67	72
Cyprus	5 to 9 employees/Sector O	10	5
Cyprus	5 to 9 employees/Sector P	14	14
Cyprus	5 to 9 employees/Sector Q	6	9
Cyprus	10 to 49 employees/Sector A	4	5
Cyprus	10 to 49 employees/Sector B,D,E,F	48	36
Cyprus	10 to 49 employees/Sector C	30	28
Cyprus	10 to 49 employees/Sector G,H,I,R	122	119
Cyprus	10 to 49 employees/Sector J, K, L, M, N, S	97	78
Cyprus	10 to 49 employees/Sector O	6	13
Cyprus	10 to 49 employees/Sector P	21	17
Cyprus	10 to 49 employees/Sector Q	12	12
Cyprus	50 to 249 employees/Sector A	1	1
Cyprus	50 to 249 employees/Sector B,D,E,F	14	11
Cyprus	50 to 249 employees/Sector C	10	8
Cyprus	50 to 249 employees/Sector G,H,I,R	47	36
Cyprus	50 to 249 employees/Sector J, K, L, M, N, S	28	28
Cyprus	50 to 249 employees/Sector O	9	18
Cyprus	50 to 249 employees/Sector P	10	9
Cyprus	50 to 249 employees/Sector Q	5	7
Cyprus	250+ employees/Sector A	0	1
Cyprus	250+ employees/Sector B,D,E,F	0	4
Cyprus	250+ employees/Sector C	2	2
Cyprus	250+ employees/Sector G,H,I,R	9	6
Cyprus	250+ employees/Sector J, K, L, M, N, S	8	12
Cyprus	250+ employees/Sector O	4	3
Cyprus	250+ employees/Sector P	2	2
Cyprus	250+ employees/Sector Q	3	5

9.1.6 Czechia

Country	Target group	Achieved	Target
Czechia	Total	1526	1500
Czechia	5 to 9 employees/Sector A	13	13
Czechia	5 to 9 employees/Sector B,D,E,F	44	44
Czechia	5 to 9 employees/Sector C	59	57
Czechia	5 to 9 employees/Sector G,H,I,R	139	147
Czechia	5 to 9 employees/Sector J, K, L, M, N, S	76	75
Czechia	5 to 9 employees/Sector O	17	14
Czechia	5 to 9 employees/Sector P	24	22
Czechia	5 to 9 employees/Sector Q	22	29
Czechia	10 to 49 employees/Sector A	25	24
Czechia	10 to 49 employees/Sector B,D,E,F	68	65
Czechia	10 to 49 employees/Sector C	157	140
Czechia	10 to 49 employees/Sector G,H,I,R	185	183
Czechia	10 to 49 employees/Sector J, K, L, M, N, S	115	109
Czechia	10 to 49 employees/Sector O	48	45
Czechia	10 to 49 employees/Sector P	97	94
Czechia	10 to 49 employees/Sector Q	57	55
Czechia	50 to 249 employees/Sector A	6	7
Czechia	50 to 249 employees/Sector B,D,E,F	25	25
Czechia	50 to 249 employees/Sector C	87	81
Czechia	50 to 249 employees/Sector G,H,I,R	44	53
Czechia	50 to 249 employees/Sector J, K, L, M, N, S	41	37
Czechia	50 to 249 employees/Sector O	25	24
Czechia	50 to 249 employees/Sector P	21	19
Czechia	50 to 249 employees/Sector Q	26	26
Czechia	250+ employees/Sector A	2	1
Czechia	250+ employees/Sector B,D,E,F	8	7
Czechia	250+ employees/Sector C	55	54
Czechia	250+ employees/Sector G,H,I,R	12	15
Czechia	250+ employees/Sector J, K, L, M, N, S	9	14
Czechia	250+ employees/Sector O	6	7
Czechia	250+ employees/Sector P	1	2
Czechia	250+ employees/Sector Q	12	12

9.1.7 Denmark

Country	Target group	Achieved	Target
Denmark	Total	1506	1500
Denmark	5 to 9 employees/Sector A	26	25
Denmark	5 to 9 employees/Sector B,D,E,F	54	51
Denmark	5 to 9 employees/Sector C	25	24
Denmark	5 to 9 employees/Sector G,H,I,R	185	166
Denmark	5 to 9 employees/Sector J, K, L, M, N, S	111	111
Denmark	5 to 9 employees/Sector O	1	2
Denmark	5 to 9 employees/Sector P	6	6
Denmark	5 to 9 employees/Sector Q	48	44
Denmark	10 to 49 employees/Sector A	12	15
Denmark	10 to 49 employees/Sector B,D,E,F	45	58
Denmark	10 to 49 employees/Sector C	52	51
Denmark	10 to 49 employees/Sector G,H,I,R	198	240
Denmark	10 to 49 employees/Sector J, K, L, M, N, S	120	130
Denmark	10 to 49 employees/Sector O	17	10
Denmark	10 to 49 employees/Sector P	37	35
Denmark	10 to 49 employees/Sector Q	156	130
Denmark	50 to 249 employees/Sector A	2	1
Denmark	50 to 249 employees/Sector B,D,E,F	24	18
Denmark	50 to 249 employees/Sector C	31	30
Denmark	50 to 249 employees/Sector G,H,I,R	52	54
Denmark	50 to 249 employees/Sector J, K, L, M, N, S	53	44
Denmark	50 to 249 employees/Sector O	23	12
Denmark	50 to 249 employees/Sector P	44	38
Denmark	50 to 249 employees/Sector Q	41	43
Denmark	250+ employees/Sector A	0	1
Denmark	250+ employees/Sector B,D,E,F	8	9
Denmark	250+ employees/Sector C	29	28
Denmark	250+ employees/Sector G,H,I,R	29	27
Denmark	250+ employees/Sector J, K, L, M, N, S	26	36
Denmark	250+ employees/Sector O	20	21
Denmark	250+ employees/Sector P	9	13
Denmark	250+ employees/Sector Q	22	27

9.1.8 Estonia

Country	Target group	Achieved	Target
Estonia	Total	768	750
Estonia	5 to 9 employees/Sector A	9	9
Estonia	5 to 9 employees/Sector B,D,E,F	40	43
Estonia	5 to 9 employees/Sector C	26	30
Estonia	5 to 9 employees/Sector G,H,I,R	94	93
Estonia	5 to 9 employees/Sector J, K, L, M, N, S	49	47
Estonia	5 to 9 employees/Sector O	2	2
Estonia	5 to 9 employees/Sector P	4	7
Estonia	5 to 9 employees/Sector Q	7	7
Estonia	10 to 49 employees/Sector A	8	9
Estonia	10 to 49 employees/Sector B,D,E,F	46	42
Estonia	10 to 49 employees/Sector C	58	52
Estonia	10 to 49 employees/Sector G,H,I,R	89	106
Estonia	10 to 49 employees/Sector J, K, L, M, N, S	48	53
Estonia	10 to 49 employees/Sector O	14	13
Estonia	10 to 49 employees/Sector P	41	36
Estonia	10 to 49 employees/Sector Q	17	17
Estonia	50 to 249 employees/Sector A	3	1
Estonia	50 to 249 employees/Sector B,D,E,F	9	7
Estonia	50 to 249 employees/Sector C	40	30
Estonia	50 to 249 employees/Sector G,H,I,R	30	28
Estonia	50 to 249 employees/Sector J, K, L, M, N, S	22	19
Estonia	50 to 249 employees/Sector O	8	7
Estonia	50 to 249 employees/Sector P	41	20
Estonia	50 to 249 employees/Sector Q	7	6
Estonia	250+ employees/Sector A	0	1
Estonia	250+ employees/Sector B,D,E,F	4	5
Estonia	250+ employees/Sector C	15	13
Estonia	250+ employees/Sector G,H,I,R	9	12
Estonia	250+ employees/Sector J, K, L, M, N, S	7	16
Estonia	250+ employees/Sector O	7	8
Estonia	250+ employees/Sector P	3	2
Estonia	250+ employees/Sector Q	11	9

9.1.9 Finland

Country	Target group	Achieved	Target
Finland	Total	1510	1500
Finland	5 to 9 employees/Sector A	19	15
Finland	5 to 9 employees/Sector B,D,E,F	64	64
Finland	5 to 9 employees/Sector C	49	44
Finland	5 to 9 employees/Sector G,H,I,R	183	195
Finland	5 to 9 employees/Sector J, K, L, M, N, S	129	105
Finland	5 to 9 employees/Sector O	2	12
Finland	5 to 9 employees/Sector P	16	24
Finland	5 to 9 employees/Sector Q	82	100
Finland	10 to 49 employees/Sector A	16	7
Finland	10 to 49 employees/Sector B,D,E,F	60	65
Finland	10 to 49 employees/Sector C	68	67
Finland	10 to 49 employees/Sector G,H,I,R	201	192
Finland	10 to 49 employees/Sector J, K, L, M, N, S	129	126
Finland	10 to 49 employees/Sector O	16	25
Finland	10 to 49 employees/Sector P	31	49
Finland	10 to 49 employees/Sector Q	113	150
Finland	50 to 249 employees/Sector A	3	1
Finland	50 to 249 employees/Sector B,D,E,F	13	13
Finland	50 to 249 employees/Sector C	33	34
Finland	50 to 249 employees/Sector G,H,I,R	43	34
Finland	50 to 249 employees/Sector J, K, L, M, N, S	50	44
Finland	50 to 249 employees/Sector O	32	14
Finland	50 to 249 employees/Sector P	26	23
Finland	50 to 249 employees/Sector Q	28	22
Finland	250+ employees/Sector A	0	1
Finland	250+ employees/Sector B,D,E,F	6	5
Finland	250+ employees/Sector C	22	21
Finland	250+ employees/Sector G,H,I,R	12	9
Finland	250+ employees/Sector J, K, L, M, N, S	17	23
Finland	250+ employees/Sector O	28	6
Finland	250+ employees/Sector P	12	5
Finland	250+ employees/Sector Q	7	5

9.1.10 France

Country	Target group	Achieved	Target
France	Total	2273	2250
France	5 to 9 employees/Sector A	34	29
France	5 to 9 employees/Sector B,D,E,F	83	90
France	5 to 9 employees/Sector C	71	63
France	5 to 9 employees/Sector G,H,I,R	302	286
France	5 to 9 employees/Sector J, K, L, M, N, S	205	182
France	5 to 9 employees/Sector O	31	31
France	5 to 9 employees/Sector P	28	36
France	5 to 9 employees/Sector Q	84	62
France	10 to 49 employees/Sector A	10	10
France	10 to 49 employees/Sector B,D,E,F	110	96
France	10 to 49 employees/Sector C	84	75
France	10 to 49 employees/Sector G,H,I,R	268	295
France	10 to 49 employees/Sector J, K, L, M, N, S	170	184
France	10 to 49 employees/Sector O	68	51
France	10 to 49 employees/Sector P	61	79
France	10 to 49 employees/Sector Q	89	100
France	50 to 249 employees/Sector A	1	1
France	50 to 249 employees/Sector B,D,E,F	25	24
France	50 to 249 employees/Sector C	49	44
France	50 to 249 employees/Sector G,H,I,R	62	73
France	50 to 249 employees/Sector J, K, L, M, N, S	58	59
France	50 to 249 employees/Sector O	34	35
France	50 to 249 employees/Sector P	46	49
France	50 to 249 employees/Sector Q	60	54
France	250+ employees/Sector A	1	1
France	250+ employees/Sector B,D,E,F	12	11
France	250+ employees/Sector C	34	43
France	250+ employees/Sector G,H,I,R	33	39
France	250+ employees/Sector J, K, L, M, N, S	66	55
France	250+ employees/Sector O	39	38
France	250+ employees/Sector P	12	11
France	250+ employees/Sector Q	43	44

9.1.11 Germany

Country	Target group	Achieved	Target
Germany	Total	3159	3150
Germany	5 to 9 employees/Sector A	27	24
Germany	5 to 9 employees/Sector B,D,E,F	139	125
Germany	5 to 9 employees/Sector C	114	105
Germany	5 to 9 employees/Sector G,H,I,R	387	357
Germany	5 to 9 employees/Sector J, K, L, M, N, S	353	294
Germany	5 to 9 employees/Sector O	10	10
Germany	5 to 9 employees/Sector P	26	40
Germany	5 to 9 employees/Sector Q	196	187
Germany	10 to 49 employees/Sector A	17	17
Germany	10 to 49 employees/Sector B,D,E,F	135	125
Germany	10 to 49 employees/Sector C	162	131
Germany	10 to 49 employees/Sector G,H,I,R	330	395
Germany	10 to 49 employees/Sector J, K, L, M, N, S	203	264
Germany	10 to 49 employees/Sector O	45	35
Germany	10 to 49 employees/Sector P	65	75
Germany	10 to 49 employees/Sector Q	93	144
Germany	50 to 249 employees/Sector A	4	2
Germany	50 to 249 employees/Sector B,D,E,F	25	32
Germany	50 to 249 employees/Sector C	107	90
Germany	50 to 249 employees/Sector G,H,I,R	129	103
Germany	50 to 249 employees/Sector J, K, L, M, N, S	104	97
Germany	50 to 249 employees/Sector O	29	33
Germany	50 to 249 employees/Sector P	26	29
Germany	50 to 249 employees/Sector Q	69	66
Germany	250+ employees/Sector A	1	1
Germany	250+ employees/Sector B,D,E,F	20	17
Germany	250+ employees/Sector C	94	116
Germany	250+ employees/Sector G,H,I,R	44	52
Germany	250+ employees/Sector J, K, L, M, N, S	69	69
Germany	250+ employees/Sector O	62	50
Germany	250+ employees/Sector P	13	14
Germany	250+ employees/Sector Q	61	51

9.1.12 Greece

Country	Target group	Achieved	Target
Greece	Total	1501	1500
Greece	5 to 9 employees/Sector A	23	30
Greece	5 to 9 employees/Sector B,D,E,F	33	31
Greece	5 to 9 employees/Sector C	48	48
Greece	5 to 9 employees/Sector G,H,I,R	310	327
Greece	5 to 9 employees/Sector J, K, L, M, N, S	76	82
Greece	5 to 9 employees/Sector O	15	15
Greece	5 to 9 employees/Sector P	35	28
Greece	5 to 9 employees/Sector Q	21	26
Greece	10 to 49 employees/Sector A	21	17
Greece	10 to 49 employees/Sector B,D,E,F	39	28
Greece	10 to 49 employees/Sector C	61	61
Greece	10 to 49 employees/Sector G,H,I,R	271	288
Greece	10 to 49 employees/Sector J, K, L, M, N, S	106	92
Greece	10 to 49 employees/Sector O	50	50
Greece	10 to 49 employees/Sector P	51	78
Greece	10 to 49 employees/Sector Q	44	35
Greece	50 to 249 employees/Sector A	5	3
Greece	50 to 249 employees/Sector B,D,E,F	16	14
Greece	50 to 249 employees/Sector C	25	25
Greece	50 to 249 employees/Sector G,H,I,R	70	47
Greece	50 to 249 employees/Sector J, K, L, M, N, S	33	27
Greece	50 to 249 employees/Sector O	33	36
Greece	50 to 249 employees/Sector P	34	15
Greece	50 to 249 employees/Sector Q	11	24
Greece	250+ employees/Sector A	1	1
Greece	250+ employees/Sector B,D,E,F	3	4
Greece	250+ employees/Sector C	9	9
Greece	250+ employees/Sector G,H,I,R	11	9
Greece	250+ employees/Sector J, K, L, M, N, S	17	19
Greece	250+ employees/Sector O	14	14
Greece	250+ employees/Sector P	10	5
Greece	250+ employees/Sector Q	5	12

9.1.13 Hungary

Country	Target group	Achieved	Target
Hungary	Total	1510	1500
Hungary	5 to 9 employees/Sector A	20	21
Hungary	5 to 9 employees/Sector B,D,E,F	97	80
Hungary	5 to 9 employees/Sector C	55	49
Hungary	5 to 9 employees/Sector G,H,I,R	201	228
Hungary	5 to 9 employees/Sector J, K, L, M, N, S	115	106
Hungary	5 to 9 employees/Sector O	13	12
Hungary	5 to 9 employees/Sector P	10	11
Hungary	5 to 9 employees/Sector Q	10	12
Hungary	10 to 49 employees/Sector A	17	21
Hungary	10 to 49 employees/Sector B,D,E,F	82	69
Hungary	10 to 49 employees/Sector C	64	76
Hungary	10 to 49 employees/Sector G,H,I,R	231	213
Hungary	10 to 49 employees/Sector J, K, L, M, N, S	103	101
Hungary	10 to 49 employees/Sector O	41	37
Hungary	10 to 49 employees/Sector P	76	65
Hungary	10 to 49 employees/Sector Q	39	35
Hungary	50 to 249 employees/Sector A	7	6
Hungary	50 to 249 employees/Sector B,D,E,F	17	16
Hungary	50 to 249 employees/Sector C	47	51
Hungary	50 to 249 employees/Sector G,H,I,R	44	40
Hungary	50 to 249 employees/Sector J, K, L, M, N, S	28	30
Hungary	50 to 249 employees/Sector O	22	22
Hungary	50 to 249 employees/Sector P	21	20
Hungary	50 to 249 employees/Sector Q	15	15
Hungary	250+ employees/Sector A	2	2
Hungary	250+ employees/Sector B,D,E,F	4	9
Hungary	250+ employees/Sector C	64	62
Hungary	250+ employees/Sector G,H,I,R	8	27
Hungary	250+ employees/Sector J, K, L, M, N, S	15	22
Hungary	250+ employees/Sector O	23	22
Hungary	250+ employees/Sector P	5	7
Hungary	250+ employees/Sector Q	14	13

9.1.14 *Ireland*

Country	Target group	Achieved	Target
Ireland	Total	761	750
Ireland	5 to 9 employees/Sector A	4	4
Ireland	5 to 9 employees/Sector B,D,E,F	30	27
Ireland	5 to 9 employees/Sector C	16	14
Ireland	5 to 9 employees/Sector G,H,I,R	67	99
Ireland	5 to 9 employees/Sector J, K, L, M, N, S	70	64
Ireland	5 to 9 employees/Sector O	4	3
Ireland	5 to 9 employees/Sector P	19	14
Ireland	5 to 9 employees/Sector Q	29	37
Ireland	10 to 49 employees/Sector A	2	2
Ireland	10 to 49 employees/Sector B,D,E,F	35	24
Ireland	10 to 49 employees/Sector C	25	20
Ireland	10 to 49 employees/Sector G,H,I,R	107	118
Ireland	10 to 49 employees/Sector J, K, L, M, N, S	54	62
Ireland	10 to 49 employees/Sector O	5	8
Ireland	10 to 49 employees/Sector P	50	28
Ireland	10 to 49 employees/Sector Q	55	41
Ireland	50 to 249 employees/Sector A	2	1
Ireland	50 to 249 employees/Sector B,D,E,F	9	7
Ireland	50 to 249 employees/Sector C	19	14
Ireland	50 to 249 employees/Sector G,H,I,R	24	21
Ireland	50 to 249 employees/Sector J, K, L, M, N, S	12	22
Ireland	50 to 249 employees/Sector O	2	8
Ireland	50 to 249 employees/Sector P	16	11
Ireland	50 to 249 employees/Sector Q	11	10
Ireland	250+ employees/Sector A	2	1
Ireland	250+ employees/Sector B,D,E,F	7	5
Ireland	250+ employees/Sector C	14	20
Ireland	250+ employees/Sector G,H,I,R	6	10
Ireland	250+ employees/Sector J, K, L, M, N, S	22	27
Ireland	250+ employees/Sector O	18	8
Ireland	250+ employees/Sector P	10	5
Ireland	250+ employees/Sector Q	15	15

9.1.15 *Italy*

Country	Target group	Achieved	Target
Italy	Total	2255	2250
Italy	5 to 9 employees/Sector A	47	43
Italy	5 to 9 employees/Sector B,D,E,F	94	100
Italy	5 to 9 employees/Sector C	126	120
Italy	5 to 9 employees/Sector G,H,I,R	307	312
Italy	5 to 9 employees/Sector J, K, L, M, N, S	167	176
Italy	5 to 9 employees/Sector O	8	15
Italy	5 to 9 employees/Sector P	29	21
Italy	5 to 9 employees/Sector Q	56	45
Italy	10 to 49 employees/Sector A	31	36
Italy	10 to 49 employees/Sector B,D,E,F	97	93
Italy	10 to 49 employees/Sector C	204	210
Italy	10 to 49 employees/Sector G,H,I,R	247	293
Italy	10 to 49 employees/Sector J, K, L, M, N, S	169	153
Italy	10 to 49 employees/Sector O	35	39
Italy	10 to 49 employees/Sector P	76	78
Italy	10 to 49 employees/Sector Q	71	68
Italy	50 to 249 employees/Sector A	5	3
Italy	50 to 249 employees/Sector B,D,E,F	17	17
Italy	50 to 249 employees/Sector C	87	85
Italy	50 to 249 employees/Sector G,H,I,R	51	52
Italy	50 to 249 employees/Sector J, K, L, M, N, S	60	51
Italy	50 to 249 employees/Sector O	26	25
Italy	50 to 249 employees/Sector P	48	45
Italy	50 to 249 employees/Sector Q	20	24
Italy	250+ employees/Sector A	2	1
Italy	250+ employees/Sector B,D,E,F	6	6
Italy	250+ employees/Sector C	55	41
Italy	250+ employees/Sector G,H,I,R	23	19
Italy	250+ employees/Sector J, K, L, M, N, S	28	27
Italy	250+ employees/Sector O	16	15
Italy	250+ employees/Sector P	9	6
Italy	250+ employees/Sector Q	38	31

9.1.16 *Latvia*

Country	Target group	Achieved	Target
Latvia	Total	756	750
Latvia	5 to 9 employees/Sector A	24	16
Latvia	5 to 9 employees/Sector B,D,E,F	36	31
Latvia	5 to 9 employees/Sector C	33	24
Latvia	5 to 9 employees/Sector G,H,I,R	113	126
Latvia	5 to 9 employees/Sector J, K, L, M, N, S	53	78
Latvia	5 to 9 employees/Sector O	1	4
Latvia	5 to 9 employees/Sector P	11	5
Latvia	5 to 9 employees/Sector Q	12	8
Latvia	10 to 49 employees/Sector A	16	11
Latvia	10 to 49 employees/Sector B,D,E,F	37	32
Latvia	10 to 49 employees/Sector C	32	33
Latvia	10 to 49 employees/Sector G,H,I,R	100	105
Latvia	10 to 49 employees/Sector J, K, L, M, N, S	44	40
Latvia	10 to 49 employees/Sector O	7	14
Latvia	10 to 49 employees/Sector P	15	24
Latvia	10 to 49 employees/Sector Q	19	10
Latvia	50 to 249 employees/Sector A	4	2
Latvia	50 to 249 employees/Sector B,D,E,F	10	10
Latvia	50 to 249 employees/Sector C	32	22
Latvia	50 to 249 employees/Sector G,H,I,R	27	24
Latvia	50 to 249 employees/Sector J, K, L, M, N, S	22	16
Latvia	50 to 249 employees/Sector O	25	15
Latvia	50 to 249 employees/Sector P	16	29
Latvia	50 to 249 employees/Sector Q	9	8
Latvia	250+ employees/Sector A	2	1
Latvia	250+ employees/Sector B,D,E,F	7	5
Latvia	250+ employees/Sector C	11	6
Latvia	250+ employees/Sector G,H,I,R	13	10
Latvia	250+ employees/Sector J, K, L, M, N, S	7	11
Latvia	250+ employees/Sector O	9	13
Latvia	250+ employees/Sector P	1	4
Latvia	250+ employees/Sector Q	8	13

9.1.17 *Lithuania*

Country	Target group	Achieved	Target
Lithuania	Total	762	750
Lithuania	5 to 9 employees/Sector A	6	5
Lithuania	5 to 9 employees/Sector B,D,E,F	27	29
Lithuania	5 to 9 employees/Sector C	29	22
Lithuania	5 to 9 employees/Sector G,H,I,R	95	107
Lithuania	5 to 9 employees/Sector J, K, L, M, N, S	56	52
Lithuania	5 to 9 employees/Sector O	2	2
Lithuania	5 to 9 employees/Sector P	5	4
Lithuania	5 to 9 employees/Sector Q	7	7
Lithuania	10 to 49 employees/Sector A	7	7
Lithuania	10 to 49 employees/Sector B,D,E,F	39	38
Lithuania	10 to 49 employees/Sector C	34	38
Lithuania	10 to 49 employees/Sector G,H,I,R	111	118
Lithuania	10 to 49 employees/Sector J, K, L, M, N, S	46	44
Lithuania	10 to 49 employees/Sector O	6	6
Lithuania	10 to 49 employees/Sector P	42	39
Lithuania	10 to 49 employees/Sector Q	14	12
Lithuania	50 to 249 employees/Sector A	1	2
Lithuania	50 to 249 employees/Sector B,D,E,F	20	14
Lithuania	50 to 249 employees/Sector C	30	28
Lithuania	50 to 249 employees/Sector G,H,I,R	34	32
Lithuania	50 to 249 employees/Sector J, K, L, M, N, S	18	17
Lithuania	50 to 249 employees/Sector O	11	11
Lithuania	50 to 249 employees/Sector P	21	18
Lithuania	50 to 249 employees/Sector Q	15	15
Lithuania	250+ employees/Sector A	2	1
Lithuania	250+ employees/Sector B,D,E,F	6	5
Lithuania	250+ employees/Sector C	13	14
Lithuania	250+ employees/Sector G,H,I,R	19	22
Lithuania	250+ employees/Sector J, K, L, M, N, S	15	17
Lithuania	250+ employees/Sector O	11	11
Lithuania	250+ employees/Sector P	3	3
Lithuania	250+ employees/Sector Q	17	10

9.1.18 Luxembourg

Country	Target group	Achieved	Target
Luxembourg	Total	759	750
Luxembourg	5 to 9 employees/Sector A	0	1
Luxembourg	5 to 9 employees/Sector B,D,E,F	25	33
Luxembourg	5 to 9 employees/Sector C	9	6
Luxembourg	5 to 9 employees/Sector G,H,I,R	67	84
Luxembourg	5 to 9 employees/Sector J, K, L, M, N, S	55	62
Luxembourg	5 to 9 employees/Sector O	4	20
Luxembourg	5 to 9 employees/Sector P	4	7
Luxembourg	5 to 9 employees/Sector Q	20	28
Luxembourg	10 to 49 employees/Sector A	2	1
Luxembourg	10 to 49 employees/Sector B,D,E,F	72	56
Luxembourg	10 to 49 employees/Sector C	18	16
Luxembourg	10 to 49 employees/Sector G,H,I,R	122	105
Luxembourg	10 to 49 employees/Sector J, K, L, M, N, S	97	74
Luxembourg	10 to 49 employees/Sector O	17	18
Luxembourg	10 to 49 employees/Sector P	15	13
Luxembourg	10 to 49 employees/Sector Q	24	18
Luxembourg	50 to 249 employees/Sector A	2	1
Luxembourg	50 to 249 employees/Sector B,D,E,F	26	22
Luxembourg	50 to 249 employees/Sector C	14	9
Luxembourg	50 to 249 employees/Sector G,H,I,R	37	42
Luxembourg	50 to 249 employees/Sector J, K, L, M, N, S	43	36
Luxembourg	50 to 249 employees/Sector O	12	6
Luxembourg	50 to 249 employees/Sector P	7	9
Luxembourg	50 to 249 employees/Sector Q	8	5
Luxembourg	250+ employees/Sector A	0	1
Luxembourg	250+ employees/Sector B,D,E,F	1	9
Luxembourg	250+ employees/Sector C	6	10
Luxembourg	250+ employees/Sector G,H,I,R	14	14
Luxembourg	250+ employees/Sector J, K, L, M, N, S	20	33
Luxembourg	250+ employees/Sector O	7	5
Luxembourg	250+ employees/Sector P	4	2
Luxembourg	250+ employees/Sector Q	7	4

9.1.19 *Malta*

Country	Target group	Achieved	Target
Malta	Total	453	450
Malta	5 to 9 employees/Sector A	1	1
Malta	5 to 9 employees/Sector B,D,E,F	7	14
Malta	5 to 9 employees/Sector C	16	13
Malta	5 to 9 employees/Sector G,H,I,R	50	72
Malta	5 to 9 employees/Sector J, K, L, M, N, S	34	27
Malta	5 to 9 employees/Sector O	1	2
Malta	5 to 9 employees/Sector P	3	12
Malta	5 to 9 employees/Sector Q	2	6
Malta	10 to 49 employees/Sector A	0	1
Malta	10 to 49 employees/Sector B,D,E,F	15	13
Malta	10 to 49 employees/Sector C	31	16
Malta	10 to 49 employees/Sector G,H,I,R	76	89
Malta	10 to 49 employees/Sector J, K, L, M, N, S	49	59
Malta	10 to 49 employees/Sector O	5	5
Malta	10 to 49 employees/Sector P	8	6
Malta	10 to 49 employees/Sector Q	3	2
Malta	50 to 249 employees/Sector A	0	1
Malta	50 to 249 employees/Sector B,D,E,F	9	6
Malta	50 to 249 employees/Sector C	17	7
Malta	50 to 249 employees/Sector G,H,I,R	42	24
Malta	50 to 249 employees/Sector J, K, L, M, N, S	31	22
Malta	50 to 249 employees/Sector O	2	5
Malta	50 to 249 employees/Sector P	6	3
Malta	50 to 249 employees/Sector Q	1	1
Malta	250+ employees/Sector A	0	1
Malta	250+ employees/Sector B,D,E,F	5	4
Malta	250+ employees/Sector C	10	5
Malta	250+ employees/Sector G,H,I,R	14	8
Malta	250+ employees/Sector J, K, L, M, N, S	11	19
Malta	250+ employees/Sector O	2	4
Malta	250+ employees/Sector P	1	1
Malta	250+ employees/Sector Q	1	1

9.1.20 The Netherlands

Country	Target group	Achieved	Target
Netherlands	Total	1505	1500
Netherlands	5 to 9 employees/Sector A	17	16
Netherlands	5 to 9 employees/Sector B,D,E,F	37	40
Netherlands	5 to 9 employees/Sector C	35	34
Netherlands	5 to 9 employees/Sector G,H,I,R	172	200
Netherlands	5 to 9 employees/Sector J, K, L, M, N, S	117	142
Netherlands	5 to 9 employees/Sector O	2	2
Netherlands	5 to 9 employees/Sector P	7	8
Netherlands	5 to 9 employees/Sector Q	46	51
Netherlands	10 to 49 employees/Sector A	13	10
Netherlands	10 to 49 employees/Sector B,D,E,F	65	50
Netherlands	10 to 49 employees/Sector C	68	56
Netherlands	10 to 49 employees/Sector G,H,I,R	168	167
Netherlands	10 to 49 employees/Sector J, K, L, M, N, S	156	144
Netherlands	10 to 49 employees/Sector O	10	11
Netherlands	10 to 49 employees/Sector P	45	51
Netherlands	10 to 49 employees/Sector Q	93	87
Netherlands	50 to 249 employees/Sector A	2	1
Netherlands	50 to 249 employees/Sector B,D,E,F	18	14
Netherlands	50 to 249 employees/Sector C	35	28
Netherlands	50 to 249 employees/Sector G,H,I,R	51	39
Netherlands	50 to 249 employees/Sector J, K, L, M, N, S	52	43
Netherlands	50 to 249 employees/Sector O	30	29
Netherlands	50 to 249 employees/Sector P	34	31
Netherlands	50 to 249 employees/Sector Q	54	47
Netherlands	250+ employees/Sector A	1	1
Netherlands	250+ employees/Sector B,D,E,F	9	9
Netherlands	250+ employees/Sector C	20	23
Netherlands	250+ employees/Sector G,H,I,R	28	39
Netherlands	250+ employees/Sector J, K, L, M, N, S	42	60
Netherlands	250+ employees/Sector O	23	22
Netherlands	250+ employees/Sector P	11	9
Netherlands	250+ employees/Sector Q	44	36

9.1.21 *Poland*

Country	Target group	Achieved	Target
Poland	Total	2268	2250
Poland	5 to 9 employees/Sector A	8	14
Poland	5 to 9 employees/Sector B,D,E,F	39	84
Poland	5 to 9 employees/Sector C	34	69
Poland	5 to 9 employees/Sector G,H,I,R	149	317
Poland	5 to 9 employees/Sector J, K, L, M, N, S	181	294
Poland	5 to 9 employees/Sector O	3	3
Poland	5 to 9 employees/Sector P	8	12
Poland	5 to 9 employees/Sector Q	11	16
Poland	10 to 49 employees/Sector A	23	14
Poland	10 to 49 employees/Sector B,D,E,F	114	101
Poland	10 to 49 employees/Sector C	149	151
Poland	10 to 49 employees/Sector G,H,I,R	288	225
Poland	10 to 49 employees/Sector J, K, L, M, N, S	277	128
Poland	10 to 49 employees/Sector O	45	21
Poland	10 to 49 employees/Sector P	130	176
Poland	10 to 49 employees/Sector Q	53	41
Poland	50 to 249 employees/Sector A	9	6
Poland	50 to 249 employees/Sector B,D,E,F	44	31
Poland	50 to 249 employees/Sector C	94	79
Poland	50 to 249 employees/Sector G,H,I,R	72	53
Poland	50 to 249 employees/Sector J, K, L, M, N, S	78	48
Poland	50 to 249 employees/Sector O	51	31
Poland	50 to 249 employees/Sector P	121	76
Poland	50 to 249 employees/Sector Q	24	20
Poland	250+ employees/Sector A	0	1
Poland	250+ employees/Sector B,D,E,F	19	15
Poland	250+ employees/Sector C	86	75
Poland	250+ employees/Sector G,H,I,R	31	32
Poland	250+ employees/Sector J, K, L, M, N, S	43	41
Poland	250+ employees/Sector O	28	30
Poland	250+ employees/Sector P	11	8
Poland	250+ employees/Sector Q	45	38

9.1.22 *Portugal*

Country	Target group	Achieved	Target
Portugal	Total	1545	1500
Portugal	5 to 9 employees/Sector A	17	19
Portugal	5 to 9 employees/Sector B,D,E,F	74	71
Portugal	5 to 9 employees/Sector C	67	67
Portugal	5 to 9 employees/Sector G,H,I,R	201	238
Portugal	5 to 9 employees/Sector J, K, L, M, N, S	109	108
Portugal	5 to 9 employees/Sector O	15	16
Portugal	5 to 9 employees/Sector P	16	20
Portugal	5 to 9 employees/Sector Q	26	29
Portugal	10 to 49 employees/Sector A	15	14
Portugal	10 to 49 employees/Sector B,D,E,F	67	65
Portugal	10 to 49 employees/Sector C	107	104
Portugal	10 to 49 employees/Sector G,H,I,R	223	216
Portugal	10 to 49 employees/Sector J, K, L, M, N, S	87	77
Portugal	10 to 49 employees/Sector O	28	26
Portugal	10 to 49 employees/Sector P	41	36
Portugal	10 to 49 employees/Sector Q	71	61
Portugal	50 to 249 employees/Sector A	5	2
Portugal	50 to 249 employees/Sector B,D,E,F	20	14
Portugal	50 to 249 employees/Sector C	57	51
Portugal	50 to 249 employees/Sector G,H,I,R	50	44
Portugal	50 to 249 employees/Sector J, K, L, M, N, S	32	25
Portugal	50 to 249 employees/Sector O	21	19
Portugal	50 to 249 employees/Sector P	43	36
Portugal	50 to 249 employees/Sector Q	27	18
Portugal	250+ employees/Sector A	2	1
Portugal	250+ employees/Sector B,D,E,F	8	6
Portugal	250+ employees/Sector C	37	28
Portugal	250+ employees/Sector G,H,I,R	19	19
Portugal	250+ employees/Sector J, K, L, M, N, S	14	23
Portugal	250+ employees/Sector O	17	15
Portugal	250+ employees/Sector P	11	9
Portugal	250+ employees/Sector Q	18	23

9.1.23 Romania

Country	Target group	Achieved	Target
Romania	Total	1537	1500
Romania	5 to 9 employees/Sector A	35	24
Romania	5 to 9 employees/Sector B,D,E,F	76	80
Romania	5 to 9 employees/Sector C	56	54
Romania	5 to 9 employees/Sector G,H,I,R	231	221
Romania	5 to 9 employees/Sector J, K, L, M, N, S	97	81
Romania	5 to 9 employees/Sector O	5	4
Romania	5 to 9 employees/Sector P	11	7
Romania	5 to 9 employees/Sector Q	17	8
Romania	10 to 49 employees/Sector A	31	24
Romania	10 to 49 employees/Sector B,D,E,F	87	96
Romania	10 to 49 employees/Sector C	87	91
Romania	10 to 49 employees/Sector G,H,I,R	246	274
Romania	10 to 49 employees/Sector J, K, L, M, N, S	99	93
Romania	10 to 49 employees/Sector O	33	30
Romania	10 to 49 employees/Sector P	24	55
Romania	10 to 49 employees/Sector Q	42	22
Romania	50 to 249 employees/Sector A	9	4
Romania	50 to 249 employees/Sector B,D,E,F	37	34
Romania	50 to 249 employees/Sector C	80	66
Romania	50 to 249 employees/Sector G,H,I,R	70	59
Romania	50 to 249 employees/Sector J, K, L, M, N, S	32	27
Romania	50 to 249 employees/Sector O	22	20
Romania	50 to 249 employees/Sector P	3	9
Romania	50 to 249 employees/Sector Q	5	22
Romania	250+ employees/Sector A	0	1
Romania	250+ employees/Sector B,D,E,F	17	11
Romania	250+ employees/Sector C	44	43
Romania	250+ employees/Sector G,H,I,R	14	14
Romania	250+ employees/Sector J, K, L, M, N, S	11	10
Romania	250+ employees/Sector O	9	6
Romania	250+ employees/Sector P	4	1
Romania	250+ employees/Sector Q	3	9

9.1.24 Slovakia

Country	Target group	Achieved	Target
Slovakia	Total	786	750
Slovakia	5 to 9 employees/Sector A	6	5
Slovakia	5 to 9 employees/Sector B,D,E,F	20	20
Slovakia	5 to 9 employees/Sector C	32	35
Slovakia	5 to 9 employees/Sector G,H,I,R	87	118
Slovakia	5 to 9 employees/Sector J, K, L, M, N, S	54	54
Slovakia	5 to 9 employees/Sector O	14	15
Slovakia	5 to 9 employees/Sector P	13	16
Slovakia	5 to 9 employees/Sector Q	16	16
Slovakia	10 to 49 employees/Sector A	10	9
Slovakia	10 to 49 employees/Sector B,D,E,F	34	31
Slovakia	10 to 49 employees/Sector C	54	50
Slovakia	10 to 49 employees/Sector G,H,I,R	98	90
Slovakia	10 to 49 employees/Sector J, K, L, M, N, S	54	51
Slovakia	10 to 49 employees/Sector O	28	24
Slovakia	10 to 49 employees/Sector P	56	47
Slovakia	10 to 49 employees/Sector Q	27	25
Slovakia	50 to 249 employees/Sector A	3	2
Slovakia	50 to 249 employees/Sector B,D,E,F	11	7
Slovakia	50 to 249 employees/Sector C	34	30
Slovakia	50 to 249 employees/Sector G,H,I,R	24	17
Slovakia	50 to 249 employees/Sector J, K, L, M, N, S	17	12
Slovakia	50 to 249 employees/Sector O	13	9
Slovakia	50 to 249 employees/Sector P	9	8
Slovakia	50 to 249 employees/Sector Q	11	8
Slovakia	250+ employees/Sector A	0	1
Slovakia	250+ employees/Sector B,D,E,F	4	4
Slovakia	250+ employees/Sector C	28	23
Slovakia	250+ employees/Sector G,H,I,R	11	6
Slovakia	250+ employees/Sector J, K, L, M, N, S	8	10
Slovakia	250+ employees/Sector O	5	3
Slovakia	250+ employees/Sector P	2	2
Slovakia	250+ employees/Sector Q	3	2

9.1.25 *Slovenia*

Country	Target group	Achieved	Target
Slovenia	Total	1056	1050
Slovenia	5 to 9 employees/Sector A	2	2
Slovenia	5 to 9 employees/Sector B,D,E,F	46	52
Slovenia	5 to 9 employees/Sector C	34	49
Slovenia	5 to 9 employees/Sector G,H,I,R	133	122
Slovenia	5 to 9 employees/Sector J, K, L, M, N, S	56	65
Slovenia	5 to 9 employees/Sector O	8	7
Slovenia	5 to 9 employees/Sector P	10	10
Slovenia	5 to 9 employees/Sector Q	13	11
Slovenia	10 to 49 employees/Sector A	3	3
Slovenia	10 to 49 employees/Sector B,D,E,F	57	58
Slovenia	10 to 49 employees/Sector C	66	80
Slovenia	10 to 49 employees/Sector G,H,I,R	142	143
Slovenia	10 to 49 employees/Sector J, K, L, M, N, S	80	74
Slovenia	10 to 49 employees/Sector O	23	22
Slovenia	10 to 49 employees/Sector P	47	47
Slovenia	10 to 49 employees/Sector Q	20	23
Slovenia	50 to 249 employees/Sector A	1	1
Slovenia	50 to 249 employees/Sector B,D,E,F	16	13
Slovenia	50 to 249 employees/Sector C	46	43
Slovenia	50 to 249 employees/Sector G,H,I,R	32	30
Slovenia	50 to 249 employees/Sector J, K, L, M, N, S	31	26
Slovenia	50 to 249 employees/Sector O	18	14
Slovenia	50 to 249 employees/Sector P	52	43
Slovenia	50 to 249 employees/Sector Q	27	23
Slovenia	250+ employees/Sector A	1	1
Slovenia	250+ employees/Sector B,D,E,F	6	4
Slovenia	250+ employees/Sector C	39	38
Slovenia	250+ employees/Sector G,H,I,R	14	9
Slovenia	250+ employees/Sector J, K, L, M, N, S	10	14
Slovenia	250+ employees/Sector O	5	6
Slovenia	250+ employees/Sector P	4	4
Slovenia	250+ employees/Sector Q	14	13

9.1.26 *Spain*

Country	Target group	Achieved	Target
Spain	Total	2259	2250
Spain	5 to 9 employees/Sector A	34	41
Spain	5 to 9 employees/Sector B,D,E,F	70	84
Spain	5 to 9 employees/Sector C	101	83
Spain	5 to 9 employees/Sector G,H,I,R	357	366
Spain	5 to 9 employees/Sector J, K, L, M, N, S	173	184
Spain	5 to 9 employees/Sector O	10	19
Spain	5 to 9 employees/Sector P	32	30
Spain	5 to 9 employees/Sector Q	42	40
Spain	10 to 49 employees/Sector A	39	42
Spain	10 to 49 employees/Sector B,D,E,F	72	82
Spain	10 to 49 employees/Sector C	127	119
Spain	10 to 49 employees/Sector G,H,I,R	266	299
Spain	10 to 49 employees/Sector J, K, L, M, N, S	184	174
Spain	10 to 49 employees/Sector O	28	43
Spain	10 to 49 employees/Sector P	86	83
Spain	10 to 49 employees/Sector Q	70	61
Spain	50 to 249 employees/Sector A	10	5
Spain	50 to 249 employees/Sector B,D,E,F	16	17
Spain	50 to 249 employees/Sector C	67	53
Spain	50 to 249 employees/Sector G,H,I,R	69	68
Spain	50 to 249 employees/Sector J, K, L, M, N, S	63	59
Spain	50 to 249 employees/Sector O	30	30
Spain	50 to 249 employees/Sector P	63	44
Spain	50 to 249 employees/Sector Q	45	34
Spain	250+ employees/Sector A	3	1
Spain	250+ employees/Sector B,D,E,F	10	8
Spain	250+ employees/Sector C	65	33
Spain	250+ employees/Sector G,H,I,R	39	33
Spain	250+ employees/Sector J, K, L, M, N, S	41	41
Spain	250+ employees/Sector O	10	25
Spain	250+ employees/Sector P	8	10
Spain	250+ employees/Sector Q	29	39

9.1.27 Sweden

Country	Target group	Achieved	Target
Sweden	Total	1536	1500
Sweden	5 to 9 employees/Sector A	13	13
Sweden	5 to 9 employees/Sector B,D,E,F	72	63
Sweden	5 to 9 employees/Sector C	32	32
Sweden	5 to 9 employees/Sector G,H,I,R	178	162
Sweden	5 to 9 employees/Sector J, K, L, M, N, S	106	116
Sweden	5 to 9 employees/Sector O	6	4
Sweden	5 to 9 employees/Sector P	36	26
Sweden	5 to 9 employees/Sector Q	64	41
Sweden	10 to 49 employees/Sector A	10	10
Sweden	10 to 49 employees/Sector B,D,E,F	86	81
Sweden	10 to 49 employees/Sector C	58	53
Sweden	10 to 49 employees/Sector G,H,I,R	192	201
Sweden	10 to 49 employees/Sector J, K, L, M, N, S	154	155
Sweden	10 to 49 employees/Sector O	24	17
Sweden	10 to 49 employees/Sector P	78	80
Sweden	10 to 49 employees/Sector Q	74	86
Sweden	50 to 249 employees/Sector A	3	2
Sweden	50 to 249 employees/Sector B,D,E,F	22	18
Sweden	50 to 249 employees/Sector C	25	23
Sweden	50 to 249 employees/Sector G,H,I,R	43	42
Sweden	50 to 249 employees/Sector J, K, L, M, N, S	69	57
Sweden	50 to 249 employees/Sector O	24	20
Sweden	50 to 249 employees/Sector P	35	35
Sweden	50 to 249 employees/Sector Q	18	31
Sweden	250+ employees/Sector A	0	1
Sweden	250+ employees/Sector B,D,E,F	7	6
Sweden	250+ employees/Sector C	26	24
Sweden	250+ employees/Sector G,H,I,R	13	12
Sweden	250+ employees/Sector J, K, L, M, N, S	32	37
Sweden	250+ employees/Sector O	19	20
Sweden	250+ employees/Sector P	10	9
Sweden	250+ employees/Sector Q	7	23

9.1.28 *Iceland*

Country	Target group	Achieved	Target
Iceland	Total	810	750
Iceland	5 to 9 employees/Sector A	8	8
Iceland	5 to 9 employees/Sector B,D,E,F	30	34
Iceland	5 to 9 employees/Sector C	14	14
Iceland	5 to 9 employees/Sector G,H,I,R	84	70
Iceland	5 to 9 employees/Sector J, K, L, M, N, S	68	56
Iceland	5 to 9 employees/Sector O	14	11
Iceland	5 to 9 employees/Sector P	8	8
Iceland	5 to 9 employees/Sector Q	8	20
Iceland	10 to 49 employees/Sector A	9	8
Iceland	10 to 49 employees/Sector B,D,E,F	42	34
Iceland	10 to 49 employees/Sector C	34	31
Iceland	10 to 49 employees/Sector G,H,I,R	113	108
Iceland	10 to 49 employees/Sector J, K, L, M, N, S	79	60
Iceland	10 to 49 employees/Sector O	39	15
Iceland	10 to 49 employees/Sector P	46	36
Iceland	10 to 49 employees/Sector Q	28	33
Iceland	50 to 249 employees/Sector A	6	3
Iceland	50 to 249 employees/Sector B,D,E,F	11	11
Iceland	50 to 249 employees/Sector C	17	13
Iceland	50 to 249 employees/Sector G,H,I,R	36	36
Iceland	50 to 249 employees/Sector J, K, L, M, N, S	20	25
Iceland	50 to 249 employees/Sector O	19	12
Iceland	50 to 249 employees/Sector P	25	38
Iceland	50 to 249 employees/Sector Q	11	25
Iceland	250+ employees/Sector A	0	1
Iceland	250+ employees/Sector B,D,E,F	2	6
Iceland	250+ employees/Sector C	6	5
Iceland	250+ employees/Sector G,H,I,R	8	9
Iceland	250+ employees/Sector J, K, L, M, N, S	11	14
Iceland	250+ employees/Sector O	5	1
Iceland	250+ employees/Sector P	3	1
Iceland	250+ employees/Sector Q	6	4

9.1.29 Norway

Country	Target group	Achieved	Target
Norway	Total	1523	1500
Norway	5 to 9 employees/Sector A	11	7
Norway	5 to 9 employees/Sector B,D,E,F	58	59
Norway	5 to 9 employees/Sector C	18	19
Norway	5 to 9 employees/Sector G,H,I,R	186	194
Norway	5 to 9 employees/Sector J, K, L, M, N, S	91	96
Norway	5 to 9 employees/Sector O	8	9
Norway	5 to 9 employees/Sector P	9	10
Norway	5 to 9 employees/Sector Q	36	42
Norway	10 to 49 employees/Sector A	11	9
Norway	10 to 49 employees/Sector B,D,E,F	66	85
Norway	10 to 49 employees/Sector C	41	39
Norway	10 to 49 employees/Sector G,H,I,R	228	233
Norway	10 to 49 employees/Sector J, K, L, M, N, S	109	118
Norway	10 to 49 employees/Sector O	27	24
Norway	10 to 49 employees/Sector P	51	38
Norway	10 to 49 employees/Sector Q	165	150
Norway	50 to 249 employees/Sector A	4	2
Norway	50 to 249 employees/Sector B,D,E,F	31	26
Norway	50 to 249 employees/Sector C	27	24
Norway	50 to 249 employees/Sector G,H,I,R	39	38
Norway	50 to 249 employees/Sector J, K, L, M, N, S	48	46
Norway	50 to 249 employees/Sector O	16	19
Norway	50 to 249 employees/Sector P	45	37
Norway	50 to 249 employees/Sector Q	63	61
Norway	250+ employees/Sector A	1	1
Norway	250+ employees/Sector B,D,E,F	19	17
Norway	250+ employees/Sector C	14	12
Norway	250+ employees/Sector G,H,I,R	13	11
Norway	250+ employees/Sector J, K, L, M, N, S	24	24
Norway	250+ employees/Sector O	18	12
Norway	250+ employees/Sector P	19	12
Norway	250+ employees/Sector Q	27	26

9.1.30 Switzerland

Country	Target group	Achieved	Target
Switzerland	Total	1507	1500
Switzerland	5 to 9 employees/Sector A	24	28
Switzerland	5 to 9 employees/Sector B,D,E,F	52	55
Switzerland	5 to 9 employees/Sector C	37	37
Switzerland	5 to 9 employees/Sector G,H,I,R	163	176
Switzerland	5 to 9 employees/Sector J, K, L, M, N, S	146	152
Switzerland	5 to 9 employees/Sector O	13	13
Switzerland	5 to 9 employees/Sector P	18	23
Switzerland	5 to 9 employees/Sector Q	62	60
Switzerland	10 to 49 employees/Sector A	14	8
Switzerland	10 to 49 employees/Sector B,D,E,F	65	63
Switzerland	10 to 49 employees/Sector C	64	57
Switzerland	10 to 49 employees/Sector G,H,I,R	164	176
Switzerland	10 to 49 employees/Sector J, K, L, M, N, S	138	150
Switzerland	10 to 49 employees/Sector O	28	27
Switzerland	10 to 49 employees/Sector P	41	50
Switzerland	10 to 49 employees/Sector Q	64	66
Switzerland	50 to 249 employees/Sector A	0	1
Switzerland	50 to 249 employees/Sector B,D,E,F	21	19
Switzerland	50 to 249 employees/Sector C	37	34
Switzerland	50 to 249 employees/Sector G,H,I,R	52	46
Switzerland	50 to 249 employees/Sector J, K, L, M, N, S	63	57
Switzerland	50 to 249 employees/Sector O	16	13
Switzerland	50 to 249 employees/Sector P	38	23
Switzerland	50 to 249 employees/Sector Q	34	39
Switzerland	250+ employees/Sector A	1	1
Switzerland	250+ employees/Sector B,D,E,F	8	5
Switzerland	250+ employees/Sector C	26	26
Switzerland	250+ employees/Sector G,H,I,R	21	18
Switzerland	250+ employees/Sector J, K, L, M, N, S	37	37
Switzerland	250+ employees/Sector O	11	5
Switzerland	250+ employees/Sector P	16	9
Switzerland	250+ employees/Sector Q	33	26

9.2 Annex II: Motivation letter



Subject: Fourth European Survey of Enterprises on New and Emerging Risks (ESENER 2024)

Dear Sir or Madam,

An interviewer has just contacted you to request your participation in a European survey on how companies and organisations manage health and safety at work. The study will gather comparable information on workplace practices and experiences across Europe, (if country CH, NO, IS – explicitly mention the country) including Switzerland, Norway, Iceland. It includes questions on your perception of risks and hazards, your experiences with health and safety service providers and your needs regarding further information and support on the topic. The aim is to help policy-makers at the national (if country CH, NO, IS – explicitly mention the country) and European level to better understand the needs and constraints of companies in the management of safety and health at work. This will enable them to design better European (if country CH, NO, IS) and national policies and provide better information.

The survey is conducted on behalf of (if country CH) State Secretariat of Economic Affairs (SECO) in collaboration with the *European Agency for Safety and Health at Work (EU-OSHA)*, which is the official European body responsible for information on occupational health and safety. The Agency's purpose is to bring knowledge together and to share it as widely as possible so as to make Europe's workplaces safer, healthier and more productive. You can find further information about the survey, including results of the previous study, at www.esener.eu. To find out more about EU-OSHA and access all of its information, for free, please visit www.osha.europa.eu. BUSINESSEUROPE and the European Trade Union Confederation ETUC* support the organisation of this survey and would like to stress the importance of your participation.

At the international level, the survey is coordinated by Ipsos (based in Belgium) which also has the overall scientific responsibility for the project. Participation is, of course, voluntary. To ensure that the results are representative and reliable, it is however important to secure the highest possible participation from among the selected establishments. Therefore, we would be extremely grateful for your valuable input. Your answers will be evaluated with strict anonymity to ensure that no connection to your person or organisation is possible.

An interviewer will contact you soon again and ask you to take part in the survey. We would very much appreciate your participation. If you would like to read the privacy notice, you can access it here (scripter: add hyperlink to https://survey.ipsos.be/Privacynotice_Esener2024.pdf). This explains the purposes for processing your personal data as well as your rights under data protection regulations to access your personal data, withdraw consent, object to processing of your personal data and other required information.

Yours faithfully,

William Cockburn
Director

* BUSINESSEUROPE (Confederation of European Business) and ETUC (European Trade Union Confederation) represent respectively the interests of business and workers at European level and are recognised as social partners by the European institutions.

9.3 Annex III: Online invitation e-mail

Subject: Fourth European Survey of Enterprises on New and Emerging Risks (ESENER 2024)



Dear Sir or Madam,

One of our interviewers just contacted you by telephone, asking you to participate in the European Survey of Enterprises on New and Emerging Risks (ESENER 2024).

The purpose of this representative European-wide survey is to collect information on how organisations manage health and safety at their workplaces. You kindly offered to complete the online version of the questionnaire.

You can access the survey directly by clicking on the button “Start Survey” below.

START SURVEY

If the link does not work, please copy and paste the text below into your internet browser:

[LINK](#)

The survey will take around 20 to 25 minutes to complete. You can complete the survey on a desktop, laptop, tablet or smartphone. Although we encourage you to access the survey soon, you are free to complete it at any moment that is convenient for you. If at any point you wish to stop the survey and start again later, you will be able to do this.

Our institute [local FW agency] is conducting this study in cooperation with market research company Ipsos on behalf of (if country CH) State Secretariat of Economic Affairs (SECO) in collaboration with the *European Agency for Safety and Health at Work (EU-OSHA)*, the official European body responsible for information on occupational health and safety.

Results will be used to support workplaces and to improve legislation.

You can find further information about the survey, including an overview on results from the previous study conducted in 2019, at www.esener.eu.

Participation in the survey is, of course, voluntary. However, to ensure that the results are representative and reliable, it is important to secure the highest possible participation among the selected establishments. It is essential for the survey to gather opinions from all types of businesses, large and small [scripter: *If size 1 - small and large*], therefore, we would be extremely grateful for your valuable input. Your answers will be evaluated with strict anonymity to ensure that no connection to your workplace is possible. The data protection statement you'll find under the following [link](https://survey.ipsos.be/Privacynotice_Esener2024.pdf) [scripter: *add hypedlink to https://survey.ipsos.be/Privacynotice_Esener2024.pdf*] and informs you in detail about the legal basis for transmission, processing and deletion of data, and your rights.

If you do not want to participate and do not want to receive reminders, please click [here](#).

This mail is sent by an automated system. Do not reply on this message. If you have any questions about this survey, please contact ESENER2024_FAQ@ipsos-online.com

Yours sincerely,

Sara Gysen
Project Manager
Ipsos European Public Affairs

Xabier ~~Castro~~
Senior Research Project Manager
European Agency for Safety and Health at Work

9.4 Annex III: Online reminder e-mail

Subject: Reminder - Fourth European Survey of Enterprises on New and Emerging Risks (ESENER 2024)



Dear Sir or Madam,

We recently contacted you by telephone asking you to participate in the European Survey of Enterprises on New and Emerging Risks (ESENER 2024). You kindly offered to complete the online version of the questionnaire, and you should have received an email with a personalized link to the questionnaire. Unfortunately, we have so far not received a completed questionnaire from you. We would very much appreciate if you could still complete it.

You can access the survey directly by clicking on the button "Start Survey" below.

START SURVEY

If the link does not work, please copy and paste the text below into your internet browser:

[LINK](#)

Our institute [local FW agency] is conducting this study in cooperation with market research company Ipsos on behalf of (if country CH) State Secretariat of Economic Affairs (SECO) in collaboration with the *European Agency for Safety and Health at Work (EU-OSHA)*, the official European body responsible for information on occupational health and safety.

Results will be used to support workplaces and to improve legislation.

You can find further information about the survey, including an overview on results from the previous study conducted in 2019, at www.esener.eu.

Participation in the survey is, of course, voluntary. However, to ensure that the results are representative and reliable, it is important to secure the highest possible participation among the selected establishments. It is essential for the survey to gather opinions from all types of businesses, large and small [*scripter: if size 1 - small and large*], therefore, we would be extremely grateful for your valuable input. Your answers will be evaluated with strict anonymity to ensure that no connection to your workplace is possible. The data protection statement you'll find under the following [link \(scripter: add hyperlink to https://survey.ipsos.be/Privacynotice_Esener2024.pdf\)](https://survey.ipsos.be/Privacynotice_Esener2024.pdf) and informs you in detail about the legal basis for transmission, processing and deletion of data, and your rights. If you do not want to participate and do not want to receive reminders, please [click here](#).

This mail is sent by an automated system. Do not reply on this message. If you have any questions about this survey, please contact ESENER2024_FAQ@ipsos-online.com

Yours sincerely,

Sara Gysen
Project Manager
Ipsos European Public Affairs

Xabier Irastorza
Senior Research Project Manager
European Agency for Safety and Health at Work

CONFIDENTIAL

The European Agency for Safety and Health at Work (EU-OSHA) contributes to making Europe a safer, healthier and more productive place to work. The Agency researches, develops, and distributes reliable, balanced, and impartial safety and health information and organises pan-European awareness raising campaigns. Set up by the European Union in 1994 and based in Bilbao, Spain, the Agency brings together representatives from the European Commission, Member State governments, employers' and workers' organisations, as well as leading experts in each of the EU Member States and beyond.

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