FRA EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS

TECHNICAL AND QUALITY REPORT

EU SURVEY ON IMMIGRANTS AND DESCENDANTS OF IMMIGRANTS

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Technical and quality report

EU Survey on Immigrants and Descendants of Immigrants (2022)

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Acronyms

ACS	Adaptive cluster sampling
CAPI	Computer-assisted personal interviewing
CASI	Computer assisted self-completion interviewing
CAWI	Computer-assisted web interviewing
CCT	Central coordination team
DQL	Data Quality Log
ECS	Electronic contact sheet
ESOMAR	European Society for Opinion and Marketing Research
EU	European Union
EU-MIDIS I	European Union Minorities and Discrimination Survey
EU-MIDIS II	Second European Union Minorities and Discrimination Survey
EU SILC	European Union Statistics on Income and Living Conditions
FE	Focused enumeration
FRA	European Union Agency for Fundamental Rights
FRS	Fundamental Rights Survey
GDPR	General Data Protection Regulation
NSE	National survey expert
PSU	Primary sampling unit
QAP	Quality Assurance Plan

Country and target groups codes

Survey country	Survey country code	Target group code	Target group
Austria	AT	SSAFR	Immigrants and descendants of immigrants from **African countries south of the Sahara**
		SYR	Immigrants and descendants of immigrants from **Syria**
		TUR	Immigrants and descendants of immigrants from **Türkiye**
Belgium	BE	NOAFR	Immigrants and descendants of immigrants from **North Africa**
		SSAFR	Immigrants and descendants of immigrants from **African countries south of the Sahara**
Denmark	DK	SSAFR	Immigrants and descendants of immigrants from **African countries south of the Sahara**
		SYR	Immigrants and descendants of immigrants from **Syria**
		TUR	Immigrants and descendants of immigrants from **Türkiye**
Finland	FI	SSAFR	Immigrants and descendants of immigrants from **African countries south of the Sahara**
France	FR	NOAFR	Immigrants and descendants of immigrants from **North Africa**
		SSAFR	Immigrants and descendants of immigrants from **African countries south of the Sahara**
Germany	DE	SSAFR	Immigrants and descendants of immigrants from **African countries south of the Sahara**
		SYR	Immigrants and descendants of immigrants from **Syria**
		TUR	Immigrants and descendants of immigrants from **Türkiye**
Greece	EL	SYR	Immigrants and descendants of immigrants from **Syria**
Ireland	IE	SSAFR	Immigrants and descendants of immigrants from **African countries south of the Sahara**

Survey country	Survey country code	Target group code	Target group
Italy	IT	NOAFR	Immigrants and descendants of immigrants from **North Africa**
		SSAFR	Immigrants and descendants of immigrants from **African countries south of the Sahara**
Luxembourg	LU	SSAFR	Immigrants and descendants of immigrants from **African countries south of the Sahara**
Netherlands	NL	NOAFR	Immigrants and descendants of immigrants from **North Africa**
		SYR	Immigrants and descendants of immigrants from **Syria**
		TUR	Immigrants and descendants of immigrants from **Türkiye**
Poland	PL	SSAFR	Immigrants and descendants of immigrants from **African countries south of the Sahara**
Portugal	PT	SSAFR	Immigrants and descendants of immigrants from **African countries south of the Sahara**
Spain	ES	NOAFR	Immigrants and descendants of immigrants from **North Africa**
		SSAFR	Immigrants and descendants of immigrants from **African countries south of the Sahara**
Sweden	SE	SSAFR	Immigrants and descendants of immigrants from **African countries south of the Sahara**
		SYR	Immigrants and descendants of immigrants from **Syria**

Introduction

Equality data – any piece of information that can be used to describe and analyse the state of equality – demonstrate the nature and extent of racism, discrimination and inequality, which in turn supports evidence-based policymaking in the area of equality rights. Several FRA surveys have compensated for the absence of official equality data: they point to persistent high levels of discrimination, bias-motivated harassment and crime across the EU. In 2008, FRA implemented the first European Union Minorities and Discrimination Survey. This was followed in 2016 by the second European Union Minorities and Discrimination Survey (EU-MIDIS II). In 2022, FRA conducted its third survey on immigrants and descendants of immigrants (hereafter referred to as 'the survey', collecting comparable data in 15 EU Member States from 16 124 respondents.

FRA's Founding Regulation requires the agency (Article 4.1b) to develop methods and standards to improve the comparability, objectivity and reliability of data at the European level. This technical report provides all the relevant technical information on the design, implementation and finalisation of the survey. Details of the data collection process also contribute to the iterative improvement of survey methodologies, especially when it comes to surveying populations and groups that are considered 'hard-to-reach' or difficult to survey.

The survey and its predecessors EU-MIDIS (2008) and II (2016) paint a portrait of the experiences of discrimination and bias-motivated harassment and violence experienced by immigrants and ethnic minorities across Europe. They provide comprehensive, comparable data with which policy makers can address these high-priority agenda issues and most importantly assess progress over time as regards equality and non-discrimination in key areas of life. This survey builds on the previous EU-MIDIS surveys, focusing on the experiences of immigrants and descendants of immigrants from North Africa, African countries south of the Sahara, Syria (for the first time) and Türkiye. The design of the survey was based on background research and stakeholder and survey expert consultations and uses FRA's extensive experience on surveying 'hard-to-reach' populations. This survey was implemented in 15 EU Member States. In nine Member States - Belgium, France, Greece, Ireland, Italy, Poland, Portugal, Spain and Sweden - the survey was conducted face-to-face. In Austria, Denmark, Finland, Germany, Luxembourg and the Netherlands the survey was conducted online using a push-to-web methodology.

The overall objectives of the survey were to:

- Assess developments and progress made over time, i.e. compare the results of this survey with findings from EU-MIDIS II and with findings from FRA surveys on Roma and Travellers.
- Collect EU-wide comparable data on hard-to-reach populations, such as immigrants and descendants of immigrants, ethnic minorities and racialised groups for assessing and monitoring the effective implementation and impact of legal and policy measures in the areas of anti-racism, non-discrimination, equality and social inclusion, such as:
  - Non-discrimination and equality legislation (e.g., Council Directive 2000/43/EC), as well as legislation related to racism (including hate crime), xenophobia and other forms of intolerance (e.g., Council Framework Decision 2008/913/JHA);
  - EU anti-racism action plan (2020-2025);
  - EU strategy on victims' rights (2020-2025);
  - EU action plan on integration and inclusion (2021-2027);
  - Post-Europe 2020, the EU pillar of social rights and the action plan on its implementation;
  - UN Sustainable Development Goals (SDGs);
- Refine survey methodologies for hard-to-reach populations.
- Compare with the general population in 27 EU Member States.

The agency provides evidence-based advice to EU institutions and to national and regional-local policy makers in the area of social inclusion and immigrant integration and participation. Data from the previous EU-MIDIS surveys served to populate selected Immigrant Integration and Social Inclusion indicators, indicators on civic citizenship and democratic participation, individual and collective freedoms, respect of EU core values and trust in public institutions as well as belonging and identity formation. FRA data were also used in the EU-OECD Settling in 2018. Indicators of Immigrant integration. According to the EU Action Plan on integration and inclusion

(2021-2027), efficient integration policies should be built upon reliable evidence about both integration outcomes and the impact of integration policies ([1]).

Following an EU-wide open call for tenders, in September 2020, FRA commissioned Ipsos NV, an international survey company based in Belgium, to carry out the EU Survey on Immigrants and Descendants of Immigrants and deliver all outputs within 22 months of contract signature. Additional three months were required to complete all the associated work due to factors including COVID-19 restrictions, access to required sample frames, lower than anticipated eligibility and interviewer capacity following long-standing COVID-19 restrictions in various countries.

The survey explores a range of issues concerning discrimination based on grounds prohibited by EU and international human rights law such as sex, race, skin colour, ethnic origin, religion or religious belief, membership of a national minority, disability, age, gender identity and sexual orientation, as well as respondents' experience of harassment, and violence (including hate crime), and encounters with law enforcements such as stop and search, including discriminatory profiling. Other thematic areas that the survey covers include rights awareness, civic and political participation, and group relations. To allow for analysis on housing, income and living conditions, it additionally collected a number of relevant demographic characteristics of persons and households.

The survey was conducted in 15 EU Member States. The target survey populations varied by country with details provided in Chapter 1 but in summary included:

- Immigrants and descendants of immigrants from North Africa (NOAFR);
- Immigrants and descendants of immigrants from African countries south of the Sahara (SSAFR);
- Immigrants and descendants of immigrants from Syria (SYR);
- Immigrants and descendants of immigrants from Türkiye (TUR).

A number of preparatory phases took place to develop, test and refine the survey approach. At the early stages of the project, background research was carried out to provide insight on how to best engage with the target group communities and individual respondents. In addition, possible sampling frames were mapped out to confirm or update information collected on the sampling frames available for each of

([1]) European Commission (2020), Action plan on Integration and Inclusion 2021-2027.

the countries and target groups as well as on the target groups population sizes and composition.

In advance of the main stage fieldwork, a pilot was conducted in all countries to test the questionnaire, all fieldwork materials and sampling approaches. The pilot fieldwork stage took place during the summer of 2021. A number of amendments were made following the pilot. Mainstage fieldwork was carried out from October 2021 till October 2022.

The survey used a combination of online surveys and face-to-face interviewing using random probability sampling methods where possible. The face-to-face interviews were either carried out in-home or at locations frequented by the target groups. Respondents to online surveys were invited to take part in the survey via postal invites in most countries, and through social media recruitment or through screening at locations in an exceptional case. The approach adopted in each country was determined by past experience of using the method in the country and availability of suitable sample frames within the fieldwork period. The specific fieldwork approach and mode of interview are summarised in Table 1.

A sample of total of 16,124 respondents was achieved in the mainstage, with 8,522 completes online (CAWI) and 7,602 completed face-to-face (CAPI/CASI).

Table 1 – Key features of the survey by country

Country	Target group	Fieldwork approach	Mode of data collection	Fieldwork dates	Number of interviews
Austria	SSAFR	Push-to-web	Online	24.01.2022-30.03.2022	454
	SYR				487
	TUR				805
Belgium	NOAFR	Address register with focused enumeration Quota	Face-to-face	12.02.2022-30.09.2022	425
	SSAFR				459
Denmark	SSAFR	Push-to-web	Online	04.11.2021-29.03.2022	505
	SYR				597
	TUR				528
Finland	SSAFR	Push-to-web	Online	01.11.2021-06.01.2022	507
France	NOAFR	Address register with adaptive cluster sampling	Face-to-face	30.11.2021-30.09.2022	552
	SSAFR				544
Germany	SSAFR	Push-to-web	Online	01.12.2021-10.03.2022	579
	SYR				692
	TUR				1,249
Greece	SYR	ESTIA: Multi-stage clustered sample, using individual register Accommodation facilities: Multi-stage clustered sample, using household register (households recruited by employees at accommodation facilities) HELIOS: Multi-stage clustered sample, using individual register (individuals recruited by IOM) Rest of the population: Quota	Face-to-face	10.02.-08.05.2022	405

Country	Target group	Fieldwork approach	Mode of data collection	Fieldwork dates	Number of interviews
Ireland	SSAFR	Address register with focused enumeration Quota	Face-to-face	01.11.2021-28.09.2022	524
Italy	NOAFR	Random route	Face-to-face	29.10.2021-02.10.2022	795
	SSAFR				419
Luxembourg	SSAFR	Push-to-web	Online	02.11.-30.11.2021	565
Netherlands	TUR	Location screening	Online	13.10.2021-21.06.2022	337
	NOAFR	Social media recruitment	Online	10.02.2022-04.10.2022	300
	SYR				595
	TUR				322
Poland	SSAFR	Location sampling	Face-to-face	20.10.2021-20.05.2022	561
Portugal	SSAFR	Random route and focused enumeration	Face-to-face	22.10.2021-23.04.2022	518
Spain	NOAFR	Random route and focused enumeration	Face-to-face	18.10.2021-16.08.2022	743
	SSAFR				562
Sweden	SSAFR	Location sampling	Face-to-face	18.10.2021-02.10.2022	555
	SYR				540

1. Developing the survey

1.1. Background research

The survey was preceded by comprehensive background research, the key findings of which related to different aspects of the project, and the recommendations were taken on board in the design of the survey.

The key objectives of the background research and mapping of sampling frames were as follows:

- Confirm or update information collected on the sampling frames available for each of the countries and target groups alongside potential alternatives.
- Confirm or update information held on the target groups population sizes and composition including data on generation, country of birth and density of the target groups in each country but also age, sex/gender, religion and education to provide socio-economic profiles of the target groups.
- Seek input into how the mode of the interview might affect coverage and representativity of each target group (due to online access/digital divide or literacy levels, for example), and what, if any, mitigating actions might be put in place.
- Provide insight on how to best engage with the target group communities and individual respondents including factors such as advance communications, the use of peer interviewers and mediators, and any ethical or cultural considerations when approaching and interviewing these groups.
- Collect input on the questionnaire.

The background research and sampling frame mapping drew from various sources and methods. Insights from including Ipsos NV Central Coordination Team (CCT) and national survey experts' (NSE) experiences with EU-MIDIS II and similar surveys, data from National Statistics Offices, local administrative bodies, quantitative surveys, and civil society organizations, as well as desk research, were also collected used as foundations for the survey. To complete the process, interviews with experts and community leaders in each surveyed country were conducted by the NSEs, who were

equipped with standardized materials, such as a contact protocol, interview guide, and consent form, for these interactions.

The stakeholders that were consulted and interviewed included representatives from community organisations, civil society organisations working with the survey target groups, academics and government representatives.

1.2. Human rights principles

In preparing the project, Ipsos NV reviewed the United Nations Office of the High Commissioner Human Rights (UN-OHCHR)'s guidance note on data collection and disaggregation (Table 2) ([2]). This proposes six principles that collectively form a Human Rights-Based Approach to Data (HRBAD) namely 1) participation; 2) data disaggregation and collection by population group; 3) self-identification; 4) transparency; 5) privacy and 6) accountability. Based on certain overlap between the principles and market self-regulatory codes of conduct to which Ipsos NV and its local agencies already adhere to, the CCT developed the Quality Assurance Plan (QAP) in accordance with the following human rights principles:

- To deliver reliable and robust research findings by, among other measures, meeting the requirements of the international quality standard for market research, ISO 20252;
- To have effective policies, procedures and practices in place to ensure that we all work to the same quality standards; and
- To minimise risk by focussing on quality and continuous improvement.

Ipsos NV and all local agencies are members of ESOMAR and comply fully with the ICC/ESOMAR International Code on Market, Opinion and Social Research. Of relevance to this survey and the elements of the UN-OHCHR – HRBAD, are the provisions of the code on: responsibilities to vulnerable groups (Article 2); best practice in primary data collection (Article 4); procedures for data protection, privacy and handling sensitive and personal data securely (Article 6); transparency (Article 7) and professional and legal responsibilities (Articles 9 and 10). The survey enshrined the human rights approach by ensuring that data was collected in a way that was not harmful to individuals, that respondents' privacy remains paramount, and that all personal data is

([2]) United Nations (2018), A human rights-based approach to data, Geneva, Office of the United Nations High Commissioner for Human Rights.

collected and handled in accordance with General Data Protection Regulation (GDPR), as well as national data protection legislation. In addition, during the preparatory stage of the project, key community stakeholders were consulted to ensure they were fully involved in shaping the research so that it was fit for purpose and as participatory as possible. Another key consideration was transparency about how and why respondents for this survey have been selected, and where respondents may feel comfortable or vulnerable, ensuring an approach that makes them feel at ease – e.g. working via relevant organisations or stakeholders to facilitate interviews.

In addition to these, the survey contractor had an integrated quality, compliance and information security management system – Ipsos NV "Business Excellence System", which included appropriate policies, procedures, practices and technological controls for the protection of information it holds and processes. The system meets the requirements of:

- ISO 9001, the international standard for Quality Management Systems;
- ISO 20252, the international Market Research Standard;
- ISO 27001, the international standard for Information Security Management Systems.

In addition, Table 2 details the additional steps that the CCT took for this survey with regards to a human rights-based approach to data in the areas of participation, privacy, self-identification and transparency.

Table 2 – Human rights principles application on the survey

Principle	How applied on the project
Participation	As part of the project, members of the target groups were involved as follows: • Experts representing the target groups were consulted during the background research phase for their input into the design of the survey in each country. • Where possible, the CCT and local agencies tried to recruit members of the target groups as interviewers.
Privacy	• See section 7.3 for details

Principle	How applied on the project
Self-identification	• Only people who identify themselves as belonging to the target groups were interviewed as part of the survey. Screening questions at the beginning of the questionnaire established if respondents belonged to any of the target groups through their country of birth or their parents' country of birth. If a selected respondent stated that they or their parents were not born in any of the relevant countries, they were not interviewed. • The human rights principle of doing no harm was respected throughout data collection activities. Interviewers received ethical/cultural training prior to fieldwork; data on personal characteristics was held securely; results reporting is anonymous and seeks to be beneficial to the research audience by informing national policy.
Transparency	• Detailed information with regards to the survey design and methodology is provided as part of this report. The report contains information with regards to all technical aspects of the survey including geographical coverage, survey administration, questionnaire length, interviewers and how they were trained, response rates, sampling and weighting. • FRA will publish the survey results in different formats, which will include a technical note covering all information regarding how the data was collected. • The final, anonymised, data set will be made public. • The survey reports and the dataset will be available on FRA's website.

1.3. Project management

FRA managed the survey in close cooperation with the contractor, Ipsos NV. The Ipsos Central Coordination Team (CCT) was responsible for the overall coordination and management of the survey in the 15 EU Member States. The CCT was led by a project director, who was supported by a sampling and weighting associate director, design lead, a project manager and a number of project executives. Due to the large number of countries included in the survey, responsibilities for inter-partner liaison were shared between four 'hub' coordination managers, each responsible for day-to-day correspondence with the national contractors.

Three external academic experts were included in the team to advise on key aspects of the design: Professor Peter Lynn (University of Essex) as the Senior Sampling and Weighting Expert, Professor Ibrahim Sirkeci (Regent's University) as the Migration Expert and Dr. Dimitris Skleparis (Newcastle University) as the Syrian Migration Expert.

The national research teams in survey countries consisted of local Ipsos offices and Ipsos network partners. Each research team assigned a national survey expert to lead the project at country-level.

The work in Austria was undertaken by Statistics Austria and with direct liaison with FRA. Ipsos NV only provided translations and merged the data with that from the other countries.

Table 3 – National contractors in survey countries

Country	Fieldwork company
Austria	Statistics Austria
Belgium	Ipsos Belgium SA
Denmark	DMA Research / Norstat ([3])
Finland	Taloustutkimus
France	Ipsos France
Germany	Ipsos
Greece	Ipsos-Opinion SA
Ireland	Ipsos MRB
Luxembourg	TNS Ilres
Netherlands	Labyrinth (location sampling)
Poland	Ipsos Sp, zoo
Portugal	Ipsos APEME
Spain	Ipsos Iberia S.A.
Sweden	Ipsos Sweden AB

Ipsos NV established a comprehensive Quality Assurance Plan (QAP) and risk register at the project's outset. The QAP, detailed in the annex and relevant report chapters, outlines procedures, indicators, and targets for monitoring quality throughout the survey life cycle. Monthly reports on the revised risk status made for timely identification of areas needing remedial measures. The QAP covers project management, document control, contingency measures, and adherence to human rights principles in data collection. Detailed quality targets are provided for activities such as sampling, translations, interviewing, and data processing at the end of this report (Annex 1).

([3]) DMA Research A/S was acquired by Norstat Group in summer 2021.

The report benefited from contributions by Dr Francesca Gagliardi and Professor Gianni Betti from the University of Siena. In their capacity of senior consultants on sampling and weighting, they were involved in reviewing the sampling and weighting scheme and checking calculations. They also made a substantial contribution to the revision and finalisation of this report.

2. Development and translation of questionnaire and fieldwork materials

2.1. Questionnaire development

The questionnaires from FRA's Second European Union Minorities and Discrimination (EU MIDIS II) (2016), Roma and Travellers Survey (2019) and Roma Survey 2021 were used as a basis for the EU Survey on Immigrants and Descendants of Immigrants. The background research and country/target group specific considerations were taken into account where possible, and particularly in terms of trying to keep the language as plain and simple as possible.

A number of changes were made to the structure of the questionnaire when compared with EU-MIDIS II in order to improve flow and respondent engagement. Some questions were deleted (including all those from EU MIDIS II that were asked of Roma only) and some new questions were added to ensure it was relevant to the survey audiences and the appropriate length. Annex 2 of this report provides a detailed overview of the changes compared to the EU-MIDIS II questionnaire.

A key development from the aforementioned surveys is that it was adapted to allow for self-completion due to a) data collection being online in six countries and b) to accommodate respondents who were not able to complete an interviewer administered survey in the face-to-face countries due to language barriers (between respondent and interviewer). The CCT worked with experts on push-to-web/'mobile first' questionnaire design to ensure the questionnaire was suitably adapted and would minimise mode effects. To make the questionnaire appropriate for self-completion and device agnostic, minor wording changes were made to a number of questions (examples include changing question wording from the second person to first person and removing superfluous introductory text (e.g., Please can you tell me…) to reduce the length of questions).

Annex 2 also reports the changes made to the questionnaire following the pilot.

The structure of the questionnaire followed a modular approach and was divided into the following sections as presented in Table 4.

Table 4 – Overview of questionnaire structure and content

Section	Topics covered
Introduction	• Introduction • Screening questions to establish eligibility • Language of interview/determining CASI completion (in case of CAPI) • Household information (household grid) • Current schooling of children in household (child grid) • Respondent employment situation and education • Housing and living standards
Employment	• Employment situation • Previous work experience & job search (among those not working) • Current employment contract (among those working)
Health	• Subjective assessment of own health • Limitations in daily activities • Unmet medical care needs • Access to health insurance
Rights awareness, perceptions and attitudes	• Attachment to local area/country/Europe • Self-identification as national/European/country national & as a person of African descent or a Black person • Awareness of support organisations, equality bodies, existing anti-discrimination legislation in the country • Worry about experiencing harassment in public • Avoidance of certain places for fear of being treated badly
Experiences of discrimination	• Being in the following situations: when looking for work; when at work; while using healthcare services; when trying to rent/buy an apartment/house; when in contact with school authorities (as a parent/guardian or as a student); when in contact with administrative offices or public services; when trying to enter a nightclub, a bar, a restaurant or a hotel; when using public transport; and when in a shop or trying to enter a shop • Experiences of discrimination in different situations in the 5 years and 12 months preceding the survey on the following grounds: skin colour; ethnic or immigrant background; religion or religious beliefs; age; sex/gender; disability; sexual orientation; gender identity or gender expression; other reason. • Reporting of any incident of discrimination to any organisation • Reasons for not reporting an incident of discrimination • Specific experiences of discrimination when at work and in housing • Child(ren)'s experiences of discrimination in school
Police stops	• Experiences of being stopped, searched or questioned by police in the 5 years and 12 months preceding the survey • Context or reasons for being stopped • Perceived unlawful profiling • Level of police respectfulness • Reporting disrespectful treatment by police

Section	Topics covered
Victimisation: experiences of harassment and violence	• Prevalence of (bias-motivated) harassment and violence • Characteristics of the last incidents of harassment and violence (forms, frequency, perpetrators, context, reporting, reasons for non-reporting, satisfaction with handling of complaint by police) • Impact of hate crime experience
Societal participation & Group relations	• Residency status and migration experiences • Length of stay / residence permit • Citizenship • Family reunification • Religion & religious identification • National language proficiency and language spoken at home • Inter-group relations and comfort with other groups • Trust in institutions and values • Political and civic participation
Socioeconomic background	• Marital status • Household income and financial situation • Identification with different minority groups • Experiences during the COVID-19 pandemic
Locations and social media	• Locations frequented (the Netherlands (TUR), Poland, Sweden only) • Social media usage (the Netherlands (TUR)
Interviewer questionnaire	• Interviewer's observations concerning the setting of the interview (e.g., presence of other people, language of the interview and respondent's fluency, interest in the topics of the interview)

A number of country-specific questions/categories were required in order to accurately capture the education level of respondents and household income. In the data, these are presented as single EU-wide harmonised variables. The country specific questions and categories are also provided.

The questions regarding the highest level of education gained within a survey country were based on the internationally comparable ISCED 2011 categories ([4]). The national survey experts provided the country specific categories for use in their respective countries along with how they would be mapped onto the harmonised code frame, which were approved by FRA. Respondents were also asked about the highest level of education they had achieved in any other country. Given the number of countries covered by the survey it was not possible to provide country specific categories for

([4]) More information can be found in UNESCO (United Nations Educational, Scientific and Cultural Organization) Institute for Statistics (2012), International Standard Classification of Education – ISCED 2011, Montreal, UNESCO Institute for Statistics.

each of these so a generic code frame was developed to capture the highest level of education that may have been obtained outside of the survey country which was based on ISCED 2011.

Respondents were asked about their weekly, monthly, or annual household income (either pre-determined based on what is standard in each country or selected by respondents). Those respondents who did not know or preferred not to give their exact household income were asked about income using standardised income bands. The original code frame was taken from the EU MIDIS II questionnaire. As this used only monthly bands, where applicable these were divided by four for weekly income bands or multiplied by 12 to provided annual income bands. For those countries not in the Eurozone, the income bands were converted into local currency using the exchange rate from the European Central Bank in January 2021. Some adjustments and rounding were done to make the eventual code frames more user-friendly for respondents.

Respondents were asked about their awareness of country-specific equality bodies dealing with discrimination issues and whether they had reported any experiences of discrimination to these bodies. The list of equality bodies for each country was provided by FRA.

The translations for the three questions regarding respondents' assessment of their overall health were provided by FRA. The translations were used in the European Health Interview Survey conducted by the European Commission. National basic health insurance schemes were used in question DHE04.

For the question measuring whether a household could afford an unexpected but necessary expense (SI08_3) the amount specified was set at 1/12 of the national at risk of poverty threshold for a one-person household in 2020 (60 % of the yearly median income) ([5]).

2.2. Face-to-face survey materials

In addition to the questionnaire, the following list of materials was used for the implementation of the survey:

([5]) Eurostat, At-risk-of-poverty thresholds - EU-SILC and ECHP surveys [ilc_li01]. Last update on 17.12.2020, data extracted on 15.01.2021.

- Electronic contact sheet
- Introductory letter
- Information leaflet
- Privacy notice
- Showcards
- A list of support organisations
- Interviewer manual

The privacy notice and list of support organisations are new to the EU Survey on Immigrants and Descendants of Immigrants in comparison to EU-MIDIS II. The contact sheets in EU-MIDIS were paper documents. For EU-MIDIS II respondent friendly paper copies of the questionnaire and showcards were available in various languages – this was not necessary with the introduction of CASI for the survey.

2.2.1. Electronic Contact Sheet (ECS)

The ECS was used to manage the sample, screen households, make appointments, select the respondents for interview (if applicable) and start the interview. The ECS and main survey data were designed to be linked via the iField. A core ECS version was developed and then adapted into 11 versions of the ECS to accommodate the different sampling approaches within and across countries and target groups.

2.2.2. Respondent-facing materials

The respondent-facing materials for the survey were developed by Ipsos NV in close collaboration with FRA, building on those already used in previous FRA surveys. Table 5 provides an overview of respondent-facing materials and their use.

Table 5 – Overview of respondent-facing materials

Material	Overview of content
Information leaflet	The interviewers used leaflet to inform people about the survey in a short and visual format. In a specific section interviewers could write their own telephone number so that respondents could contact them directly.

Material	Overview of content
Information letter	The content of the information letter was designed to fit a double-sided sheet of A4 paper. On the front page there was information on the survey topic and length, the incentive, who could participate and how, eligibility criteria and who to contact for further information in the survey country. On the back page there was further information on who FRA and Ipsos NV are, when the results of the survey will be published, confidentiality and how to contact FRA about personal data and how to contact national contractor.
Privacy notice	The privacy notice consisted of a detailed description of what kind of personal data FRA collects from respondents and how FRA uses that data, in line with General Data Protection Regulation (GDPR) requirements. It also provided details on who respondents could contact regarding an enquiry or complaint.
List of support organisations	Interviewers were instructed to hand out to respondents a list of local support organisation names and contact details. This was handed out to respondents at the end of the interview, unless interviewers felt it to be more appropriate earlier on during the interview: for example, if the respondent requested such a list, or if they had emotional reactions, triggered by remembering upsetting or frustrating events while answering the questions.
Showcards	Showcards were based on the approved questionnaire translations and used in paper format. For some questions the order of the codes on the showcards were presented in standard (e.g., codes list A-E) and reverse order (e.g., E-A) to help mitigate any order effect – that is codes from the top or bottom of the list being selected due to their positioning on the show card. Each pack of show cards included only one version - either standard or reverse - and interviewers were given one or the other to use for all their interviews. The show cards were checked against the final translated questionnaires by the NSEs and the CCT prior to start of fieldwork. When using the showcard, respondents only needed to state the number from the show card which corresponded to the item they have selected. If the respondent was unable to read in any of the languages due to low literacy, the interviewer read out the answer options for them. The interviewer was instructed to also read out the answer options if it seemed like the respondent could not read without saying so.

All materials were translated into all survey languages used.

2.2.3. Interviewer manual

An interviewer manual was developed to accompany interviewer training and served as a reference for interviewers once fieldwork had started. The interviewer training

manual was largely based on the one used for EU MIDIS II but was adapted and tailored by Ipsos NV in collaboration with FRA. The following topics were covered:

- Introduction, background and objectives of the survey
- Target groups
- Sampling and contact sheet
- Fieldwork and maximising response rates
- Ethical and cultural considerations
- Fieldwork materials
- Quality control and interviewer feedback.

The interviewer manual was translated into the main national language of each country and tailored as necessary according to the sampling method implemented and target group considerations.

2.3. Push-to-web survey materials

2.3.1. Respondent-facing materials

The survey invitation 'package' sent by post to each respondent consisted of an invitation letter and two reminder letters, with each using slightly different wording to tap into different motivations and maximise the response rate.

The invitation and reminder emails used for the location screening approach in the Netherlands mirrored the letters used in the push-to-web countries.

2.3.2. Materials used in the Netherlands

The interviewer manual was tailored for the location screening approach in the Netherlands. The manual focused on explaining the sampling and screening process in detail, and the process for collecting respondent's email addresses. Specific parts relevant to the questionnaire itself and carrying out the interviews were removed.

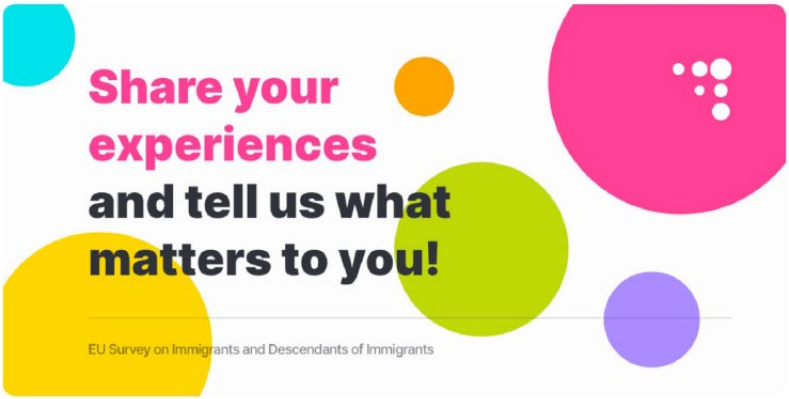
Six different adverts were developed for each target group and used for the social media approach in the Netherlands (including the social media adverts used for this approach). Images for the adverts were sourced from the iStock photo library and were sought to be relevant or relatable to the specific target groups. The text content of the adverts remained the same across all social media adverts, aside from referring to a specific target group.

2.3.3. Survey site

The same visual identity as used in the print materials was applied to the web materials for the online survey. This was important as it reinforced the branding and the legitimacy of the survey and signalled to respondents that they had reached the correct website. The URL of the website was included in the letter. The landing page prompted the respondent to choose the language they wanted to enter the site on.

Figure 1. Survey logo

Figure 2. Survey design example



2.4. Respondent assistance

To maximise response rates, it was important that respondents were able to access information and support in a variety of ways. Channels included the survey website, Frequently Asked Question (FAQ), a telephone helpline, and a contact us email form.

These materials were used in the survey pilot and mainstage fieldwork, with no changes between the two stages. A list of local support organisations (including equality bodies, other national bodies and victim support organisations) and their contact details were included on the survey site. Respondents (across all modes) could also contact the national contractor offices via telephone or email.

2.5. Translation of the questionnaire and survey materials

All interviewer and respondent-facing materials were translated into the relevant languages for use in each country. These included the national languages of each country as well as Arabic, Kurdish, Somali, Tamazight, Tigrinya and Turkish. English, French and Portuguese versions of the questionnaire were also tailored for use in other countries where it was considered useful to have these.

The full list of materials and languages is provided in Annex 3.

For the questionnaire translation, the contractor worked with 'cApStAn Linguistic Quality Control Agency'. New questions in the questionnaire first went through a translatability assessment to identify and resolve any elements that could prove problematic for the full translation. For questions that were the same or very similar as those used in EU MIDIS II and the Fundamental Rights Survey, the existing translations were used or adapted slightly.

Following that and sign-off of the source questionnaire in English, the translation of new and significantly changed questions followed the TRAPD (Translation, Review, Adjudication, Pre-test and Documentation) approach ([6]). For all national languages, translators working on behalf of each national contractor were responsible for one translation and attending the adjudication meetings, while Ipsos' translation partner, cApStAn was responsible for both the translations for non-EU languages and the second translation of national languages, adjudication, proof reading and finalisation of the translations. The translated questionnaires were provided to FRA for approval.

Some documents were only required in the national languages as they were only to be used by the interviewers (e.g., interviewer instructions) while others were required in

([6]) A detailed procedure of the TRAPD translation of the survey questionnaire is described in the Technical report of the Second European Union Minorities and Discrimination Survey (2017).

other languages also as they were materials that were to be provided to respondents to help increase participation (e.g., invitation and introductory letters) or aid completion of the interview (e.g., show cards).

2.6. Developing the electronic script

Two software programmes were used for the data collection. In nine countries, interviewing took place face-to-face with the use of CAPI/CASI on tablets with touchscreens that were given to interviewers. The contractor used iField data collection platform to field the questionnaire. iField is a fully integrated system covering all aspects of data collection for face-to-face surveys, including random probability and quota sampling approaches.

The electronic contact sheet (ECS) and the questionnaire were arranged so that all relevant information gathered through the completion of the ECS was directly inputted into the questionnaire. Once the translated and adapted versions of ECS and questionnaire were approved, the source script was overwritten with the country/language versions of the scripts. The translated ECS and questionnaire scripts were provided to the NSEs to check that the country/language versions of the scripts had been correctly uploaded, before again providing these to FRA for its own checks and approval. The ECS and questionnaire scripts underwent thorough checks and revisions.

The online data collection used the Dimensions data collection software. Ipsos NV scripted and collected data for the online survey in Denmark, Finland, Germany, Luxembourg and the Netherlands. Scripting and data collection for Austria was coordinated by Statistics Austria.

3. Interviewer selection and training

This chapter describes the interview selection criteria and process, and the training that interviewers were required to undertake before the fieldwork start.

3.1. Central Train-the-Trainer briefing

The train-the-trainer briefing, which formed the basis of the interviewer training for national survey experts (NSEs) to deliver in their countries, was held ahead of the survey pilot, on 1, 2 and 4 of June 2021. The Train-the-Trainer briefing for the Netherlands location sampling approach took place on 28 September 2021. All these sessions were held remotely due to the COVID-19 restrictions.

Table 6 – Overview of the central project briefing

Day 1	Day 2
Welcome, Introduction and overview	Individual register sampling (DE and PL)
Background and policy context of the study	Location sampling (PL an SE)
Target groups	Focused enumeration (BE and IE)
Fieldwork (introducing the survey, language assistance, maximising response, ethical and cultural considerations and progress reporting)	Address register sampling (BE, IE, EL and FR)
Questionnaire overview	Adaptive cluster sampling (FR)
Question-specific guidance	Random route + location sampling and Focused enumeration (ES, IT and PT)
Pilot	
Interviewer training	

The agenda for the train-the-trainer briefing sessions is provided in Table 6. The first day of the briefing was common to NSEs across all countries. Days 2 and 3 consisted of sessions that were focused on specific sampling approaches which meant that NSEs only joined the sessions that were relevant to the approach their countries followed.

For the Netherlands, the agenda was reduced and did not include the elements relating to the questionnaire, as these were not relevant for the location sampling approach.

NSEs actively participated in sessions, engaging in two breakout activities on the first day for variety and discussion. The first involved activity role-playing doorstep scenarios, addressing potential objections from respondents. The second featured a quiz on survey procedures. Both activities were highly valued by NSEs. The presence of FRA representatives and a background section nicely accompanied the project manager briefings. Further, the first remote train-the-trainer sessions received positive feedback. Specific sessions based on sampling methods in each country enabled in-depth exploration, supported by visual aids. Overall, the NSEs appreciated the practical focus, especially for the electronic contact sheet (ECS) and the related fieldwork outcomes.

3.2. Interviewer selection

The criteria for the interviewer selection required that interviewers working on the project would:

- Have at least 3 months of active interviewing experience, ideally on random probability surveys and with hard-to-reach/minority groups.
- Have experience conducting research using CAPI/CASI technology.
- Have experience in conducting surveys with hard-to-reach/minority groups on sensitive issues.
- Be fluent in the national language.
- Have strong computer skills, as well as conversational and organisational skills.

In addition, availability during the fieldwork period and their location in relation to the primary sampling unit selection for their country was factored. Where possible, interviewers who also spoke the other survey languages were recruited.

3.3. Interviewer training

All interviewers who worked on the project received two days of training prior to starting fieldwork ([7]).

The NSEs were asked to organise the training in advance to minimise any delays, but close enough to the start of the fieldwork period so that all information would be fresh in interviewers' minds. In addition, each interviewer had to complete and upload three test interviews before starting work, including practice on the iField contact sheet. These were checked by the NSE before each interviewer started to work on the project.

The survey materials were discussed and reviewed in detail during the sessions. The interviewer manual was introduced as part of the interviewer briefings. It was seen as a comprehensive and useful document while also excessively long which hinders on the interviewers' ability to use it effectively. Some content was reduced for the mainstage fieldwork and summaries of each chapter provided as a standalone document, but the feedback suggests there may be a need for some further reduction in the future to maximise its usability. In addition, the feedback suggests that any practical solutions for building interviewers' familiarity and confidence with the selection procedures and use of iField would be welcome. For example, it was suggested that a video or other visual guidance on the use of iField and explaining the selection procedures would be beneficial for the future.

3.4. Pilot briefings

The pilot briefings were based on the content of the train-the-trainer session and delivered by the NSE in each country. Some changes were made to the briefing materials based on the feedback received after the pilot briefings. These centred mostly around streamlining content and reworking the structure to make the sessions more practical. The changes included:

- The content in the 'Background' chapter and the basic principles around random probability sampling (day 1) was streamlined.

([7]) In the Netherlands the training was shorter as the questionnaire did not need to be covered in detail.

- ‘Maximising response’ section is something interviewers know well as it is part of their core training and skillset, and therefore this was cut down.
- While the chapter on ‘Ethical and cultural considerations’ was important for the survey, it was seen as very long. In Greece, the NSE noted that the interviewers are experienced in conducting research on sensitive issues and with various groups and so are familiar with this content already. It was decided that this chapter would be shortened, and interviewers would be asked to read it in more detail in the manual.
- The section on questionnaire overview was cut down and question-specific guidance was moved to the part where interview practice would be carried out, to enable those parts to be covered simultaneously (rather than theoretically before the practise).
- More time was dedicated on practicing the use of the ECS and going through the selection procedures.

3.5. Mainstage briefings

The NSEs provided briefings to interviewers before and during fieldwork, with some sessions conducted remotely due to COVID-19 restrictions. The briefings were effective in preparing interviewers for their task, equipping them with knowledge to manage the fieldwork efficiently, and facilitating collaborative learning. Practicing the ECS and going through the questionnaire were particularly valuable. Interviewers were engaged, participating actively, and asking questions during the sessions, and quieter interviewers were prompted to ensure engagement. Annex 3 provides details of the briefing sessions in each country.

4. Sampling

This chapter provides a description of the target populations, data sources and sampling methodologies used across the survey countries and target groups.

The survey was set out to achieve a probability sample of each target group (see definitions below) across each of the 15 EU Member States, to provide survey results that could be generalised to the covered target populations in each country. Eventually, a non-probability approach was used for a part of the sample in four Member States (Belgium, Greece, Ireland and the Netherlands), as detailed in this chapter. The sample sizes were optimised for each target group across countries taking into account the relative sizes of the populations and sample design quality.

4.1. Target groups and sample requirements

The terms 'immigrant', 'immigrant background' or 'ethnic minority' may have different meanings in different Member States, they are used to capture a range of individuals that are vulnerable to or at risk of social exclusion and/or discriminatory treatment and criminal victimisation, including also potentially 'racially', 'ethnically' or 'religiously' motivated discrimination and victimisation.

The survey sampled individuals aged 16 years and older who:

- Were usually resident in one of the Member State being surveyed ([8]) and who had been living in the survey country for at least 12 months;
- Had been living in private households in the Member State surveyed ([9]);

([8]) Residence is irrespective of the person's legal residential status in the country.

([9]) A household included either one person living alone or a group of people, not necessarily related, but who know each other, living at the same address who share household expenses. It was the individual's main place of residence, excluding holiday homes. The main place of residence was where the respondent lives most of the time, and not necessarily where they were formally registered as living.

A private household excluded business addresses and collective and institutional accommodations such as student homes, hospitals, old people's homes, residential homes, prisons, military barracks, religious institutions, boarding houses and workers'

- Immigrants and descendants of immigrants originating from North Africa (NAFR), African countries south of the Sahara (SSAFR) ([10]), Syria (SYR) and Türkiye (TUR).

Table 7 – Target groups by country of birth, or parents' country of birth

Target groups	Applicable countries
Immigrants and descendants of immigrants from North Africa (NOAFR)	Algeria, Egypt, Libya, Morocco, Sudan, and Tunisia
Immigrants and descendants of immigrants from African countries south of the Sahara (SSAFR)	Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, the Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, the Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mayotte, Mozambique, Namibia, Niger, Nigeria, Réunion, Rwanda, Saint Helena, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Sudan, Swaziland, Tanzania, The Gambia, Togo, Uganda, Zambia, Zimbabwe. France only: Anguilla, Antigua & Barbuda, Bahamas, Barbados, British Virgin Islands, Curacao, Dominica, Grenada, Guadeloupe, Haiti, Jamaica, Martinique, Montserrat, Saint Lucia, Turks and Caicos Islands.
Immigrants and descendants of immigrants from Syria (SYR)	Syria
Immigrants and descendants of immigrants from Türkiye (TUR)	Türkiye

Immigrants were defined as persons who were born in the countries defined by the target groups, while descendants of immigrants were defined as persons who were born in one of the EU Member States or EFTA countries (Liechtenstein, Iceland, Norway and Switzerland) or the United Kingdom and who had at least one parent born in the countries defined by the target groups. Immigrants and descendants of

hostels, etc. The only exception was in Greece, where population who lived in Temporary Accommodation Facilities was included.

([10]) In France, this target group also included immigrants and descendants of immigrants from Caribbean countries.

immigrants included both citizens and non-citizens of the survey country irrespective of their formal residence status.

Immigrants were identified by **country of birth.** Descendants of immigrants were identified by **parents' country of birth**. Details of which countries fell into each category are given in Table 7 below.

Defining the target groups based on respondents' country of birth, or their parents' country of birth is consistent with the approach taken in EU-MIDIS II.

The distribution of target groups surveyed across EU Member States is presented in Table 8.

Table 8 – Target groups by country

Country	Immigrants and descendants of immigrants from			
	NOAFR	SSAFR	SYR	TUR
Austria		SSAFR	SYR	TUR
Belgium	NOAFR	SSAFR		
Denmark		SSAFR	SYR	TUR
Finland		SSAFR		
France	NOAFR	SSAFR (11)		
Germany		SSAFR	SYR	TUR
Greece			SYR	
Ireland		SSAFR		
Italy	NOAFR	SSAFR		
Luxembourg		SSAFR		
Netherlands	NOAFR		SYR	TUR
Poland		SSAFR		
Portugal		SSAFR		
Spain	NOAFR	SSAFR		
Sweden		SSAFR	SYR	

(11) Including Caribbean countries of origin.

The sample size allocation aims to improve the precision of combined samples. The process looked at maximising precision of the results for each target group within a country, the results for the total population in a country, and for the total target group across countries. It also considered feasibility, sample design quality, and costs for implementing the selected sampling approaches across the countries. Finally, the process aimed to keep the minimum sample size per target group in a country at 500 interviews, to the extent possible ([12]). Meeting the last of these requirements – targeting a minimum sample size of 500 interviews per target group, meant that there was limited scope to reallocate interviews across the different groups. In any case the indicative sample sizes mostly followed the optimal sample allocation across countries within each target group ([13]).

The targeted sample sizes per country and target group are given in Table 9.

The target sample size was reached or exceeded for all countries and target groups except Belgium, France, the Netherlands and Italy. The achieved sample sizes per country and target group are given in Tables 1, 12 and 14.

([12]) If this was not possible, a minimum of 400 interviews was targeted.

([13]) In the optimal sample size review, two extremes of the optimal allocation range were looked at: i) the maximum possible cross-country sample efficiency while maintaining all country target group sample sizes at a minimum of 400 (Verma approach), and ii) a slightly less efficient method, which aimed for a compromise between overall cross-country efficiency and a more even distribution between countries (Square root approach).

Table 9 – Target sample sizes by country and target group

	NOAFR	SSAFR	SYR	TUR	Reference net sample size per survey country
Austria		450	450	700, thereof: 400 immigrants 300 descendants	1,600
Belgium	700	500			1,200
Denmark		500	500	500	1,500
Finland		500			500
France	1,150	550			1,700
Germany		500	650	1,000	2,150
Greece			400		400
Ireland		500			500
Italy	700	500			1,200
Luxembourg		500			500
Netherlands	600		550	600	1,750
Poland		500			500
Portugal		500			500
Spain	700	500			1,200
Sweden		500	500		1,000
Total	3,850	6,550	3,100	2,700	16,200

4.2. Sampling frames used for the mainstage

Given that most of the target populations are considered 'hard-to-reach' for survey research, because they are relatively small in size and/or dispersed, finding a suitable sampling source in each country that could identify the target groups was a critical part of the background research. It was necessary to complete this stage before the sample plans were developed as the available sampling sources determined what sample design was appropriate.

In countries that applied a clustered sample design, the work of optimising the design required physical access to the primary sampling unit (PSU) level data.

Sample frames that allowed direct identification of eligible individuals – via population registers – were preferred over other sampling sources as they could offer a high level of quality and efficiency. The official requests for access to population registers were made to the national statistical institutes (or other authorities holding the registers) in Austria, Denmark, Finland, Germany, Greece, Luxembourg, the Netherlands and Poland.

In countries where it was not possible to access the population registers that would enable identifying eligible individuals, alternative sample sources that would allow indirect sampling of the target groups were sought. Ideally, these sample sources would provide the target population counts at the level of small geographies that could be used as PSUs. This data would allow identifying areas of higher densities of the target groups, and a sample design that assumes screening for eligibility could be implemented.

Table 10 lists the sampling sources used in each country and target group. It provides details on:

- the primary sampling units (PSUs) accessible for clustered samples and information available for estimating the density levels within PSUs;
- the sampling frame name and the level its records are available;
- information used for determining eligibility in sampling frames that were used for direct sampling of eligible individuals.

Table 10 – Sample sources by country and target group

Country	Target group	PSU list source ([14])	Address/Individual sampling frame (level accessible – selections)	Eligibility information
Austria	SSAFR SYR	N/A	Central Population register (eligible individuals)	Country of birth
	TUR			Country of birth or country of birth of parent(s)
Belgium	NOAFR	Statistical sector level data for immigrants and descendants of immigrants (based on the National Population Register (Rijksregister) counts), Statbel 2021. The NUTS3 level data was used for quota sampling	National register of addresses (addresses) N/A for quota sampling	None
	SSAFR			
Denmark	SSAFR SYR TUR	N/A	CPR – population register (eligible individuals)	Country of birth or country of birth of parent(s)
Finland	SSAFR	N/A	National Population Register, held by the Digital and Population Data Services Agency (DVV) (eligible individuals)	Country of birth or country of birth of parent(s)
France	NOAFR SSAFR	IRIS ([15]) level data for foreign-born population adjusted based on commune level data available for the target groups. Census 2017. (counts for descendants of immigrants estimated based on EU-MIDIS II data)	La Poste – National Addresses Base (addresses)	None

([14]) This data was not considered where an unclustered single-stage design is implemented.

([15]) IRIS ('aggregated units for statistical information') – smallest statistical units in France (of a similar size) used for the census (https://www.insee.fr/en/metadonnees/definition/c1523)

Country	Target group	PSU list source ([14])	Address/Individual sampling frame (level accessible – selections)	Eligibility information
Germany	SSAFR SYR TUR	Municipality level data for foreigners (DESTATIS 2018), adjusted based on NUTS 3 level data for TUR, SSAFR (AZR ([16]) 2013) and SY, (AZR 2019) citizens, and country level figures for the total target groups (DESTATIS 2019)	Einwohnermelderegister – population register (eligible individuals)	Humpert & Schneiderheinze onomastic method ([17]) and Citizenship
Greece	SYR	Municipality level data of ESTIA program and Accommodation Facilities beneficiaries ([18]), and HELIOS project beneficiaries and residence permits holders ([19]), Hellenic Republic Ministry of Migration and Asylum 2021. The NUTS2 level data for residence permits holders was used for quota sampling.	List of ESTIA program and HELIOS project beneficiaries (eligible individuals) and Accommodation Facilities beneficiaries (eligible households) N/A for quota sampling	Country of birth
Ireland	SSAFR	Small Area level data based on ethnicity, Census 2016. The data at level of groups of local electoral areas was used for quota sampling.	GeoDirectory – Irish Postal System (addresses) N/A for quota sampling	None
Italy	NOAFR SSAFR	Census areas 'Sezioni di censimento' level data for immigrants, Census 2011, adjusted based on ISTAT 2020 municipality level data for citizenship (counts on the population with Italian citizenship estimated based on EU-MIDIS II data)	N/A	None

([16]) The Central Register of Foreign Nationals (Ausländerzentralregister (AZR))

([17]) The Humpert & Schneiderheinze onomastic method uses names to identify people who are likely to belong to the target population. Based on specialist literature of names (onomastics), complete names (first name and family name) are assigned to a language, which enables drawing conclusions about whether and, if so, which probable migration background a person has.

([18]) The Syrian population that arrived in Greece in recent years as asylum seekers have gone through ESTIA settlement programme or they were settled in Temporary Accommodation Facilities. Families with children (aged below 10 years), single mothers with children, and families with reported health issues had priority in being accepted to ESTIA programme.

([19]) A part of the population that received the refugee status is settled by HELIOS project. The remaining population with residence permits live outside of this settlement scheme.

Country	Target group	PSU list source ([14])	Address/Individual sampling frame (level accessible – selections)	Eligibility information
Luxembourg	SSAFR	N/A	RNPP – population register (eligible individuals)	Country of birth or country of birth of parent(s)
Netherlands	NOAFR SYR	N/A	N/A	None
	TUR	Municipality level data for immigrants and descendants of immigrants, CBS 2020	N/A	None
Poland	SSAFR	Municipality level data based on PESEL – population register, 2021, and NUTS2 level Office for Foreigners data, 2021	PESEL – population register (eligible individuals), N/A for location sampling	Citizenship (current and previous), N/A for location sampling
Portugal	SSAFR	Statistical sectors 'secção level data for citizenship, Census 2011, adjusted based on 2019 Immigration and Borders Service (SEF) counts at district level, and EUROSTAT/INE 2019 overall counts for naturalized immigrants	N/A	None
Spain	NOAFR SSAFR	Census sector level data for immigrants, INE 2019. (counts for descendants of immigrants estimated based on INE 2019 country level data)	N/A	None
Sweden	SSAFR SYR	Municipality level data for immigrants and descendants of immigrants based on SPAR – population register, 2020	N/A	None

Notes: N/A – not available.

4.2.1. Eligibility information in sampling sources

Ideally, the target population definition in the sampling sources would be based on the respondent's country of birth and the country of birth of their parents. The data available in the sampling sources that enabled identifying eligible target group members or determining their number and density in PSUs is summarised in Table 10 above.

The information on eligibility available in the **individual registers** is summarised in the column 'Eligibility information for individuals' of Table 10.

The information on eligibility available in the **PSU lists**, for countries where a clustered design was used, is summarised in the column 'PSU list source' of Table 10.

4.2.2. Target population sizes

Table 11 provides the target populations sizes based on the sampling sources. The data refer to both immigrants and descendants of immigrants of ages 16 and above. ([20]) The table also provides details on the data sources used and estimates (for age or generation) that were made.

([20]) Only for Austria (for both the Syrian target group and those from African countries south of the Sahara) and Greece, the data for immigrants only are provided. The proportion of descendants of immigrants was expected to be insignificant. Also, in Austria the population statistics refers to ages 16-74, in line with the population covered by the survey in Austria.

Table 11 – Target population counts by country and target group

Country	Target group	Target population size	Data source
Austria	SSAFR	24,934	Statistics Austria, 2022. The counts refer to ages 16-74 and include immigrants only.
	SYR	38,627	Statistics Austria, 2022. The counts refer to ages 16-74 and include immigrants only.
	TUR	231,903	Statistics Austria, 2022. The counts refer to ages 16-74 and includes both immigrants and descendants of immigrants.
Belgium	NOAFR	423,592	Statbel 2021, population register data
	SSAFR	189,110	
Denmark	SSAFR	36,770	Danmarks Statistik, tab FOLK2, 11 February 2020
	SYR	27,606	
	TUR	54,758	
Finland	SSAFR	30,893	Statistics Finland, 1 January 2020
France	NOAFR	4,296,782	Census 2017 data for immigrants reported 2,664,005 North Africans and 1,137,824 Africans from African countries south of the Sahara aged 16 years and above. The size of the descendants of immigrants was estimated based on the proportions observed in EU-MIDIS II.
	SSAFR	1,517,099	
Germany	SSAFR	423,000	DESTATIS, 2019 reported 2,824,000 Turkish population (immigrants and descendants of immigrants) of all ages, 529,000 Africans from African countries south of the Sahara and 843,000 Syrians. Estimates were made for population aged 16 years and above.
	SYR	674,000	
	TUR	2,259,000	

Country	Target group	Target population size	Data source
Greece	SYR	7,502	Hellenic Republic Ministry of Migration and Asylum: ESTIA/ Accommodation Facility beneficiaries, 23 August 2021, HELIOS beneficiaries, 27 August 2021, Residence Permit holders, 1 June 2021. Hellenic Police (Ministry of Citizen Protection): Residence Permit holders, April 2020. EUROSTAT (migr_acq): Syrians who acquired Greek citizenship 2007-2019. The counts include immigrants only.
Ireland	SSAFR	31,136	Census 2016. The data refer to the population of Black or Black Irish – African Ethnic or Cultural Background, from eligible countries. (The data cover both immigrants and descendants of immigrants.)
Italy	NOAFR	670,308	ISTAT, 1 January 2020 data report 691,718 citizens of North-African countries of all ages, and 466,862 citizens of African countries south of the Sahara. The numbers were supplemented by the proportion of immigrants with Italian citizenship reported in EU-MIDIS II. Estimates were made for ages 16 and above. (The counts are expected to include immigrants and descendants of immigrants.)
	SSAFR	463,446	
Luxembourg	SSAFR	20,600	STATEC, 1 January 2020 data report 19,689 immigrants. The size of the descendants of immigrants is estimated based on the proportions observed in EU-MIDIS II. An estimate was made for ages 16 and above.
Netherlands	NOAFR	345,601	Statistics Netherlands (CBS), 2020
	SYR	69,528	
	TUR	337,047	
Poland	SSAFR	3,248	An estimate based on PESEL counts, inflated for an estimate for hidden data, and for the proportion of the population outside the register (recorded in the survey). (The count is expected to include immigrants and descendants of immigrants.)

Country	Target group	Target population size	Data source
Portugal	SSAFR	195,726	Statistics Portugal 2019 annual estimates on citizenship, EUROSTAT (MIGR_ACQ) and Statistics Portugal data on the number of naturalised immigrants from African countries south of the Sahara until 2019. The data report 217,473 immigrants of all ages. An estimate was made for ages 16 and above. (The count is expected to include f immigrants and descendants of immigrants.)
Spain	NOAFR	1,046,567	Statistics Spain (INE), 2020 population register data
	SSAFR	296,148	
Sweden	SSAFR	162,769	Statistics Sweden (SCB), 31 December 2019
	SYR	146,310	

4.3. Sample design

The selection of the sample designs for each country was based on the findings of the background research, as well as on subsequent findings about accessibility of the originally chosen sampling sources. A number of different sample designs were used, depending primarily on whether a sampling frame could be found and accessed that would allow identification of the target groups.

The sample design approaches used on the survey fall into one of the following five types:

1) Multi-stage clustered samples, with primary sampling units (PSUs) selected at the first stage, and one of the following methods used for second stage selection:

    a) Addresses or individuals selected from registers; or

    b) Addresses identified via random route.

    When addresses were selected in the second stage, another stage of selection was implemented – an individual was randomly selected among all individuals eligible for the survey at the address.

2) Unclustered single-stage samples. Samples were selected from individual-level population registers allowing direct sampling of eligible target group members.

    a) Location sampling, used for recruitment of respondents for:

    b) face-to-face survey

3) online survey

4) Quota sampling (as part of the sample in Belgium and Ireland after all other options proved infeasible)

5) Social media recruitment (in the Netherlands only).

For multi-stage clustered samples without access to registers that allow sampling eligible individuals or addresses (Belgium, France, Ireland, Italy, Portugal, Spain), to improve the efficiency of the sample designs to fit the survey resources, the country sampling plans were optimised by creating density strata, that is, by partitioning the PSU list according to degree of density of the target population (i.e., percentage of target population in the total population in the PSU), and then

- excluding empty or low-density strata from the sample by setting a minimum level of density ‘cut-off’ (see Table 12 in this section for details of the countries where a density cut-off was set) and/or
- oversampling higher density concentrated strata (see Table 13 for details on how this affected the sample efficiencies).

Focused enumeration was also used alongside these approaches to improve the fieldwork efficiency. How this method worked is described later in this section.

Table 12 gives the sampling method and data collection mode used, the density cut-offs set (where applicable) or other exclusions, and the population coverage that was achieved after exclusion of low-density strata and selected regions/cities, the target and the achieved sample size.

Table 12 – Overview of sampling methods by country and target group

Country	Target group	Sampling method	Target sample size	Achieved sample size	Data collection mode	Cut-off level & exclusions	Population coverage after exclusions (%)
Austria	SSAFR	2. Unclustered single-stage sample	450	454	Online	Population aged 75+ years, immigrants only; population without access to online tools	91
	SYR		450	487		Population aged 75 + years, immigrants only; population without access to online tools	91
	TUR		400	805		Population aged 75 + years, immigrants only; population without access to online tools	97
	TUR		300			Descendants of immigrants only; population without access to online tools	86
Belgium	NOAFR	1a. Multi-stage clustered sample, address register with FE 4. Quota sample *The overall sample was treated as 4. Quota sample in weighting*	700	425	Face-to-face	1a: PSUs below 12 % density 4: Covered NUTS3 regions: BE100, BE211, BE332, BE32B, BE212, BE323, BE236, BE234	1a: 56 4: Overall coverage: 8
	SSAFR		500	459		1a: PSUs below 5.5 % density 4: Covered NUTS3 regions: BE100, BE332, BE211, BE231, BE32B, BE234, BE242, BE352, BE323	4: 70 Overall coverage: 76
Denmark	SSAFR	2. Unclustered single-stage sample	500	505	Online	Population without access to online tools and with a lower level of digital skills and irregular immigrants	>93
	SYR		500	597			>93
	TUR		500	528			93
Finland	SSAFR	2. Unclustered single-stage sample	500	507	Online	Population without access to online tools with a lower level of literacy or digital skills and population who opted out from being contacted for research purposes	86-89

Country	Target group	Sampling method	Target sample size	Achieved sample size	Data collection mode	Cut-off level & exclusions	Population coverage after exclusions (%)
France	NOAFR	1a. Multi-stage clustered sample, address register ([21])	1,150	552	Face-to-face	PSUs below 13 % density, communes with below 5,000 inhabitants and region Corse	59
	SSAFR		550	544		PSUs below 6 % density, communes with below 5,000 inhabitants and region Corse	60
Germany	SSAFR	1a. Multi-stage clustered sample, individual register	500	579	Online	Municipalities below 0.57 % density and with below 80,000 inhabitants, population without access to online tools	60
	SYR		650	692		Municipalities below 0.91 % density and with below 80,000 inhabitants, population without access to online tools	47
	TUR		1,000	1249		Municipalities below 3.06 % density and with below 80,000 inhabitants, population without access to online tools	46
Greece	SYR	1a. Multi-stage clustered sample, individual and household registers 4. Quota sample	400	405	Face-to-face	1a: Municipalities below 50 beneficiaries of ESTIA/ Accommodation Facilities/ HELIOS 4: NUTS2 regions with below 250 residence permit holders	Overall coverage: 80
Ireland	SSAFR	1a. Multi-stage clustered sample, address register with FE 4. Quota sample *The overall sample was treated as 4. Quota sample in weighting*	500	524	Face-to-face	1a: PSUs below 5 % density 4: Covered areas: groups of local electoral areas where the target population predominantly live within counties: Fingal, South Dublin, Dublin City, Cork County (including Cork City), Kildare, Louth, Meath, Galway City, Limerick City and County	1a: 42 4: 70 Overall coverage: 79

([21]) Adaptive Cluster Sampling (ACS) was intended to be implemented in PSUs with density below 25 %. However, the approach was not fully implemented by the time fieldwork closed, so addresses contacted via this method were excluded from the sample. Uncomplete ACS chains would not allow calculating the probabilities of selection.

Country	Target group	Sampling method	Target sample size	Achieved sample size	Data collection mode	Cut-off level & exclusions	Population coverage after exclusions (%)
Italy	NOAFR	1b. Multi-stage clustered sample, random route with FE	700	795	Face-to-face	PSUs below 4 % density	42
	SSAFR		500	419		PSUs below 4 % density	40
Luxembourg	SSAFR	2. Unclustered single-stage sample	500	565	Online	Population with a lower level of digital skills, or without access to online tools	95
Netherlands	NOARF	5. Social media recruitment *The sample was treated as 3a. Location sampling in weighting*	600	300	Online	Population not using social media	N/A
	SYR	5. Social media recruitment *The sample was treated as 3a. Location sampling in weighting*	550	595		Population not using social media	N/A
	TUR	5. Social media recruitment 3b. Location sampling recruitment for an online survey *The overall sample was treated as 3a. Location sampling in weighting*	600	659		5. Population not using social media 3b. Covered municipalities: Rotterdam, Amsterdam, The Hague, Utrecht	5: N/A Overall coverage: N/A
Poland	SSAFR	1a. Multi-stage clustered sample, individual register; 3a. Location sampling *The overall sample was treated as 3a. Location sampling in weighting*	500	561	Face-to-face	Covered municipalities: Warszawa, Kraków, Łódź, Poznań, and Katowice	Overall coverage: 55
Portugal	SSAFR	1b. Multi-stage clustered sample, random route with FE	500	518	Face-to-face	PSUs below 10 % density, NUTS1 regions Açores and Madeira and nine dangerous 'freguesia's	50
Spain	NOAFR		700	743		PSUs below 5 % density	55

Country	Target group	Sampling method	Target sample size	Achieved sample size	Data collection mode	Cut-off level & exclusions	Population coverage after exclusions (%)
	SSAFR	1b. Multi-stage clustered sample, random route with FE	500	562	Face-to-face	PSUs below 3 % density	39
Sweden	SSAFR	3a. Location sampling	500	555	Face-to-face	Covered municipalities: Stockholm, Göteborg, Malmö, Uppsala, Örebro, Gävle	50
	SYR		500	540		Covered municipalities: Stockholm, Göteborg, Malmö, Helsingborg, Uppsala, Örebro, Gävle	44 (selected municipalities: 31)

In Belgium and Ireland, given the small sizes of the multi-stage clustered samples and low weighting efficiency, it was decided in the weighting stage to treat the overall samples in these countries as quota samples.

In Poland, the overall sample was treated as a location sample in weighting. The multi-stage clustered sample was added to the location sample as another location type.

In the Netherlands, the social media recruitment samples were treated as location samples in weighting. The social media platforms were regarded as location types.

4.3.1. Multi-stage clustered samples

Multi-stage clustered sampling approach was used in Belgium, France, Germany (for online push-to-web), Greece, Ireland, Italy, Poland, Portugal and Spain. The approach was used for part of the sample in Greece and Poland. In Belgium and Ireland, the approach was initially intended to be used for full samples, however due to difficulties in fieldwork, a quota approach needed to be introduced for a part of the sample.

The method relies on having target population data at the level of small territorial units – primary sampling units - that allow the density levels for each unit to be estimated. Depending on whether the sampling frame of individuals was available for sampling within the selected units, the samples could be selected in two or three stages:

I. selection of primary sampling units (PSUs);

II. selection of addresses;

III. selection of individuals.

In Germany, Greece (ESTIA, HELIOS) and Poland, the data was available at individual level, and hence the sampling was conducted in two-stages, i.e. selecting PSU and selecting individuals. In Belgium, France, Greece (Accommodation Facilities) and Ireland an address register was available, and the sampling followed all three-stages listed above. In Italy, Portugal and Spain, it was not possible to use register data for sampling addresses/individuals so random route was used for address selection in these countries. As with the countries where an address register was available, the three-stage sampling approach was implemented.

In Belgium, France, Italy and Spain where two target groups were surveyed, it was explored if the groups should be sampled together as was done in EU MIDIS II. This would have meant that within in each selected PSU, interviewers could conduct an

interview with any eligible household from either of the country's target groups. This proved feasible in Italy with acceptable level of sample efficiency. For Belgium, France and Spain, this approach was compared with an approach that samples the two target groups separately. While sampling the two groups separately provided better sampling efficiency it resulted in losses in coverage and meant additional challenges in screening in areas of very low densities in a substantial number of PSUs ([22]). It was possible to adopt this approach in Belgium and Spain. In France, however this approach required many more addresses to be screened, so the two target groups were sampled together there.

Table 13 provides further details on the sample designs for the country/target groups based on a multi-stage clustered sampling methodology. This includes, the method used to select the PSUs; the expected and actual response rate; the expected and actual target group density across the PSUs selected; and the estimated sample efficiency ([23]) due to over-sampling higher density strata where used (in countries where over-sampling was not used, the efficiency was 100 %).

For the target groups covered in EU-MIDIS II, in the sample designs assumptions taken prior to fieldwork start and the fieldwork outcomes from EU-MIDIS II were reviewed in order to make more precise estimates. In EU-MIDIS II, eligibility rate estimates taken from the available PSU lists and adjusted for the descendants of immigrants where this was needed, proved to be lower in most countries. As noted in the country specific sections, this information was used to adjust the eligibility assumptions for the EU Survey on Immigrants and Descendants of Immigrants. Both the density estimated in the PSU list using the population statistics and the final assumed density following the EU-MIDIS II adjustment are presented in Table 13.

Despite the adjustments made based on EU-MIDIS II, the estimated and actual target group densities were different in many countries. These and response rate differences were monitored during the fieldwork, and the samples were adjusted accordingly. However, these differences sometimes had consequences on the number of interviews that were delivered via the multi-staged clustered approach.

([22]) Within the samples for people from African countries south of the Sahara, respectively.

([23]) The effective sample size after weighting divided by the total sample size, or (sum of weights squared / sum of squared weights)/n.

Table 13 – Details of multi-stage clustered sample designs by country and target group ([24])

Country	Target group	PSU selection method	Expected (actual) response rate	Expected [adjusted] (actual) density	Sample efficiency (due to over-sampling)
Belgium	NOAFR	Random probability proportional to size	40 % (34 %)	33 % [25 %] (15 %)	72 %
	SSAFR	Random probability proportional to size	40 % (57 %)	9 % [7 %] (6 %)	62 %
France	NOAFR	Random probability proportional to size	30 % (31 %)	35 % [32 %] (37 %)	51 %
	SSAFR	Random probability proportional to size			57 %
Greece (ESTIA)	SYR	All covered selected	40 % (74 %)	100 % (76 %)	100 %
Ireland	SSAFR	Random probability proportional to size	58 % (67 %)	13 % [9 %] (6 %)	62 %
Italy	NOAFR	Random probability proportional to size	50 % (69 %)	13 % [12 %] (20 %)	75 %
	SSAFR	Random probability proportional to size			69 %
Poland	SSAFR	All covered selected	50 % (38 %)	80 % (85 %)	100 %
Portugal	SSAFR	Random probability proportional to size	50 % (82 %)	27 % [31 %] (20 %)	79 %
Spain	NOAFR	Random probability proportional to size	55 % (80 %)	16 % [14 %] (9 %)	63 %
	SSAFR	Random probability proportional to size	55 % (89 %)	9 % [8 %] (5 %)	62 %

Oversampling high-density strata

To improve coverage of the target population, the sample designs aimed to include areas of very low-density levels (such as 3 % or 5 % - see Table 12). To improve screening efficiency of the samples, in some countries (Belgium, France, Ireland, Italy,

([24]) Details for Germany are discussed later in the text.

Portugal, Spain) a large proportion of the PSUs and addresses needed to be selected in areas with higher-than-average density levels of the target group populations – that is, areas of higher density of the target populations had to be overrepresented in the sample, at the expense of lower density areas. The consequence of applying this approach is that the resulting samples required correcting for unequal probabilities of selection introduced by the oversampling (in the weighting process), that is, the oversampling has a negative impact on the sample efficiency. For a given resource outlay, measured as the number of addresses selected and issued to interviewers for screening, the extent of oversampling required could be optimised to maximise sampling efficiency.

The PSU lists were first partitioned into multiple target group density strata. A density cut-off at the lower end was set for the target group(s); which was the threshold for exclusion from the sample (the coverage figures provided in Table 12 give the expected proportion of the target group living in areas above the threshold). The required optimisation was then achieved following the procedures described below, that is the same procedures applied in EU-MIDIS II. This maximises the degree of comparability between the two surveys.

For countries with a single target group optimisation was achieved by selecting the sample of addresses within each density stratum using a sampling fraction calculated as a function of the square root of its target group density, given by the formula below:

$$r_h = r \times \frac{N_h \times D_h^a}{\sum_h N_h \times D_h^a}$$

where: $r_1 = 0$ $\sum_h r_h = r$

and: r_h = addresses to sample per stratum h

r = target number of addresses to sample overall

N_h = density % of the target group/combined target groups (if multiple) in stratum h

D_h = number of addresses/households overall in stratum h

a = power adjustment, for optimal allocation a = 0.5

If required, the power adjustment was increased iteratively so that the sample design delivered the target number of interviews (given the fieldwork assumptions) from the target number of sampled addresses.

In countries where two target groups were sampled together, the design assumed a single selection of PSUs. That is, the PSU list was partitioned into multiple target group density strata taking into account density levels of both target groups – four density strata were defined for each group, and their combination (16 strata in total) used in the sample design. Since the target sample sizes across the groups within one country were not proportional to the actual population sizes of these groups, further adjustments were required to force the sample towards PSUs with relatively more of the under-represented target group. ([25])

The formula above, applicable when a single target group is sampled independently, would in case of sampling two groups together deliver numbers of interviews with each group in proportion to their relative numbers on the PSU list. As these numbers did not meet the target sample sizes for each group, a further adjustment was required to force the sample towards PSUs with relatively more of the under-represented target group. This was achieved by assigning an adjustment weight to the density of each target group. For two target groups:

$N_h = N_1 * W_1 + N_2 * W_2$

where: N_1 = density % of target group 1

N_2 = density % of target group 2

W_1 = weighting adjustment factor applied to target group 1

W_2 = weighting adjustment factor applied to target group 2

As with the single country formula, the weighting adjustment factors, and power adjustment can be changed iteratively to deliver the numbers required.

Selection of PSUs

In countries where face-to-face data collection was employed and a sampling frame that would allow identifying eligible addresses/individuals was not available, the information on the number of occupant target group members was required at the level of relatively small territorial units (PSUs) in order to provide reliable information on the density of the target population within their boundaries. This data was available in Belgium, France, Ireland, Italy, Portugal and Spain.

([25]) In France and Italy this applies to the group of people from African countries south of the Sahara, as the size of the North African group is significantly larger in these countries.

In Greece and Poland, the population data was available only at the municipality level. These units can be quite large, and hence could not identify any areas of high-density levels in the country. The frames, however, were able to identify eligible individuals/households, and enabled direct sampling, without extensive screening. Hence, municipalities could be used as PSUs in Greece and Poland. The same applied to Germany, where online push to web data collection was used, and eligible individuals could be sampled within the selected municipalities (PSUs).

The following steps were employed in the selection of PSUs:

1. The obtained lists of areas (PSUs) with attached target population numbers and densities were used to identify areas of higher target population (or areas where most of the target population live, in Germany, Greece and Poland) and coverage of target group living in them.

    (a) Small PSUs that would not be able to deliver the target number of interviews based on eligibility and assumed response rates (e.g., if the target is 8 interviews, a 50 % response rate and a 40 % eligibility rate is expected, the 'small' size PSUs are considered the ones with less than 40 households in this example ([26])) were grouped with others into larger units (based on geographical proximity) prior to selection, where possible.

2. Stratification variables were prepared/cleaned as required. Where oversampling of high-density units was required (to achieve the desired sample size) units were divided into explicitly defined strata based on the density of the target populations. In addition, region and urbanity served as implicit stratification variables, that is, (with each density stratum) PSUs were sorted by these variables prior to selection.

3. Low density areas (PSUs) were dropped from the sample (in the interests of fieldwork economy) ([27]).

([26]) Out of 40 households in this example, 16 are expected to be eligible (40 % eligibility rate), and 8 of them are expected to complete the survey (50 % response rate). Hence, any PSU with less than 40 households is expected to yield with fewer than 8 interviews. As mentioned in the text of this point, PSUs that are not able to deliver the target number of interviews are considered to be small.

([27]) The cut-off threshold for each country and the logic behind it is provided in the country specific chapters and sample design notes.

In Greece and Poland, areas with small population sizes were dropped instead, as dropping areas based on density where data is only available at larger geographic levels only could have resulted in dropping major target populations, e.g., the capital city if this is a single unit on the sampling frame. In addition, direct sampling of eligible addresses/individuals was applied in these countries, so density levels become irrelevant.

In Germany, the samples of public needed to be requested from a limited number of municipalities. To limit the number of cases that would be requested from the municipalities (to around 10 % of their entire population aged 16 years and above), the sample had to be selected among municipalities with higher proportions of the target populations, as well as from municipalities with larger target populations sizes. So, both, municipalities with low densities and with small population sizes were dropped.

4. The number of PSUs to be selected was determined based on the required sample size and the average number of interviews that would be conducted per PSU. This information is provided in the country specific sample design notes. In Germany due to the extensive work required to apply for the sample at each municipality, process the data in various formats and the cost of purchasing sample, the number of municipalities to be included was set at 50 (sampling frames were received from 47).

    (a) If small PSUs remained in the sampling frame following step 1a above, they were dropped entirely since this would have had only a limited effect on coverage.

5. Systematic selection of a set number of PSUs with probability proportional to size ([28]) and stratification by agreed variables was employed. In the interest of fieldwork efficiency, a disproportionately stratified design such that a higher PSU selection probability is used in areas of greater target population density was implemented in Belgium, France, Ireland, Italy, Portugal and Spain. PSUs in Germany, Greece and Poland, were not selected with probability proportional to size. In the latter two countries, all covered PSUs (municipalities) were selected. In Germany, PSUs were

([28]) The size is measured in the total number of people/addresses/households in the PSUs. For sample approaches where direct sampling was not possible, this included both eligible and non-eligible population members, as all needed to be screened in the address selection stage.

selected randomly, with equal probability, do derive an overall equal probability sample design.

Selection of addresses

The number of addresses selected and issued to interviewers in each PSU was set by the sample design (typically an equal number of addresses were issued in each density stratum, aiming to deliver on average an equal number of interviews across the stratum).

If an address register was available for use (the preferred approach) the addresses were selected systematically from the full PSU address listing, so that they were spread across the full area of the PSU.

Random route was required in Italy, Portugal and Spain as it was not possible to access an address register. Starting points (seed addresses) of the random route procedure were selected by the field manager in the local office following a strict protocol using electronic map coordinates, selected at random.

Methods for improving efficiency

Focused enumeration

Focused enumeration (FE) was used in Belgium, Ireland, Italy, Portugal and Spain and worked as follows. Addresses were sampled – from registers or by random route – in clusters of five neighbouring households. The middle address was designated the 'core address', while the other four addresses in the cluster were designated 'FE addresses'. The initial contact could be made with any of the addresses in the cluster. If the contact was successful, screening for eligible members of the target group could be conducted by proxy (by asking the residents of this address about target group membership of their neighbours) for the other four addresses in the cluster. If contact or the proxy screening were unsuccessful (refused or the eligibility status of neighbours not known) the interviewer was required to attempt contact at another address in the cluster and ask the screening questions directly, and attempt proxy screening. Proxy screening could be conducted at any of the addresses in the cluster. If eligibility was established by proxy for any address, then the interviewer was to attempt contact, confirm eligibility and attempt an interview. The same procedure was required for addresses for which eligibility could not be established by proxy.

Although a final screening outcome was required for all addresses, core and FE, the ability to proxy screen meant that in most cases the interviewer would not need to contact all of them directly, thus increasing the time efficiency of the screening.

For Belgium all five addresses in each FE cluster were pre-selected from the address register and uploaded into the iField electronic contact sheet (ECS). In Ireland, the core address was pre-selected, but interviewers then had to select the four neighbouring addresses (two adjacent addresses on each side of the core address) according to instructions provided and then enter the details into the iField ECS before attempting contact and proxy screening. For Italy, Portugal and Spain the interviewers selected core addresses via random route procedures and then recorded the core and FE addresses (identified in the same way as in Ireland) in the iField ECS before attempting contact and proxy screening. The interviewers were not permitted to include any addresses outside the clusters in the sample.

FE was applied in PSUs where the expected density of the target group(s) was below 25 %. By definition, a larger number of addresses were issued in these PSUs and so boosting the efficiency of the screening was most helpful.

Dropping and stopping rule

A PSU could be dropped from the sample (and a replacement issued) if its initial sample outcomes met a minimum threshold (termed the '**dropping rule**'), which indicated it was highly likely to be substantially less concentrated than predicted by the sample frame. The threshold was set at the PSU level, such that if the probability that the sample frame density figure was correct fell below 10 %, given the outcomes observed in the early stages of PSU contact, then the PSU could be dropped (based on the binomial distribution ([29])). The dropping rule was set at a level based on the expected density of each PSU. ([30]) For example, with a dropping rule of 16, which equates to a density level of 25 %, the rule stated that if after 16 *successfully* screened addresses all addresses were confirmed to not contain a target group member then the PSU could be dropped and replaced. In order to protect against the risk of dropping a highly concentrated PSU too easily a minimum level of 15 was set for the dropping rule in all countries.

Fieldwork in a PSU could also be stopped prematurely (i.e., without making all the required contacts at all issued addresses) if a set number of interviews (the '**stopping**

([29]) In probability theory and statistics, the binomial distribution with parameters n and p is the discrete probability distribution of the number of successes in a sequence of n independent yes/no experiments, each of which yields success with probability p. As such, the dropping rule was calculated as n, given an estimated PSU density of p, and a 10 % chance that an outcome of n screened addresses with no member of the target group present, p was indeed the correct density of the PSU.

([30]) Based on the above description, the following formula was used for calculating the dropping rule = LN(10 %)/LN(1-'PSU density level'), rounded to a higher integer.

rule') had been achieved. This was set at three times the expected number of interviews (factoring in expected eligibility and response rates). This was used to avoid overly large clusters, which could reduce sample efficiency. The individual country chapters indicate how often the stopping rule was used.

Selection of dwelling units, households and individuals

In Germany and Poland (for the part of the sample following the multi-stage clustered design) individuals were selected randomly with equal probability from the respective population registers, within the sampled PSUs. In Germany the random selection was applied in two steps, first when large samples of general public were selected from the municipal registers, and then once eligible individuals were identified in general public, samples of eligible individuals were selected with equal probability for each target group.

In Greece, all eligible individuals (one per household) were selected from the individual registers (ESTIA and HELIOS beneficiaries) in the covered PSUs. For Accommodation Facilities residents, all eligible households in the covered PSUs were selected.

In countries where addresses were pre-selected (Belgium, France and Ireland), if more than one dwelling unit was found at the address, one dwelling unit was randomly selected.

In Belgium, France, Ireland, Italy, Portugal and Spain interviewers visited the randomly selected addresses/dwelling units and made contact with the household living at the address. Once contact was made with a household, interviewers asked any responsible adult the screening questions to establish the household's eligibility. If more than one eligible person was resident, one was selected at random out of all eligible household members.

Fieldwork assumptions and managing the achieved sample size

Country specific sample designs rely on several assumptions: ([31])

i. eligibility rate (reported in the PSU lists, and corrected based on the outcomes in EU-MIDIS II)

ii. response rate

([31]) Gross sample size for each sample was calculated using a complex formula that takes into account the assumptions and adjustments described under 'Oversampling high-density strata'.

Table 13 provides the density in PSUs before and after the adjustment based on EU-MIDIS II compared to the actual density found in the field. Assumptions on the response rates are also given in the table along with the achieved rates.

In France, also an adaptive cluster sampling (ACS) assumption was implemented in the sample design. ACS makes the assumption that people from the same target group are more likely to live close to each other (in neighbouring addresses), at least to some degree. It improves the efficiency of screening rare populations and implements the principle of self-identification in data collection ([32]). In France, this was the total number of addresses to issue as a proportion of a number that would have been needed if ACS had not been applied. Eventually, the ACS was not fully implemented in fieldwork and was removed from the sample. However, the assumption was included when determining the number of addresses to issue in PSUs where ACS was planned. This is the number of addresses that was contacted and was included in the sample after the addresses contacted through ACS were removed.

As sample realisation would depend on the accuracy of the fieldwork assumptions, to manage the final net sample size the sample was issued in phases. A representative subset of PSUs (or, in Italy, a subset of addresses within PSUs) was issued in the first phase in each country. The outcomes of the early fieldwork phase were used to assess whether the response and eligibility rate assumptions were realistic and informed planning of the remaining sample. The samples in most of the countries needed to be adjusted following the review of the outcomes from the first phase of fieldwork. The second phase of fieldwork was also closely monitored throughout its duration, and when necessary, additional sample adjustments were made.

In Belgium and Ireland, the fieldwork outcomes from the first phase of fieldwork along with other issues affecting progress resulted in a change of sampling approach being adopted and quota sampling being applied for the remaining sample. The sample size also needed to be reduced in Belgium. In Greece and Poland, the yield rate from the population registers was lower than expected, so the sample allocation between the register based and quota/ location parts of the sample was changed to accommodate this. The yield rate refers to actual success rate that is dependent on the outcome of contact rate, eligibility rate ad response rate.

In Portugal and Spain (for the sample of North Africans) fieldwork outcomes from this first phase of fieldwork showed lower yield rates than expected, due to lower eligibility rates found in field, and the samples needed to be adjusted. The number of addresses

([32]) For more details on application of the adaptive cluster sampling, see FRA (2017), Second European Union Minorities and Discrimination Survey. Technical report

issued in the remaining PSUs was increased to account for this and to ensure the target sample sizes were achieved.

In Italy, the fieldwork started in a subset of 60 % of addresses in each PSU. However, early phases of fieldwork showed a significantly higher yield rate than expected, especially among the North African population. The number of addresses issued per PSU needed to be reduced, and the target for the North African group to be increased with a corresponding decrease for the African group from countries south of the Sahara. Somewhat lower yield rates were noticed in later phases of fieldwork, and the sample was adjusted again to enable the target sample sizes to be reached.

The overall fieldwork assumptions, in terms of the eligibility and response rates, proved to be accurate for France, however the rates were variable across the target groups. The yield rate among the African group from countries south of the Sahara was significantly higher than for the North African group. Given that the full sample could not be completed in France within the time available, and that a larger sample size of Africans from countries south of the Sahara was initially planned, no adjustments were made. The fieldwork was implemented on a representative subset of PSUs, and more than 500 interviews were completed with each target groups.

4.3.2. Unclustered single-stage samples

This approach was used in Austria, Denmark, Finland and Luxembourg where population registers that allow direct sampling of eligible individuals were available. As this method requires use of an online push-to-web survey, another requirement for successful implementation was that the internet use among the target population is high. Based on the background research and prior experience, all four countries were found to satisfy these requirements.

Sample for this option was unclustered, that is, selected randomly in one stage across the whole territory of the country. Implicit stratification by region and urbanity was applied in the selection in Denmark and Luxembourg, while the register provider in Finland applied explicit stratification by these variables. The unclustered single-stage approach gave an equal selection probability to each eligible individual and provides 100 % sample efficiency. The population registers in all three countries allow for direct sampling of immigrants and descendants of immigrants, consequently assuming close to 100 % population coverage. Irregular immigrants in Denmark (2 %) and population who did not consent to be contacted for research purposes in Finland (3-4 %) could not be covered by the registers.

In Austria, explicit stratification by urbanity, age, sex, education and for the Turkish target group by generation, was employed. Individuals with only compulsory schooling were sampled with higher selection probability, which was later addressed in weighting.

Fieldwork assumptions and managing the achieved sample size

Besides Austria, Denmark, Finland and Luxembourg, this sub-section also refers to Germany, where multi-stage clustered sample was used for online data collection

The gross sample size (or number of cases to be issued) in each country was based on the eligibility rate ([33]) and response rate. The assumptions made took into account the pilot outcomes. The gross sample size for each country was calculated as 'targeted number of interviews' / ('assumed eligibility rate' * 'assumed response rate'). In Finland and Germany, the sample was issued in phases. An optimistic yield rate was assumed at the outset and additional sampled cases were issued once the outcomes of the first fieldwork phase were reviewed. The phased approach was also planned for Luxembourg; however, the yield rate exceeded the optimistic assumption, and additional sample was not issued. In Denmark, all sampled cases were issued at the same time. The yield rate was also better than expected in Austria, and the full sample was issued in one phase.

Each sampled case was sent an invitation letter. In Denmark, Finland, Germany and Luxembourg, up to two reminder letters were sent to persons who did not complete the survey by the time each reminder letter had to be prepared for printing. In Denmark, a third reminder was sent to the Turkish target group as the response rate was lower than anticipated. Persons who contacted the local team and asked to be removed from the mailings (opt-outs) were also excluded from the further mailings.

In Austria a different approach was taken. Five mailings were planned: a prenotification letter, invitation letter and three reminders. The target sample size for the Syrian population was achieved after the first reminder was sent and no further reminders were sent. For the other two target groups the target sample size was reached after the second reminder was sent so it was not necessary to send the third reminder.

([33]) The population registers in Denmark, Finland and Luxembourg delivered samples with eligibility rates close to 100 %. In Germany, the onomastic procedures were expected to yield with a certain proportion of 'false positives' which would affect the eligibility rate. The experts consulted in the background research phase provided assumptions on the eligibility rate for each target group.

4.3.3. Location sampling

Location sampling was used for part of the samples in the Netherlands and Poland and for all of the sample in Sweden, similarly to the approach developed for the EU-MIDIS II survey (2016). ([34])

In Poland, the population register did not cover the full target population and the full target sample size could not be achieved from the received sample. Location sampling was used to extend coverage and to enable the target to be reached.

In the Netherlands, the initial plan for the Turkish target group was to use the location sampling for recruiting potential respondents for an online survey. However, the proportion of people recruited at the location centres who completed the online survey was significantly lower than expected, so that the social media approach had to be implemented for the half of the sample.

In Sweden, no sampling sources that allow direct sampling of the target groups nor screening samples, was available so location sampling was the only option.

Location sampling method

The procedures were based on the methodology described by Baio et al 2011 ([35]) and adapted and applied in the EU-MIDIS II (2016). It included the following steps.

1. Regional mapping, selection of regions and sample allocation

First, municipality level target group population statistics were obtained to estimate the size and distribution of the target populations and to identify regions/municipalities for inclusion in the sample. Prior to selecting these, the areas that would be used as sampling units for location sampling needed to be determined. These units would be used for mapping the location centres within them and then asking respondents if they visited those. In the Netherlands and Sweden these areas were municipalities, while in Poland, these were groups of neighbouring municipalities concentrated around regional centres.

([34]) FRA (2017), Second European Union Minorities and Discrimination Survey. Technical report.

([35]) Gianluca Baio, Gian Carlo Blangiardo, Marta Blangiardo. Centre Sampling Technique in Foreign Migration Surveys: A Methodological Note. Journal of Official Statistics, Vol. 27, No. 3, 2011, pp. 451–465

In the next step the main municipalities/municipality groups where the population could be found were identified and initial coverage was determined. It was considered important not to include too many municipalities as this could make it infeasible to cover each sufficiently extensively (given the preparatory effort and sample sizes per location required) and so that the weighting could be efficient.

In the Netherlands, Poland, and Sweden, majority of the African population originating from African countries south of the Sahara lived in small number of municipalities/municipality groups. Those municipalities where size of the target population was low were dropped from the sample, and all the municipalities/municipality groups with the largest target population size were selected.

The Syrian population in Sweden was dispersed across many municipalities, so municipalities with small target population sizes were dropped, and the sample was selected among the remaining municipalities. Municipalities with the highest population size were included, while a random selection was done among the others.

Following the selection of municipalities/municipality groups, target sample sizes were set for each. These were:

- proportional to the sizes of the target group populations in each municipality/municipality group; and
- of sufficient size to ensure sufficient interviews in each municipality/municipality group could be included in the sample. A minimum of 40 was targeted in Poland and Sweden, while originally a target of 90 was set in the Netherlands. Following the initial stages of fieldwork, due to a low yield rate, all targets for the Netherlands were halved.

2. Listing location centres in each region

Next, an extensive list of location centres where people from the target group meet/congregate (for example, community centres, marketplaces, shops, places of worship, etc.) were identified in each municipality/group of municipalities. Various sources were used for establishing an extensive list of location centres, such as: representatives of national and local communities and organisations operating in the selected municipalities, other experts working with the target population, local authorities, desk research. The country team also used local knowledge and their experience of implementing the approach in EU-MIDIS II. The centres needed to be sufficiently heterogeneous that different members of the target group would be encountered – for example, including locations where women or older people from the target group congregate/meet as well as locations where men could be found. The

objective was to reflect a range of location centres which taken together offer the possibility that most members of the target group in the area had a chance of being accessed at one or more centres.

In addition, the importance of each centre was estimated, broadly measured as the proportion of the target population that visit the centre. Experts that were involved in the mapping of location centres were also consulted when deriving these estimates.

3. Selection of location centres for inclusion in fieldwork

The next step was to decide how many locations were required in each municipality and their distribution across location types. This was based on the sample size allocated to the municipality, aiming to achieve at least 10 interviews per location centre and aiming to cover various location types in each municipality based on the importance assigned for each type. For municipalities where more than 10 interviews (initially 20 for the Netherlands) were planned per location centre, the sample allocation per location type was done in proportion to the importance assigned for each type.

The allocation was then used for selecting location centres in each municipality and distributing the sample across them. The following rules were applied:

- If the number of identified location centres of a certain type was higher than the number of centres to be selected, centres with highest importance were selected. When there were multiple location centres with the same importance, a random selection was employed. The list of selected location centres and the population profile of their visitors was then reviewed. In case it was necessary for achieving better heterogeneity, a more important centre was replaced by a less important centre.

- The minimum number of interviews per location centre was set to 10.

- Where more than 10 interviews could be achieved per location centre, the interviews were distributed in proportion to the importance of the location centres.

Following the selection of the location centres and determining the target sample sizes for each, interviewers needed to gain access to the selected location centres. At the centres, they were instructed to select respondents randomly, by selecting every n-th person, where n was determined based on the population flow at the centres. In Poland and Sweden, interviewers could either complete the survey at the location centre or could arrange with the respondent to do it at a different location, or even set up an appointment for a later time. In the Netherlands, the main survey questionnaire

was not administered by interviewers, instead the respondents were invited to complete the survey online.

During the interview, each respondent was asked to report which of the other locations in the sample they visited. This allowed calculating the overlap between the location centres as well as the importance for each centre in terms of where the target population tend to congregate.

4.3.4. Quota sampling

In Belgium, Greece and Ireland, quota sampling was used for part of the sample in each country. In Belgium this was due to very slow fieldwork progress and greatly reduced interviewer capacity as a result of several phases of the COVID-19 pandemic and related restrictions. The change in approach was needed to ensure a minimum sample of at least of 400 people from each target group. The same issues affected Ireland in addition to much lower density of the target group found in the field compared with the data obtained for sampling. In Greece, the population not covered by the three population registers (ESTIA, Accommodation Facilities, HELIOS) could not be sampled via a screening sample nor via location sampling due to the lack of available sampling sources. Given this and the very small population size of Syrians residing in Greece, a quota approach had to be adopted to cover this population, and the target sample sizes was reduced to 400.

In Belgium and Ireland, the available data at the level of small geographies (PSUs for the multi-stage cluster approach were used) was aggregated to the geographies suitable for PSUs in the quota approach – NUTS3 for Belgium and groups of local electoral areas (LEAs) in Ireland. In Greece, NUTS2 regions were used as PSUs. Regions with the largest population sizes were then selected. ([36])

Quotas were set within PSU on age by sex adding up to 75 % of the target in Belgium and Ireland, and to 60 % in Greece ([37]). In Belgium and Ireland, quotas on country of origin were also set for each target group. These were set within larger geographies (NUTS2 regions in Belgium and NUTS3 regions in Ireland) given that the geographical

([36]) Exceptions were regions in Belgium where the target population predominantly did not live in private households or were considered to work and spend more time in other regions.

([37]) In Greece, the quotas were based on Census 2011 proportions, while the target population covered by the quota sampling was wider (and included the population who moved to Greece in recent years).

spread of immigrants from different backgrounds was unknown and they added up to 60 % of the target for Belgium and 50 % for Ireland ([38]).

4.3.5. Social media online survey

In the Netherlands, where Statistics Netherlands did not provide access to a direct sample through the individual register for the survey, the North African and Syrian target groups the full sample size has been targeted via social media recruitment. For the Turkish target group, the initially planned location sampling had to be changed due to the low productivity of recruitment also to online completion and the social media approach had to be adopted for the remaining 50 % of the sample for this group. Respondents in both samples were asked a set of questions to establish whether they had a chance to be selected in the other sample, so that the samples could be linked in the weighting stage.

Based on the available information the following social media platforms were selected for the survey to be advertised on: Facebook, Instagram, LinkedIn and YouTube. A quota was set on the proportion of interviews to be achieved from each platform per target group. Adverts were targeted at the three target groups to the extent possible. This was done based on interests: specific lists of keywords (including cultural references, places, people etc. which users follow on the platforms) were developed for each target group from existing lists held by the platforms. Only people who live in the Netherlands were included. Once potential respondents chose to take part, the eligibility was established through a short series of screening questions at the start of the survey, in the same way as was done for the other approaches.

The targeted social media adverts were initially published on Facebook and Instagram.

Initially, a sample subset was issued for fieldwork with preliminary targets for the number of completes per social media platform. The sample allocation across platforms was adjusted to enable reaching balanced sample profiles. It was not possible to follow the targets exactly, but they rather gave an indication of the proportions of completed questionnaires that were expected from each target group and platform. The target sample size was reached with the Syrian and Turkish target groups, but this was not possible for the North African group despite various attempts to increase participation among this group.

([38]) The quotas for Ireland were based on the country of birth counts for the immigrants only.

5. Piloting

The chapter provides an overview of the pilot objectives and related conclusions, and summarises the key findings, recommendations and actions as a result of the pilot. The pilot fieldwork took place during June to October 2021. Three fieldwork modes were used for the pilot survey: interviewer-led CAPI/CASI, push-to-web online and recruitment of respondents via social media ads posted in Facebook. All countries and all target groups were covered, using the sampling approaches, materials and languages intended for the main stage fieldwork.

5.1. Pilot objectives

- **Test the functioning of the sampling approach (the same approach as described for the mainstage was employed for the pilot so that it can be tested).**

  The selected sampling approaches in France, Italy, Poland, Portugal and Spain eventually delivered close to the required number of interviews. However, both Portugal and Spain experienced extremely low eligibility rates in certain PSUs: in Portugal the originally issued PSUs were replaced, while the team in Spain screened double the number of issued addresses to meet the sample size requirements. Very low eligibility rates were also experienced in Belgium and Ireland, where the implemented sampling approaches delivered only a few interviews. The response rates, however, proved to be higher than expected.

  The location sampling in Poland was eventually productive, however the population flow at the locations was very low and interviewers sometimes needed to spend hours between two screening attempts.

  Interviewers found the procedures for implementing adaptive cluster sampling (ACS) and focused enumeration (FE) well explained in the manual and imbedded in the ECS. A few of them, however, were unsure of the selection of ACS/FE addresses in areas with unusual layouts/ circumstances. Also, a couple of mistakes were made when completing these modules of the ECS. This emphasized the need for longer briefing and practice sessions in the interviewer training, using maps and examples experienced in the pilot.

- **Test the feasibility of the 'push-to-web' online data collection methodology including the likely response rate of this phase, and the administration**

procedures including managing the postal mail-outs, helpline, and fieldwork quality control, collecting meta- and paradata and monitoring procedures.

Overall, the push-to-web method turned out feasible in all selected countries. The response rate of 12 % achieved in Luxembourg with only one mailing was encouraging that similar could be expected in the mainstage. The response rate in Finland was lower than expected. This may have been due to the fieldwork taking place during the main summer holiday period.

The NSEs responsible for administration of the letters, reminders, incentives and helpdesk reported that the procedures for the most part worked well.

- **Test the feasibility of social media recruitment through Facebook in the Netherlands.**

  The social media recruitment approach worked well with the North African and Syrian target groups in that the required number of interviews was achieved quickly. The analysis on the respondent profiles by each target group showed broad alignment with what could be expected from the target group, based on the background research. The survey was completed in the languages that were expected of the two target groups, in broadly the expected proportions. Based on these findings, the social media approach was deemed as viable for the mainstage in the Netherlands.

- **Test the face-to-face fieldwork protocols including the electronic contact sheet, collecting meta- and paradata, the process of gaining participation and consent from respondents, CASI administration, fieldwork quality control and monitoring procedures, and refine strategies for interviewers to deal with reluctancy to participate.**

  For the most part, the face-to-face fieldwork protocols worked well. There was some hesitation among the target groups to take part, the extent of which varied by country. While a number of the reasons for refusing to take part are similar to those given for any survey, interviewers felt there was a level of mistrust, particularly among respondents originating from African countries south of the Sahara. There was already considerable content in the training materials on how to encourage people to take part.

  There was limited use of the CASI approach, but it appeared to have worked well among those few respondents who opted to use it.

  Among those who took part, no issues were reported regarding obtaining informed consent. Random selection of respondents has also been possible.

Meta and paradata was successfully collected or can be appended to the data post-fieldwork.

- **Test the screening questions to ensure that all individuals that are part of the target group are identified by the questions.**

  There appeared to be no issues with the screening questions in that respondents were able and willing to self-identify using them.

- **Test the usability and functioning of the questionnaire instruments, including the question routing and the technical design, and provide an additional assessment of the equivalence of the survey instrument across languages and the quality of the translation and the adequacy of terminology.**

  Only one scripting issue was identified with the face-to-face script by the CCT - the routing for HH08 needed to be checked as there were four respondents who were not asked their country of citizenship. Aside from this no routing errors were identified.

  While the overall interview length was in line with the expected 45 minutes, it varied considerably by country and by mode. For most of the countries where interviews were conducted face-to-face, the interview length was fine. Only in Germany and Greece, the median length came to over an hour but in both cases reasons for longer completion time were found. In one of the push-to-web countries, Finland, the median questionnaire length greatly exceeded the expected 45 minutes at (1 hour 10 minutes).

- **To identify any gaps in the interviewer training.**

  Feedback on the interviewer briefing session was positive. There were no major gaps, but it was clear that sufficient time should be devoted to explaining how the various sampling procedures work in the field and for practising with the ECS. The potential for reducing the content in the briefing and manual which is already well known by experienced interviewers was also noted.

5.2. Key findings, recommendations and actions taken after the pilot

5.2.1. Sampling

- Given the higher-than-expected yield rate in the pilot from the first mailing only in **Luxembourg**, the recommendation was to organise mailings for the mainstage in batches so that a smaller gross sample size than originally assumed can be used initially, and additional cases are invited only if necessary.
    - **Actions taken as a result:** Instead of starting with inviting 4,000 individuals to take part in the survey, that is, assuming a yield rate of 12.5 %, and keeping an additional 2,000 cases in reserve, it was decided to start with 3,000 invites, assuming a yield rate of 17 %. The remaining 1,000 cases were kept in reserve. However, it was not necessary to issue an additional sample batch during the mainstage fieldwork, as the targeted sample size has been achieved and exceeded with the original 3,000 cases.
- The yield rate in **Finland** proved to be significantly lower than expected (believed to be related to the holiday period), so the planned gross sample size needed to be reviewed.
    - **Actions taken as a result:** Following the pilot experience, a larger sample size than originally planned was ordered. It was still decided to start with inviting 3,000 individuals to take part in the survey, as assumed in the proposal stage. Since the yield rate continued to be low, an additional 1,500 individuals were invited. The NSE reported that the yield rate on all push-to-web surveys declined in that period, given the increased number of such surveys since the COVID-19 pandemic start.
- In Belgium, Ireland, Portugal and Spain the eligibility rate proved to be lower than expected; either due to a mistrust of the community (and a high proportion of addresses for which it was not possible to establish eligibility), or due to seemingly inaccurate data in the PSU lists. The recommendation to the local teams who experienced high proportions of addresses with unknown eligibility was to work with the local communities to build trust. On the other hand, the response rates in Ireland, Italy, Portugal and Spain proved to be higher than expected in the pilot PSUs.

- **Actions taken as a result:** The pilot experiences were considered when designing the mainstage samples and deciding on the sampling management plan. Progress was reviewed after completing fieldwork on a sample subset, and when the yield rate was different than expected, the sample design was adjusted in agreement with FRA.

- Careful sample management was highlighted as important in the mainstage. The recommendation was for fieldwork to start in a representative subset of the sample, and accuracy of the fieldwork assumptions to be reviewed, before the rest of the sample can be issued. If necessary, the sample design, and the number of issued addresses to be adapted.

  - **Actions taken as a result:** Sample performance was closely monitored, and the design was adjusted when the original assumptions proved to be incorrect.

- During the pilot, it was acknowledged that additional efforts will be needed in Greece, both by the local team and FRA, to attempt to secure the required sample for the mainstage.

  - **Actions taken as a result:** The local team with support from FRA communicated extensively with Hellenic Republic Ministry of Migration and Asylum, as well with the other institutions recommended by the Ministry. This resulted in eventually obtaining the samples for ESTIA program, HELIOS project and Accommodation Facilities beneficiaries. However, it was not possible to obtain the sample for residence permit holders.

Briefing sessions and training materials

- The main recommendation relating to the **briefing materials** was for sufficient time to be devoted to practical sessions that allow interviewers to become familiar with the ECS and on explaining how to select ACS and FE addresses in the relevant countries as this is an area that some interviewers also struggled with.

  - **Actions taken as a result:** The briefing content was revised based on specific feedback from the interviewers and NSEs, which included more practical examples and exercises around the ECS. More time was devoted to these parts of the briefing sessions.

- While considered informative, interviewers found the **interviewer manual** too long and in places too theoretical. This made it difficult to use practically. There were elements of duplication that could be eliminated to help with overall length. More graphical presentation of some elements (e.g., ECS and ACS, FE procedures)

may also be beneficial. Providing the summary version as fact sheets might make this more user friendly in the field.

- **Actions taken as a result:** The interviewer manual was revised and reduced, to cut down repetition. The key information was lifted into a separate, short document to allow interviewers to bring this with them in field.

5.2.2. Push-to-web fieldwork

- The main recommendation from the NSEs in Denmark and Finland was to use only the country's national language for the letters and invites to streamline this process when implemented on a larger scale (reducing room for error). If needed, information in other languages could be provided on a web page with a reference to this in the letter. In Finland it is recommended to put the QR code on the first page.

  - **Actions taken as a result:** The letter administration process was revised in Denmark, based on the feedback: only the Danish version of the letter was tailored, while other language versions that were sent contained references to this version in terms of where to find the login code for example.

In Finland, after discussion, no changes were made to the letters.

5.2.3. Face-to-face fieldwork

- Engaging with community representatives and organisations to help promote the survey among the target groups would likely be beneficial in most countries and would help with the key barrier faced during the pilot fieldwork – potential respondents being mistrustful of the survey or showing a lack of interest in it.

  - **Actions taken as a result:** Community organisation involvement was discussed, and the pros (legitimacy of the survey and profile-raising, rising interest in taking part) and cons (false hopes of people being able to take part as random selection rules need to be taken into account) were considered. Eventually only the NSE in Sweden engaged community organisations, in an attempt to recruit interviewers and promote the survey.

- For countries where addresses are pre-selected, sending advance letters was seen as potentially beneficial, but it could not be incorporated into the current budget.

- The only additional language identified was for Kurdish to be made available in Greece. This was straightforward to implement, as the existing Kurdish translation was suitable for the Syrian target group and was made available in Greece.

5.2.4. Questionnaire

- For face-to-face countries the interview length was in line with that specified in the tender documents except in Greece. It is likely that the use of interpreters was increasing the survey length here. As it will be necessary to use interpreters for the mainstage, they must be trained on how to do this and to avoid adding their own explanations of questions and answers which may help with the interview length.

- For the push-to-web countries the interview length was longer than expected in Finland, but in line with the specifications in other countries.

- A number of suggestions for additional clarifications to be made to specific questions were proposed after the pilot.

    - **Actions taken as a result:** Various changes were made to the questionnaire based on the pilot feedback.

- Item non-response was relatively limited suggesting the questionnaire is well understood. The main question identified as potentially problematic is PB15 (trust in institutions) for Syrian respondents in Greece given their lack of awareness and engagement with these institutions. This was reflected in the high level of 'don't know' responses in Greece. There were also reports that Syrian respondents were not able to answer the questions on income easily in Germany and Greece. The list of income sources should be reviewed to ensure it caters for this group.

    - **Actions taken as a result:** The income questions were revised and simplified after the pilot.

6. Fieldwork

This chapter provides information about fieldwork management, fieldwork dates and progress, quality checks during fieldwork, the implementation of the contact strategy, interview administration and the languages used, the use of incentives and the fieldwork outcomes by mode.

Fieldwork was completed via two modes – face-to-face (CAPI/CASI) in nine countries and online (CAWI) in six countries, depending on the available sampling frames. In the nine face-to-face countries, the sampling approaches varied by and within country as is discussed in Chapter 4 – Sampling.

For the online countries, in all but the Netherlands, respondents were invited to participate by letter with reminders sent by post. In the Netherlands, as a sample of eligible individuals with addresses could not be obtained, respondents from the Syrian and North African target groups were recruited via social media channels, while the Turkish target group was recruited via a combination of social media and in person location screening. For the latter, potential respondents were screened at locations and if found to be eligible either invited to participate via email (where respondents agreed to provide an email address) or given a leaflet similar to the invitation letter used in other groups with the survey website link and login details.

The technical specifications provided an indicative total sample size of 16,200, with a preliminary allocation across the 15 countries (as shown in Table 14). Across the 15 countries, a total of 16,124 interviews were accepted and included in the final dataset. This figure excludes interviews that were achieved, but later removed as they did not meet the quality criteria in terms of interview length, item non-response and respondent language ability (see Chapter 7 on data processing for more details).

Table 14 shows the fieldwork dates, how the number of interviews is distributed across each of the target groups in the 15 surveyed countries, and the number of interviewers originally achieved (before the quality criteria were applied). The initially targeted sample sizes following the sample design phase are also provided.

Due to difficulties during fieldwork (described later in this section), the target number of interviews to be achieved in Belgium was reduced to 400 for each target group. Similarly in Greece, after the start of fieldwork and given the difficulties in securing sample frames, the target sample size was also reduced to 400. The overall target remained the same, however, at 16,200.

Fieldwork in most face-to-face countries was severely impacted by COVID-19 pandemic resulting in a much longer and complicated fieldwork period than had been anticipated.

In Poland, the proportion of interviews to be achieved from the individual register could not be reached and so some of the target sample was allocated to location sampling.

In contrast, the online fieldwork was relatively straightforward, particularly in the five countries where an individual register of eligible individuals was available. In Germany, invitations had to be staggered in three batches due to sample frames from individual municipalities being received over a long period of time, and in Denmark (among the Turkish target group) and Finland a slightly lower than expected response rate was achieved requiring the issuing of a top up sample. Despite these events, data collection proceeded largely without any problems. In the Netherlands, the social media recruitment delivered the required number of interviews among the Syrian and Turkish target groups quickly. Among the North African group, the social media recruitment was less successful. The location sampling of the Turkish target group worked well overall, but COVID-19 had an impact on fieldwork progression, both due to government restrictions as well as fewer people being present at locations. Nonetheless, the target number of interviews was achieved.

Table 14 – Summary of mainstage fieldwork by country and target group

Country	Target group	Approach	Fieldwork dates	Initial target sample size	Revised target sample size	Achieved sample size	Accepted sample size	Location of interviews
Face-to-face								
Belgium	NOAFR	Address register with focused enumeration; Quota	12.02.2022 – 30.09.2022	700	400	432	425	Respondent's home
	SSAFR			500	400	463	459	
France	NOAFR	Address register with adaptive cluster sampling	30.11.2021 – 30.09.2022	1,150	1,150	552	552	Respondent's home
	SSAFR			550	550	545	544	
Greece	SYR	**ESTIA**: Multi-stage clustered sample, using individual register **Accommodation facilities**: Multi-stage clustered sample, using household register (households recruited by employees at accommodation facilities) **HELIOS**: Multi-stage clustered sample, using individual register (individuals recruited by IOM) **Rest of the population**: Quota	10.02.2021 – 08.05.2022	500	400	417	405	Accommodation Facilities/ Respondent's home
Ireland	SSAFR	Address register with focused enumeration; Quota	01.11.2021 – 28.11.2022	500	500	532	524	Respondent's home
Italy	NOAFR	Random route	27.10.2021 – 02.10.2022	700	700	812	795	Respondent's home
	SSAFR			500	500	427	419	
Poland	SSAFR	Location sampling	28.10.2021 – 20.05.2022	500	500	567	561	Respondent's home / Locations

Country	Target group	Approach	Fieldwork dates	Initial target sample size	Revised target sample size	Achieved sample size	Accepted sample size	Location of interviews
Portugal	SSAFR	Random route and focused enumeration	22.10.2021 – 23.04.2022	500	500	518	518	Respondent's home
Spain	NOAFR	Random route and focused enumeration	21.10.2021 – 16.8.2022	700	700	748	743	Respondent's home
	SSAFR			500	500	565	562	
Sweden	SSAFR	Location sampling	28.10.2021 – 02.10.2022	500	500	556	555	Locations
	SYR			500	500	542	540	
Push-to-web								
Austria	SSAFR	Push-to-web	24.01.2022 – 30.03.2022	500	450	454	454	Online
	SYR			500	450	487	487	
	TUR			600	700	806	805	
Denmark	SSAFR	Push-to-web	04.11.2021 – 29.03.2022	500	500	507	505	
	SYR			500	500	599	597	
	TUR			500	500	533	528	
Finland	SSAFR	Push-to-web	01.11.2021 – 06.01.2022	500	500	508	507	
Germany	SSAFR	Push-to-web	01.12.2021 – 10.03.2022	500	500	579	579	
	SYR			650	650	693	692	
	TUR			1,000	1,000	1,253	1,249	

Country	Target group	Approach	Fieldwork dates	Initial target sample size	Revised target sample size	Achieved sample size	Accepted sample size	Location of interviews
Luxembourg	SSAFR	Push-to-web	02.11.2021 – 30.11.2021	500	500	565	565	
Netherlands	TUR	Location screening	13.10.2021 – 31.03.2022	300	300	339	337	
Social media recruitment								
Netherlands	NOAFR	Targeted adverts posted in Facebook to recruit respondents to complete the online survey	10.02.2022 – 03.10.2022	600	600	302	300	Online
	SYR		10.02.2022-11.05.2022	600	600	614	595	
	TUR		10.02.2022-01.06.2022	300	300	323	322	

6.1. Face-to-face data collection

6.1.1. Fieldwork dates and progress

Fieldwork was originally scheduled to take place between 2 September 2021 and 14 January 2022. Measures implemented to reduce the spread of COVID-19 across the survey countries delayed the pilot fieldwork, it needed to be extended longer than expected to complete in some countries. As a result, the mainstage fieldwork in most face-to-face countries started in the second half of October 2021. Fieldwork took longer than timetabled in all countries except Greece.

In Greece, the later start occurred as a result of the delay of various bodies providing sample frames and supporting access to the survey population.

Fieldwork in Belgium did not start until February 2022 as initial resourcing issues meant that there were no interviewers available to start working until late November 2021. At this point government restrictions due to the COVID-19 Omicron wave which hit Europe at around that time prohibited face-to-face fieldwork from starting. Fieldwork started in February 2022 as these restrictions were lifted.

Fieldwork progressed at varying rates across countries. Among the face-to-face countries, fieldwork in Greece was completed in the shortest time frame as the target number of interviews was reached within approximately three months of starting (even though it had started later than most face-to-face countries, as noted above). In several other countries, fieldwork lasted almost 52 weeks, despite it being paused for varying periods of time due to COVID-19 restrictions.

6.1.2. Incentives

Incentives in the form of low value gift vouchers were used in the majority of countries as summarised in Table 15. In Belgium, incentives were paid via an online bank transfer. Where used, they are seen as a valuable means of being able to thank respondents for giving up their time to take part in the survey. At the same time, they were generally not seen as a key driver of participation. Instead, the opportunity to contribute to something with social value was often seen as a bigger motivator. In Greece it was noted by some respondents that the monetary value was a bit low.

The vast majority of respondents accepted the incentive as can be seen in Table 15. In Belgium respondents were sent an email requesting their bank details so that the transfer could be made. Only 26 % of respondents ended up providing their details, even after reminders were sent.

Table 15 – Incentives provided by country and proportion of respondents who accepted it by country

Country	Incentive type and value	Percentage who accepted %
Belgium	10 EUR bank transfer / 8 EUR gift card	26
France	*No incentive offered*	*N/A*
Greece	5 EUR gift voucher	100
Ireland	10 EUR voucher	99
Italy	10 EUR voucher	94
Poland	30 PLN voucher	97
Portugal	*No incentive offered*	*N/A*
Spain	9 EUR voucher	97
Sweden	200 SEK gift voucher	98

6.1.3. Making contact

For the random probability sampling approaches, interviewers were required to record all contact attempts made at each selected address. In countries using focused enumeration, addresses that were found to be ineligible through proxy screening were not included among the contact attempts as these addresses were not physically visited. A final outcome (refusal, interview, establishing ineligibility or that the address was invalid) was achieved for the most part on the first visit. However, as can be seen from Table 16, in all countries interviewers did make more than the minimum three visits on occasion to help secure interviews.

Table 16 – Contact attempts per issued address by country

Country	Mean	Median	Minimum	Maximum
Belgium ([39])	1.66	1.00	1.00	11.00
France	2.21	2.00	1.00	13.00
Greece ([40])	1.47	1.00	1.00	4.00
Ireland ([41])	1.29	1.00	1.00	9.00
Italy	1.26	1.00	1.00	9.00
Poland ([42])	1.67	1.00	1.00	5.00
Portugal	1.31	1.00	1.00	5.00
Spain	1.21	1.00	1.00	11.00

6.1.4. Willingness to cooperate and to identify as target groups

For the most part, interviewers report that members of the target groups were cooperative, particularly when interviews were conducted in-home, and that there is not a marked difference between conducting research among these groups and conducting research among the general public.

There are some exceptions. In Belgium, interviewers reported greater levels of mistrust. Large parts of the population live in apartment buildings with intercom systems which perhaps makes it harder to form direct connections with potential respondents. In Spain, also, mistrust among the target groups was reported with a suggestion that these communities are less accustomed to taking part in social surveys.

In France, Poland, and Spain, interviewers reported instances of respondents being concerned that the interviewers were government officials. In these instances,

([39]) Only applies to the probability part of the sample.

([40]) Only applies to address-based part of the sample.

([41]) Only applies to the probability part of the sample.

([42]) Only applies to address-based part of the sample.

interviewers had to provide reassurances and stress that data would remain anonymous.

In Poland and Sweden, cooperation varied across locations. In Poland, for example, locations that had fewer people or appeared more private (e.g. offices of civil society organisation) worked better, while in Sweden it was more difficult to recruit respondents in locations such as supermarkets as respondents would be eager to take shopping home or get on with their other tasks. The interviewers' efforts, however, paid off, and the targets were met for the supermarkets (grocery stores) in Sweden.

Willingness to identify as members of the target group was not as issue for the most part. Belgium reported that respondents seemed more relaxed about this when interviewers were from the same or similar communities as them.

6.1.5. Perceived impact of COVID-19

The impact of COVID-19 varied between countries. In Greece it was not seen to have any impact, which in part was related to the timing of the fieldwork which only started in February 2022 when the peak of the Omicron wave was already passing. In other countries, fieldwork was very slow during certain periods or was stopped completely due to restrictions in place. For Sweden and Poland, the two countries using a location sampling approach, it was often the case that fewer people were present in selected locations and that many of these locations operated shorter opening hours as a result of their respective national restrictions.

Interviewers contracting COVID-19 as well as their own concerns about conducting work in people's houses particularly where social distancing and mask wearing recommendations were not followed by respondents, also had an impact on fieldwork.

The biggest impact was seen in Belgium, France, and Ireland where the available field force was greatly reduced. During periods of lockdown in the time leading up to and during fieldwork, interviewers left the industry and did not return. Demand for those remaining was high and required a variety of measures to retain a sufficient pool of interviewers.

6.1.6. Interview administration and languages

Language and comprehension

The CAPI/CASI script was available in the national languages as well as a number of other languages relevant to the target groups in each country. In most countries, most

interviews were conducted in the national languages. The exceptions to this were in Greece where around 10 % of interviews were conducted in Arabic (sometimes with the assistance of an interpreter) and among the Syrian target group in Sweden where around a quarter were conducted in Arabic. This points to the importance of having the Arabic version of the questionnaire for the Syrian target group. The extent to which the other languages were needed is debatable given how infrequently they were used (by both interviewers and by respondents for self-completion – see Table 17). NSEs did report that, on occasion, these were helpful for respondents to read and clarify questions in an alternative language. Their use was also restricted by the fact that the vast majority of interviewers only speak the national languages.

Interviewers were asked to assess the level of respondent's command of the language the interview was conducted. For the most part, the level was considered at least fair. The main exception to this was in Greece where 23 % of all respondents were rated as having a poor command of Greek.

Linked to this is respondents' comprehension of the questions, with the vast majority rated as being able to understand at least most of the questions. Among those who did not understand all the questions, this was, in some countries (Greece and Spain), due to the respondent having language difficulties. However, overall, question phrasing was most often cited as the main issue.

As it was possible to conduct most interviews using the national languages in most countries, use of the CASI option was limited. In total, only 65 interviews were administered in CASI. In the future, further briefing of interviewers on when to use this and how to encourage respondents to self-complete could help increase the number of respondents who self-complete in a language which is more familiar to them than the national language.

Tables in Annex 3 provide information on interviewers' assessment of respondents' language fluency, comprehension of the questions, reasons for misunderstandings, respondents' cooperation and interest in the topics by country and target group.

Table 17 – Languages offered and interviews conducted by country and target group (face-to-face)

Country	Target groups	Language(s) offered Number of interviews completed in each language
Belgium	NOAFR (425)	Arabic: 4; Dutch: 116; English 1; French: 300; Tamazight: 4
	SSAFR (459)	Arabic: 0; Dutch: 94; English 32; French: 333; Tamazight: 0
France	NOAFR (552)	Arabic: 12; French:540; Tamazight:0
	SSAFR (544)	Arabic: 1; French:543; Tamazight:0
Greece	SYR (405)	Arabic: 41; Greek:359; Kurdish:5
Ireland	SSAFR (524)	Arabic:0; English: 523; Somali:1
Italy	NOAFR (795)	Arabic: 4; English:1; French:0; Italian:790; Tigrinya:0
	SSAFR (419)	Arabic: 0; English:5; French:1; Italian:412; Tigrinya:1
Poland	SSAFR (561)	Arabic: 0; English:23; French:8; Polish:530
Portugal	SSAFR (518)	Portuguese: 518
Spain	NOAFR (743)	Arabic :1; French: 0; Spanish: 742; Somali: 0; Tamazight:0
	SSAFR (562)	Arabic :0; French: 1; Spanish: 561; Somali: 0; Tamazight:0
Sweden	SSAFR (555)	Arabic :9; Somali: 6; Swedish: 526; Tigrinya:14
	SYR (540)	Arabic :132; Somali: 0; Swedish: 408; Tigrinya:0

Questionnaire and engagement

The feedback on the questionnaire suggests that, overall, it was generally well received, understood and interesting to respondents.

However, in some cases the questionnaire was found to be quite long and repetitive at times. The highest level of disinterest was recorded in Portugal. Indeed, there are some inefficiencies that can be identified for the future. For example, the main activity status is already captured at the start of the survey in HH04 but is then asked about again in the specific section on work and health. This information could be fed through or restructured to enhance efficiency and to cut down the length of the questionnaire.

In Italy, Poland, Spain, and Sweden, interviewers highlighted that respondents were often reluctant to disclose information on their income, despite reassurances on confidentiality. This is reflected in the high level of non-response encountered on

these questions. Potential reasons are concerns on how the data will be used, possibly leading to negative consequences, and not wanting to share information about work being undertaken unofficially.

In Greece and Italy, it was noted that some respondents found the questions asking about different national bodies and institutions difficult due to a lack of familiarity and engagement with them.

Most often, the phrasing of the questions was reported to cause confusion. For example, one of the categories in questions DX1.1 and DX1.2 combines seven different activities within one category, starting from ones that are less commonly engaged in, '*Tried to enter a night club, a bar, a restaurant or hotel, used public transport, been in a shop or tried to enter a shop'*. The length of this category combined with the diversity of activities it is asking about risks misinterpretation and therefore data quality. The data shows that this question attracted a high level of respondents saying they have not done any of these things in the last five years. This question should be reviewed for future surveys. The number of different services and the fact that the most likely activity of these – going to a shop – appears last on a long list, may have resulted in a higher-than-expected proportion of respondents saying that they have not done any of these things.

In the future, valuable information to simplify and improve the questionnaire wording could be gathered from national contractors, interviewers, as well as potential respondents if enough time and resource is built in for the survey development stage.

Presence of others during the interview

In most cases, respondents were alone throughout the whole interview, as illustrated in Table 18. This was less likely to be the case in Greece and in Spain (among North Africans). In Greece, this was often due to the presence of the organisations who helped to arrange the interview, alongside others including friends, partners, and children. Among the North African target group in Spain, partners and children were most often present during the interview.

Table 18 – Presence of other people during at least some of the interview by country and target group

Country	Target group	No one else present %	Spouse/partner present %	Child(ren) present %	Friend(s) present %	Other family member present %	Other person present %
Belgium	NOAFR (425)	82	3	6	7	3	3
	SSAFR (459)	82	3	6	7	3	4
France	NOAFR (552)	72	16	11	2	3	2
	SSAFR (544)	78	9	12	2	6	0
Greece	SYR (405)	61	6	6	14	2	19
Ireland	SSAFR (524)	83	3	6	5	4	0
Italy	NOAFR (795)	81	8	8	3	2	3
	SSAFR (419)	77	10	8	7	4	3
Poland	SSAFR (561)	97	2	1	1	0	0
Portugal	SSAFR (518)	81	6	8	2	5	1
Spain	NOAFR (743)	60	13	23	3	9	5
	SSAFR (562)	76	6	11	6	6	2
Sweden	SSAFR (555)	92	1	1	7	1	1
	SYR (540)	81	6	5	8	5	1

Base: All accepted interviews (n in brackets).

Fieldwork materials

The electronic contact sheets (ECS) were a big improvement to the paper-based contact sheets used for EU MIDIS II. They were straightforward to use and where focused enumeration was being used, helped to manage this process. They were also designed to manage the implementation of the adaptive cluster sampling (ACS) (used only in France), but interviewers still made errors as ACS chains were not being completed by the end of the fieldwork. This was, in part, due to the local team not being able to complete fieldwork in France. However, if ACS is to be used again in the future, closer monitoring of how it is applied by the local team is needed to make sure that it works.

As noted, in Italy, some interviewers visited more addresses than they should have in some PSUs, with interviews conducted at these addresses removed from the sample. A potential improvement to the ECS is to install a cap on the number of addresses that can be opened when implementing random route, to avoid this situation arising in the future.

The limited feedback on the showcards suggested that they worked fine. Other materials such as the information letter, postcard, and privacy notice were seen as useful to help introduce and validate the survey. Although they were not necessarily read in any detail, their continued used in future surveys is recommended. Information on support organisations was provided as needed, but again there is little feedback on this.

6.1.7. Interview length

The interview length is computed by calculating the time between the first and last survey question asked of the respondent. It doesn't include the screening questions nor the Interview Assessment module, which is answered by the interviewer. It is preferable to refer to the median ([43]) length rather than the mean because outliers have less effect on this figure. Interviews which were three hours or longer have been excluded. Typically, the reason for these long interview lengths is due to the script not being closed properly at the end of the survey.

([43]) Median lengths are presented rather than the mean length as this approach excludes the impact of outliers, in particular very long interviews which can increase the mean disproportionally.

Table 19 – Interview length by country and target group

Country	Target group	Minimum (h:mm:ss)	Median (h:mm:ss)	Maximum (h:mm:ss)
Belgium	NOAFR (423)	0:14:39	0:42:34	2:29:44
	SSAFR (458)	0:16:12	0:45:22	2:43:59
	TOTAL (881)	0:14:39	0:44:18	2:43:59
France	NOAFR (548)	0:15:22	0:44:34	2:58:31
	SSAFR (542)	0:15:23	0:42:04	2:50:26
	TOTAL (1,090)	0:15:22	0:43:28	2:58:31
Greece	SYR (404)	0:13:00	0:48:04	1:35:23
Ireland	SSAFR (521)	0:11:47	0:35:56	2:34:02
Italy	NOAFR (795)	0:11:28	0:30:43	2:30:44
	SSAFR (418)	0:11:01	0:31:48	2:22:09
	TOTAL (1213)	0:11:01	0:31:02	2:30:44
Poland	SSAFR (546)	0:08:21	0:43:43	2:56:03
Portugal	SSAFR (518)	0:12:24	0:25:45	0:53:39
Spain	NOAFR (741)	0:07:19	0:27:25	2:25:48
	SSAFR (560)	0:08:19	0:28:49	1:34:37
	TOTAL (1,301)	0:07:19	0:27:53	2:25:48
Sweden	SSAFR (554)	0:08:25	0:35:23	1:59:26
	SYR (538)	0:09:47	0:34:44	2:18:31
	TOTAL (1,092)	0:08:25	0:35:13	2:18:31
Total	NOAFR (2,507)	0:07:19	0:33:37	2:58:31
	SSAFR (4,117)	0:08:19	0:34:50	2:56:03
	SYR (942)	0:09:47	0:40:48	2:18:31
	TOTAL (7,566)	0:07:19	0:35:05	2:58:31

Base: All accepted interviews excluding those with an interview length of three or more hours (n in brackets).

On average, the survey took 35 minutes for respondents to complete (the median interview length), ranging from just over 25 minutes in Portugal to 48 minutes in Greece.

6.1.8. Fieldwork monitoring and quality control

During fieldwork, weekly updates on the number of completed interviews by country and survey group were provided. For face-to-face fieldwork countries, these progress updates included information on response rates (where relevant), the number of open, closed, and in progress addresses (where relevant), and basic demographic information (sex, age, employment status). There was regular contact with all local teams throughout data collection to collect information on issues such as lack of progress or to discuss potential changes that would be needed to the sample design or approach. Information collected was included in the weekly updates.

In addition to the written weekly update and fieldwork progress reports, a phone call was held between FRA and the contractor on a weekly basis (with minutes recorded) and a monthly report was provided. This was to allow to understand progress and discuss various aspects of the survey. The local project teams provided further insight on a weekly basis to review and discuss as necessary.

Back-checks

Every national contractor was required to re-contact a minimum of 10 % of respondents to validate interviewers' work. This process provided the opportunity to confirm that the data had been gathered from genuine respondents and that interviews had been conducted correctly. National contractors were required to use one of two methods to carry out the call-backs:

- **By telephone:** Respondents were contacted by a member of the validation team and asked to confirm details of their interviews.
- **By personal visit:** A supervisor called at respondents' addresses and asked them to confirm details of the interview, such as the date and time of the interview. Respondents were not asked to repeat their answers to sensitive questions in the survey. The interviewer can be asked to accompany the supervisor in case there are any queries.

The back-checking process was spread over the fieldwork period. Each interviewer's work was aimed to be checked early so that they could be provided with feedback if needed.

If problems were detected, national contractors were required to increase the number of checks carried out. Where serious problems were identified, the interviewer was removed from the project and their interviews were excluded from the final data. In less serious cases, interviewers were re-briefed to prevent future errors.

Table 20 – Number of backchecks carried out and outcomes by country

Country	Number of backchecks carried out	Outcomes
Belgium	669	Minor issues not raising any quality concerns.
France	328	No issues identified.
Greece	76	Minor issues not raising any quality concerns.
Ireland	60	No errors identified.
Italy	213	Four problematic interviews: - two with respondents under 16 years old; - one not eligible based on country of birth; - one where respondent was not a household member. Interviews removed. These mistakes came from three different interviewers, the rest of their work was subsequently checked and no further issues found.
Poland	98	No issues identified.
Portugal	214	Interviews in one PSU removed due to non-compliance with selection of respondents. The errors occurred due to the difficult conditions of the sampling point and an erroneous decision of the interviewer to conduct the interviews with residents in the area belonging to the target group, instead of reporting the situation to the supervisor. The interviewer was dismissed from the project.
Spain	177	One interview conducted at an incorrectly selected address. Otherwise, minor issues not raising any quality concerns.
Sweden	119	Minor issues not raising any quality concerns.

Proportion of fieldwork carried out by single interviewer

At the outset of fieldwork, it was agreed that each interviewer could complete a maximum of 10 % of the sample size in their country. The rule was specified to limit the impact of any one interviewer on the quality of the data. For the most part it was possible to restrict the number of interviews that each interviewer completed. It was necessary to extend the limit in three countries – Ireland, Poland and Spain, for a total of seven interviewers.

Table 21 – Number of interviewers and average percentage of interviews conducted by country

Country	Number of interviewers	Average percentage of interviews conducted per interviewer %
Belgium	46	2
France	82	1
Greece	17	6
Ireland	18	6
Italy	63	2
Poland	25	4
Portugal	17	6
Spain	28	4
Sweden	30	3

6.1.9. Fieldwork outcomes – random sampling

This section provides an overview of the fieldwork outcomes where random sampling was used to approach the target groups.

Table 22 provides a summary of fieldwork outcomes by country and the associated response rate. This is only provided for target groups where a random probability approach was used. It is not possible to calculate a response rate for the other approaches. The response rates vary from 31 % in France to 89 % in Spain among the target group of people from African countries south of the Sahara.

Table 22 – Fieldwork outcomes for address-based random probability sampling by country and target group

Country	Target group	Total sample	Confirmed ineligible households (CIH)	Unknown eligibility (UE)	Confirmed eligible households (CEH)	Interviewed households (I)	Eligibility rate (e) %	Response rate %	Response rate expected at design stage %
Belgium ([44])	NOAFR	1,571	557	764	99	73	15	34	40
	SSAFR	4,023	2,642	908	163	124	6	57	40
France ([45])	NOAFR, SSAFR	10,456	2,953	4,850	1,756	1096	37	31	30
Greece ([46])	SYR	237	38	50	123	120	76	74	40
Ireland	SSAFR	2,890	2,041	579	121	103	6	67	58
Italy ([47])	NOAFR, SSAFR	9,368	5,252	2,353	1,308	1,214	20	68	50
Poland ([48])	SSAFR	240	14	124	81	71	85	38	40
Portugal	SSAFR	3,306	2,227	488	540	518	20	82	50
Spain	NOAFR	10,726	8,686	1,092	831	743	9	80	55
	SSAFR	12,140	10,847	641	596	562	5	89	55

([44]) Only applies to address-based part of the sample.

([45]) Target groups screened together so outcomes cannot be reported separately.

([46]) Only applies to address-based part of the sample.

([47]) Target groups screened together so outcomes cannot be reported separately.

([48]) Only applies to address-based part of the sample.

The response rates set at the sample design stage were met for all countries and target groups aside from the North African group in Belgium and those from African countries south of the Sahara in Poland which were both slightly under the benchmark.

The final outcome codes allocated to each of the categories in Table 22 are provided below.

The number of **eligible** addresses is based on addresses that were given one the final outcome code: • Completed interview (includes only accepted interviews) • Refusal by target respondent before interview • Refusal by proxy (other household member) after respondent selection • Refusal during the interview • Broken appointment, no re-contact • Respondent away/in hospital during fieldwork period • Language barrier with target respondent • Ill at home during field period • Contact made at address, but not with target respondent • Personal information consent refused (after screening)
The number of **ineligible** addresses is based on addresses that were given a final outcome code: • Resident household, but not eligible for the survey • Named respondent not living at address • Selected respondent not eligible • Proxy screened – no-one eligible • Other ineligible
The number of addresses with an **unknown** eligibility is based on addresses that were given a final outcome code of: • Refused to take part or give any information • Information refused about number of dwelling units/households at the address • Information refused about whether address is residential • Information refused about whether resident(s) are eligible • Refusal by proxy (other household member) • Unable to screen due to lack of knowledge • Unable to screen due to language barriers/Household language barrier • Unable to screen as Physically or mentally unable • Address inaccessible • Access to PSU/neighbourhood/site denied • No contact with anyone at the address • Other unknown eligibility • Personal information consent refused (pre-screening) • Other non-response

Invalid addresses are those assigned codes below but are not included in the calculation.

- Unable to locate address
- Not yet built/under construction
- Address not valid (vacant/empty/demolished/derelict)
- Address occupied, but no resident persons (e.g. second/holiday home)
- Communal establishment/institution

Interviews not accepted for quality control reasons are not included in the calculation.

The eligibility rate is calculated as follows:

$$e = \frac{CEH}{CEH + CIH}$$

where: CEH = Confirmed eligible households and CIH = Confirmed ineligible households

The response rate is calculated as follows, and in accordance with the RR3 definition of response rates by the American Association for Public Opinion Research (AAPOR) ([49]).

$$\text{Response rate} = \frac{I}{CEH + e(UE)}$$

where I = interviewed households and UE = Households where eligibility is unknown.

6.1.10. Fieldwork outcomes – quota sampling

Quota sampling was used in Belgium, Ireland, and Greece for part of the sample. This section provides an overview of the quotas set per target group, the performance of these targets, and any reasons for deviations from the target.

For each sampling unit, a quota was set on the total number of interviews expected for the region. Within this target, interlocked quotas on sex by age (three categories) were also set. To provide some tolerance – given the lack of local-level data available – the

([49]) The American Association for Public Opinion Research (2011) Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. 7th edition. AAPOR. Pp. 46.

sex by age quotas were set as minimum targets, summing to 75 % of the total sample size. In Belgium and Ireland, a minimum quota was also set on country of birth across the whole country, summing to 50 % of the total sample size.

Further information on the criteria used to determine the quotas can be found in Chapter 4 Sampling. Annex 4 details the minimum quotas set by the criteria defined and interviews achieved by country.

Belgium

All quotas set in Belgium were met or exceeded.

The sample profiles from the two sampling approaches in Belgium are closely aligned on sex, but more younger people were interviewed via the quota approach. Compared to the target population profiles, the random probability sample underrepresented the young population (aged 16-29 years) while the quota sample overrepresented it, and the quota approach underrepresented the population aged 45 years and above. The minimum quotas for each target group were met, but beyond the quotas, younger people were easier to recruit for the survey.

Greece

The age x sex quotas were met or exceeded in Greece.

The sample profiles from the ESTIA sample, Accommodation Facilities sample and HELIOS sample are closely aligned on age, but significantly more women were interviewed via the quota approach. The age profile of the ESTIA and quota samples are similar, but the Accommodation and HELIOS samples delivered different profiles.

Ireland

In Ireland, the age x sex quotas were met or exceeded. Most of the country of birth quotas were also met, except for the Congo.

The sample profiles from the two sampling approaches in Ireland are closely aligned on sex, but more younger people were interviewed via the quota approach. Compared to the target population profiles, the quota sample overrepresented the young population (aged 16-29 years), while the random probability approach overrepresented the population aged 45 years and above. The minimum quotas for each target group were met, but beyond the quotas, younger people were easier to recruit for the survey.

6.1.11. Fieldwork outcomes – location sampling

Interviewers in Poland and Sweden recorded the outcomes of each screening attempt at locations in the ECS, as detailed in Table 23.

Table 23 – Fieldwork outcomes for location sampling by country

Country	Target group	Total screening attempts	Already screened	Ineligible	Unknown eligibility	Total eligible
Poland	SSAFR	651	0	99	34	512
Sweden	NOAFR, SSAFR	5395	14	1,151	2,290	1,937

In Poland, comparing the profile of the sample achieved from the two sampling approaches shows that the address-based random probability approach resulted in more men and older people being interviewed compared to the quota approach. The sex profile from the address-based sample is more in line with the statistics from the Office of Foreigners, while the quota approach delivered a profile that is more closely aligned on age. However, the Office of Foreigners' statistics include only those who have approved residence application and does not include those who have acquired Polish citizenship.

Table 24 – Sex and age distributions of respondents by sampling method in Poland

Country		Poland	
Sampling method		**Address-based in-home random probability approach (71)**	**Location sampling approach (490)**
Sex	Women	16 (23 %)	196 (40 %)
	Men	55 (77 %)	294 (60 %)
Age	16-29 years	3 (4 %)	224 (46 %)
	30-44 years	26 (37 %)	235 (48 %)
	45+ years	42 (59 %)	30 (6 %)

Base: All accepted interviews in Poland (n in brackets).

6.1.12. Refusals

Table 25 provides a summary of the reasons people gave for not wanting to participate in the survey. They generally align with reasons given for surveys in general, although it is notable that one third of refusals in Greece related to concerns about security and

19 % about confidentiality. These were also more common reasons given in Italy. Being too busy at the time of the contact was most often mentioned in Sweden (by 19 %) – in line with the location method used there. A similar proportion in Sweden, again the highest among all the countries, said the same about the interview process being too long.

Table 25 – Reasons for refusal by country (%)

Reason for refusal	BE (645)	EL (37)	FR (2,093)	IE (153)	IT (1,636)	PL (148)	PT (394)	ES (1,229)	SE (2,239)	Total (17,145)
Not interested in the subject matter	24	11	23	14	23	17	33	21	6	19
Nothing in it for them, no motivation	9	8	11	1	14	8	1	32	1	11
Never does surveys	9	3	15	16	10	14	50	7	2	14
Survey is a waste of time	3	0	4	0	7	12	12	2	1	4
Always too busy	9	5	11	10	6	15	3	8	12	9
Too busy at the time of contact	11	8	9	9	4	7	2	7	19	10
Does not trust the research	3	14	5	1	10	9	5	2	1	4
Worried about confidentiality	2	19	2	5	14	9	1	2	0	4
Interview takes too long	6	3	5	10	4	8	3	3	18	8
Interview too intrusive	2	0	4	5	7	14	9	1	1	4
Survey is a waste of money	1	0	0	0	2	1	3	0	0	1
Worried about safety / security	2	35	3	1	12	5	2	1	1	4
Worried about misuse of the information	1	8	2	5	17	7	2	0	1	4
Other	7	3	10	9	1	0	2	4	1	4
No reason given	23	35	23	29	8	20	5	21	49	26

Base: All who refused to take part in the survey (n in brackets).

6.2. Online data collection

This section details the online fieldwork progress (across both push-to-web in five countries and social media recruitment approach in the Netherlands), the challenges faced, and the procedures and outcomes.

Three different fieldwork approaches were used for the online data collection:

- **Push-to-web approach** (in Austria, Denmark, Finland, Germany, and Luxembourg) where letters were sent to the sampled units (individuals) requesting that they go online to complete the survey. A total of three letters were sent – an invitation letter and two reminder letters – spaced approximately 10 days apart.
- **Location screening approach** (in the Netherlands) where interviewers screened and recruited members of the target group in locations frequented by them to complete the survey online.
- **Social media recruitment approach** (in the Netherlands) where targeted social media adverts were posted on popular platforms, encouraging users to take part in the survey online.

Push-to-web approach

The process for fieldwork administration in push-to-web countries was as follows:

1. All respondents were first sent out an introduction letter encouraging them to take part in the survey. ([50])
2. After approximately 10 days, a first reminder was sent to those who had not yet responded.
3. After another 10 days, a final reminder was sent to those who had not responded.

Fieldwork was designed to last approximately 6 weeks.

Some of the national contractors solicited professional printing companies to produce mail-merged documents with signed off materials and encrypted address details. Electronic versions of the letters were provided to the CCT for sign off, to ensure correct fields, letter versions, and visuals. Furthermore, the data processing team

([50]) In Austria, the Statistics Austria sent an additional letter before the introduction letter, announcing the survey (pre-notification letter).

checked the completed surveys and compiled a list of respondents who had not yet participated and would need to be reminded. Due to the delay in dispatch, some respondents may receive a reminder letter after completing the survey, which is acknowledged in the letter to prevent any frustration.

Location screening approach

In the Netherlands, a location screening approach was used. Respondents were recruited to take part in the survey at locations frequented by members of the Turkish target group. Respondents were systematically selected following a random approach. For those who agreed to take part, their email address was collected and an invitation containing a unique link to take part in the survey online was sent to them. The content and design of the email mirrored that used for the letters in the push-to-web countries. If they did not complete the survey after 10 days of receiving the email invitation, they received up to two reminders. Respondents could unsubscribe at any point from further reminders by clicking on a link within the email invite.

For eligible respondents who did not have an email address (or preferred not to provide one), interviewers had the option of handing out an invitation leaflet which contained unique survey login details (similar to the one used in the other push-to-web countries). The survey could be only completed using these login details and the login details could only be used once.

6.2.1. Fieldwork dates and progress

Push-to-web data collection

Table 26 provides the dates that the invitation letters and reminders were sent in each of the online fieldwork countries, and the date the survey was finally closed. In Germany, the letters were sent in three batches due to the way the sample was received.

Generally, the fieldwork progressed well for the push-to-web method. In Denmark, a third reminder had to be sent to the Turkish target group given the lower-than-expected response rate. Similarly, an additional mailout had to be sent in Finland to reach the target.

Table 26 – Push-to-web fieldwork timings by country

Country	Date invitation letter despatched	Date reminder 1 letter despatched	Date reminder 2 letter despatched	Date reminder 3 despatched	Date survey closed
Austria ([51])	03.02.2022	11.02.2022	25.02.2022	N/A	30.03.2022
Denmark	04.11.2021	17.11.2021	02.12.2021	15.03.2022	29.03.2022
Finland (batch 1)	01.11.2021	12.11.2021	26.11.2021	N/A	06.01.2022
Finland (batch 2)	30.11.2021	09.12.2021	03.01.2022	N/A	
Luxembourg	02.11.2021	16.11.2021	24.11.2021	N/A	30.11.2021
Germany (batch 1)	01.12.2021	13.12.2021	03.01.2022	N/A	10.03.2022
Germany (batch 2)	07.12.2021	17.01.2022	27.01.2022	N/A	
Germany (batch 3)	08.02.2022	18.02.2022	28.02.2022	N/A	

Location screening data collection in the Netherlands

The fieldwork started on 13 October 2021 and ended on 31 March 2022, lasting 16 weeks. Because of multiple factors, primarily related to the COVID-19 pandemic restrictions and the weather conditions, fieldwork was briefly paused in December and January.

For this project, the team worked in shifts of four to five hours per location on one working day. A supervisor or fieldwork coordinator was present for team coordination during each shift.

The location sampling recruitment approach (for an online survey) with the Turkish group in the Netherlands did not work as well as anticipated. The main reasons for this included:

([51]) Statistic Austria applied their communication strategy, which included 6 different mailings, to the respondents: prenotification letter (sent out on 24.01.2022), invitation letter (aviso letter including invitation letter, an incentive postcard and the privacy notice); reminder 1, reminder 2, reminder 3 (sent out on 07.03.2022) and an incentive letter sent out through the field phase.

- **COVID 19 pandemic**: In October 2021, the fieldwork began amidst the COVID-19 pandemic. Unfortunately, as infection rates rose, resulting in a second lockdown from November through January 2022, respondents grew less and less willing to participate, interviewers became concerned about their health, and certain locations were less accessible. Restaurants and shopping centers in particular were hesitant to allow interviewers to access their establishments. The implications of the pandemic are echoed and given more specific consideration throughout the sections of this report.

- **Cold and wet weather conditions.** The project started in the autumn when it was cold and rainy in the Netherlands. The weather affected the number of people frequenting the locations and made the interviewers' work very uncomfortable. Work at locations is better suited to months when the weather is better.

- **Interviewers' role as recruiters only.** Interviewers were not involved in carrying out the actual interviews, which they found less rewarding.

As the target number of interviews was looking unlikely to be reached with the resources available, it was decided that half of the sample (300 interviews) allocated for the Turkish group would be gathered via the social media approach.

6.2.2. Respondent contact during fieldwork

Across all online approaches, respondents were able to request help for the survey via telephone (free phone numbers were printed on the letters and included on the FAQ pages) or online via the 'Contact us' page. The volume of queries was generally low in all countries aside from Germany, where approximately 800 contacts were made. Most queries came through via email or as phone calls, rather than via the 'Contact us' page on the survey site. Table 27 shows the nature of contact.

Table 27 – Respondent contact during fieldwork by country

Country	Number of contacts	Nature of contact
Denmark	209	• Questions about delivery of gift card. • Requests about re-setting the survey after entering a wrong answer. • Refusal to participate in the survey. • Help to access the survey. • Two respondents contacted the local team about being incorrectly screened out and had their codes reset.
Finland	39	• General aspects of the survey (for example why the respondent had been selected or had received a reminder). • Accessing the survey. • The incentive. • Respondents wanted to opt out. • Queries in relation to privacy.
Germany	Approx. 800	• Questions about the voucher, and specifically when it would be received. • Technical issues with the link or requests to reset the link after a participant entered a wrong answer. • Queries to do with data protection.
Luxembourg	Approx. 150	• People who did not belong to the target group and wanted to know why they were contacted. • Queries on why people were chosen for the study. • Queries relating to accessing the survey. • Some respondents complained that they had received the first and second reminders in a short space of time which annoyed them. Some complaints about receiving the reminders even though they had already taken the survey were also received. • Several requests to opt out of the survey due to lack of interest or time, or because they had no access to the internet. • Several queries relating to the incentives (how it would work and when it would be received).
Netherlands (location screening)	33	• How to participate (use the code on the letter, open the survey URL). • Queries to do with the incentive.

6.2.3. Incentives

Incentives were offered across all online countries. Aside from Austria, where a small unconditional incentive (EUR 2 coin) was offered with the invitation letter, these were conditional on survey completion and consisted of a gift card. The details of those who had completed the survey were extracted and shared with the national contractors for incentive administration on a weekly basis.

In the Netherlands (location screening approach), incentives worth EUR 15 were initially used until March 2022. After this, the incentive amount was brought up to EUR 30 to boost responses.

Table 28 shows the incentive types (including the value) offered in each push-to-web country, as well as the number of incentives administered.

No specific respondent feedback was received on the incentives. The gift vouchers selected for use by the national contractors were known to be used widely and therefore easy to convert.

Table 28 – Incentives provided by push-to-web country and proportion of respondents who accepted them, by country

Country	Incentive type and value	Percentage who accepted
Austria	2 EUR unconditional with an invitation; 10 EUR voucher	100 %
Denmark	300 DKK gift card	98 %
Finland	10 EUR GoGift gift card	93 %
Germany	20 EUR Amazon voucher	98 %
Luxembourg	20 EUR voucher	92 %
Netherlands (Location screening)	15 EUR VVV gift card initially, then increased to 30 EUR	96 %

6.2.4. Interview administration and languages

Following the background research stage, the final selection of languages available for the questionnaire and respondent materials was made, shown in Table 29.

Table 29 – Languages offered in each country (push-to-web)

Country	Target group(s)	Languages available
Austria	TUR, SSAFR, SYR	Arabic, English, French, German, Kurdish, Turkish, Somali
Denmark	TUR, SSAFR	Danish, Arabic, Somali, Turkish, Kurdish, Tigrinya, English
Finland	SSAFR	Finnish, Swedish, Somali, Portuguese, Arabic, English, French
Germany	TUR, SSAFR, SYR	German, Kurdish, Turkish, Arabic, English, French
Luxembourg	SSAFR	German, French, Portuguese, Arabic, English
Netherlands (Location screening)	TUR	Dutch, Turkish, Kurdish

Slightly different approaches were taken by each country on which languages were used for the letters. In Denmark, letters were sent only in Danish to descendants of immigrants, namely those who had at least one parent born in Denmark according to the sample. Respondents originating from Türkiye were sent letters in Danish as well as in Turkish and Kurdish to avoid offence as it was not known which would be the potential respondents' first language. Letters to potential respondents originating from Eritrea or Somalia were sent in Tigrinya and Somali respectively (as well as in Danish).

In Finland, the sample file contained details of an individual's country of origin and their native language. For the immigrants, letters were sent in Finnish and another language (where available). For the descendants of immigrants, the letters were sent in Finnish only.

In Germany, the letters were sent in following languages to the respective target groups:

- SSAFR: German, French, and English;
- SYR: German and Arabic;
- TUR: German and Turkish.

Table 30 – Languages the letters were offered in for different generations of immigrants (push-to-web), by country

Country	Immigrants	Descendants of immigrants
Austria	Arabic, English, French, German, Turkish	German, Turkish (only TUR 2nd generation)
Denmark	Danish + another language (e.g., Arabic, Turkish, Kurdish or Tigrinya)	Danish
Finland	Finnish + another language (e.g., Swedish, Somali, Portuguese, Arabic, English, French)	Finnish
Germany	German + another language (TUR: Turkish, Kurdish / SSAFR: English, French / SYR: Arabic)	German + another language (TUR: Turkish, Kurdish / SSAFR: English, French / SYR: Arabic)
Luxembourg	French, German, English, Portuguese	French, German, English, Portuguese
Netherlands (Location screening)	N/A	N/A

Table 31 shows which languages the survey was completed in. In most countries, the majority of questionnaires were completed in one or two key languages with usually one of these being the national language of the survey country.

Table 31 – Language survey completed in (push-to-web) by country

Country	Target group(s)	Number of questionnaires completed by language
Austria	SSAFR	German (310), English (113), French (16), Somali (10), Arabic (6)
	SYR	Arabic (291), German (188), English (6)
	TUR	German (670), Turkish (130), English (2)
Denmark	SSAFR	Danish (415), English (75), Tigrinya (12), Somali (5)
	SYR	Arabic (228), Danish (228), English (7), Turkish (1)
	TUR	Danish (413), Turkish (110), English (10)
Finland	SSAFR	English (247), Finnish (203), Somali (26), French (21), Swedish (6), Portuguese (3), Arabic (2)

Country	Target group(s)	Number of questionnaires completed by language
Germany	SSAFR	German (350), English (179), French (50)
	SYR	Arabic (487), German (193), English (10), French (1), Kurdish (1), Turkish (1)
	TUR	German (1023), Turkish (217), English (12)
Luxembourg	SSAFR	French (350), English (106), Portuguese (73), German (35), Arabic (1)
Netherlands (Location screening)	TUR	Dutch (271), Turkish (68)

6.2.5. Fieldwork monitoring

Online fieldwork progress was monitored using an online portal. The portal displayed the following information:

- Number of completed questionnaires by country;
- Number of breakoffs by country.

The portal was used to monitor the fieldwork progress, to log opt-outs to the survey, and to draw the reminder samples prior to each additional mail-out. These processes were handled by the central coordination team. Opt-outs to the survey were received locally and collated and provided to the data processing team to be logged in the system. Fieldwork reports were provided on a weekly basis. The report included the following fields for the online countries:

- Date and volume of invitation mailings;
- Date and volume of reminder mailings;
- Total landing page views;
- Total breakoffs after the respondents had entered their login code;
- Completes in the past 7 days;
- Number of opt-outs.

The Excel reports were accompanied by a separate weekly progress report where survey activities were described in detail.

6.2.6. Length of time taken to complete the survey

On average, the online survey took 47 minutes for respondents to complete (the median interview length ([52])). As shown in Table 6.20, the median survey length varied across the countries with Netherlands (location screening) being at the lower end of the scale with a median survey length of around 33 minutes, and Finland at the higher end of the scale with a median survey length of over one hour.

Table 32 – Time of survey completion (push-to-web) by country

Country	Minimum (h:mm:ss)	Median (h:mm:ss)	Maximum (h:mm:ss)
Austria	0:09:00	0:46:00	2:59:00
Denmark	0:08:13	0:44:48	6:37:43
Finland	0:16:25	1:01:39	4:38:50
Germany	0:08:16	0:45:21	9:06:38
Luxembourg	0:13:19	0:50:46	6:48:14
Netherlands (location screening)	0:07:37	0:33:33	4:25:24

([52]) Median lengths are presented rather than the mean length as this approach excludes the impact of outliers, in particular very long interviews which can increase the mean disproportionally. The case-level interview lengths are based on 'elapsed time', which excludes time when a respondent was logged out of the survey. However, some users may have remained logged into the survey for long periods of time while inactive, giving rise to some long interviews.

6.2.7. Fieldwork outcomes

The fieldwork outcomes are set out below.

Table 33 – Overall fieldwork outcomes (push-to-web) by country

Country	Target group	Issued cases	Fully complete interview	Partially complete interview (breakoffs)	Letter/email returned undelivered	Opted out of the survey	No response received
Austria	SSAFR	2,200	455	261	0	0	1,393
	SYR	2,200	487	289	0	0	1,329
	TUR	3,100	805	338	0	0	1,864
Denmark	SSAFR	3,000	506	123	60	30	6,671
	SYR	3,000	597	168	44		
	TUR	3,000	529	151	40		
Finland	SSAFR	4,500	508	205	0	2	3,643
Germany	SSAFR	5,400	579	262	0	55	4,468
	SYR	4,300	693	249	0	19	3,285
	TUR	11,000	1,249	383	0	108	9,197
Luxembourg	SSAFR	3,000	565	167	0	0	2,227
Netherlands	TUR		337	144	N/A	N/A	N/A

Table 34 – Sex and age distributions of respondents by type of sampling method in the Netherlands (TUR target group)

Country		Netherlands	
Sampling method		**Location screening approach**	**Social media recruitment**
Sex	Women	216	173
	Men	120	145
Age	16-29 years	1	4
	30-44 years	163	113
	45+ years	100	139

Table 35 – Landing page views (push-to-web) per country

Country	Total sample contacted	Target number of completed interviews	Number of completed interviews	Landing page views
Austria	7,500	1,600	1,747	2,935
Denmark	9,000	1,500	1,632	5,260
Finland	4,500	500	507	1,575
Germany	20,700	2,150	2,521	7,958
Luxembourg	3,000	500	565	1,397

The response rate varied across the survey countries where the unclustered single stage sampling was applied. In Denmark, the response rate of 18 % overall was a little under what was assumed at the outset of the survey, but the sample management process meant that the target sample size was met or exceeded among all target groups. In Finland, the rate of 11 % was significantly under that assumed at the start of the survey. In, Luxembourg and in Germany, achieved response rates (19 % and 11 %, respectively) exceeded expectations or initial assumptions. Similarly, the response rate of 23 % of the gross sample in Austria was higher than expected.

6.3. Social media online data collection in the Netherlands

In the Netherlands, where Statistics Netherlands did not provide access to a direct sample for the survey, other alternatives had to be explored to deliver the samples. Using targeted social media adverts to recruit members of the target group to complete the survey online was agreed on as an alternative option.

6.3.1. Fieldwork dates and progress

The fieldwork in the Netherlands using the social media approach started on 10 February 2022, and ended on 3 October 2022.

The targeted social media adverts were initially published on Facebook, Instagram, YouTube, and LinkedIn.

Within minutes from the campaign launch on YouTube, the account was suspended for a 'circumventing systems' violation and attempts to restore the campaign were not successful. After the initial fieldwork period, it was also found that LinkedIn was not an effective platform for this survey, and it was agreed that it would be excluded from further fieldwork. Therefore, the advertising campaigns were focused on Facebook and Instagram only for the most part of the fieldwork duration.

The fieldwork was, at times, stopped to control the numbers of completions and to revise both the lists of keywords as well as the approaches.

In the Netherlands, the final sample size for the North African group was 300 instead of the target of 600. From the outset, the response from the North African group to the social media recruitment was much slower than from the Turkish and Syrian groups. While large numbers of Facebook and Instagram users were clicking on the link, they did not end up completing the survey. The initial step taken to address this was to review the keywords used for the targeting of the adverts. This was done on two different occasions during spring 2022. Given that the majority of the immigrants from North Africa come from Morocco, keywords were refocused to be more relevant for this specific population. However, this did not have any impact.

Ultimately, different approaches had to be adopted. The contractor identified a selection of Facebook groups which were 'liked' or 'followed' by many in the target group and proposed that the adverts be shared with these groups. In addition, Labyrinth, the local partner in the Netherlands responsible for the location screening

element of the survey in the country, agreed to share the survey link with their interview panel consisting of approximately 300 young people of Moroccan background. Labyrinth also posted the survey adverts on their social media channels. These ultimately resulted in some more interviews but did not help in reaching the target with this group.

6.3.2. Respondent contact during fieldwork

The Facebook campaign received some negative comments in the first few days. It is estimated that during the time period when the adverts were viewed a total of 30,000 times, 30 comments were received of which 15 were negative. Any comments that were of a negative nature were deleted, to help avoid members of the target groups being exposed to such comments.

Altogether 20 emails were received during the fieldwork period. All of them were asking about the incentive and when it would be received.

6.3.3. Incentive

The initial incentive was a EUR 15 e-voucher which could be used across various shops in the Netherlands. However, the value of the incentive was reduced to EUR 5 as it became clear that some respondents were completing the survey multiple times, potentially in the hope of financial gain. This did not seem to impact the level of response.

The incentive was again raised to EUR 15 for the final weeks of the fieldwork. This was done to encourage responses from the North African target group, and, more specifically, to encourage responses from the panellists that Ipsos NV' partner, Labyrinth, had shared the link with as these panellists were accustomed to receiving a larger incentive for taking part in surveys.

6.3.4. Fieldwork monitoring and challenges

After the initial launch, the adverts were all paused in each group/platform in the week commencing the 28 February 2022 to perform some initial data checks to check data quality and for any duplicate cases. While the advertising campaigns were not running, some respondents had accessed the survey site through the direct link and completed further interviews despite the survey landing page showing that the survey was closed. These were excluded given a large number of duplicate entries.

6.3.5. Length of time taken to complete the survey

On average, the online survey took 33 minutes for respondents to complete (the median interview length).

Table 36 – Time of survey completion in the Netherlands (social media)

Country	Minimum (h:mm:ss)	Median (h:mm:ss)	Maximum (h:mm:ss)
Netherlands (social media)	0:07:37	0:32:58	4:25:24

6.3.6. Fieldwork outcomes

Loose quotas were set for the number of completes targeted by each group and platform, as shown in Table 37.

Table 37 – Social media quotas per platform in the Netherlands

Target group	Facebook	Instagram	Total
NOAFR	500	100	600
SYR	370	180	550
TUR	200	100	300
Total	1,070	380	1,450

Table 38 shows the actual number of interviews achieved from each platform.

Table 38 – Number of completions achieved per platform in the Netherlands

Target group	Facebook	Instagram	LinkedIn	YouTube	Total
NOAFR	196	104	2	0	302
SYR	374	240	0	0	614
TUR	118	172	0	33	323
Total	688	516	2	33	1,239

7. Data processing

7.1. Data files

The survey contractor used two different platforms for the data collection – iField for the face-to-face interviews and Dimensions for the online completions in the survey countries, aside from Austria. Statistics Austria collected data using its own platform and then provided formatted data ([53]). Data from all 15 EU Member States were combined into a single datafile.

The electronic contact sheet (ECS) was used to manage the samples in countries implementing a face-to-face approach, to make appointments, to identify the sampled respondent, and to carry out interviews. This was managed through the iField application. The ECS data was regularly checked, first, for logical errors and, second, to ensure alignment with the main data during fieldwork and after completion.

There are two main datafiles for the survey.

The **individual register (IR)** data file includes one row of data per individual in the household and includes all respondents and their household members. Each household has been assigned a unique identifier (HHID), which enables members of the same household to be linked. Household level data provided by the respondents were copied across for all household members. This IR file also includes the derived variable for the household's monthly income in Euros. Some sample variables (such as NUTS1-3), degree of urbanisation, and sample type and sampling groups are also included, as are the interviewer demographics (where consent was given by the interviewers to include these) and the weighting variables. There were a number of country-specific questions which had to be harmonised into a single variable to aid comparisons. This included all education and income questions.

The **ECS** data file includes all variables from the different versions of the contact sheet used for face-to-face data collection (and the location screening for the Turkish target group in the Netherlands). This file includes all sampled addresses, contact attempts,

([53]) This meant that data from three different data collection platforms had to be merged. While much of the data provided by the Statistics Austria did follow the codebook format, there were instances when it did not, which consequently involved some communication back and forth between FRA, Statistics Austria, and Ipsos NV to try to resolve these issues. Ideally, in the future, all data should be collected on the same platform.

and interim and final outcome codes. Each sampled address has a unique identifier (HHID) which can be used to match ECS data with the interview data in the IR data file. All cases in the ECS file have been assigned a unique AddressID (ECS_AddressID). The ECS file contains a row for each visit for the AddressID.

A separate Excel file delivered to FRA contains the string variables from any "Other – please specify" questions, and any comment the respondent wanted to make at the end of the questionnaire.

There is also an additional dataset per country which contains information about the sampling. This final sample file is provided in Excel for each country and target group.

The codebook outlines the format of the datasets delivered, the variables included in each dataset, and any routing for these variables. The codebook has a tab to explain the format of the unique identifiers included and a description of any derived variables.

7.2. Data processing and quality control

Once face-to-face data was received and online data collected, the data processing team would process the data into the SPSS format in accordance with the codebook. Various quality checks were made on the main interview data throughout main-stage fieldwork and after completion.

To ensure the quality of the data, checking syntax was written centrally in SPSS. The syntax checked the following in the main data files:

- The data matched the data map;
- The ID numbers were unique and that there were no duplicate records;
- The routing had been adhered to.

The routing within the questionnaire was designed so that each question was only asked to a respondent if it was appropriate for them based on their previous responses. These checks identify where a respondent has been asked a question and should not have been and where a respondent has not been asked a question but should have been.

- Only permitted values were inputted;

- Any short or long interviews, with interviews that were more than 40 % lower than the median interview length overall (and multiple sections lower than 40 % of the median being flagged in the data);

- High levels of item non-response (INR), with cases between 25 % and 50 % as well as over 50 % of INR responses being flagged in the data;

The item non-response analysis measures the number of missing values (-96 *Prefer not to say*, -97 *Don't understand the question*, -98 *Not applicable,* and -99 *Don't know*) as a percentage of all questions that were answered by the respondent (i.e. were "on route"). All variables from the respondent-facing questionnaire with the option to refuse the answer, to indicate that the question is not understood or applicable, or the answer is unknown, are included in this analysis.

Generally, high levels of non-response usually suggest a problem either with the question wording or the response options. It can also indicate respondent disinterest or unwillingness to answer.

The following analysis was undertaken:

- Item non-response by question (to see if there are particular questions that respondents either did not understand or did not want to answer);

- Item non-response by respondent (to see if any interviews should be removed due to high level of missing data);

- Item non-response by country (to identify problematic questions either to the national context or because of translation issues).

The questions on household income and sources of income attracted the highest levels of non-responses. In addition, question on household's ability to pay costs on time in the last 12 months was often not responded to. Across the survey countries, Belgium and Ireland had the highest shares of respondents with item non-response. Item non-response was greater than 25 % for both countries.

In the online survey, respondents were allowed to answer 'don't know' or 'prefer not to say' – these answers are considered here as item non-response. In sensitive questions, 'prefer not to say' was shown up front with the other answer categories and in some instances 'don't know' was considered a valid response option and was seen as necessary to include upfront. For other questions, both codes were hidden and only displayed if the respondent tried to skip the question without answering. The highest proportion of non-response was observed when respondents were asked their income (48 %). Another question with high item nonresponse was on questions relating to

specific experiences of harassment related to ethnic or immigrant background in the past 5 years.

- "Sense checked" and flagged certain questions and response options that might seem implausible, for example.

The ECS data file was also regularly checked for logical errors during fieldwork and after completion, including:

- Confirming that the outcome code matched ECS_C1 (whether the address was occupied and residential). For example, clarification would be sought if the address was identified as non-residential at ECS_C1 but an interview took place.
- Confirming that the number of eligible people in the household (ECS_E1) did not exceed the total number of people in the household as indicated in the main questionnaire (HH01). In this case, ECS_E1 was corrected.
- Confirming that the number of face-to-face visits was correctly derived.
- Confirming that all cases had been assigned a final outcome by the end of fieldwork, and all ECS records had a final visit indicated at variable ECS_A3.
- Checking any missing values.
- Confirming that every interview in the main questionnaire data had a contact sheet with a productive outcome, and that every contact sheet with a productive outcome had an interview in the main questionnaire data.

In addition to the checks carried out by Ipsos NV that led to the identification of problematic interviews, FRA checked the data files inter alia for:

- Implausible answers (in addition to flags detailed above);
- Routing errors;
- Language proficiency of participating respondents;
- Missing income data;
- Missing responses to critical variables (e.g., all income related variables or discrimination domains).

In addition to the quality control implemented by the CCT and FRA, in countries using the face-to-face approach national contractors were required to follow up on short interviews, verify GPS coordinates, and back check 10 % of interviews. Any irregularities were automatically flagged on iField for the national contractors to review by inspecting the case in more detail, and occasionally liaising with the interviewer.

In the online survey, the majority of break-offs occurred at the start of the questionnaire during one of the first screens or details of the household members were collected. A further set of break-offs occurred at the end of the interview. In addition, a number of respondents exited the survey at the household income questions. Break-offs continued throughout the questionnaire and were particularly prevalent at the introduction, at questions on rights awareness, perceptions, and attitudes, and at questions on societal participation. Most breakoffs came from the Netherlands (social media), followed by Germany and Denmark.

A series of flags were created in the data to help identify if certain interviews would need to be deleted. In the majority of cases, these interviews were not flagged for deletion, but they remained flagged for information purposes. Those interviews that were deleted following the quality checks conducted by FRA and Ipsos NV also remained in the data and were flagged in the variable *Flag_Interview_Delete*. The Statistics Austria delivered a dataset which already excluded 48 cases due to their rate of item non-response. Following internal quality checks on interview length, percentage of INR and other quality flagging, the CCT and FRA agreed on 112 cases that should be removed.

To keep an overview of the data-related observations and issues and systematically provide explanations and verification, FRA and the CCT used a Data Quality Control log. It was updated and exchanged on a rolling basis during and after fieldwork until the data set was considered final.

7.3. Data protection

The following protocols were followed to ensure privacy and compliance with General Data Protection Requirements (GDPR).

- The contact details of the experts (names, email addresses, telephone numbers) consulted as part of the background research were kept by FRA throughout the lifetime of the project in case further support from them was needed. Experts were asked to provide written consent that they agreed for FRA to store their

names and contact details using a consent form provided by FRA (a privacy notice explained how their contact details were processed, how long they were stored, and for which purposes). Only contact details of experts who provided their written consent was stored.

- Informed consent was obtained from all survey respondents.
- Survey data was stored securely on servers located within the EU in accordance with GDPR protocols and any transfer of data was completed using Ipsos NV's secure and encrypted transfer system "Ipsos Transfer". Any respondent identifying information was securely and permanently deleted once it was no longer necessary to retain it for this survey.
- Personal data and other confidential data held on Ipsos NV's systems were stored in an encrypted format, with access limited to authorised staff via the network settings and/or database access control policies.
- Respondents were informed of their right to access, rectify, or withdraw their data via a privacy notice in line with the General Data Protection Requirements (GDPR).
- Only anonymous and aggregated data has been reported on. Survey results will be presented in a statistical report and no individual will be identified in the published report or in the published data set.
- After fieldwork, any personal information was securely destroyed.
- All members of the CCT have been trained to ensure a high level of data protection awareness and data protection adherence.
- The local fieldwork suppliers were selected based on their capacity to comply with Ipsos NV data protection requirements. All national contactors signed an agreement with Ipsos NV including data protection clauses as strict as the contracts Ipsos NV signs with its clients, and no supplier must transfer any personal data outside the European Economic Area unless they agree to appropriate safeguards and obtain customer consent. Additionally, our suppliers cannot subcontract part of the personal data processing services to sub-processors without the central team's prior approval.

Data anonymisation

Ipsos NV complies with GDPR and removes personal information from collected data before sharing it. However, there is still a risk of identifying individuals through key

variables combined with external data. To address this, Ipsos NV identified sensitive variables and developed an SPSS syntax to remove them, creating a disclosure version of the data. This was shared with FRA for privacy compliance when sharing data publicly, especially with vulnerable populations.

7.4. Imputations

7.4.1. Imputing demographics

In the final survey data file, age information was missing for 42 respondents due to an error in the script. A further seven respondents did not provide their exact age, but their age band only. In addition to this, exact age was not provided for 675 household members (an age band was provided for 549, but no information was provided for the remaining 126) and sex was not provided for 132 household members. There were 372 household members where information about relationship to the respondents was not provided (HH14). For those household members where no age or age band was recorded, the questions on children's education (HCH01 and HCH02) were also not asked (as age of the household member was not given then it was not possible to establish if either of these questions were relevant for that household member). This data were imputed.

For respondent age, the hotdeck method of imputation was used. During hotdeck imputation, respondents with missing data (recipients) had their values imputed from similar respondents in the dataset who were not missing data (donors). Recipients and their potential donors were pooled together using an auxiliary variable(s) such as country and age band, as was the case for this process. Once pooled together, donor values that fit the same group (i.e., age band) as the missing recipients were selected at random to fill the recipients.

For household member age, hotdeck using age bands, as described above, was used to impute an exact age for each of those household members where an age band was provided (549 cases).

For the remaining 126 household members who were missing age and age band, two approaches were taken. If a relationship to the respondent was provided, then the same hotdeck method as above was taken where imputed values were selected from respondents belonging to the same country and having the same relationship to the interviewee (*hotdeck relationship*). This approach was selected as analysis of the mean and standard deviations of ages across different relationships showed there was a

clear difference in distributions i.e., children and grandchildren were younger than other relationships such as parents. 50 cases were imputed with this method.

For those household members for whom a relationship to the respondents was not provided, there were no appropriate variables at the individual level to separate respondents' ages. As such, these respondents' values were imputed from similar households. Matching of similar households was done using a K- *nearest neighbour* (KNN) algorithm with the following variables: survey country, number of household members (HH01) and income type received by household in the last 6 months, i.e., child benefit, studying grant, pension etc. (SI01). Once respondents had been matched with similar households, an age was selected from one of the members of the matched household as the imputed value. All respondents that belonged to the same household were imputed at the same time using sampling of the donor household without replacement to prevent duplicate ages. In total, 76 cases were imputed with this method.

To prevent the imputation from breaking relationships between variables, for the 'hotdeck relationship' and KNN methods, when a respondent was matched with a donor that donor's response for HH14, HCH01 and HCH02 was also assigned to the recipient respondent. This was done to prevent implausible relationships such as young grandparents. As a result, all the respondents with the "k nearest neighbour" method had the relationships filled, meaning there were 76 cases who had a changed relationship response due to imputation for HH14, whereas there are 126 for HCH01 and HCH02. The difference being the 50 cases imputed with the 'hotdeck relationship' would not change HH14 as this was the relationship variable used to group donors and recipients.

7.4.2. Imputing income

The survey questionnaire included questions on household income. Exact household income was collected through the question SI03 (detailed income). Those respondents who did not know or refused to answer this question were asked to indicate in which band their household income fell into (SI03_1 income bands). There remained a sizeable proportion of missing data so given the importance of having information on household income data was imputed where possible. The imputation process involved different techniques: hotdeck, band, and KNN imputation. Only target groups within country with less than 40 % missing income data were eligible for hotdeck and KNN imputation.

For hotdeck imputation, the focus was on preserving the income distributions of respondents who share similar characteristics, such as coming from the same region,

residing in the same country, and falling into the same income band. In cases where respondents provided detailed income but not the income band, the missing bands were inferred from the detailed income. A total of 1,184 cases were imputed via hotdeck.

Band imputation dealt with groups that had income bands but lacked detailed income information. In these cases, a random value within the range of the corresponding income band was selected to impute the missing income. Six cases were imputed via this method.

KNN imputation was used for respondents who had neither detailed nor grouped income data but belonged to a valid group for imputation. The KNN algorithm was applied to find the five nearest neighbours within the same group based on various variables like age, number of people employed in the household, income sources, age at first marriage, form of employment, and sex. The median income of these neighbours was used to impute the missing incomes. KNN imputation was implemented for 1,054 cases.

It was not possible to impute income for 3,199 of the cases where there was insufficient information within the target group in a country.

8. Weighting

This chapter provides an overview of the overall weighting procedures and the weighting efficiency achieved across the survey countries. It also provides additional details on calculating the weights across the countries and target groups. The weighting involved several stages, with differences between countries in how these were applied reflecting each of the sample designs.

Annex 5 provides with the details on the weighing procedures and the decisions made in the process applied in each country surveyed and target group.

8.1. Weighting procedures – multi-stage clustered sample design

The multi-stage clustered sample design was used in France, Germany, Greece (for three out of four sub-samples), Italy, Poland (for one of two parts of the sample), Portugal and Spain. It was also initially implemented in Belgium and Ireland, however, the overall samples in these two countries were treated as quota samples in weighting.

The weighting for the multi-stage clustered sample design included the following stages:

1. Adjusting samples using **design weights** to reflect the probabilities of selection.

2. Reducing non-response bias through the application of **non-response weights**, applied to most of the address-based samples for which the data for non-respondents was available either in the sampling frame or collected during fieldwork, in France, Germany, Italy, Poland, Portugal and Spain. It was not applied in Greece given the information on non-responding households and individuals was not available.

3. **Post-stratification or calibration weighting** to adjust for differences between the sample and population distributions on variables that are considered to be

related to key survey questions (via) was applied to all samples except for Greece and Poland. ([54])

Table 39 provides details on the multi-stage clustered sample approaches used across the countries and target groups and lists the stages of weightings applied.

Table 39 – Summary of weighting stages applied by country

Country	Target group	Sampling approach	Stages of weighting
France	NOAFR, SSAFR	Multi-stage clustered sample, address register with ACS (core address pre-selected)	Design weights Non-response weights Post-stratification/calibration weights
Germany	SSAFR, SYR, TUR	Multi-stage clustered sample, using individual register	Design weights Non-response weights Post-stratification/calibration weights
Greece	SYR	**ESTIA**: Multi-stage clustered sample, using individual register **Accommodation facilities**: Multi-stage clustered sample, using household register (households recruited by employees at accommodation facilities) **HELIOS**: Multi-stage clustered sample, using individual register (individuals recruited by IOM)	Design weights Post-stratification/calibration weights
Italy	NOAFR, SSAFR	Multi-stage clustered sample, random route with FE	Design weights Non-response weights Post-stratification/calibration weights
Poland	SSAFR	Multi-stage clustered sample, using individual register	Design weights Non-response weights

([54]) In Poland, non-response weighting was used to correct the profile of this part of the sample. Post-stratification weighting was applied on the overall sample in Poland, following the location sampling weighting. Similarly, in Greece the calibration weighting was applied on the overall sample (including the three sub-samples following the multi-stage clustered sample design and one sub-sample using the quota approach).

Country	Target group	Sampling approach	Stages of weighting
Portugal	SSAFR	Multi-stage clustered sample, random route with FE	Design weights Non-response weights Post-stratification/calibration weights
Spain	NOAFR, SSAFR	Multi-stage clustered sample, random route with FE	Design weights Non-response weights Post-stratification/calibration weights

In countries with multiple target groups, the groups were weighted separately (and can be combined in a country weight once the sample size is grossed to the actual population size). When two target groups were sampled together – in France and Italy – the sample design weights and household level non-response weights were calculated for the target groups together, and the next stages of weighting (individual level non-response weights and post-stratification weights) were applied to the target groups separately.

Four independent samples were issued in Greece to cover four different population sub-groups. The design weights were calculated independently for each of the multi-stage clustered samples, and then the calibration weight was applied on the overall sample containing all four sub-samples, including also a quota sub-sample. ([55])

In Poland, the multi-stage clustered design applied on a part of the sample was used in combination with the location sampling design applied on the reminder of the sample. The overall sample was treated as a location sample in the weighting. The design and non-response weights were applied on the multi-stage clustered sample before it was integrated in the overall location sampling design, as an additional location type. Both location sampling and post-stratification weights were then applied on the overall sample (see sections 8.3 and 8.7.12).

8.1.1. Design weights

Design weights were required to equalise differential selection probabilities arising from the sample design.

([55]) Post-stratification/calibration weighting of the overall sample for Greece and trimming of the final weight is discussed in section 10.4.

In France, Germany, Greece, Italy, Poland, Portugal and Spain, that used multi-stage clustered samples the sample design weights were calculated in the following stages, that are aligned with sample selection stages:

i. Sampling unit selection weight – to correct for differential selection probabilities used when selecting sampling units (PSUs);

ii. Address (or individual) selection weight – to correct for differential selection probabilities used when selecting addresses/households (or individuals, if selected directly from a population register); and

iii. Dwelling unit selection weight – to correct for differential selection probabilities used when selecting dwelling units if multiple units were found at addresses selected from an address register.

iv. Individual respondent selection weight – to correct for differential selection probabilities used when selecting one individual to participate in the interview. This stage was not required when individuals were selected directly from a population register – in that case, correcting for differential selection probabilities was covered in stage ii. above.

Each of these weights was calculated as the inverse of the selection probabilities at each sampling stage. The design weight was calculated as a product of these weights.

Sampling unit selection weight

In France, Italy, Portugal and Spain, differential selection probabilities were applied across target group density strata. The probability of selection was recorded at the PSU selection stage and used in the weighting stage.

The sampling units were selected in a one-stage process in all countries. In most countries the units were selected with probability proportional to size. ([56]) The sampling unit selection probability, p_{PSU1}, is calculated as follows:

$$p_{PSU1} = n_{hPSU} * size_i / \sum_h size_i$$

Where:

n_{hPSU} = number of PSUs sampled in density stratum h

([56]) This was not the case with Germany, Greece and Poland, where the units were selected with equal probability.

$size_i$ = size of PSU *i*

$\sum_h size_i$ = sum of sizes of all PSUs in density stratum h

The sampling unit selection weight DW_{PSU1} was calculated as the inverse of its probability, p_{PSU1}:

$DW_{PSU1} = 1/ p_{PSU1}$

In case of PSU replacements, sizes ($size_i$) of replacement PSUs were used in the calculation.

Address or individual selection weight

Within each sampling unit, either individuals (eligible individuals, sampled directly in Germany, Greece (ESTIA, HELIOS) and Poland) or addresses (households) were selected randomly (in France, Greece (Accommodation Facilities), Italy, Portugal and Spain). The selection of addresses was done either via an address register or via random route. Individuals/addresses had different selection probabilities across sampling units, given the sampling units were of different sizes, and the numbers of individuals/addresses selected varied based on density strata. The probability of selection of each individual/ address (conditional on selection of its sampling unit) is as follows:

$p_{unit1} = n_{unit1} / N_{unit1}$

n_{unit1} = number of individuals/addresses selected and used in the sampling unit (i.e. the number visited, whether interviewed or not).

N_{unit1} = total number of individuals/addresses in the sampling unit.

The individual/address selection weight DW_{unit1} is calculated as the inverse of its probability, p_{unit1}:

$DW_{unit1} = 1/ p_{unit1}$

No additional adjustment was required in PSUs where focused enumeration was used as a sampling method; the number of addresses selected and used in the probability calculation included both core (centre) and focused enumeration addresses (two adjacent addresses either side of the core). Hence, the sample address selection weight, DW_{unit1}, was based on all addresses in FE PSUs.

Dwelling unit selection weight

In France, where the sample was selected from an address register it was sometimes necessary to make a selection of one dwelling unit if the selected address consisted of multiple dwelling units. This was most likely to occur with sampling frames which routinely uniquely identify each address but are sometimes out of date, for instance a single address may have been converted into multiple apartments since the last update of the sampling frame. In this situation one dwelling unit was randomly selected in the field.

The dwelling unit selection weight was calculated as follows:

$DW_{du} = 1/ p_{du}$

where:

$p_{du} = 1 / N_{du}$

N_{du} = total number of dwelling units at the address

Individual respondent selection weight

In France, Greece (Accommodation Facilities), Italy, Portugal and Spain, that used address-based samples relying on an address register or an address selection via random route, one eligible person belonging to the target populations was randomly selected within each household. For example, persons in households with four eligible persons, had a selection probability one-quarter that of a person in a single eligible person household.

The probability of a respondent being selected (conditional on selection of their household) was as follows:

$p_{ind} = 1 / N_{ind}$

Where:

N_{ind} = total number of eligible individuals in the household

The individual respondent selection weight DW_{ind} was calculated as the inverse of its probability, p_{ind}:

$DW_{ind} = 1 / p_{ind}$

Overall design weight

The overall design weight (W_{dw}) is the product of each of the weights required for the applicable sample design:

$$W_{dw1} = DW_{PSU1} * DW_{unit1} * DW_{du} * DW_{ind}$$

8.1.2. Non-response weights

There is potential value in including an additional step in the weighting, of adjusting the interview sample to the gross sample on the basis of information available from the sampling frames about the units in the gross sample. In common with post-stratification weights, non-response weights are effective to the extent (i) that the weighting variables chosen correlate with sample members' likelihood of responding, (ii) that they correlate with key survey variables and (iii) that key survey variables take the same mean values for respondents and non-respondents within weighting cells. ([57]) It is a separate step to post-stratification weighting, with the difference that the adjustment is to the sampling frame rather than to population estimates. However, it should be considered in conjunction with the post-stratification/ calibration strategy given there is no value in including the same variables in these two stages. As such, an additional non-response weighting step adds value if there are additional variables on the sampling frame for which there are no population estimates (and which therefore cannot be included in the post-stratification weighting); or, in case of population registers the non-response weights would allow adjusting the sample using multiple interlocked variables, while the calibration weights may not be able to if such population data is not available. ([58]) Non-response weights were calculated for all countries using multi-stage clustered design, except for Greece due to the lack of the reliable data for non-responding addresses and individuals, as discussed in paragraphs below.

Non-response weighting relies on having information at respondent or address level, which covers both responders and non-responders. This is usually obtained from the sampling frame, and in countries where population registers were used to make contact directly (and the data was available to Ipsos NV) this approach was considered. The data on age, sex (and region and urbanity) for all cases in the individual register sample was received for Greece (ESTIA) and Poland. In Germany, citizenship data was

([57]) Conditions (i) and (ii) can be tested empirically on survey data whereas condition (iii) cannot.

([58]) This is under assumption that overall proportions in the gross sample match the population statistics.

available for all sampled cases (rather than countries of birth that would allow establishing generation), and age and sex were available for part of the sampled cases. ([59]) These were all considered in non-response weighting. The data was used for producing non-response weights in Germany and Poland. In Greece it was not used due to mismatches noticed between the data received in the gross sample and responses in the survey.

The address register sample in France did not contain any variables about addresses that could be used for non-response weighting.

In the absence of sampling frame information, neighbourhood characteristics for eligible households and the age, sex and working status of selected respondents were collected by interviewers in the field as was done in EU-MIDIS II. The neighbourhood characteristics were used for calculating the household level non-response weights in France, Italy, Portugal and Spain. Due to the small sample sizes and small numbers of eligible cases that did not complete the survey, this was not calculated in Greece and Poland. Age, sex and working status were used for producing individual level non-response weights in France, Italy, Portugal and Spain. Information on generation could also be derived for selected responses, and it was also used in non-response weighting in these countries for the samples with enough cases of second-generation immigrants.

Logistic regression was used to fit a model with response to the survey (as a binary variable) as the dependent variable, after applying the overall design weight (W_{dw}). The weight, W_{nr}, was calculated as the reciprocal of the probability of response generated by the model.

Table 40 provides information about variables used in both household level and individual level non-response weights.

([59]) 46 out of 47 municipalities provided gender information for the sampled cases – Munich did not provide it, accounting for 4.5 % of the gross sample. 29 municipalities provided age information for the sampled cases – 18 did not provide it, accounting for 49 % of the gross sample.

Table 40 – Variables used in non-response weighting by country and target group

Country	Target group	Variables used	Sources used
France	NOAFR	Household: address level variables ([60]); Individual: Age (16-24, 25-44, 45-59, 60+)/ Sex/ Working Status/ Generation	Gross sample (ECS eligible sample)
	SSAFR	Household: address level variables; Individual: Age (16-24, 25-44, 45-59, 60+)/ Sex / Working Status/ Generation	Gross sample (ECS eligible sample)
Germany	SSAFR	Individual: Age (No data, 16-24, 25-44, 45-59, 60+)/ Sex / Citizenship (German, SSAFR, German and SSAFR, Other)	Gross sample (Population register)
	SYR	Individual: Age (No data, 16-24, 25-44, 45-59, 60+)/ Sex / Citizenship (with German, without German)	Gross sample (Population register)
	TUR	Individual: Age (No data, 16-24, 25-44, 45-59, 60+)/ Sex / Citizenship (German, TUR, German and TUR, Other)	Gross sample (Population register)
Italy	NOAFR	Household: address level variables; Individual: Age (16-24, 25-44, 45-59, 60+)/ Sex / Working Status/ Generation	Gross sample (ECS eligible sample)
	SSAFR	Household: address level variables; Individual: Age (16-24, 25-44, 45+)/ Sex / Working status	Gross sample (ECS eligible sample)
Poland	SSAFR	Individual: Region (NUTS1 (PL9, Other))/ urbanity (DEGURBA (1, 2 and 3))/ Age (16-39, 40-49, 50+)/ Sex	Gross sample (Population register)
Portugal	SSAFR	Household: address level variables; Individual: Age (16-24, 25-44, 45-59, 60+)/ Sex / Working status/ Generation	Gross sample (ECS eligible sample)
Spain	NOAFR	Household: address level variables; Individual: Age (16-24, 25-44, 45-59, 60+)/ Sex / Working status/ Generation	Gross sample (ECS eligible sample)
	SSAFR	Household: address level variables; Individual: Age (16-24, 25-44, 45+)/ Sex / Working status	Gross sample (ECS eligible sample)

([60]) Adress level variables include the following: confirmation if the address is occupied and residential; condition of accommodation; presence of entry system or locked gate/door; or neighbourhood characteristics.

8.1.3. Post-stratification or calibration weights

To ensure that the samples accurately reflect the structure of the target populations, a final weighting procedure was carried out to align the sample to external population data. Post-stratification or calibration weighting adjustments were dependent on having reliable population data covering the survey population. Since the target groups represent small proportions of the overall country populations, socio-demographic profile data about the population was of a limited nature for certain target populations. Moreover, in most countries that implemented face-to-face fieldwork the survey did not cover the full target group population, meaning any profile data that could be found may cover a slightly different population.

Post-stratification or calibration weights were calculated using a suitable approach, either cell weighting or rim weighting (raking), depending on the data available. Rim weighting was used for Spain where the population statistics were available for the target groups. In other countries either one or two interlocked variables, based on the data available in the sampling sources (PSU lists and population registers), were used in cell weighting.

The most effective weighting variables are those that correlate with sample members' likelihood of responding and with key survey variables. It is also generally considered preferable in cross-national surveys to use the same set of variables across countries, to promote comparability of the weighted samples. To be usable, it should be possible to generate the selected variables in the survey data. Finally, each weighting cell (i.e. category) should have a minimum sample size of 30. ([61])

The following initial variables were considered for calibration weighting:

i. NUTS regions and DEGURBA, having a sensible number of categories (mainly 2021 version) ([62])

ii. age by sex (using age bands for which the population data was available)

Other potential candidate variables included that could be associated with non-response and key survey questions, were:

([61]) In practice, this was not always possible, i.e. there were particular cases in some countries where cells had fewer respondents.

([62]) In Italy, the 2011 version was used as it was not possible to link the 2021 version to the PSU list.

iii. Generation.

Given the small sample sizes per target group (500 in most countries), a fine balance was found in including variables in weighting – so that the profile is corrected when necessary but that the weighting efficiency is not significantly affected. Including more variables in weighting decreases efficiency.

Both non-response weights and post-stratification weights enable reducing any harmful effects of coverage error to a certain extent. Specifically, if suitable data is available, the weighting procedures can correct the socio-demographic profile of the sample. However, these procedures cannot be expected to compensate for distinctive population groups that may not be covered by the survey (e.g., population living in low density areas, non-internet users).

Table 41 below provides an overview of the variables used for the weighting of each target group sample.

Table 41 – Variables used in post-stratification or calibration weighting by country and target group

Country	Target group	Variables used	Sources used
France	NOAFR	Region (NUTS1) x Urbanity (DEGURBA)	PSU list
	SSAFR	Region (NUTS1) x Urbanity (DEGURBA)	PSU list
Germany	SSAFR	Region (NUTS1)	PSU list
	SYR	Region (NUTS1)	PSU list
	TUR	Region (NUTS1)	PSU list
Italy	NOAFR	Region (NUTS1) x Urbanity (DEGURBA)	PSU list
	SSAFR	Region (NUTS1) x Urbanity (DEGURBA)	PSU list
Portugal	SSAFR	Region (NUTS2)	PSU list
Spain	NOAFR	Region (NUTS1)/ Urbanity (DEGURBA)/ Age (16-44, 45+) for immigrants x sex for immigrants x Generation	PSU list / INE 2020
	SSAFR	Region (NUTS1)/ Urbanity (DEGURBA)/ Age (16-44, 45+) for immigrants x sex for immigrants x Generation	PSU list / INE 2020

8.1.4. Trimming weights

The weighting procedures for the samples using oversampling of strata of higher levels of density could result in large variations between weights. Large weights can result in substantial losses in sample efficiency and so it is common practice to trim weights. Weights were therefore trimmed at several stages during the weighting construction process. The iterative process is applied as it means that the effect of later stages of weighting is retained in the sample. If all trimming is done at the end this would disproportionally affect certain cases.

It is usual to trim weights on both side of its distribution if the distribution is symmetric. However, if the distributions of weights are skewed towards lower values, it is acceptable to apply the trimming only to larger values. These values are the ones distant from the mean, and they have a great impact on variability. The lowest values of weights on the other side are very similar, given the skewed distribution, and consequently, trimming them would have a limited impact on variability. This approach was followed in the FRA's Roma and Travellers Survey (2019) and the FRA's Fundamental Rights Survey (2019), and was also applied for this survey. In exceptional cases, when the lowest values in a skewed distribution still significantly affected the ratio between the smallest and largest weight, trimming was also applied to these values. In order to control variations in weights, both percentiles of the distribution and the ratio between the smallest and largest weight were reviewed and considered when deciding on the trimming values.

All tables below provide details on the weight distribution, the trimming decision and the achieved ratio between the smallest and largest weight. The last column in the tables provides additional details on the trimming options considered before the decision was made.

The following trimming was applied, considering a harmonised approach and ratios across countries:

- The full address selection weight (sampling unit and address unit selection weights combined, $DW_{PSU} * DW_{unit}$) was trimmed when the ratio between the smallest and largest weight was greater than 10, at maximum 5^{th} and 95^{th} percentile of the distribution. This was the maximum level of trimming applied. Less trimming was applied if the ratio between the smallest and largest weight could be brought to 10 by a smaller amount of trimming; or no trimming was required to reach this level.

Table 42 – Trimming of the full address selection weight by country and target group

Country	Target group	Distribution	Trimming percentile	Ratio
France	NOAFR, SSAFR	Asymmetrical	At 95th percentile	8.9
Germany	SSAFR	Symmetrical	No trimming required	1.1
	SYR	Symmetrical	No trimming required	1.3
	TUR	Symmetrical	No trimming required	1.5
Greece	SYR	Symmetrical	No trimming required	1
Italy	NOAFR, SSAFR	Asymmetrical	At 5th and 95th percentile – trimmed at both ends to reduce the ratio	14.4
Poland	SSAFR	Symmetrical	No trimming required	1
Portugal	SSAFR	Asymmetrical	No trimming required	5.2
Spain	NOAFR	Symmetrical	At 5th and 95th percentile	7.0
	SSAFR	Asymmetrical	At 99th percentile	6.4

- The dwelling unit selection weight (DW_{du}) was trimmed when the ratio was greater than 2, at maximum 95th percentile of the distribution. This was the maximum level of trimming applied. Less trimming was applied if the ratio between the smallest and largest weigh could be brought to 2 by a smaller amount of trimming; or no trimming was required to reach this level.

Table 43 – Trimming of the dwelling unit selection weight

Country	Target group	Distribution	Trimming percentile	Ratio
France	NOAFR, SSAFR	Asymmetrical	At 99th percentile	1

- The household level non-response weight (Wnr) was trimmed when outliers were observed, at maximum 5th and 95th percentile of the distribution. ([63])

([63]) Initially, trimming at maximum 2.5th and 97.5th percentile was considered. More trimming was applied with a view of reducing ratio of the final weight.

Table 44 – Trimming of the household non-response weight by country and target group

Country	Target group	Distribution	Trimming percentile	Ratio
France	NOAFR, SSAFR	Symmetrical	At 5th and 95th percentile	1.2
Italy	NOAFR, SSAFR	Symmetrical	At 2.5th and 97.5th percentile	1.1
Portugal	SSAFR	Symmetrical	No trimming required	1.1
Spain	NOAFR	Symmetrical	At 5th and 95th percentile	1.2
	SSAFR	Symmetrical	At 5th and 95th percentile	1.1

The individual selection weight (DWind) was trimmed when the ratio was above 4, at maximum 95th percentile of the distribution This was the maximum level of trimming applied. Less trimming was applied if the ratio between the smallest and largest weight was within/could be brought to 4 by a smaller amount of trimming. ([64])

Table 45 – Trimming of the individual selection weight by country and target group

Country	Target group	Distribution	Trimming percentile	Ratio
France	NOAFR, SSAFR	Asymmetrical	At 99th percentile	4.0
Greece	SYR	Asymmetrical	At 97.5th percentile	4.3
Italy	NOAFR, SSAFR	Asymmetrical	At 97.5th percentile	4.0
Portugal	SSAFR	Asymmetrical	At 95th percentile	4.0
Spain	NOAFR	Asymmetrical	At 95th percentile	4.0
	SSAFR	Asymmetrical	At 95th percentile	4.0

The individual level non-response weight (Wnr) was trimmed when outliers were observed, at maximum 5th and 95th percentile of the distribution. ([65])

([64]) Initially, trimming when the ratio was above 5 was considered. More trimming was applied with a view of reducing ratio of the final weight.

([65]) Initially, trimming at maximum 2.5th and 97.5th percentile was considered. More trimming was applied with a view of reducing ratio of the final weight.

Table 46 – Trimming of the individual non-response weight by country and target group

Country	Target group	Distribution	Trimming percentile	Ratio
France	NOAFR	Symmetrical	At 5th and 95th percentile	1.3
	SSAFR	Symmetrical	At 2.5th and 97.5th percentile	1.5
Germany	SSAFR	Symmetrical	At 2.5th and 97.5th percentile	4.4
	SYR	Symmetrical	At 2.5th and 97.5th percentile	1.8
	TUR	Symmetrical	At 2.5th and 97.5th percentile	4.2
Italy	NOAFR	Symmetrical	At 5th and 95th percentile	1.1
	SSAFR	Symmetrical	No trimming required	1.1
Poland	SSAFR	Asymmetrical	At 97.5th percentile	3.3
Portugal	SSAFR	Asymmetrical	At 95th percentile	1.1
Spain	NOAFR	Symmetrical	At 2.5th and 97.5th percentile	1.2
	SSAFR	Asymmetrical	At 95th percentile	1.1

The final weight, (W_IR) was trimmed when the ratio between the smallest and largest weight was greater than 15, at maximum 5th and 95th percentile of the distribution. This was the maximum level of trimming applied, with exception of Spain where both samples were trimmed more to reduce the ratio (see table 8.9). Less trimming was applied if the ratio between the smallest and largest weight was within/could be brought to 15 by a smaller amount of trimming or no trimming was required to reach this level.

Table 47 – Trimming of the final weight by country and target group

Country	Target group	Distribution	Trimming percentile	Ratio
France	NOAFR	Asymmetrical	At 4th and 96th percentile – trimmed at both ends to reduce the ratio	13.3
	SSAFR	Asymmetrical	At 4th and 96th percentile – trimmed at both ends to reduce the ratio	12.0
Germany	SSAFR	Symmetrical	No trimming required	7.7
	SYR	Symmetrical	No trimming required	9.4
	TUR	Symmetrical	At 1st and 99th percentile	8.3

Country	Target group	Distribution	Trimming percentile	Ratio
Italy	NOAFR	Asymmetrical	At 5th and 95th percentile – trimmed at both ends to reduce the ratio	16.8
	SSAFR	Asymmetrical	At 5th and 95th percentile – trimmed at both ends to reduce the ratio	15.8
Portugal	SSAFR	Asymmetrical	At 98th percentile	14.4
Spain	NOAFR	Asymmetrical	At 7th and 93rd percentile – trimmed at both ends to reduce the ratio	15.8
	SSAFR	Asymmetrical	At 6th and 94th percentile – trimmed at both ends to reduce the ratio	13.3

8.2. Weighting procedures – unclustered single-stage sample design

The unclustered single-stage sample design was used in Austria, Denmark, Finland and Luxembourg. The weighting for the unclustered single-stage sample design included the following stages:

1. Adjusting samples using **design weights** to reflect the probabilities of selection. This was only applied in Austria, where a stratification with different probabilities of selection was used. Sample cases in the remaining three countries were selected with equal probability so it was not necessary to calculate the design weights.

2. Reducing non-response bias through the application of **non-response weights**, only applied in Denmark. It was not applied where it was not needed or not possible in case of population register samples, in Finland and Luxembourg.

3. **Post-stratification or calibration weighting** to adjust for differences between the sample and population distributions on variables that are considered to be related to key survey questions (via) was applied to all samples except for Denmark. In Denmark, the gross sample contained individual level information based on the accurate definition of the target population. The population statistics was not available for this definition.

Therefore, the non-response weighting was used to adjust for differences between the achieved sample and population distributions.

Table 48 provides an overview of the sampling approaches used across the countries and target groups and lists the stages of weightings applied.

Table 48 – Summary of weighting stages applied by country

Country	Target group	Sampling approach	Stages of weighting
Austria	SSAFR, SYR, TUR	Unclustered single-stage sample	Design weights Non-response weights Post-stratification/calibration weights
Denmark	SSAFR, SYR TUR	Unclustered single-stage sample (pre-selected individuals)	Non-response weights
Finland	SSAFR	Unclustered single-stage sample (pre-selected individuals)	Post-stratification/calibration weights
Luxembourg	SSAFR	Unclustered single-stage sample (pre-selected individuals)	Post-stratification/calibration weights

In countries with multiple target groups, the groups were weighted separately (and can be combined in a country weight once the sample size is grossed to the actual population size).

8.2.1. Design weights

In Austria, differential selection probabilities were applied due to different target groups and a slight oversample of lower educated persons (ISCED 0/1). The design weights were calculated as the inverse of these probabilities.

For the remaining countries that used single-stage unclustered samples – Denmark, Finland and Luxembourg, all individuals were selected from population registers with equal selection probability, and it was not necessary to calculate design weights.

8.2.2. Non-response weights

Non-response weighting was considered in all countries using the unclustered single-stage sample design. Information obtained from the sampling frames for each sample case, which covers both responders and non-responders, was reviewed. The data on age, sex, (and region and urbanity) for all cases in the individual register sample was received for Luxembourg. The same variables as well as country of birth and parents' countries of birth, that allowed establishing whether individuals belonged to first- or second-generation immigrants, were received for all sampled cases in Denmark and Finland. These were all considered in non-response weighting. However, the data was used for producing non-response weights in Denmark only. In Luxembourg it was not used due to mismatches noticed between the data received in the gross sample and responses in the survey, and in Finland since the population data used in calibration weighting were more reliable.

Table 49 provides information about variables used in the individual level non-response weights applied in Denmark.

Table 49 – Variables used in non-response weighting in Denmark

Country	Target group	Variables used	Sources used
Denmark	SSAFR	Individual: Region (NUTS2)/ urbanity (DEGURBA)/ Age (16-24, 25-44, 45-59, 60+)/ Sex/ Generation	Gross sample (Population register)
	SYR	Individual: Region (NUTS2)/ urbanity (DEGURBA)/ Age (16-24, 25-44, 45-59, 60+)/ Sex/ Generation	Gross sample (Population register)
	TUR	Individual: Region (NUTS2)/ urbanity (DEGURBA)/ Age (16-24, 25-44, 45-59, 60+)/ Sex/ Generation	Gross sample (Population register)

8.2.3. Post-stratification or calibration weights

Post-stratification or calibration weights were calculated using a suitable approach, either cell weighting or rim weighting (raking), depending on the data available. Rim weighting was used for Austria and Finland, where the population statistics were available for the target groups. In Luxembourg one interlocked variable, based on the data available in the sampling sources (population register), was used in cell weighting. In Denmark, the variables available in the gross sample were used in non-response weighting, and as there was no other data to be used, post-stratification/ calibration weighting was not applied.

The same variables as for the multi-stage clustered sample design were considered for calibration weighting: NUTS regions; DEGURBA; age by sex; generation and education. In addition, employment status was considered in Austria.

Table 50 below provides an overview of the variables used for the weighting of each target group sample.

Table 50 – Variables used in post-stratification or calibration weighting by country and target group

Country	Target group	Variables used	Sources used
Austria	SSAFR	Urbanity (DEGURBA)/ Age (16-28, 29-43, 44-58, 59+)/ Sex/ Education (ISCED 0-1, other)/ Employment status (employed, other)	Statistics Austria Population register
	SYR	Urbanity (DEGURBA)/ Age (16-28, 29-43, 44-58, 59+)/ Sex / Education (ISCED 0-1, other)/ Employment status (employed, other)	Statistics Austria Population register
	TUR	Urbanity (DEGURBA)/ Age (16-28, 29-43, 44-58, 59+)/ Sex / Education (ISCED 0-1, other)/ Employment status (employed, other)/ Generation	Statistics Austria Population register
Finland	SSAFR	Region (NUTS2)/ Urbanity (DEGURBA)/ Age (16-29, 30-39, 40+) x Sex / Generation	Statistics Finland 2021
Luxembourg	SSAFR	Age (16-24, 25-44, 45-59, 60+) x Sex	Gross sample (Population register)

8.2.4. Trimming weights

The individual level non-response weight (Wnr) would be trimmed if outliers were observed. Given that for Denmark this was the only weighting applied, the trimming was considered in the final weighting stage, and no trimming was applied at this stage.

The final weight, (W_IR) would be trimmed if the ratio between the smallest and largest weight was greater than 15. However, the ratio was below 15 for each sample using the unclustered single-stage design, so no trimming was required.

8.3. Weighting procedures – location sampling sample design and social media recruitment sample design

The location sampling sample design was used in the Netherlands (for recruiting respondents in one of two parts of the sample for the Turkish target group), Poland (for one of two parts of the sample) and Sweden. In the Netherlands, the social media recruitment approach was used for the North African and Syrian target group, as well as for the second part of the sample for the Turkish target group.

Social media platforms were regarded as centres of congregation, and samples for each target group in the Netherlands were treated as location samples in weighting.

The overall sample in Poland was also treated as a location sample in weighting. The design and non-response weights were applied to the multi-stage clustered part of the sample before it was taken as an additional centre of congregation in the weighting of the overall location sample in Poland.

The weighting for the location sampling and social media recruitment sample designs included the following stages:

1. In the Netherlands, Poland and Sweden where location sampling was implemented and for the social media approach in the Netherlands, location sampling weights were applied.

2. Post-stratification or calibration weighting to adjust for differences between the sample and population distributions on variables that are considered to be related to key survey questions (via) was applied to all samples.

Table 51 provides an overview of the sampling approaches used across the countries and target groups and lists the stages of weightings applied.

In countries with multiple target groups, the groups were weighted separately (and can be combined in a country weight once the sample size is grossed to the actual population size).

Table 51 – Summary of weighting stages applied by country

Country	Target group	Sampling approach	Stages of weighting
The Netherlands	NOAFR, SYR, TUR	Location screening and social media	Location sampling weights Post-stratification/calibration weights
Poland	SSAFR	Overall sample including: Multi-stage clustered sample, using individual register Location sampling	Location sampling weights Post-stratification/calibration weights
Sweden	SSAFR, SYR	Location sampling	Location sampling weights Post-stratification/calibration weights

8.3.1. Location sampling weights

The weighting strategy for the location sample followed the approach described in the paper by *Baio et al.* (2011) ([66]). These are the same procedures that were followed in weighting these samples in EU-MIDIS II.

The weights were generated separately for each region included in the survey and then adjusted to be in proportion to the size of the target population when the regions are combined in the later stage of weighting. The locations were defined not as single specific locations, but rather types of location. For example, rather than considering each religious centre in a region separately, all religious centres in each region were treated as a single entity. This is consistent with the approach described in the *Baio et al.* (2011) paper and has the advantage of increasing the sample sizes and so gives more precise estimates of attendance to be used for the weighting.

For each region, the baseline location was defined to be the location that was visited by the highest proportion of the eligible population. In most cases, one location dominated and so this decision was clear cut. For others, the location selected as a baseline was not necessarily the one with the highest measure of relative importance (rk; see below), as consistency across the full sample was sought, and the same location type was selected for a baseline across all regions within a sample. This is in line with the approach to selecting baseline locations taken in EU-MIDIS II.

([66]) Gianluca Baio, Gian Carlo Blangiardo, Marta Blangiardo (2011). Centre Sampling Technique in Foreign Migration Surveys: A Methodological Note. Journal of Official Statistics, Vol. 27, No. 3, pp. 451–465.

In Poland, the design and non-response weights were applied to the register component of the sample before the location sampling weighting steps described below were implemented on the overall sample.

In the Netherlands, the social media platforms were treated as location centres in the location sampling weighting again following the *Baio et al.* (2011) paper. In the context of social media recruitment, each social media platform can be treated as a centre of congregation. Even though the target populations do not live in geographical proximity and visit the same physical places, they do visit the same platforms, which could as well be considered as centres of congregation. In a similar way as for the physical location centres, a set of questions was asked to determine the probability of someone being recruited via each social media platform.

Calculations for locations

Using the same notation as in the *Baio et al.* (2011) paper, the following was estimated for each location k:

1. The proportion of respondents at the baseline location that also visited location k:

   $A_k = n_{\text{baseline that also visited k}} / n_{\text{baseline}}$

   (Note that when a register was the baseline location, then A_k was estimated based on a weighted register sample in order to obtain unbiased estimates.)

2. The proportion of respondents at each location that also visited the baseline location:

   $B_k = n_{\text{k that also visited baseline}} / n_k$

3. The ratio (r_k) of A_k to B_k:

   $r_k = A_k / B_k$

   This is the survey-based estimate of the relative prevalence of visits to location k compared with the baseline. It can be considered to be a measure of the relative importance of each location k compared with the baseline location. A measure of rk greater than 1 implied that location k was more important than the baseline location.

   The estimates of rk were used to test that the most important location had been selected as the baseline. As mentioned earlier, an attempt was made to select

the same location type as a baseline across all regions within a sample, so for consistency purposes in some regions the baseline location was not the most important (that is, there were locations k with rk greater than 1).

4. The proportion of interviews carried out at location k:

   $\Theta_k = n_k / n_{\text{all interviews}}$

5. A measure of how over- or under-represented each location was:

   $\delta_k = \Theta_k / r_k$

   If a location has a value of δk that is greater than that of the baseline location, then that implies that more interviews were carried out at that location than would be required based solely on its relative importance. Conversely, if the value of δk is less than that of the baseline location, then that implies that fewer interviews were carried out at that location than would be required based solely on its relative importance.

   For some locations, due to small sample sizes or there being little overlap with the baseline location, there was an extreme value of δk. This could have resulted in extreme weights, and consequently reduced the efficiency of the sample. However, this would have happened if a respondent only visited location k (see 'Individual weight' below). Trimming was applied in the next stage of weighting, to limit variations in the individual weights.

Individual weight

If a participant only visited one location (e.g. location s), then their weight was calculated to be:

$\text{weight} = 1 / \delta_s$.

That means that a participant that visited a location that was under-represented compared to the baseline location would be given a higher weight relative to the baseline location. That is consistent with what we would expect to see for the weights.

The weight for a participant that visited more than one location (e.g. locations s, t and u) was calculated from the corresponding values of δ as:

$\text{weight} = 1 / (\delta_s + \delta_t + \delta_u)$.

This means that a participant that visited more than one location is given a lower weight than a participant that visited only one of them. This again is consistent with what we would expect for the weights and acknowledges the increased likelihood of participation of that participant.

In general, the formula for the weights for each participant was calculated as:

weight = $1 / \sum (C_i \times \delta_i)$ where Ci = 1 if the participant visits location *i* and 0 otherwise.

Before finalising the weights, they were checked to make sure the weights had no extreme values, which would reduce the efficiency of the sample. Any large weights were trimmed to the next highest value so that approximately the largest weight was not more than ten times larger than the smallest one. ([67])

8.3.2. Post-stratification or calibration weights

Post-stratification or calibration weights were calculated using a suitable approach, either cell weighting or rim weighting (raking), depending on the data available. Rim weighting was used for the Netherlands and Sweden where the population statistics were available for the target groups. In Poland one variable, based on the data available in the sampling sources (PSU list), was used in cell weighting.

The same variables as for the other sample designs were considered for calibration weighting: NUTS regions; DEGURBA; age by sex and education. In addition, the population statistics on generation was available in the Netherlands and Sweden. However, it was not used in the weighting in an attempt to maximise the weighting efficiency while correcting the sample profile on a limited number of key demographic variables.

Table 52 below provides an overview of the variables used for the weighting of each target group sample.

([67]) There were no extreme small values of the weight, so it was not necessary to trim the weights at the bottom end to the next lowest value.

Table 52 – Variables used in post-stratification or calibration weighting by country and target group

Country	Target group	Variables used	Sources used
Netherlands	NOAFR	Region (NUTS1)/ Urbanity (DEGURBA (1, 2 and 3))/ Age (16-24, 25-34, 35-49, 50+) x Sex/ Education (ISCED 0-2, 3-5, 6-8)	CBS 2020/ CBS estimates 2020
	SYR	Region (NUTS1)/ Urbanity (DEGURBA (1, 2 and 3))/ Age (16-24, 25-34, 35-49, 50+) x Sex/ Education (ISCED 0-2, 3-5, 6-8)	CBS 2020/ SCP (Institute for Social Research) estimates 2018
	TUR	Region (NUTS1)/ Urbanity (DEGURBA (1, 2 and 3))/ Age (16-24, 25-34, 35-49, 50+) x Sex/ Education (ISCED 0-2, 3-5, 6-8)	CBS 2020/ CBS estimates 2020
Poland	SSAFR	Region (NUTS2)	PSU list
Sweden	SSA	Region (NUTS2) / Age (16-24, 25-34, 35-44, 45+) x Sex	SCB 2019
	SY	Region (NUTS2) / Age (16-24, 25-34, 35-44, 45+) x Sex	SCB 2019

8.3.3. Trimming weights

The following trimming was applied, considering a harmonised approach and ratios across countries:

- The location sample weight (Wind) was trimmed when the ratio was greater than 10, to the next largest value. This was only required in these cases:
  - In the Netherlands for the Turkish target group, social media sample outside of the four municipalities covered by location sampling recruitment, where the ratio was 14.2 and was decreased by 3.0 by trimming;
  - In Poland in Poznan, where the ratio was 9.1 (not greater than 10, but it was a clear outlier) and was decreased to 1.4 by trimming;
  - In Sweden for the Syrian target group in Stockholm, where the ratio was 10.3 and was decreased by 2.9 by trimming.
- The final weight, (W_IR) was trimmed when the ratio between the smallest and largest weight was greater than 15, at maximum 5th and 95th percentile of the distribution. This was the maximum level of trimming applied. Less trimming was applied if the ratio between the smallest and largest weight was within/could be

brought to 15 by a smaller amount of trimming or no trimming was required to reach this level.

Table 53 provides details on the weight distribution, the trimming decision and the achieved ratio between the smallest and largest weight.

Table 53 – Trimming of the final weight by country and target group

Country	Target group	Distribution	Trimming percentile	Ratio
Netherlands	NOAFR	Asymmetrical	At 5th and 95th percentile – trimmed at both ends to reduce the ratio	16.6
	SYR	Asymmetrical	At 95th percentile	14.5
	TUR	Asymmetrical	At 96th percentile	14.4
Poland	SSAFR	Asymmetrical	No trimming required	8.2
Sweden	SSAFR	Asymmetrical	At 4th and 96th percentile – trimmed at both ends to reduce the ratio	12.5
	SYR	Symmetrical	At 2nd and 98th percentile	11.8

8.4. Weighting procedures – quota sample design

The quota sample design was used in Belgium, Greece (for one of four sub-samples) and Ireland.

Four independent samples were issued in Greece to cover four different population sub-groups. The multi-stage clustered design was applied for three sub-samples and the quota design was applied for the fourth sub-sample. The design weights were calculated independently for each of the multi-stage clustered samples, and then calibration weight was applied on the overall sample containing all four sub-samples.

In Belgium and Ireland, the multi-stage clustered sample approach was implemented for a part of each sample. However, given the small sample sizes and low efficiency of design weights, the full sample was treated in these countries as quota samples in weighting.

The weighting for the quota sample design included **post-stratification or calibration weighting** to adjust for differences between the sample and population distributions on variables that are considered to be related to key survey questions (via) was applied to all samples.

Table 8.16 provides an overview of the sampling approaches used across the countries and target groups and lists the stages of weightings applied.

Table 54 – Summary of sampling approaches used and weighting stages applied by country and target group

Country	Target group	Sampling approach	Stages of weighting
Belgium	NOAFR, SSAFR	Quota	Post-stratification/calibration weights
Greece	SYR	Overall sample including: **Multi-stage clustered sample, using individual register or household register** (ESTIA, HELIOS, Accommodation facilities) **Quota** (rest of the population)	Post-stratification/calibration weights
Ireland	SSAFR	Quota	Post-stratification/calibration weights

In countries with multiple target groups, the groups were weighted separately (and can be combined in a country weight once the sample size is grossed to the actual population size).

8.4.1. Post-stratification or calibration weights

Post-stratification or calibration weights were calculated using a suitable approach, either cell weighting or rim weighting (raking), depending on the data available. Rim weighting was used for Belgium and Ireland where the population statistics were available for the target groups. It was also used in Greece, relying on the population statistics and data derived from the survey.

The survey collected the data on the age and sex of each household member in responding households. This information allowed the profile of all eligible household members in these households (the gross household member sample) to be derived, which was used for the calibration weighting of the overall sample in Greece. This was

done as there was no other reliable statistics that could be used for correcting the age and sex profile of the full sample in Greece. ([68])

The same variables as for the other sample designs were considered for calibration weighting: NUTS regions; age by sex. Given that the quota sample used PSUs that were larger than units used for defining DEGURBA, it was not possible to derive this variable for all sample cases, and consequently it was not possible to use it in the weighting. Additionally, there were no population statistics for the target groups on generation and education, so these were not used in the weighting.

Table 55 below provides an overview of the variables used for the weighting of each target group sample.

Table 55 – Variables used in calibration weighting by country and target group

Country	Target group	Variables used	Sources used
Belgium	NOAFR	Region (NUTS1) / Age (16-29, 30-44, 45+) x Sex	Statbel 2021 / Statbel 2022
	SSAFR	Region (NUTS1) / Age (16-29, 30-44, 45+) x Sex	Statbel 2021 / Statbel 2022
Greece	SYR	Region (NUTS1) / Age (16-24, 25-34, 35-44, 45+) / Sex	PSU list / Gross sample (Main data household members)
Ireland	SSAFR	Region (NUTS2)/ Age (16-29, 30-44, 45+) x Sex	PSU list/ Census 2016

8.4.2. Trimming weights

The final weight, (W_IR) was trimmed when the ratio between the smallest and largest weight was greater than 15, at maximum 5th and 95th percentile of the distribution. This was the maximum level of trimming applied. Less trimming was applied if the ratio

([68]) More than a half of the sample in Greece was completed via quota sampling. In this case, households were not selected randomly, and the household sample could not be considered unbiased. Therefore, it cannot be claimed that the gross household member sample would provide reliable information on the target population profiles. However, there was value in reviewing the gross household member profile against the interview profile and applying the non-response weighting in this case. An assumption was made that the gross household sample profile was a better reflection of the population than the interview profile, and hence the adjustment described above was made.

between the smallest and largest weight was within/could be brought to 15 by a smaller amount of trimming or no trimming was required to reach this level.

Table 56 provides details on the weight distribution, the trimming decision and the achieved ratio between the smallest and largest weight.

Table 56 – Trimming of the final weight

Country	Target group	Distribution	Trimming percentile	Ratio
Belgium	NOAFR	Symmetrical	No trimming required	1.7
	SSAFR	Symmetrical	No trimming required	2.9
Greece	SYR	Symmetrical	At 3rd and 97th percentile	12.1
Ireland	SSAFR	Symmetrical	No trimming required	4.8

8.5. Country population (cross-national) weights

Initial weights were calculated as the product of design weights (where applicable), non-response weights (where applicable), and post-stratification/calibration weights. In the final weighting stage, the weights were then grossed to the population size for each target group in each country as this will mean that a single weight can be used to provide weighted estimates for within country or cross-country analyses. Two versions of this weight were calculated, one grossing the sample to the total target populations size (0+), and the other to the size of the populations aged 16 years and above. Total populations (0+) and 16+ populations sizes were taken from the sampling sources, based on the covered populations. In Austria, the second version of the weight grossed the samples to the sizes of the target populations aged 16-74 years.

In countries where multiple target groups were covered, and where the sample size allocation across the groups was disproportional to the population size distribution in the country, grossing the weights introduces a variation in the country weights – the weights calculated for the under-sampled target group were multiplied by a significantly larger scaling factor than the oversampled group in this process. This means that the ratio between the minimum and maximum value of the weight within a country are large. Trimming of weights was not applied at the country level, as it would contradict the goal of grossing the samples, i.e., representing the population sizes of each group covered by the survey. In these countries the weights at the country level hence come with a lower weighting efficiency, given the higher variation

in weights. However, this cannot be avoided, as there is no other weighting approach that can provide country level weights (with the actual proportion of the target groups in the weighted sample) that comes with no effect to the sample efficiency. Regardless, as mentioned above, the final weights can be used to provide weighted estimates for within country or cross-country analyses.

8.6. Household weights

Another weight was produced for reporting at the level of all household members. The household weight was derived from the final weights for respondents, described in the previous sections, grossed to the covered total target populations (0+) sizes. The weight was calculated by dividing the final respondent weight by the household size. In this way the weighted population sizes for the respondent sample and for the household member sample are the same.

8.7. Weighting efficiency

Table 57 below provides the range and ratio (largest to smallest) of the final weights for each country and target group standardised to a mean of 1 for each sample. The table also provides the weighting efficiency of the samples. This was calculated as the ratio of the effective sample size to total sample size. The effective sample size was calculated using the standard Kish formula (sum of weights squared divided by sum of squared weights). The efficiencies therefore do not take account of the impact of clustering or stratification.

Table 57 – Range, ratio and efficiency of the final weights by country and target group

Country	Target group	Range	Ratio	Efficiency
Austria	SSAFR	0.4-5.4	14.1	83 %
	SYR	0.4-2.0	4.6	93 %
	TUR	0.2-2.0	8.4	91 %
Belgium	NOAFR	0.8-1.3	1.7	98 %
	SSAFR	0.6-1.8	2.9	92 %
Denmark	SSAFR	0.5-2.4	5.1	89 %
	SYR	0.6-1.7	2.6	98 %
	TUR	0.6-1.9	3.2	93 %
Finland	SSAFR	0.2-2.0	8.5	85 %
France	NOAFR	0.2-3.1	13.3	62 %
	SSAFR	0.2-3.0	12.0	61 %
Germany	SSAFR	0.4-2.8	7.7	85 %
	SYR	0.4-3.9	9.4	84 %
	TUR	0.3-2.3	8.3	83 %
Greece	SYR	0.2-1.9	12.1	84 %
Ireland	SSAFR	0.3-1.7	4.8	90 %
Italy	NOAFR	0.2-2.8	16.8	61 %
	SSAFR	0.2-2.9	15.8	61 %
Luxembourg	SSAFR	0.8-1.3	1.7	99 %
Netherlands	NOAFR	0.2-3.2	16.6	57 %
	SYR	0.2-2.8	14.5	63 %
	TUR	0.2-3.0	14.0	63 %
Poland	SSAFR	0.5-3.9	8.2	81 %
Portugal	SSAFR	0.2-3.3	14.4	65 %
Spain	NOAFR	0.2-2.8	15.8	58 %
	SSAFR	0.2-2.8	13.3	58 %
Sweden	SSA	0.2-2.7	12.5	62 %
	SY	0.2-2.5	11.8	74 %

9. Survey quality assessment

This chapter describes the quality of the data collected. There are five quality dimensions in survey quality assessment: relevance; accuracy and reliability; timeliness and punctuality; coherence and comparability; accessibility and clarity. Relevance and accessibility are out of scope of this report.

9.1. Accuracy and reliability

The assessment of the accuracy and reliability of the data covers the following types of errors that occur in statistical surveys:

- Sampling errors;
- Coverage errors;
- Non-response errors;
- Measurement errors (from the questionnaire, data collection method, interviewer or respondent);
- Processing errors (in data cleaning);
- Adjustment errors (in weighting).

9.1.1. Sampling errors

All sample surveys are affected by sampling error, given that the survey interviews only a fraction of the total population. Therefore, all results presented are point estimates with underlying statistical variation. Small differences of a few percentage points between groups of respondents have to be interpreted with caution because there may not be a statistically meaningful difference between the groups compared. Only more substantial differences between population groups should be considered actual differences in the total population. Results based on small sample sizes are statistically less reliable and are flagged in figures and tables (for example by putting the results considered less reliable in brackets in the figures) and not interpreted substantially. These include statistics that are based on samples of between 20 and 49 respondents

in total; this could be the case, for example, when analysing the results for a specific category of respondents based on their sociodemographic characteristics, or when analysing a question that only a small set of respondents was asked to answer. Results based on 20 to 49 unweighted observations in a group total are flagged.

Table 58 provides an overview of the commonly used 95 % confidence intervals for selected indicators. The confidence intervals reflect the uncertainty in the estimates due to sampling and are mainly influenced by the sampling design and the sample size. These were calculated for the random probability samples. For the quota samples in Belgium and Ireland, and in Greece where a part of the sample was non-random, the theory of statistical inference using confidence intervals does not apply, and they are not presented in the table.

Table 58 – Confidence intervals (95%) of estimates for selected indicators by country and target group (%)

Country	Target group	Prevalence of racial discrimination in the 12 months before the survey (%)			Prevalence of racial discrimination in the 5 years before the survey (%)			Share of population living in households with severe material deprivation [matdepr4] (%)		
		Indicator value	Confidence interval	Standard error	Indicator value	Confidence interval	Standard error	Indicator value	Confidence interval	Standard error
Austria	SSAFR	63.5	58.5-68.5	2.5	72.5	67.9-77.0	2.3	16.1	14.2-18.0	1.0
	SYR	60.1	55.5-64.7	2.3	65.7	61.3-70.0	2.2	29.9	27.9-32.0	1.0
	TUR	61.5	57.8-65.1	1.9	69.6	66.2-73.0	1.7	11.3	10.1-12.5	0.6
Denmark	SSAFR	43.2	38.6-47.7	2.3	57.0	52.4-61.5	2.3	10.2	8.7-11.7	0.8
	SYR	52.9	48.9-57.0	2.1	64.1	60.2-67.9	2.0	30.5	28.7-32.2	0.9
	TUR	38.5	34.2-42.8	2.2	52.5	48.1-56.9	2.3	5.1	4.0-6.1	0.5
Finland	SSAFR	54.3	49.6-59.0	2.4	63.0	58.5-67.5	2.3	18.0	16.1-20.0	1.0
France	NOAFR	26.9	22.1-31.8	2.5	37.2	32.0-42.5	2.7	17.8	15.3-20.2	1.3
	SSAFR	26.6	21.9-31.4	2.4	37.4	32.1-42.6	2.7	14.7	12.4-17.0	1.2
Germany	SSAFR	63.8	59.5-68.1	2.2	75.8	72.0-79.6	1.9	20.4	18.3-22.5	1.1
	SYR	54.2	50.1-58.3	2.1	66.0	62.1-69.8	2.0	35.9	33.8-37.9	1.1
	TUR	52.0	48.8-55.1	1.6	66.5	63.6-69.4	1.5	8.6	7.6-9.5	0.5
Italy	NOAFR	18.1	14.5-21.7	1.9	28.4	24.3-32.6	2.1	21.1	19.0-23.2	1.1
	SSAFR	32.5	26.5-38.6	3.1	43.7	37.5-50.0	3.2	33.2	29.7-36.7	1.8
Luxembourg	SSAFR	37.4	33.4-41.3	2.0	47.4	43.4-51.5	2.1	8.5	7.3-9.7	0.6

Country	Target group	Prevalence of racial discrimination in the 12 months before the survey (%)			Prevalence of racial discrimination in the 5 years before the survey (%)			Share of population living in households with severe material deprivation [matdepr4] (%)		
		Indicator value	Confidence interval	Standard error	Indicator value	Confidence interval	Standard error	Indicator value	Confidence interval	Standard error
Netherlands	NOAFR	44.5	36.7-52.3	4.0	56.3	48.7-64.0	3.9	21.0	17.9-24.1	1.6
	SYR	38.2	33.1-43.3	2.6	46.0	40.8-51.2	2.7	50.5	47.8-53.3	1.4
	TUR	41.2	36.3-46.0	2.5	52.6	47.7-57.5	2.5	13.3	11.5-15.0	0.9
Poland	SSAFR	19.1	16.4-21.8	1.4	20.4	17.8-23.1	1.4	2.3	1.5-3.1.0	0.4
Portugal	SSAFR	16.5	12.4-20.6	2.1	26.4	21.6-31.2	2.4	12.2	10.3-14.2	1.0
Spain	NOAFR	15.7	12.2-19.2	1.8	28.6	24.3-32.9	2.2	14.8	13.0-16.5	0.9
	SSAFR	22.8	18.2-27.4	2.3	36.9	31.7-42.2	2.7	33.7	30.6-36.8	1.6
Sweden	SSAFR	18.2	13.9-22.5	2.2	25.1	20.4-29.8	2.4	35.3	31.9-38.8	1.8
	SYR	15.6	11.9-19.3	1.9	19.1	15.2-23.1	2.0	20.8	18.4-23.1	1.2

Sample design adjustments made during the fieldwork had an impact on the sample efficiency, as did the inability to complete fieldwork in certain sampling points, which has affected accuracy of the survey estimates. The effect of the sample design modifications, and its implications to the effective sample size were considered before any change was made.

9.1.2. on-sampling errors

Non-sampling errors are present in all types of survey, including censuses and administrative data collection. They arise for a number of reasons, for example the sampling sources (frames) may be incomplete, some respondents may not accurately report data or data may be missing for some respondents.

Coverage errors

The survey aimed to maximise coverage of the target populations, to ensure that the samples represent the diversity of these populations and so reduce the risk of coverage error. Covering this population, however, comes with its challenges, as noted in this section.

Coverage error usually cannot be measured directly – certainly for all variables – given the lack of information on survey measures across the full population. The investigation is limited to available variables, considered in section 'Biases in the sample', below. Both coverage error and non-response error are considered there.

In most of the countries using a **multi-stage clustered sample design**, screening of addresses in PSUs with low eligibility rates was required. The total number of addresses that could be screened within the available budget and the distribution of the target populations across PSUs determined the sample efficiency that can be achieved for a certain coverage level. For each sample design a balance between the efficiency and coverage that the design was set to achieve has been found. The coverage ranged from 39 % for the African population from countries south of the Sahara in Spain to 60% for the same target group in France and Germany. This means that the survey can be considered representative for the population living in the areas of higher densities of the target populations, but it cannot equally represent potentially more integrated population, living in areas of lower densities.

For the target groups covered by the same sampling approach in EU-MIDIS II (2016), similar areas were covered, similar coverage levels were achieved and therefore the impact of coverage error is expected to be comparable across the two surveys in most countries surveyed. The coverage was significantly improved in the current survey for

Portugal – from 41 % to 50 %, covering more regions in 2022. A different sampling approach was used in Germany for EU-MIDIS II, that theoretically provided significantly higher coverage for both groups – 75 % for the African population from countries south of the Sahara and 97 % for the Turkish group. However, the basis for the sample in EU-MIDIS II was the telephone register providing a significantly lower coverage than the population register used in the current survey. ([69])

The location sampling design was more efficient when the fieldwork was focused on a smaller number of regions so that each can be comprehensively covered. Consequently, the coverage was lower if the target population was widely dispersed across the country. In Sweden, 44 % of the Syrian population lived in municipalities with higher target population numbers that had a chance to be selected while 31 % lived in the randomly selected municipalities where the location sampling was implemented. This was higher for the African population originating from countries south of the Sahara in Sweden (50 %) and Poland (55 %). This is in line with the coverage achieved for the latter target group in Sweden covered by the same sampling approach in EU-MIDIS II (51 %). The survey can be considered representative for the population living in the covered municipalities, that is, municipalities with larger target population sizes, and it cannot equally represent the population living in municipalities with smaller target population counts.

The unclustered single-stage sample design, coupled with the online push to web data collection method, could not cover the population who do not use the internet, those with lower level of literacy or digital skills and the population not included in the population registers. The latter includes irregular immigrants in Denmark and population who opted out from being contacted for research purposes in Finland. The coverage ranged from 86 %–89 % in Finland to 95 % in Luxembourg. In Austria, the survey did not cover people aged 75 years and above, as well as descendants of immigrants from African countries south of the Sahara and Syria. For the latter two groups, only immigrants (first generation) were surveyed. The coverage levels achieved with the same target groups in Austria, Denmark and Finland covered by different sampling approaches in EU-MIDIS II were significantly lower – from 17 % in Finland to 69 % in Austria for people from African countries south of the Sahara. Both differences in coverage levels and in the population that was covered should be kept in mind when comparing the results of the two surveys. While the current survey only cannot represent a small proportion of the population (as noted above), the EU-MIDIS II

([69]) FRA (2017), Second European Union Minorities and Discrimination Survey. Technical report

survey could not represent certain regions or areas of lower target population density levels across these countries.

For the quota sampling approach, larger territorial units were used as PSUs in Belgium and Ireland. The PSUs with largest target population sizes were selected so coverage in these countries was higher than was planned for the multi-stage clustered samples. Coverage of 80 % was achieved for the North African group in Belgium. For people from African countries south of the Sahara 76 % coverage was achieved in Belgium and 79 % in Ireland. This is significantly higher than what was achieved in EU-MIDIS with multi-stage clustered samples – 55 % for the North African target group in Belgium and 32 % for people from African countries south of the Sahara in Ireland. Applying the quota approach in the current survey allowed for the target population who lived in areas of lower densities to be covered, which was not the case in EU-MIDIS II.

Non-response errors

Similar to coverage bias, surveys tend to lack sufficient information to measure non-response error – to know when there are non-trivial differences between those who respond to the survey and survey non-responders. Minimising non-response error is not a simple matter of increasing the response rate as the relationship between response rate and non-response bias has been shown to be extremely weak. ([70]) Nevertheless, a higher response rate does help minimise the risk of non-response bias, and sufficient efforts were made to maximise the response rates.

For the multi-stage cluster sample designs for face-to-face surveys, the response rates ranged between 31 % in France to 89 % in Spain for people originating from

([70]) How strong is the relationship between response rates and non-response error? A number of studies have obtained data on both respondents and (initial) non-respondents to examine this relationship and have found the relationship to be very weak. For example, Groves, R. (2006) *(Nonresponse Rates and Nonresponse Bias in Household Surveys. Public Opinion Quarterly 70:646–75)* examined 319 bias estimates drawn from 30 studies and found only a weak correlation between the response rate and the magnitude of bias in survey estimates. Similarly, Groves, R., and Peytcheva, E. (2008) *(The Impact of Nonresponse Rates on Nonresponse Bias. Public Opinion Quarterly 72:167–89)* found no association between response rate and non-response bias across 959 estimates from 59 different studies. In both studies the authors found considerably more variance in bias estimates *within* than *between* studies, indicating that bias is more a function of survey questions, than of a survey as a whole. Similar conclusions have been drawn in later studies based on international data sets; for instance, Schouten, B., Cobben, F. and Bethlehem, J. (2009) *(Indicators for the Representativeness of Survey Response. Survey Methodology 35:101–13)* compared survey data to population values on a wide range of variables, and found differences to be only weakly related to response rates.

African countries south of the Sahara. Across all Member States surveyed the response rates either matched or exceeded the expectations as set out at the start of fieldwork (Table 22).

The response rates for the **online push-to-web surveys** ranged from 11 % in Finland and for people from African countries south of the Sahara and Turkish population in Germany to 26 % for the Turkish target group in Austria.

Non-response weights were applied where appropriate, but it should be noted that the weighting cannot completely correct for potential non-response bias as it cannot be assumed that individuals who choose not to respond to the survey hold similar views on survey estimates as those with similar socio-demographic characteristics who do respond.

Biases in the sample

This section looks into potential biases in the sample due to coverage or non-response error, through the sample profiles on basic socio-demographic parameters.

Availability of population statistics for the target populations varied across countries. In most cases, region and urbanity statistics could be obtained from the sampling sources (sampling frames and PSU lists). These provided the population distributions for the covered areas, which could be used in the weighting. The population statistics on age, sex, education, main activity or sex, when available, provided distributions for the entire target populations in the country. These were still considered as valuable sources for the populations covered by the survey and were used either to correct the sample profile in weighting, or to assess potential biases in the samples. When population statistics are not available for the target group, it is very difficult to detect biases in the data, and it is also not possible to be conclusive about what impact any potential biases in the achieved samples have on the data quality.

For the target groups also covered in EU-MIDIS II it was possible to compare the sample profiles across the two surveys. However, comparisons should be made with caution where substantially different sampling approaches were used across the two surveys (Austria, Belgium, Denmark, Germany, Ireland, Luxembourg, the Netherlands), or where the sample coverage was different (Austria, Belgium, Denmark, Finland, Germany, Ireland, Portugal). The sample designs and coverage levels are similar across the two surveys in France, Italy, Spain and Sweden. However, when the population statistics are not available and discrepancies in the sample profile across the two surveys are noticed, it is difficult to reach a conclusion on the sample biases.

Regarding regional distribution of the samples, the sample designs followed the distribution of the population covered by the survey to a certain extent. In the multi-stage clustered samples, areas of low densities or small numbers of the target populations were excluded from coverage. Furthermore, areas of higher densities were oversampled. This may have skewed the regional distribution of the issued sample. The oversampling of the higher concentrated areas was reversed in the design weights and then the regional distribution was further corrected in the post-stratification weighting. Only in Austria and Luxembourg region was not used in weighting, however there were no skews in the issued sample in these countries that needed correcting for.

Underrepresentation of older age population groups was observed in Denmark, Germany, the Netherlands and Sweden and this was corrected in weighting, along with some minor inconsistencies noticed in other countries. In comparison to the EU-MIDIS II sample, the sample in the current survey is older in most of the countries (all except Germany, Ireland and the Netherlands), which could be expected for recently settled immigrant groups.

Underrepresentation of women noticed in Greece and Sweden, and of men observed among the North-African and the Turkish target groups in the Netherlands, were corrected in weighting along with some minor inconsistencies noticed in other countries. When the profile of the current sample is aligned with the population statistics, it is considered to be representative for the time when the survey was conducted, so any inconsistencies with the EU-MIDIS II sample profile can be disregarded when assessing biases in the current sample. However, inconsistencies observed in France, Italy and Portugal, where the population statistics on sex/gender is not available, lead to an inconclusive assessment of the sample bias.

Overrepresentation of the population with higher levels of education was corrected in weighting for the Netherlands. When compared to the EU-MIDIS II samples, the current samples are better educated in most countries (see Table 40). This can be connected to the current sample being older or could indicate a change in the population distribution across the years. It could also indicate a bias towards better educated population, who are more likely to engage in surveys in general, and in particular with online surveys.

As with the education profile, the current samples in most countries have a higher proportion of the employed compared to the EU-MIDIS II samples. The reasons for this could be linked to the age or education profile of the samples, but this can also indicate a natural progression in these countries.

Overrepresentation of descendants of immigrants observed in Austria (the Turkish target group), Denmark and Finland were corrected in weighting. The same was done for underrepresentation of this group in Spain. The underrepresentation observed in Sweden was not corrected in weighting to limit the variance in weights. Compared to the EU-MIDIS II sample, the proportion of descendants of immigrants did not change in Austria, Belgium, Italy, Luxembourg and the Netherlands. More descendants of immigrants are observed in the current survey than in EU-MIDIS II in Denmark, Germany, Ireland and Spain, while a lower proportion of these is recorded in Finland, France, Portugal and Sweden.

9.1.3. Measurement errors

Measurement error can occur in a number of ways including through inaccurate translations, mode effects from different survey completion methods, respondents providing incorrect information or interviewers administering the questionnaire incorrectly. This section reports the recorded and possible types of measurement error and analyses the impact that these might have had on the survey estimates.

Survey instrument

The questionnaire of the EU Survey on Immigrants and Descendants of Immigrants was not fundamentally changed from EU-MIDIS II, but still underwent extensive technical pretesting and was tested in the field during a pilot study, following which some adaptions were made to the final questionnaire. The screener was also adapted from EU-MIDIS II and tested in the pilot prior to the main stage survey. However, given the linguistic limitations associated with the face-to-face approach, the overall length of the questionnaire and complexity of some of the questions, there is the possibility of measurement error that may skew the estimates. Interviewers suggest some elements of the questionnaire are too complex for the survey audience, particularly considering that for many respondents the national language is not their native language. This could also have introduced some bias.

Interviewer error

Interviewers were provided with a detailed project-specific briefing prior to starting fieldwork. This included a thorough review of the survey materials and questionnaire, with mock interviews conducted to ensure familiarity prior to starting work. Quality checks were in place throughout fieldwork, with a minimum of 10 % of all interviews being back checked. Follow-up briefings were conducted with any interviewers where these back checks identified an element of incorrect administration of the survey. For each country, the maximum number of interviews conducted by each interviewer was

set at 10% of the total national target sample. This was monitored throughout fieldwork and was largely respected. A few interviewers were allowed to exceed the limit. Overall, 1.3 % of interviews that were completed were removed due to non-compliance with the methodological approaches. This covers both sampling related issues and other quality concerns related to the data collected. It suggests only a small degree of interviewer error.

Respondent bias/error

Respondent bias or error can occur for a number of reasons. This can include providing socially desirable responses, not wishing to answer (or provide honest answers) to sensitive questions or a lack of knowledge. To help minimise respondent bias/error, interviewers were provided with training on how to ensure informed consent, that respondents understood why certain questions were being asked and how the data would be used. For the online survey, additional information for respondents was provided for a small number of questions where it was thought this information may be needed in the absence of an interviewer to provide further explanation. To minimise illogical response patterns due to respondent (or interviewer) error a series of 'hard' and 'soft' checks were built into the scripts for certain questions (for example respondent age and number of years in education).

Item non-response

A total of 26 cases were removed from the data due to having an item-non-response (INR) rate of 50 % or more. A further 123 cases had an INR rate of between 25 % and 50 %. These were reviewed on case-by-case basis, with 17 of these deleted from the data due to the combination of questions at which there was no response. A further two cases were removed due to the age and sex of the household respondent missing for more than two household members. The highest proportion of non-response by question was observed when respondents were asked their income; 48 % refused giving either an exact amount or banded amount. Missing income data was imputed where possible. No other question exceeded a 25 % non-response rate.

9.1.4. Processing errors

Processing errors can occur during data entry or subsequently while checking, editing, validating, weighting or imputing the data.

Data entry, editing and cleaning

Data entry was simultaneous with data collection given the use of CAPI and CASI. While this minimises the potential for interviewer or respondent error during survey completion, the initial script needed to be accurate in the first place.

Data were edited in SPSS. During the data validation and cleaning a number of interviews were removed. As already mentioned, 26 cases were removed due to varying levels of non-response, and some other 17 cases with flagged levels of non-response deleted due to combination of questions at which there was no response. In addition to this, 47 cases were removed due to doubts over respondent comprehension given interviewers assessment of language ability and that self-reported by respondents, 16 cases were removed in the Netherlands due to suspected duplication fraud (at respondent level) and one interview in Denmark was removed due to the respondent clarifying in their comments that while they were born in Kenya they were of Danish descent.

Imputation of missing values

Due to the high level of non-response on income and the importance of having information on household income for calculating social inclusion indicators, missing data for the exact household income were imputed. The full imputation was only done for survey groups with fewer than 40 % of values missing in the income question in the data set. Fully imputed data normally should not affect the data distribution significantly; however, taking into account the high number of missing cases, for this survey some changes in the data distribution need to be accepted. The age and sex of some respondents (49) and household members (549) was also missing. As these are needed to compute certain indicators these missing values were also imputed.

Weighting accuracy

The multi-stage clustered sample designs were designed to be self-weighting either entirely (Germany, Greece, Poland) or at the address level within density strata (France, Italy, Portugal, Spain). The designs relied on assumptions on response rate and on accuracy of the sampling source data (sampling frames and PSU lists). The fieldwork was closely monitored, and after thorough analyses and deliberation on effects to the sample efficiency, the designs were adjusted. Therefore, variations in the design weights for the multi-stage clustered samples came as expected. In countries where a handful of PSUs were not completed by the end of fieldwork (France, Italy, Spain) there were further effects to the variations, but they were mitigated in trimming. The non-response weights introduced some further variations, and coupled with post-stratification weighting, they somewhat decreased the weighting efficiency

in Germany, Portugal and Spain. Still, the main contributor to the large variations in the final weights in Portugal and Spain was the variation in the design weights, as expected.

The location sampling designs relied on assumptions of the proportions of the target groups visiting the location centres (importance). Implementation of the design then came with its challenges in terms of some location centres being less productive and further less important than expected. This led to variation in location sampling weights. However, the weights did not help with correcting the target population profiles and further post-stratification weighting needed to be implemented. In the Netherlands and Sweden, the population statistics were available for multiple demographic parameters which allowed the sample profiles to be corrected, but also introduced variance in weights. A fine balance between correcting the profiles and limiting the variation in weights needed to be found when selecting the variables to be used in the calibration weighting.

All sample cases were selected with equal probability in the unclustered single-stage designs, so it was not necessary to calculate the design weights for these samples. The same applied to the quota samples. Depending on the population statistics available, the sample profiles were corrected in the non-response weighting (Denmark) or post-stratification weighting (all other countries). Therefore, the weighting efficiency of these samples was significantly higher than that of the multi-stage clustered or location sampling designs.

9.2. Timeliness and punctuality

While the early stages of implementation progressed largely in line with the original timetable for the countries implementing a face-to-face approach, the impact of COVID-19 pandemic meant that fieldwork could not progress as planned in several countries. This coupled with sampling design assumptions not being met in some countries meant that the fieldwork period had to be significantly extended from four to 11 months. Among the online countries, delays in receiving the sampling information in Germany meant that data collection there took longer than anticipated. In the Netherlands the need for recruitment for face-to-face screening at locations meant that fieldwork also took longer than anticipated given the impact of COVID-19 on this element, while the social media approach required several revisions extending the fieldwork period for this element also. The extended fieldwork period could have some impact in how people responded due to different circumstances related to the COVID-19 pandemic or seasonal changes to behaviour.

9.3. Coherence and comparability

Key objectives of the survey were to assess developments over time for the different target groups covered by the survey and to allow comparison with findings from other FRA's surveys. The data should also allow for comparison with the general population across the EU-27 with regard to living standards. This section summarises the extent to which this is possible. This survey builds on the first European Union Minorities and Discrimination Survey, conducted in 2008, and EU-MIDIS II, conducted in 2016. The following factors can affect comparability and coherence of results between the two points in time: countries and target groups selected for surveying in each wave, changes in the sampling methodology, and changes in the mode of data collection.

Considering the limitations, only few results are compared with respect to selected indicators.

Target groups

Compared with EU-MIDIS II in 2016, there are some differences in target groups. While the overall definition for immigrants and descendants of immigrants, aged 16 years and above who had resided in the survey country for at least one month was maintained between the two surveys, the characteristics of the target groups differed in some of those countries covered by this survey and EU-MIDIS II.

Table 59 – Targets groups surveyed in EU-MIDIS II (2016) and EU Survey on Immigrants and Descendants of Immigrants (2022) by country

Country	EU-MIDIS II (2016)	EU Survey on Immigrants and Descendants of Immigrants (2022)
Austria	SSAFR, TUR	SSAFR, SYR, TUR
Belgium	NOAFR, TUR	NOAFR, SSAFR
Denmark	SSAFR, TUR	SSAFR, SYR, TUR
Finland	SSAFR	SSAFR
France	NOAFR, SSAFR	NOAFR, SSAFR
Germany	SSAFR, TUR	SSAFR, SYR, TUR
Greece	SASIA	SYR
Ireland	SSAFR	SSAFR
Italy	NOAFR, SASIA, SSAFR	NOAFR, SSAFR
Luxembourg	SSAFR	SSAFR

Country	EU-MIDIS II (2016)	EU Survey on Immigrants and Descendants of Immigrants (2022)
Malta	SSAFR	N.A.
Netherlands	NOAFR, TUR	NOAFR, SYR, TUR
Poland	RIMGR	SSAFR
Portugal	SSAFR	SSAFR
Spain	NOAFR	NOAFR, SSAFR
Sweden	SSAFR, TUR	SSAFR, SYR
United Kingdom	SSAFR, SASIA	N.A.

Notes: SASIA – immigrants and descendants of immigrants from South Asia; RIMGR – recent immigrants; N.A. – not applicable.

Questionnaire

The main source questionnaire follows the EU-MIDIS II questionnaire closely, but several updates were made. The key changes which potentially impact the possibility to compare certain indicators between the two surveys are as follows:

- Fewer demographic details were collected about each household member (education, employment, parents' country of birth) which means certain household indicators could not be replicated.
- Experiences of discrimination when using 'other' services (tried to enter a night club, a bar, a restaurant or hotel, used public transport, been in a shop or tried to enter a shop) were collapsed into one category. This and the order in which the services were asked about coupled with including all as one category mean direct comparisons cannot be made with EU MIDIS II (2016) nor the FRA's Roma and Travellers survey (2019). However, for the most recent Roma Survey 2021 these questions were asked in the same way and therefore the survey results can be compared.
- Reporting/non-reporting of experiences of discrimination was not asked for each situation but for any incident in the 12 months before the survey collectively for all seven situations (employment (looking for work/at work), health services, housing, education, admin/public services, shops/entertainment) and so is not directly comparable with EU MIDIS II nor the Roma and Travellers Survey (2019), but is with the Roma Survey 2021.

There were also a number of new questions added which will have no comparator data with EU-MIDIS II.

Full comparability with the general population was achieved with the Eurostat indicators on material deprivation, housing deprivation, overcrowding, health-related activity limitations (Global Activity Limitation Indicator) and the subjective health assessment.

Sampling and mode of data collection

Sampling methodology can change over time for different reasons, such as accessibility to the population registers and information on the target population, costs, possibilities to reach out to surveying the target group. Also, each survey tries to improve sampling methodology to the best possible. This may impact on the comparability between the two points in time. In particular, the use of non-probability sampling in 2022 limits comparability of the results. Estimates from non-probability samples should be treated with caution as representative inference of the total population is restricted.

In 2022, the possibility to complete questionnaire online was introduced in selected countries, whereas in the earlier waves only face-to-face interviews were used. Online mode is only possible in countries with access to the population register, containing information on a person's country of birth or their parents' country of birth. Online mode was applied in Austria, Denmark, Finland, Germany and Luxembourg.

Despite the potential bias introduced through an online mode (preferential access to younger, persons with higher level of literacy, internet and digital skills) the access to the population register significantly improved the quality of the sample compared with EU-MIDIS II, in which location sampling (in Austria), quota sampling (in Luxembourg) sampling and random route sampling, in Denmark, Finland and Germany were applied. In the Netherlands, the data were collected online through social media channels and are therefore not representative in 2022.

In France, Italy, Portugal and Spain, the same sampling methodology and mode as in 2016 was used - a multistage probability sampling design with random route and face-to-face interviews. In Belgium and Ireland, respondents were selected using a quota sampling in 2022, changing from probability to non-probability sampling which reduces comparability between the two points in time.

Table 60 –Sampling methods and data collections modes in EU-MIDIS II (2016) and the EU Survey on Immigrants and Descendants of Immigrants (2022)

Country	Target group	Sampling method		Data collection mode	
		2016	2022	2016	2022
Austria	SSAFR	Multi-stage clustered sample, address register with FE and location sampling	Unclustered single-stage sample; individual register	Face-to-face	Online
	SYR	NA		NA	
	TUR	Multi-stage clustered sample, address register with FE		Face-to-face	
Belgium	NOAFR	Multi-stage clustered sample, address register with FE	Quota sample	Face-to-face	Face-to-face
	SSAFR	NA	Quota sample	NA	
Denmark	SSAFR	Location sampling	Unclustered single-stage sample; individual register	Face-to-face	Online
	SYR	NA		NA	
	TUR	Simple random sample, individual register		Face-to-face	
Finland	SSAFR	Simple random sample, individual register	Unclustered single-stage sample; individual register	Face-to-face	Online
France	SSAFR	Multi-stage clustered, address register; random route with ACS	Multi-stage clustered sample, address register; random route with ACS	Face-to-face	Face-to-face
	NOAFR				
Germany	SSAFR	Onomastic, multi-stage clustered + referrals	Multi-stage clustered sample, individual register	Face-to-face	Online
	SYR	NA		NA	
	TUR	Onomastic, multi-stage clustered + referrals		Face-to-face	
Greece	SYR	NA	Multi-stage clustered sample, individual and household registers Quota sample	NA	Face-to-face

Country	Target group	Sampling method		Data collection mode	
		2016	2022	2016	2022
Ireland	SSAFR	Multi-stage clustered, address register with FE	Quota sample	Face-to-face	Face-to-face
Italy	NOAFR	Multi-stage clustered, random route with FE	Multi-stage clustered sample, random route with FE	Face-to-face	Face-to-face
	SSAFR				
Luxembourg	SSAFR	Quota sample	Unclustered single-stage sample, individual register	Face-to-face	Online
The Netherlands	NOARF	Location sampling	Social media recruitment	Face-to-face	Online
	SYR	NA	Social media recruitment	NA	
	TUR	Location sampling	Social media recruitment Location sampling recruitment for an online survey	Face-to-face	
Poland	SSAFR	NA	Multi-stage clustered sample, individual register. Location sampling	NA	Face-to-face
Portugal	SSAFR	Multi-stage clustered, random route with FE	Multi-stage clustered sample, random route with FE	Face-to-face	Face-to-face
Spain	NOAFR	Multi-stage clustered, random route with FE	Multi-stage clustered sample, random route with FE	Face-to-face	Face-to-face
	SSAFR	NA		NA	
Sweden	SSAFR	Location sampling	Location sampling	Face-to-face	Face-to-face
	SYR	NA		NA	

10. Lessons learned

This technical report is a source of information for promising practices in collecting data on immigrants and descendants of immigrants, ethnic minorities and racialised groups at the international and national levels. It provides a benchmark in terms of full transparency concerning data collection methods applied and should also help researchers and potential data collectors to improve the design of future surveys covering hard-to-reach populations.

This chapter uses the experience and knowledge gained from working on the survey to draw important lessons for conducting future surveys among immigrants and descendants of immigrants in the EU and highlights any difficulties and challenges that such research projects face.

10.1. Human-Rights based approach to data

Application of human rights-based approach on data in the survey implementation, ensured that data was collected in a way that was not harmful to individuals and respondents' privacy remained paramount. Consultations with community stakeholders in the preparatory stages of the survey and shaping the participatory research helped to successfully reach out to the target population in most countries. Transparency about how and why respondents have been selected for this survey was an important factor of making respondents feel comfortable and at ease during the interviews.

10.2. Background research and pilot

The background research and pilot survey were all necessary stages to undertake to inform the final survey and sampling design. Invaluable information was collected through each exercise. The pilot, however, was relatively small with just 10-20 interviews conducted per country/target group and so it was difficult to draw firm conclusions about how the planned approach finally worked out. For example, in Belgium, the pilot did suggest that the eligibility rate in the selected PSUs was much lower than the data indicated and that the overall approach would be problematic. However, as the pilot was small and it was expected that COVID-19 pandemic issues

had impacted yield rate, mainstage proceeded without any change to the approach in Belgium. A larger pilot may have allowed for an alternative approach to be decided on earlier, as eventually was needed, as more confidence could be placed on the pilot findings. This should be considered for future replications.

Similarly, for countries in which location-based sampling is envisaged, the background research phase should be used to identify and create a comprehensive list of all possible locations where the target group might congregate and estimate the size of the target population at each of the locations (relative to each other). This would increase the efficiency of the sample.

10.3. Survey design and modes

In the five countries where an unclustered single-stage sample with online push-to-web was implemented, the survey progressed with relative ease. Compared to face-to-face, the online mode was characterised by a significantly shorter fieldwork duration. Conclusions regarding the sample and quality of data are discussed separately. Considering difficulties involved in administering the survey face-to-face, moving more countries to a push-to-web approach would be beneficial on many levels (time, effort, budget), though of course the ability to do this is heavily influenced on the available sampling information and the extent to which issues related to the digital divide (e.g., exclusion of older persons, people with lower levels of literacy, internet and digital skills, limited access to internet) impact on coverage and representativity of the final samples for all target groups.

10.4. Fieldwork materials

10.4.1. Questionnaire and scripts

The questionnaire used in the field was generally well accepted, but some respondents found it long and repetitive. Some interviewers noticed that respondents tried to speed up the interview.

One potential way to remedy this issue would be to make some questions easier to understand and review the questionnaire wording and structure. One example is the category in questions DX1.1 and DX1.2, which combines seven different activities within one category. One of the downfalls of these simplifications, is risking

misinterpretation and subsequently endangering data quality. It is thus recommended to split the question into two options: social activities and more functional activities (Section 6.1.6). The survey questionnaire could gain in efficiency by restructuring or feeding through information already captured (e.g. the main activity status). Some valuable insights to improve question wording could be gained from national contractors and potential respondents, including translators to maximize the precision of responses. Encouraging greater use of CASI, especially where language barriers exist, could be beneficial and should be discussed further during interviewer briefings. Further, language versions that were hardly ever used in online countries, such as Arabic in Finland or Luxembourg, and Kurdish in Germany, should be reevaluated for inclusion in future surveys.

In face-to-face interviews, national languages were predominantly used due to interviewer limitations. Indeed, recruiting a team of interviewers whose linguistic diversity matches that of the European population represents a challenge on many levels, be it at least a financial one. Nonetheless, alternative language versions should be retained for online completion. To facilitate comprehension, interviewers could display questions to respondents. It was observed that income questions remain largely unanswered, even with direct CAPI input. Providing more detailed explanations and using income bands may encourage response rates.

10.4.2. Face-to-face materials

Interviewers found the various face-to-face materials useful for introducing the survey and reassuring respondents on its legitimacy. No changes are recommended to these.

10.4.3. Online materials

The online invitation and reminder letters appear to have served their task well in motivating people to participate and providing the instructions needed to do so clearly. Relatively few queries were received in relation to the latter.

Response rates were variable across countries. It could be explored if co-branding letters with the national statistics agencies of each country (where this was not done) could help improve response rate.

The availability of the letters in different languages tailored towards the target groups appeared to have been beneficial and this should be repeated in future waves.

No comment was received on the other online materials (FAQs, Contact form and Privacy notice) which suggests these all served their purpose.

10.5. Translation

Adapting or combining questions from different source materials (e.g., EU-MIDIS II or the Fundamental Rights Survey) can result in the risk of inconsistency being introduced to the formulation of questions and instructions or disparity in register because of items coming from different target populations or different modes of completion. Ensuring a thorough review of all such questions is important to ensure consistency within source and accuracy before translation starts. It is also important to identify clearly what needs to be fully translated versus use partial input from previously used translations from other surveys.

Changes should not be made to the source text after the script is approved and exported for translation. For efficiency purposes it is important to work with the exported script. Changes made after script sign off can lead to mistakes and result in an additional resource burden.

Translators noted that the register and tone used in the source questionnaire were very formal and complex and some sentences were convoluted. The Translatability Assessment performed on the new items identified the most problematic items with some suggestions taken onboard. For future waves and based on the survey results, it would be good to keep in mind that the register should be accessible to all respondents and therefore made less formal. This can be included as part of the Translatability Assessment, though would only work if the full questionnaire undergoes the assessment and not only new questions.

10.6. Sampling

Surveying the target population via random probability sampling approaches that entails screening addresses in areas of low densities has become more difficult in the recent years. Implementing this approach proved to be challenging in EU-MIDIS II (2016), and adjustments in the sample design were made along the way then. In the aftermath of the COVID-19 pandemic, the yield rates in face-to-face surveys have been even lower. In the current survey, the eligibility rate proved to be lower than expected in most countries implementing the multi-stage clustered approach with the face-to-face data collection method (all except France and Italy). This could potentially be due

to inaccuracy of the sample sources data (for example, in Ireland) ([71]) or potentially due to lower contact rates among the target populations (for example, in Belgium) ([72]). The sample in each country was issued in stages, and sample designs were adjusted as fieldwork progressed for each country and target group based on sample performance. In Belgium and Ireland, it was not possible to reach the target sample size with the multi-stage clustered approach, and a quota approach had to be introduced in these countries. The survey findings are not representative in these two countries.

Online push-to-web surveys, using the unclustered single-stage sample design or muti-stage clustered design (in Germany), proved to be successful. In most countries yield rates were better than expected (all except in Denmark and Finland). In Finland, an increase in the number of online surveys during and after the COVID-19 pandemic may have caused the lower yield rates. In these countries, the survey could not cover the population who do not use the internet, or those with lower level of literacy or digital skills. However, the proportion of this population is small, and the online random probability design provides better coverage than face-to-face surveys with multi-stage clustered design, given that the latter cannot cover the population who live in areas of low target group densities. However, the sample profile with the online push-to-web approach, tend to be better educated compared to the population statistics (or with EU-MIDIS II profile). In most countries (all except Luxembourg) it also overrepresented descendants of immigrants.

Implementing the location sampling approach also came with challenges. In Poland, the low target population numbers and consequently low population flows at the location centres affected the fieldwork productivity and eventually meant that the targeted number of completes could not be achieved at each location. In the Netherlands, a permission for recruiting people at public spaces could not be granted in Amsterdam, which meant that the targets could not be met.

The social media recruitment approach had variable success for different target groups in the Netherlands. The target for the North African group could not be reached via this approach, despite all the efforts made and adaptations to the targeting approach implemented. The samples overrepresented the younger and better educated population.

Population registers can identify eligible individuals. In future, accessing these registers should be pursued in more countries. In some countries (Belgium, France, the

([71]) There are no official sources to confirm this claim.

([72]) There is no empirical evidence of this, however. The sample source data in Belgium is from the up-to-date population register.

Netherlands, Sweden) the population registers are available, but it was not possible to access them for this survey. Given that the sample request procedure takes a long time, and it usually requires partnership with official national bodies (governmental bodies or universities), the cooperation should be negotiated early in advance to increase chances of success, while also allowing enough time and resources for the contractor to develop alternative approaches if the access is denied. As an alternative, in Sweden, applying the onomastic procedures on the accessible general population sample could be considered. This is similar to the approach taken in Germany. If the population register samples could be obtained, it would also allow for using online push-to-web surveys in these countries (after considering internet penetration and coverage).

If the population registers are not available or cannot be accessed, but it is possible to identify small territories (PSUs) of high densities, in countries where address registers are available (and it is possible to send letters without a name) the online push-to-web survey could also be considered. However, it would require sending letters to a large number of addresses in the PSUs of high densities, and screening for the target population. Cost implications of implementing this approach (for a desired coverage level) need to be considered, and the communication around screening out most of the addresses that would receive the letter would need to be carefully developed.

For the countries where it is possible to sample eligible individuals and implement the online push-to-web approach, stratifying the sample on education, while taking into account the variable response rate, could be considered in the future, to correct the education profile of the achieved sample. This will be possible only if the information about educational attainment is available in the register and can be accessed. Alternatively, the sample could be stratified by generation (as this information was available for most countries), to correct for the higher response rates among descendants of immigrants.

10.7. Interviewer selection and training

The survey procedures were complex in some countries. They required extensive screening, with sometimes a low proportion of interviewing time relative to this, implementation of focused enumeration and adaptive cluster sampling methods. This caused many interviewers to drop out from the project, regardless of pay being structured appropriately. To the extent possible, interviewers with the relevant experience were selected to participate in the survey in light of the complexity of the methods applied in some countries. That issue is unavoidable until accessible

population registers with eligibility information become available. The screening requirement potentially needs to be made even clearer to interviewers prior to them being briefed to minimise the number of interviewers who are trained and soon after no longer wish to work on the project.

Recruiting interviewers fluent in target population languages is recommended, but it has its downfalls. It can be challenging and expensive. Other remedies include training, which, is generally well-received, and could be streamlined for experienced interviewers. Interactive elements, like practices and quizzes, should be considered for remote training while visual guidance material, sent in advance, can assist and ready interviewers during fieldwork. Lastly, allocating time for experience-sharing among interviewers, inc. explaining or demonstrating the sampling procedures to each other, is crucial. A video or other visual guidance material could be produced to guide interviewers with practicalities and selection procedures. Remote briefings have proven effective, offering important cost savings. Overall, these insights can enhance future survey efficiency and effectiveness.

10.8. Fieldwork implementation

10.8.1. Face-to-face fieldwork

In Belgium, France and Ireland it was challenging to secure interviewer resources throughout the fieldwork. This was in part due to the shortages of interviewers across the industry, which in turn led to those who were working being on a high demand. This situation was made worse in Belgium and Ireland by the lower-than-expected eligibility rates found in the field. The low contact rate in Belgium may have affected the eligibility rate among the successfully contacted addresses. ([73]) In Ireland, lower eligibility rates were also found in EU MIDIS II fieldwork, when Census 2011 data was used in sampling. If the Census 2016 data are assumed to be correct, then discrepancies might occur due to migration and home moving patterns of the target population in five years' time, from Census to fieldwork. The extent of screening involved in the project across all face-to-face countries is a difficult challenge to overcome for as long as individual registers with information on eligibility are not available. A cap was placed on the proportion of interviewers and one interviewer

([73]) Lockdowns in Belgium during the COVID-19 pandemic were strict, and this affected population behaviours in the following months. The contact rates achieved in surveys in these months was lower than before the pandemic.

could conduct (10) for quality control purposes (which was for the most part met). This is challenging for some fieldwork contractors as they have limited pool of interviewers available in taking on this work and the sample is often concentrated in certain regions. Some thought should be given to whether this cap can be increased, for example up to 15 of the sample size in a country.

The introduction of electronic contact sheets (ECS) did help to manage the fieldwork better. More timely information was gathered on sample performance allowing for redesigns. It also aided interviewers in the application of the focused enumeration sampling. That said, in Italy, some interviewers still visited too many addresses in certain PSUs - some of the interviews conducted in these PSUs could not be used due to the effect it would have on the sample design. In the future, building in a cap on the number of addresses that can be opened in the data collection software may help to avoid this.

The ECS was also designed to help implement the adaptive cluster sampling approach (ACS) in France but automatically opening a new ECS as needed and prompting respondents to screen at the neighbouring addresses. Despite this, the ACS was not done correctly – chains were not completed when they should have been. This was partly due to having to close fieldwork before the sample could be fully exhausted but also due to interviewer error. ACS interviews were deleted as a result. The same was seen in EU-MIDIS-II. In the future, it is recommended to consider application of this approach, if it is bringing the efficiency gains for which it is designed. In EU-MIDIS II, where the ACS was fully worked out in France, it did not provide the assumed fieldwork efficiency. The approach works on the assumption that the target population tend to live in sets of adjacent addresses. For France this proved not to be as frequent occurrence in PSUs with density below 25 % (which is those where ACS is implemented).

10.8.2. Online push-to-web fieldwork

Despite the targets not being reached within the planned mailing volume and schedule in Denmark and Finland, the online push-to-web fieldwork progressed smoothly when sample was drawn from official registers and respondents were approached with a letter. The targets were reached within a reasonable timeline, and the generally low number of queries that were received suggests that the process for respondents to log in and take the survey worked quite well.

In Luxembourg the response rate was higher which could in part be due to the involvement of a national body – State Information Technology Center (CTIE). Some consideration could be given in other countries to endorsement from another agency

or organisation that is familiar with the target groups being included in the invitation and reminder letters.

In the Netherlands, the location screening approach turned out challenging. This was mostly due to external unfavourable circumstances (COVID-19 pandemic restrictions which reduced footfall in locations, willingness to interact with interviewers and caused interviewer sickness, cold winter weather in the Netherlands) but also problems directly related to the methodology. Interviewers found their task, which was solely focused on recruitment, less rewarding than interviewing. If direct sample from the population register cannot be obtained for the Netherlands in the future, then enough budget should be made available to allow for location sampling that includes interviewers also doing the interviews and not just screening and then inviting eligible respondents to take part online.

10.8.3. Online social media fieldwork

The targets for the Turkish and Syrian target groups in the Netherlands were met easily, though many duplicate completes were identified among the Syrian target group. If this approach is to be used in the future, then the script needs to be set-up in such way that multiple responses cannot be made from the same IP address which was beyond the available resources for this survey.

It was not possible to reach the target sample size of North Africans in the Netherlands despite the considerable advertising spend and multiple attempts to refine the targeting of this group. More research and consultation is needed to understand which social media platforms are used by the target group and how to engage with them via social media. This could be included as part of the background research exercise so that the information is already collected should this information be needed to implement alternative approaches.

Given the likely limitations on achieving a representative sample of any of the target groups via this approach, however, the main recommendation would be to not replicate this approach in the future. Contingency budget should be set aside for the eventuality that access to a population register with details on eligibility, as was expected for the Netherlands, turns out not to be possible so that a more robust alternative can be implemented.

10.9. Data processing

Codebooks in Excel were created based on the ECS and main questionnaire for the contractor's data processing team to produce SPSS data files. The inclusion of SPSS and STATA syntax to define the filters for each variable aided the checking process.

Flagging variables were created to help identify cases which may potentially need to be deleted for reasons such as implausible values (largely limited due to soft checks included in the script), high non-response and short interview lengths.

The Data Quality Control log provided a useful tool in keeping track of the various issues flagged between the contractor and FRA.

Data had to be merged from a data collection platform external to the contractor. While a codebook was provided, some discrepancies were still found in the data provided, which might have affected data quality. Any queries regarding the data required additional procedures and tools to address them, also took some time to resolve with communication having to go through FRA. For future survey replications, all data collection should be done on the same platform. This ensures a standardised and controlled way of data processing.

10.10. Quality assurance

10.10.1. Quality assurance plan

The Quality Assurance Plan was comprehensive and provided detailed targets for monitoring quality. The monthly updates to the plan and the risk register helped to keep abreast of issues. Earlier action should have been taken, however, on the risks identified in Belgium and Ireland on being able to complete the fieldwork using the originally agreed designs.

While comprehensive, the QAP was found difficult to handle and refer to easily in the day-to-day work. The document could be simplified for future to include fewer fields and simpler risk ratings, for it to be a truly user-friendly tool.

10.10.2. Quality control during fieldwork

Back checks were conducted throughout fieldwork by the local teams as is standard practice for face-to-face fieldwork. In Portugal this identified the incorrect implementation of the selection process in one PSU early which meant that the PSU could be replaced in a timely manner.

Regular data checks, including one at a very early stage, were helpful in identifying any issues with the data being collected. A filtering error was picked up and corrected as a result. Feedback could also be provided to interviewers. For example, early data check identified a high non-response rate to the income questions. Briefing notes were sent regarding this to all local teams (though admittedly with limited impact – there is still high non-response in some countries due to respondents' reluctance to share this information).

COVID-19 prevented FRA or members of the CCT from observing fieldwork. This is a measure that should be reintroduced.

10.10.3. Comparability

Comparability of statistical data, i.e. their usefulness in drawing comparisons and contrast among different populations, is a complex concept, difficult to assess in precise or absolute terms independently of specific objectives of analysis. Nevertheless, it is a fundamental requirement for any data to be used in multi-population comparisons and contrasts. It is a relative concept: one speaks of 'degrees of comparability', not of absolute comparability. Furthermore, the same data may be sufficiently comparable for some purposes, but not so for others. A degree of comparability is essential for data (estimates) for different populations (whether countries or different target groups within the country) can be legitimately (i.e., in a statistically valid way) put together (aggregated), compared (differenced), and interpreted (given meaning) in relation to each other and against some common standards. Comparability is an important dimension of quality, yet it is distinct from data accuracy. However, an 'adequate' level of accuracy is essential for comparability.

Different methodologies of data collection are the most critical part of a survey, concerning standardization and comparability. Specifically, the fact that the EU Survey on Immigrants and Descendants of Immigrants followed probability sampling in most countries, while in a few others not, may affect results and analysis in terms of comparability between the two time points. The strongest shortfall in comparability arises from the different sampling methodologies adopted in the fieldwork. For the future, it is recommended to avoid non-probability sampling, but most of all social

media sampling. Estimates from non-probability samples should be treated with caution as representative inference of the total population is restricted. For future survey replications, it will be of utmost importance to apply probability-based sampling approaches to the highest extent possible.

Standardisation helps to ensure that conditions for comparability are met. All steps of the survey that have been conducted at centralized level have a high degree of standardization.

Annexes

Annex 1 – Quality assurance plan

Table 61 – Project management

Quality objective	Quality indicator
Maintaining a high level of expertise in the team	**a.** Any team member is replaced by someone with the equivalent or greater experience
	b. New team members are provided with a handover note and / or briefing from the Project coordinator / Design Lead.
	c. Share of key documents (such as weekly and monthly updates, inception report) and deliverables saved on the Ipsos network
	d. All action points, decisions and issues documented on a weekly and monthly basis
Deliverables are submitted on time	**e.** Share of deliverables submitted on time
	f. Number of weeks without sufficient staff cover for central coordination activities and within local partner agencies
Ensure that final documents are of the highest quality	**g.** All experts input into relevant documentation
	h. Internal reviews and sign offs carried out in accordance with the "Preparation, review and sign off process for key deliverables" table included in the inception report
	i. Share of important documents reviewed and signed off by FRA
Ensure that data protection rules are respected	**j.** Internal and external (FRA) DPOs appointed and consulted where required
	k. Roles agreed during the inception meeting
	l. All relevant documents note the legal basis
	m. Share of data stored securely on the Ipsos network
	n. Data anonymised before it is shared with FRA
	o. All data deleted as planned
	p. Share of NSEs who attend briefing, TTT and refresher training

Quality objective	Quality indicator
NSEs adhere to quality standards when managing the project at a country level	**q.** Share of months the NSEs reflect on application of quality standards and measures
Ensure overall standards of quality on the project	**r**. Share of quality indicators and targets monitored throughout project lifecycle with monthly updates provided to FRA

Table 62 – Background research and preparatory work

Quality objective	Quality indicator
Collect detailed information to inform the sampling	**1a.** Share of NSEs who attend the project briefing
	1b. Share of documents signed off by FRA before circulating.
	1c. Number of sources consulted
	1d. % of fields that inform sampling populated in detail in sampling spreadsheet
	1e. A sampling frame for a desirable sample design identified, as well as alternative frame(s) for an alternative design - for each target group/MS
	1f. Access, timeliness, population coverage, and quality of sampling frames discussed in the background research report
Collect detailed information to inform other aspects of survey implementation (such as use of peer interviewers / mediators, languages spoken and literacy levels, how to best promote the survey)	**1g.** Share of NSEs who attend the project briefing
	1h. Share of documents signed off by FRA before circulating.
	1j. % of fields populated in detail in sampling spreadsheet

Table 63 –Development of overall sampling and weighting designs and of country-specific sampling plans

Quality objective	Quality indicator
Sampling plan in each country provide sufficient and accurate details on how to implement sampling method per country and target group	**2a.** Sampling plans provide sufficient and accurate details on how to implement sampling method for each target group/MS
A suitable sampling frame will be identified and built (where unavailable) in each country	**2b.** A suitable sampling frame selected/constructed for each target group/MS
The sample realisation will be closely monitored and adjustments are made where the initial sample design cannot be fully implemented	**2c.** Adjustments to the sample designs, that reflect the findings from sample realisation monitoring, made in time for each target group/MS
Achieve comparability with EU MIDIS II sample design	**2d.** Match or exceed sample coverage in 10 out 15 countries Match or improve sampling design in 10 out of 15 countries
A suitable weighting applied to data to correct for sample design and implementation bias	**2e.** Appropriate balance met between correcting bias and maximising sample efficiency

Table 64 – Questionnaire finalisation; development of fieldwork materials

Quality objective	Quality indicator
Design a questionnaire for the EU Survey on Immigrants and Descendants of Immigrants that enables continuity from and comparability with EU-MIDIS II	**3a.** Changes on questions from the EU MIDIS II survey noted and recorded.
Ensure that the questionnaire is adapted to an online self-completion mode, limiting mode effects.	**3b.** Expert feedback received, recommendations assessed and adopted where relevant.
	3c. Any clear differences noted and recorded.
Develop a high-quality instrument that provides conceptual and	**3d.** Expert feedback received, recommendations assessed and adopted where relevant

Quality objective	Quality indicator
measurement equivalence of the core concepts	**3e.** Questionnaire is adapted to the target groups to best of our knowledge in terms of terminology, complexity and length of questions.
Develop effective respondent materials which convey required information clearly and encourage participation	**3f.** Number of other surveys consulted during the design process
	3g. Wording signed off by FRA
	3h. Deliverables prepared by skilled graphic designed
	3i. All countries implement the agreed visual design for materials
	3j. All countries include the relevant information in the questionnaire and materials linked to it.
All necessary metadata, paradata and sampling data collected to assess the TSE and linked to the survey data via unique identifier	**3k.** All necessary variables collected to assess the TSE, sampling and weighting approach.

Table 65 – Translations of new/revised questionnaire items and fieldwork materials, review of the existing translations and verification of the final versions of the survey

Quality objective	Quality indicator
4.1 Enhance categorical, conceptual and functional equivalence in all translated or adapted versions	**4a.** Changes on questions from the EU MIDIS II survey noted and recorded.
4.2 Translate all new or amended questions and fieldwork materials accurately and consistently following best practice procedures and providing comprehensive training. Ensure cultural sensitivity and appropriateness, taking into consideration the specificities of the target group	**4b.** Proportion of qualified linguists involved in the questionnaire translation process
	4c. Number of TRAPD stages that are not completed for the questionnaire translation
	4d. Number of materials where this approach is not adopted
	4e. % of amendments suggested by FRA that are not implemented
4.3 Translations fully tested before the mainstage	**4f.** Proportion of errors that are detected in the pilot and not corrected in advance of mainstage fieldwork

Table 66 –Development of survey tools

Quality objective	Quality indicator
Develop a high-quality instrument that captures the data that it is intended capture	**5a.** Number of amendments to the source questionnaire following sign-off
	5b. Number of unintended differences across countries or modes detected and not corrected.
	5c. Number of errors which are not detected and corrected before fieldwork launch
	5d. Completed checking log
The survey tool functions in different environments and is easily accessible.	**5e.** Number of different environments and browsers that script is tested on.
	5f. Able to change the background colour, font size and the script is compatible with screen reader software
Survey tools improved on the basis of pre-testing	**5g.** Proportion of pilot recommendations that are implemented

Table 67 – Interviewer recruitment and selection

Quality objective	Quality indicator
Select and/or recruit the most experienced (and suitable) interviewers in each country to facilitate successful data collection.	**6a.** Number of interviewers who don't meet the minimum requirements.
	6b. Number of interviewers with the same background as the target group
	6c. Number of interviewers recruited
Ensure appropriate interviewer performance.	**6d.** Number of interviewers who quit the project and are not replaced
Apply good practices and lessons learnt in interviewing persons with an ethnic minority or immigrant background.	**6e.** Share of peer interviewing, interviewer matching, paired interviewing and mediators used.

Table 68 – Pilot and pilot report

Quality objective	Quality indicator
Carry out an effective pilot in all countries to determine the adequacy and feasibility of sampling and survey approaches and including survey tools and fieldwork procedures	**7a.** Number of countries / target groups where pilot sample designs do not mirror planned mainstage approach
	7b. Number of pilot interviews conducted
	7c. Number of pilot interviews where full contact procedure not followed
Deliver an actionable pilot report summarising findings from pilot and providing recommendations for main stage fieldwork	**7d.** All countries submit a country specific protocol which adheres to template provided
	7e. Structure and content of pilot report addresses requirements as specified in the tender.
	7f. Number of recommendations that are not implemented for the mainstage

Table 69 – Interviewer training

Quality objective	Quality indicator
Ensure all interviewers are trained to a high standard	**8a.** Share of NSEs fully trained to deliver interviewer training
	8b. Share of interviewers fully briefed in advance of fieldwork, to include session on cultural sensitivity and also sampling
	8c. Training materials reviewed by respective experts
	8d. Number of countries where one training session was observed by a member of the CCT

Table 70 – Full-scale data collection

Quality objective	Quality indicator
9.1 Sample designs implemented correctly	**9a.** Sample realisation monitored on weekly basis
9.2 Quality of the fieldwork continually monitored throughout fieldwork	**9b.** % of relevant indicators included in the reporting template
	9c. Number of countries with an assigned CCT member
	9d. Number of weeks during fieldwork when NSEs / deputy NSE uncontactable
	9e. Number of weeks when fieldwork updates not provided / discussed with FRA
	9f. Number of weeks when key metrics are not monitored during fieldwork.
	9g. Response rate met for each target group and Member State
	9h. Number of interviews per PSU met
	9i. Number of weeks when key metrics are not monitored during fieldwork.
	9j. Length of fieldwork extension needed
	9k. % of interviews backchecked by fieldwork agency
	9l. % of cases flagged in iField QC checks investigated by local Quality Manager
	9m. Maximum number of interviews completed by an interviewer

Table 71 – Data coding, entry and processing

Quality objective	Quality indicator
10.1 Achieve consistency and accuracy in data files per country and overall, by following logic and plausibility checks	**10a**. Number of cases failing plausibility checks
	10b. Proportion of cases that fail checks that are investigated
10.2 Data editing and cleaning fully documented	**10c.** Checking log and syntax provided to FRA
10.3 Data stored and transferred in accordance with GDPR requirements	**10d.** Data manager has attended the latest (internal) GDPR training on data transfer and storage
	10e. Number of files transferred without using Ipsos transfer
	10f. Folder establish and access restricted
	10g. Code book signed off by FRA

Quality objective	Quality indicator
10.4 A complete anonymised data file in electronic format (SPSS compatible files) to be delivered alongside a codebook containing variable names, variable labels (in English) and with reference to the relevant question numbers	**10h.** Number of errors detected in interim file that are not rectified in final file
10.5 Data retention period observed, and all personal data deleted in line with GDPR requirements	**10i.** Personal data deleted at correct time.
	10j. Blanco software used to delete personal data securely

Table 72 – Weighting

Quality objective	Quality indicator
Optimal weighting approach applied in the final dataset in view of analysis of the results at the national and target group level and for analysis on the EU-level.	**11a.** Overall weighting approach signed off by the sampling expert. All weighting variables found in the dataset and procedures documented in the technical and quality report.
Comparability between countries and groups achieved	**11b.** Assess the internal coherence of weighting between different sampling and survey approaches. Establish within country and group weights.
Weighting approach comparable to that of EU MIDIS II	**11c.** All deviations in weighting to EU-MIDIS II and its implications outlined and documented.
High quality weighting applied	**11d.** Assess impact (or lack) of weighting to adjust for bias in key results and its implications

Table 73 – Calculation of selected indicators and tabulation of results

Quality objective	Quality indicator
Provide accurate, clearly labelled tables presenting the results for carefully selected indicators as well as short informative description of calculation procedure	**12a.** Specification provided on time
	12b. Specification is clear, with no ambiguities
	12c. Number of errors detected in interim draft of indicators that are not rectified in final version
Tables can be easily replicated and produce the same results	**12d.** SPSS syntax delivered on time
	12e. FRA are able to re-run the SPSS syntax and replicate the results

Table 74 – Analysis of the survey results and reporting

Quality objective	Quality indicator
Analysis plan, report structure and conventions are agreed upfront	**13a.** Analysis plan and report structure developed on time and agreed with FRA
Enough time is allocated for the reporting stage	**13b.** Reporting timeline is developed and maintained
	13c. Key contributors attend briefing
Produce a visually engaging report which highlights the key findings from the survey, helping to publicise the data and raise the profile of the survey	**13d.** Involvement of the design team
	13e. Report template (including design) is signed off by FRA
Ensure the report is accurate and error-free	**13f.** Number of errors which are not detected and corrected before submission to FRA
	13g. Number of comments identified by P4P team which are not addressed
Analysis of total survey error carried out	**13h.** Assessment of all dimensions of the total survey error, including sampling and non-sampling error, coverage error, non-response error, measurement error

Table 75 – Delivery of final technical and quality report

Quality objective	Quality indicator
1. The technical and quality report provides a detailed account of the implementation of the survey.	**a.** Number of changes not implemented
2. The report makes a thorough assessment of quality	**b.** Chapter included
	c. Assessment of the TSE, assessment of the internal and external coherence and comparability, Assessment of the bias
	d. Chapter included which addresses biases in the achieved unweighted samples for each target group and MS, by data collection mode. Metadata and paradata to be reviewed as part of overall quality assessment
3. Recommendations for future research on the target population are included	**e.** Each section of the report includes a sub-section on recommendations for future waves of the survey

Quality objective	Quality indicator
4. Report includes detailed feedback at the country level	**f.** Information on each country provided following the same template.

Table 76 – Results for quality targets for each survey life cycle stage

Survey life cycle stage	Number of quality targets (total)	Number of targets fully met	Number of targets partially met	Number of targets not met
Project Management	19	17	2	0
1. Background research and preparatory work	10	10	0	0
2. Development of overall sampling and weighting designs and of country-specific sampling plans	5	4	1	0
3. Questionnaire finalisation; development of fieldwork materials	11	11	0	0
4.Translations of new/revised questionnaire items and fieldwork materials, review of the existing translations and verification of the final versions of the survey	6	6	0	0
5. Development of survey tools	7	4	2	1
6. Interviewer recruitment and selection	5	2	3	0
7. Pilot and pilot reports	6	3	3	0
8. Interviewer training	4	4	0	0
9. Full-scale Data Collection	13	9	3	1
10. Data coding, entry and processing	10	10	0	0
11. Weighting	4	4	0	0
12. Calculation of selected indicators and tabulation of results	5	5	0	0
13. Analysis of the survey results and reporting	8	8	TBC	0
Delivery of final technical and quality report	6	5	1	0
Total	119			

Annex 2 – Development and translation of questionnaire and fieldwork materials

Table 77 – Changes in the questionnaire compared to EU-MIDIS II (deletion, flow improvement)

Section	Key changes
Introduction - Household grid	The number of questions asked about each household member was reduced in comparison to EU MIDIS II. Questions removed included those on each household members education, country of birth, year of arrival and parent's country of birth, employment situation and form of employment.
Household composition, working status and education	Questions about the respondent's education and work status were brought forward to the introductory section.
Household and living standards	Items on ability of household to afford certain expenses moved to items on ability of individual to afford certain expenses (Items 4,5,6 from SI08 moved to new question SIN11/SI08_4/SI08_5/SI08_6). Questions on ability of household to afford certain expenses, inability to pay costs on time in the last 12 months, items possessed in the household, unmet need of items possessed in the household, food deprivation in the last months (SI08, HLS08, HLS09, HLS10, SI09) all moved forward.
Unemployment	Questions on unemployment moved forward and out of section asking about discrimination when looking for work.
Employment	Questions about current work moved forward and out of section asking about experiences of discrimination when at work.
Health	Questions about health and experiences of using healthcare services moved forward and out of section about experiences of discrimination when using healthcare services.
Rights awareness, perceptions and attitudes	Attachment to neighbourhood and survey country / region deleted (RA01_1, RA01_3). Perceptions on general level of discrimination in survey country deleted (RA03). Question on awareness of any campaign against discrimination deleted (RA07). A new category added from EU MIDIS II where the question asked about self-identification as Roma or Russian minority: Would you describe yourself as a person of African descent/ a Black person?

Section	Key changes
Experiences of discrimination in different areas of life	Discrimination sections were reformulated. Each area was not asked about in separate section as previously. They were instead combined into one question which first asked if the respondent had experience in one of seven situations (employment (looking for work/at work), health services, housing, education, admin/public services, shops/entertainment) of in last five years/12 months then for experiences of discrimination. ([74]) Experiences of discrimination when using 'other' services (tried to enter a night club, a bar, a restaurant or hotel, used public transport, been in a shop or tried to enter a shop) was asked as one category rather than each included separately, as it was in EU-MIDIS II. If the respondent had experience in any of the situation, they were asked about eight grounds of discrimination for each situation: skin colour; ethnic or immigrant background; religion or religious beliefs; age; sex/gender; disability; sexual orientation; gender identity or gender expression. Reporting/non reporting and satisfaction with response, not asked for each situation but collectively for all seven situations. Specific situations relating to looking for work, while at work, using healthcare services, education asked after general experiences.
Corruption	Experiences of corruption/bribery deleted (DO25/DO26).
Police stops	Questions on physical assault by police deleted.
Experiences of harassment and violence	Questions on experiences of harassment and violence were reformulated to first ask respondents if they had ever experienced the incident in the last 5 years. Those who answered yes, were then asked how many times this had happened in the last 12 months, if it had ever happened because of their ethnic or immigrant background, and if so, how many times. In EU-MIDIS II, respondents were asked how many times they experienced the various incidents in each time period and then how many times it happened due to their ethnic or immigrant background. WhatsApp and TikTok were also included as examples of where offensive comments may be posted. VH08 - Reporting any incident of harassment in past 5 years + Institution to whom incident was reported deleted**.**
Societal participation	PR04 was changed to a banded question, rather than asking respondents to state the exact number of months left on their residence permit. Questions on moving to another country deleted (PR25-27).
Participation and group relations	PB04 was amended to ask about wearing a hijab outside of the house. PB13 - Acceptability on use of violence in different situations deleted. PB16 - Interest in politics deleted. PB19 - Type of help/support received due to background removed.
Interviewer questionnaire	IA05 – presence of / help from others during the interview deleted. IA08 – whether used translated showcards or paper questionnaire deleted. IA13 – perceptions of respondent honesty deleted.

([74]) This revision was also implemented in the Roma survey 2021.

Table 78 – New questions in the questionnaire compared to EU-MIDIS II

Section	Question name	Question source	Question wording
Introduction – housing and living standards	Ability of household to afford certain expenses (SI08_07N)	EU-SILC	**There are some things that many people cannot afford, even if they would like them. For each of the following can your household afford to replace furniture (bed, sofa/ dresser, cupboard) when worn out or damaged?**
Introduction – housing and living standards	Child material deprivation added (SIN10)	EU-SILC	**Do <u>all the children (aged between 0 and 15 years)</u> in your household** … 1) have some new (not second-hand) clothes? 2) have two pairs of properly fitting shoes (including a pair of all-weather shoes)? 3) have fruit and vegetables once a day? 4) have books at home suitable for their age? 5) have outdoor leisure equipment (bicycle, roller skates, etc.)? 6) have indoor games (educational baby toys, building blocks, board games, computer games, etc.)? 7) participate in a regular leisure activity (swimming, playing an instrument, youth organisations, sports etc.)? 8) have celebrations on special occasions (birthdays, name days, religious events)? 9)invite friends round for playing or eating from time to time? 10) participate in school trips and school events that cost money? 11) have a suitable place to study or do homework?
Introduction – housing and living standards	Ability of individual to afford certain expenses (SIN11) Items 1,2,6 were added. (Items 3,4,5 from SI08 in EU MIDISI II)	EU-SILC	**There are some things that many people cannot afford, even if they would like them. For each of the following items or activities can you respond if YOU do it, or do not do it because you cannot afford it or because of another reason** 1) Do you spend a small amount of money most weeks on yourself, for your own pleasure (buying/doing something for yourself)? 2) Do you regularly participate in a leisure activity (that costs money)? 3) Do you have an Internet connection for personal use when needed?
Experiences of harassment and violence	Sex of perpetrator of last incident of harassment/violence (VHX04b / VVX05b)	FRS	**Who did this to you?** 1) Man (or more than one man) 2) Woman (or more than one woman) 3) Both a man and a woman were involved 4) I don't know whether it was a man or a woman

Section	Question name	Question source	Question wording
Experiences of harassment and violence	Sexual nature of last incident of harassment /violence (VHX04c / VV05c)	FRS	**Still thinking about the LAST incident, was it of a sexual nature?** 1) Yes 2) No 3) Prefer not to say
Experiences of harassment	Place of last incident of harassment (VHX04d)	FRS	**Thinking about the LAST incident, where did it take place?** 1) In my home 2) In some other house or apartment 3) At school or college 4) At work 5) In a shop, café, restaurant, pub, or club 6) In the street, a square, park, car park or other public place 7) Some other place
Impact of hate crime experience	Impact of hate crime experience (VVX08b)	New	**How did this LAST incident affect you?** 1) I had an injury/injuries but did not need medical assistance or hospitalisation 2) I had an injury/injuries and needed medical assistance or hospitalisation 3) I became unable to work or stopped working (temporarily or permanently) 4) I was afraid to leave the house or visit places 5) I had psychological problems (e.g., depression or anxiety) 6) I faced financial problems 7) Other (specify): OPEN TEXT BOX 8) It didn't affect me
Socio-economic background - Income	Household net income – type of income metric (AT, BE, DE FR, IE, IT, NL, PL PT, ES) (SI03band)	FRS pilot	**Thinking about your household's total net income from all sources, after tax and compulsory deductions, which one of the following do you know best?** 1) Your household's weekly income (not FR,PL) 2) Your household's monthly income 3) Your household's annual income

Section	Question name	Question source	Question wording
Socio-economic background	Belonging to other minority groups (RA02new) added	Eurobarometer	**In the country where you live, do you consider yourself to be part of any of the following minority groups?** 1) A religious minority 2) A minority in terms of disability 3) A minority in terms of gender identity or gender expression (this includes for example transgender, transvestite or non-binary people) 4) A minority in terms of sexual orientation (this includes for example people who identify as gay, lesbian or bisexual) 5) Other group
Socio-economic background	Experience with COVID-19 pandemic (COVX01)	New	**Recently the world has experienced the COVID-19 pandemic. Here are a few situations that may have happened to some people in [SURVEY COUNTRY] during the pandemic. Please indicate which of the following situations you experienced.** 1) IF CAPI: Your income decreased/IF CASI/ONLINE: My income decreased 2) IF CAPI AND COVX01_1=2. No: Your income increased/ IF CAPI Your/CASI/ONLINE AND COVX01_1=2.No: My income increased 3) IF CAPI: You kept working but less hours than before/IF CAPI CASI/ONLINE: I kept working but less hours than before 4) IF CAPI AND COVX01_2=2. No: You kept working but more hours than before/IF CASI/ONLINE AND COVX01_2=2. No: I kept working but more hours than before 5) IF CAPI: You temporarily lost job but returned to the same job/IF CASI/ONLINE I temporarily lost my job but returned to the same job 6) IF CAPI AND COVX01_3=2. No: You permanently lost your job/ IF CASI/ONLINE AND COVX01_3=2. No: I permanently lost my job

Table 79 – Summary of post-pilot changes in the questionnaire

Question	Change made
HH03 - Sex of household members	Answer options of 'boy' and 'girl' added as this question is also asked of children
DE01 - Highest level of education completed in survey country	Answer option 'No level completed in SURVEY country' moved to top of list
DE02 - Highest level of education completed in another country	Answer option 'No level completed in another country' moved to top of list Answer option 'Never been in formal education in another country' updated to include words in red to ensure equivalence with ISCED 0
DE03 - Completed years of schooling (in any country)	Not applicable option deleted
DE05	Respondent clarification displayed on screen for CAWI and not as an info button
HLS01 - Number of rooms in accommodation	Update to allow half rooms to be recorded
HLS06_3 - Problems with accommodation	Mould added to question wording
SIN10 - Child material deprivation	Showcard added
DX2/DX3 Experience of discrimination in the past 5 years/12 months	The answer option 'Skin colour or racial origin' was changed to 'Skin colour'
VH01a_5 - Specific experiences of harassment in country in past 5 years (internet)	YouTube, Pinterest, Snapchat and LinkedIn deleted from list of examples
PB04 - Use of headscarf or niqab	Question was amended to include a hijab

Table 80 – Overview of survey materials and translations produced by country

Country	Languages survey and materials produced in	Materials translated
Belgium	Dutch, French, Tamazight, Arabic, English	Questionnaire, Privacy Notice, Information letter, Showcards, *Interviewers' manual, Briefing slides*
Denmark	Danish, Somali, Turkish, Kurdish, Tigrinya, English, Arabic	Questionnaire, Privacy Notice, Invitation Letter, Reminder Letter 1, Reminder Letter 2, FAQs
Finland	Finnish, Swedish, Somali, Portuguese, Arabic, English, French	Questionnaire, Privacy Notice, Invitation Letter, Reminder Letter 1, Reminder Letter 2, FAQs
France	French, Tamazight, Arabic	Questionnaire, Privacy Notice, Information letter, Showcards, *Interviewers' manual, Briefing slides*
Germany	German, Kurdish, Turkish, Arabic, English, French	Questionnaire, Privacy Notice, Invitation Letter, Reminder Letter 1, Reminder Letter 2, FAQs
Greece	Greek, Arabic, Kurdish	Questionnaire, Privacy Notice, Information letter, Showcards, *Interviewers' manual, Briefing slides*
Ireland	English, Somali, Arabic	Questionnaire, Privacy Notice, Information letter, Showcards, *Interviewers' manual, Briefing slides*
Italy	Italian, French, Arabic, Tigrinya, English	Questionnaire, Privacy Notice, Information letter, Showcards, *Interviewers' manual, Briefing slides*
Luxembourg	German, French, Portuguese, Arabic, English	Questionnaire, Privacy Notice, Invitation Letter, Reminder Letter 1, Reminder Letter 2, FAQs
Netherlands (Social media recruitment)	Dutch, French, Turkish, Kurdish, Tamazight, Arabic	Questionnaire, Privacy Notice, Advert text, FAQs
Netherlands (Location screening)	Dutch, Turkish, Kurdish	Questionnaire, Privacy Notice, Information Leaflet, Reminder Letter 1, Reminder Letter 2 *Interviewers' manual, Briefing slides*
Poland	Polish, Arabic, English, French	Questionnaire, Privacy Notice, Information letter, Showcards, *Interviewers' manual, Briefing slides*
Portugal	Portuguese	Questionnaire, Privacy Notice, Information letter, Showcards, *Interviewers' manual, Briefing slides*
Spain	Spanish, French, Tamazight, Arabic, Somali	Questionnaire, Privacy Notice, Information letter, Showcards, *Interviewers' manual, Briefing slides*
Sweden	Swedish, Arabic, Tigrinya, Somali	Questionnaire, Privacy Notice, Information letter, Showcards, *Interviewers' manual, Briefing slides*

Annex 3 - Interviewer selection and training and fieldwork

Table 81 – Overview of venues and dates of the interviewer training sessions by country

Country	Date(s)	Length	Format of the briefing	Number of interviewers briefed in total (number from target group)
Belgium	Session 1: 8 and 10 Nov 2021 Session 2: 24-25 Feb 2022 Session 3: 30 Mar-1 Apr 2022 Session 4: 2 and 5 May 2022 Session 5: 5 May 2022 Session 6: 6 May 2022 Session 7: 3-4 Jun 2022 Session 8: 8-9 Jun 2022 Session 9: 30 Jun and 5 Jul 2022 Session 10: 11-12 Jul 2022 Session 11: 20-21 Jul 2022	14 hours across two days	Sessions 1,2,3,4,11 remote Session 5 in person in Antwerp Sessions 6,7,8,9,10,11 in person in Brussels	89 (50)
France	Session 1: 11-12 Oct 2021 Session 2: 18-19 Oct 2021 Session 3: 15 and 18 Oct 2021 Session 4: 20-21 Oct 2021 Session 5: 27-28 Oct 2021 Session 6: 4-5 Nov 2021 Session 7: 6-7 Nov 2022 Session 8: 16-17 Mar 2022 Session 9: 24-25 Mar 2022 Session 10: 13-14 Apr 2022 Session 11: 21-22 Apr 2022 Session 12:31 May and 1 Jun 2022	14 hours across two days	In person in Paris and Marseille	97 (16)
Greece	Session 1: 31 Jan-1 Feb 2022 Session 2: 3-4 Feb 2022 Session 3: 7-8 Feb 2022 Session 4: 10-11 Feb 2022	14 hours across two days	In person	17 (0)
Ireland	Session 1: 28-29 Sept 2021 Session 2: 22-23 Feb 2022 Session 3: 15-16 Aug 2022	12 hours over 2 days	Remote	28 (0)
Italy	Session 1: 18-19 Oct 2021 Session 2: 21-22 Oct 2021 Session 3: 26-27 Oct 2021 Session 4: 2-3 Nov 2021 Session 5: 8-9 Nov 2021 Session 6: 31 May-1 Jun 2022 Re-briefing 31 Mar, 4 April, 12 April, 6 May 2022	14 hours over 2 days	Remote	88 (3)

Country	Date(s)	Length	Format of the briefing	Number of interviewers briefed in total (number from target group)
Poland	Session 1: 5-6 Oct 2021 Session 2: 14-15 Jan 2022	14 hours across 2 days	Remote	30 (0)
Portugal	Session 1: 20-21 Sept 2021 Session 2: 19-20 Jan 2022	14 hours across 2 days	In person	18 (1)
Spain	Session 1: 14-15 Oct 2021 Session 2: 20-21 Oct 2021 Session 3: 25-26 Oct 2021 Session 4: 9-10 Jan 2022 Session 5: 16-17 Jan 2022 Session 6: 30-31 Mar 2022 Session 7: 26-27 Apr 2022 Session 8: 22-23 Jun 2022	14 hours across 2 days	Remote	32 (0)
Sweden	Session 1: 21 and 22 Sept 2021 Session 2: 23 and 24 Sept 2021 Session 3: 16-17 Dec 2021 Session 4: 7-8 Feb 2022	14 hours across 2 days	Sessions 1,2: In person in Stockholm Sessions 3, 4: Remote	33 (23)
The Netherlands	12 October 2021	7 hours 45 mins ([75])	In person	15 (14)

([75]) Less content was included in the briefing sessions in the Netherlands given that interviewers' task was to only recruit respondents.

Table 82 – Interviewer's assessment of respondent's command of interview language by country and target group

Country	Target group	Poor %	Fair %	Good %	Very good %	Excellent %
Belgium	NOAFR (425)	2	8	14	24	51
	SSAFR (459)	*	7	18	33	42
France	NOAFR (552)	2	13	20	32	34
	SSAFR (544)	0	10	16	35	40
Greece	SYR (405)	23	25	37	13	2
Ireland	SSAFR (524)	1	5	15	41	38
Italy	NOAFR (795)	4	19	47	27	4
	SSAFR (419)	4	25	44	25	2
Poland	SSAFR (561)	6	7	23	52	11
Portugal	SSAFR (518)	5	16	37	10	31
Spain	NOAFR (743)	2	20	35	37	6
	SSAFR (562)	2	24	35	33	5
Sweden	SSAFR (555)	2	8	57	26	6
	SYR (540)	1	7	45	21	26

Base: All accepted interviews (n in brackets) An asterisk indicates a value of greater than 0 but less than 0.5%.

Table 83 – Interviewer's assessment of respondent's comprehension of the questions by country and target group

Country	Target group	The respondent was able to understand all of the questions %	The respondent was able to understand most of the questions %	The respondent was able to understand only some of the questions %	The respondent was able to understand none of the questions %
Belgium	NOAFR (425)	88	11	1	0
	SSAFR (459)	86	13	1	0
France	NOAFR (552)	75	22	3	0
	SSAFR (544)	84	15	2	0
Greece	SYR (405)	57	39	4	*
Ireland	SSAFR (524)	85	13	1	*
Italy	NOAFR (795)	78	20	3	0
	SSAFR (419)	77	20	3	0
Poland	SSAFR (561)	81	16	3	0
Portugal	SSAFR (518)	81	15	4	0
Spain	NOAFR (743)	60	35	5	0
	SSAFR (562)	49	45	5	0
Sweden	SSAFR (555)	77	21	1	*
	SYR (540)	66	32	1	*

Base: All accepted interviews (n in brackets) An asterisk indicates a value of greater than 0 but less than 0.5%.

Table 84 – Interviewer's assessment of reasons for respondent's misunderstandings by country and target group

Country	Target group	The respondent's language difficulties %	The respondent's lack of required knowledge (e.g., information about other household members) %	The way the questions/items were phrased %	Other %
Belgium	NOAFR (50)	26	22	36	16
	SSAFR (64)	23	27	41	6
France	NOAFR (137)	29	6	61	4
	SSAFR (88)	32	17	43	7
Greece	SYR (172)	71	9	20	0
Ireland	SSAFR (77)	36	16	39	5
Italy	NOAFR (176)	35	19	36	7
	SSAFR (96)	37	17	38	7
Poland	SSAFR (105)	8	34	31	9
Portugal	SSAFR (98)	4	33	36	10
Spain	NOAFR (297)	72	26	1	1
	SSAFR (285)	76	15	8	1
Sweden	SSAFR (125)	50	23	18	7
	SYR (179)	55	12	17	10

All accepted interviews where interviewers assessed that respondents did not understand some of the questions (n in brackets).

Table 85 – Interviewer's assessment of respondent's cooperation by country and target group

Country	Target group	Excellent %	Very good %	Good %	Fair %	Poor %
Belgium	NOAFR (425)	59	20	14	5	1
	SSAFR (459)	53	28	16	4	1
France	NOAFR (552)	49	26	18	6	*
	SSAFR (544)	53	25	17	4	*
Greece	SYR (405)	16	48	32	4	1
Ireland	SSAFR (524)	55	32	9	4	*
Italy	NOAFR (795)	10	26	49	14	1
	SSAFR (419)	7	26	51	15	1
Poland	SSAFR (561)	20	52	16	8	5
Portugal	SSAFR (518)	10	14	52	19	5
Spain	NOAFR (743)	30	32	31	7	1
	SSAFR (562)	38	27	29	6	1
Sweden	SSAFR (555)	19	23	54	4	*
	SYR (540)	21	28	431	*	8

*All accepted interviews (n in brackets) *An asterisk indicated a value greater than 0 but less than 0.5%.*

Table 86 – Interviewer's assessment of respondent's interest in the topics by country and target group

Country	Target group	Very interested %	Somewhat interested %	Not very interested %	Not at all interested %
Belgium	NOAFR (425)	60	29	7	3
	SSAFR (459)	68	26	5	1
France	NOAFR (552)	57	35	7	1
	SSAFR (544)	56	38	6	*
Greece	SYR (405)	38	55	5	0
Ireland	SSAFR (524)	68	27	4	*
Italy	NOAFR (795)	22	64	12	1
	SSAFR (419)	26	61	14	*
Poland	SSAFR (561)	55	32	9	2
Portugal	SSAFR (518)	14	62	21	2
Spain	NOAFR (743)	59	27	8	6
	SSAFR (562)	52	36	7	5
Sweden	SSAFR (555)	35	60	4	1
	SYR (540)	41	50	8	1

All accepted interviews (n in brackets).

Annex 4 – Minimum quotas set and interviews achieved

Belgium

Table 87 – Belgium: age/sex quotas for NOAFR

	Women			Total (Women)	Men			Total (Men)
	16-29	**30-44**	**45+**		**16-29**	**30-44**	**45+**	
Minimum quotas	36	44	41	121	35	44	48	127
Achieved	64	57	49	170	62	60	62	184

Table 88 – Belgium: country of birth/parents' country of birth quota for NOAFR

Country of origin	Minimum quota	Achieved
Morocco	168	278
Algeria	16	33
Tunisia	11	28
Other	3	15
Total	198	354

Table 89 – Belgium: age/sex quotas for SSAFR

	Women			Total (Women)	Men			Total (Men)
	16-29	**30-44**	**45+**		**16-29**	**30-44**	**45+**	
Minimum quotas	37	43	29	109	36	36	29	101
Achieved	62	54	38	154	69	75	40	184

Table 90 – Belgium: country of birth/parents' country of birth quota for SSAFR

Country of origin	Minimum quota	Achieved
Congo	56	90
Cameroon	17	44
Rwanda	12	22
Guinea	11	26
Ghana	9	15

Country of origin	Minimum quota	Achieved
Other	63	141
Total	168	338

Table 91 – Sex and age distributions of respondents by sampling method in Belgium

Country		Belgium	
Sampling method		Address-based in-home random probability approach (197)	Quota sampling approach (687)
Sex	Women	89 (45 %)	321 (47 %)
	Men	108 (55 %)	365 (53 %)
	In another way	0 (0 %)	1 (*)
Age	16-29 years	52 (26 %)	256 (37 %)
	30-44 years	86 (44 %)	244 (36 %)
	45+ years	59 (30 %)	187 (27 %)

base: All accepted interviews in Belgium (n in brackets)
An asterisk (*) indicates a value of greater than 0 but less than 0.5%.

Greece

Table 92 – Greece: age and sex quotas for SYR

	Women			Total (Women)	Men			Total (Men)
	16-29	**30-44**	**45+**		**16-29**	**30-44**	**45+**	
Minimum quotas	17	17	4	38	40	55	22	117
Achieved	32	28	5	65	78	99	28	205

Table 93 – Sex and age distributions of respondents by sampling method in Greece

Country		Greece			
Sampling method		ESTIA sample (58)	Accommodation Facilities sample (62)	HELIOS sample (18)	Quota sampling approach (267)
Sex	Women	32 (55 %)	32 (52 %)	10 (56 %)	204 (76 %)
	Men	26 (45 %)	30 (48 %)	8 (44 %)	63 (24 %)
Age	16-29 years	22 (38 %)	33 (53 %)	5 (28 %)	110 (41 %)
	30-44 years	29 (50 %)	21 (34 %)	11 (61 %)	125 (47 %)
	45+ years	7 (12 %)	8 (13 %)	2 (11 %)	32 (12 %)

base: All accepted interviews in Greece (n in brackets).

Ireland

Table 94 – Ireland: age and sex quotas for SSAFR

	Women			Total (Women)	Men			Total (Men)
	16-29	**30-44**	**45+**		**16-29**	**30-44**	**45+**	
Minimum quotas	52	74	31	157	47	52	44	143
Achieved	99	78	57	429	82	56	57	195

Table 95 – Ireland: country of birth/parents' country of birth quota for SSAFR

Country of origin	Minimum quota	Achieved
Nigeria	107	238
Congo	17	12
Zimbabwe	12	35
Somalia	9	15
Other	55	129
Total	200	429

Table 96 – Sex and age distributions of respondents by sampling method in Ireland

Country		Ireland	
Sampling method		**Address-based in-home random probability approach (103)**	**Quota sampling approach (421)**
Sex	Women	16 (55 %)	234 (56 %)
	Men	55 (45 %)	187 (44 %)
Age	16-29 years	32 (31 %)	176 (42 %)
	30-44 years	25 (24 %)	132 (31 %)
	45+ years	46 (45 %)	113 (27 %)

Base: All accepted interviews in Ireland (n in brackets).

Annex 5 - Weighting procedures across countries

This section will provide details on the weighing procedures applied across countries, and the decisions made in the process.

Austria

Design weights, post-stratification and calibration weights were applied for all four target groups in Austria TUR immigrants and descendants of immigrants; SYR and SSAFR).

Design weights were calculated to correct for different selection probabilities for each target group and to correct for the oversample of individuals with lower education.

Design weights were adjusted according to post-stratification within sampling strata. These weights were finally adjusted by calibration to meet controls which were obtained from the sampling frame within each of the target groups. Those controls included: DEGURBA, age, sex, education, and employment status; and for the Turkish target group: generation as well.

Belgium

Calibration weights were calculated for both target groups in Belgium (NOAFR, SSAFR).

Two independent sample approaches were implemented for both target groups in Belgium – a random probability approach (multi-stage clustered sample, using an address register with FE, and all addresses pre-selected) and a non-random approach (Quota). When the quota approach was introduced, the intention was to blend the two independent samples in the post-stratification/calibration weighting stage, with a potential of using the random probability sample profile for adjusting the profile of the quota sample.

Weighting the random probability sample came with significant variations, however. The combined sampling unit and address selection weights had efficiency of only 35 % for the North African group and 52 % for people from African countries south of the

Sahara. ([76]) The dwelling unit selection weights resulted in unexpectedly high values, ([77]) which decreased the weighting efficiency even further. For these reasons, the random probability sample could not be used for establishing the target population profile and it was agreed to treat the full sample for each group as a quota sample in weighting, and only apply calibration weighting.

It was not possible to add DEGURBA for all cases in the quota sample, given the sampling approach used NUTS3 for PSUs which can have different DEGURBA within them.

Region (NUTS1) and age by sex were used in calibration weighting for both target groups.

The ratio between the maximum and minimum value of the final weight was below 15 (1.7 for the North African group and 2.9 for people from African countries south of the Sahara) and it did not require trimming. The final weighting efficiency was 98 % for the former and 92 % for the latter group.

Denmark

Non-response weights were calculated for all three target groups in Denmark (SSAFR, SYR, TUR).

Official statistics available for generation and sex in Denmark relies on target group definitions that underestimate descendants of immigrants. The register sample was based on the target group definitions used in this survey; hence it was considered more reliable for providing demographic profiles of the target groups. For that reason, non-response weighting, using the gross sample data, was used to adjust for differences between the achieved sample and the target populations profile instead of

([76]) This was due to the small sample sizes of completes via this method (73 with the North African group and 124 with the African group from countries south of the Sahara); only one PSU in one stratum for the former group; majority of interviews completed in only two PSUs, that met the stopping rule, for the latter group; and using the PSU sizes in the population register for calculating the sampling unit selection weights and their sizes in the address register for the address selection weight – and these two sizes were not always consistent.

([77]) The address register was expected to uniquely identify apartments in apartment blocks. However, this was not always the case, and interviewers had to select dwelling units randomly in the ECS.

applying the post-stratification/calibration weights using the same gross sample data as targets.

Region (NUTS2), urbanity (DEGURBA), age, sex and generation were used in non-response weighting for each target group.

The ratio between the maximum and minimum value of the final weight was below 15 (5.1 for people from African countries south of the Sahara, 2.6 for the Syrian group and 3.2 for the Turkish group) and it did not require trimming. The final weighting efficiency was 89 % for people originating from African countries south of the Sahara, 98 % for the Syrian, and 93 % for the Turkish target group.

Finland

Calibration weights were calculated for the sample in Finland.

Official statistics on region, urbanity, age by sex and generation were available for the target group. These variables were also available in the gross sample. There were certain discrepancies in the proportions between these two samples, and the official statistics were considered to be more reliable. Hence, rather than applying both non-response and calibration weighting, using the same variables (with slightly different proportions), only calibration weighting was applied.

Region (NUTS2), urbanity (DEGURBA), age by sex and generation was used in calibration weighting.

The ratio between the maximum and minimum value of the final weight was below 15 (8.5) and it did not require trimming. The final weighting efficiency was 85 %.

France

Design weights, household level and individual level non-response weights, and post-stratification weights were applied for both target groups in France (NOAFR, SSAFR).

The target groups were screened together; hence the samples were weighted together in design and household level non-response weighting. The weighting process was only split per target group starting with the individual level non-response weighting.

The number of addresses per PSU was not received from the address register, so the Census population counts available in in the PSU list were used for estimating the number of addresses per PSU when calculating the address selection weights. The

combined sampling unit and address selection weight required trimming to bring the ratio between the maximum and minimum value of the weight below 10. The dwelling unit selection weight and individual respondent selection weight also required trimming, as noted in section 8.1.4.

Neighbourhood characteristics were used in household level non-response weighting, while age, sex, working status and generation were used in individual level non-response weighting. Both weights had outliers and required trimming, as noted in section 8.1.4.

Apart from region and urbanity data available in the PSU list, there were no other reliable population data on the target groups. Hence, only region (NUTS1) by urbanity (DEGURBA) was used in post-stratification weighting.

Distribution of the final weight was asymmetrical for both target groups; however, they were trimmed at both ends to reduce the ratio between the smallest and largest weight to below 15. The final weighting efficiency was 62 % for the North African sample and 61 % for the sample of people from African countries south of the Sahara.

Germany

Design weights, individual level non-response weights and post-stratification weights were applied for all three target groups in Germany (SSAFR, SYR, TYR).

The sample design in Germany initially assumed selecting the sample cases with equal probability: (1) selecting municipalities with equal probability; then (2) selecting the same proportion of population aged 16 years and above within each municipality; and after determining eligibility of individuals, (3) selecting the same proportion of eligible cases from each municipality for a target group. However, the samples from different municipalities arrived at different pace so parts of the sample were issued before eligibility counts were known for each selected municipality (in order not to delay all fieldwork). As such it was not possible to apply equal probabilities of selection in the last selection stage. The design weights were calculated to correct the uneven selection probabilities. Losses in efficiency are minimal (up to 2 % per target group).

Among the 2,520 completes, nine cases reported a different target group from the one assumed in sampling. In the design and non-response weighting they were assumed to belong to the group considered in sampling, while in the later stages of weighting they were assumed to belong to the target group reported in the questionnaire.

All municipalities were asked to provide information on age, sex and citizenship for the selected sample. Out of 47 municipalities that provided the sample, 46 provided the

information on sex, while Munich, accounting for 4.5 % of the gross sample, did not. Further, 29 municipalities provided the information on age, while 18 municipalities, accounting for 49 % of the gross sample, did not provide it. All municipalities provided the data on citizenship.

Sex, age and citizenship were used in individual level non-response weighting for the cases where this information was available. The cases without these details were treated as a separate category within each variable in the non-response weighting. Due to the large number of NUTS 1 regions in the target group samples in Germany and small sample sizes for some of them, region was not included in the non-response weighting, but rather in the post-stratification weighting. The individual level non-response weight for each target group had outliers and required trimming, as noted in section 8.1.4.

Apart from region and urbanity data available in the PSU list, there were no other reliable population data on the target groups. More than 99 % of the covered and sampled population belonged to DEGURBA 1. Hence, only region (NUTS1) was used in post-stratification weighting.

The data on generation is only available for the total population (aged 0 years and above). The generation profile among the population aged 16 years and above is expected to be significantly different. However, the achieved sample seems to overrepresent the second-generation immigrants. Using citizenship in non-response weighting helped with decreasing the proportion of second-generation immigrants to a certain extent.

The final weight for the Turkish target group required trimming to bring the ratio between the maximum and minimum value of the final weight below 15. The final weighting efficiency was 85 % for the sample of people from African countries south of the Sahara, 84 % for the Syrian sample and 83 % for the Turkish sample.

Greece

Design weights and calibration weights were applied for the sample in Greece.

Four independent samples were issued in Greece to cover four different population sub-groups. The following sample designs have been implemented for these groups:

- ESTIA programme beneficiaries: Multi-stage clustered sample, using individual register

- Accommodation facilities beneficiaries: Multi-stage clustered sample, using household register (households recruited by employees at accommodation facilities)
- HELIOS project beneficiaries: Multi-stage clustered sample, using individual register (individuals recruited by IOM)
- Rest of the population: Quota sample

Three of the approaches (for ESTIA, HELIOS and Accommodation Facilities populations) were random probability approaches and the design weight was calculated for each of these samples, before the calibration weighting was applied on the overall sample covering all four population sub-groups.

ESTIA programme beneficiaries

Given that all eligible cases in the covered municipalities were sampled, the combined sampling unit and individual selection weight was equal to 1 for all sample cases.

Both household level and individual level non-response weights could not be calculated using the ECS data for eligible households/respondents since almost all confirmed eligible cases were interviewed. It was initially intended to use the gross sample from the population register for calculating the individual level non-response weight for the ESTIA sample. However, while the sex data was consistent, significant discrepancies were noticed when comparing the age data reported in the survey against the data received in the gross sample for the respondents. This indicated that the age data received in the gross sample is not correctly linked to the selected persons, which consequently meant that the gross sample could not be used for non-response weighting.

Accommodation facilities beneficiaries

All eligible households in the covered accommodation facilities were approached and asked to complete the interview. Therefore, the combined sampling unit and address selection weight was equal to 1 for all sample cases. The individual respondent selection weight was calculated, and it required trimming as noted in the section 8.1.4.

Both household level and individual level non-response weights could not be calculated using the ECS data for eligible households/respondents since almost all confirmed eligible cases were interviewed.

HELIOS project beneficiaries

All eligible individuals in the covered municipalities were approached and asked to complete the interview, so the combined sampling unit and individual selection weight was equal to 1 for all sample cases.

The individual level non-response weights could not be calculated using the ECS data for eligible respondents since almost all confirmed eligible cases were interviewed.

Overall sample

Following calculating the design weights for each of the random probability samples and assigning value 1 to the design weights for the quota sample (equivalent to not applying the design weights), all four samples were merged into the overall sample for Greece and calibration weighting was considered.

The overall age by sex profile in the gross sample for ESTIA population significantly differed from the profile in Census 2011, which was understandable, given that the statistics cover different population sub-groups. As there were no official population statistics for the remaining two population sub-groups, none of the existing population data could be used for weighting targets for the overall target population covered by the survey. Instead, the age and sex profile of all household members aged 16 years and above in the current survey was used for deriving the targets for the calibration weight. ([78])

It was not possible to add DEGURBA for the quota sample, given the approach used NUTS2 for PSUs, units that can have different DEGURBA within them. Hence, besides age and sex only region (NUTS1) was included in the calibration weighting, using the population statistics available in the sampling sources for targets for the latter.

The final weight required trimming to bring the ratio between the maximum and minimum value of the final weight below 15. The final weighting efficiency was 84 %.

Ireland

Calibration weights were applied for the sample in Ireland.

([78]) Similar approach was applied in Roma and Travellers Survey, when there were no reliable statistics for the target populations, the profile of eligible household members was used for deriving the individual level non-response weights. The proportion of household members aged 0-15 years in the current survey was also used when estimating the size of the covered population aged 0 years and above.

Two independent sample approaches were implemented in Ireland – a random probability approach (multi-stage clustered sample, using an address register with FE, core addresses pre-selected) and a non-random approach (Quota). When the quota approach was introduced, the intention was to blend the two independent samples in the post-stratification/calibration weighting stage, with a potential of using the random probability sample profile for adjusting the profile of the quota sample.

Applying design weights and both household level and individual level non-response weights to the random probability sample came with efficiency losses. Even though these were not as significant as in Belgium (section 8.4), due to its small size the random probability sample could not enable determining the target population profile with certainty. For this reason, it was agreed to treat the full sample as a quota sample in weighting, and only apply calibration weighting.

It was not possible to add DEGURBA for all cases in the quota sample given the approach was using Local Electoral Areas (LEA) for PSUs, units that can have different DEGURBA within them.

Official statistics on region (NUTS2), and age by sex was available for the target group, so these variables were used in calibration weighting.

The final weight did not require trimming given the ratio between the maximum and minimum value of the final weight was below 15. The final weighting efficiency was 90 %.

Italy

Design weights, household level and individual level non-response weights, and post-stratification weights were applied for both target groups in Italy (NOAFR, SSAFR).

The target groups were screened together; hence the samples were weighted together in design and household level non-response weighting. The weighting process was only split per target group starting with the individual level non-response weighting.

Distribution of the combined sampling unit and address selection weight was asymmetrical; however, the weight was trimmed at both ends to reduce the ratio between the maximum and minimum value of the weight. The trimming did not bring the ratio below 10. The individual respondent selection weight also required trimming.

Neighbourhood characteristics were used in household level non-response weighting, while age, sex, working status and generation ([79]) were used in individual level non-response weighting. The household level non-response weights and individual level non-response weights for the North African group had outliers and required trimming, as noted in section 8.1.4.

Apart from region and urbanity data available in the PSU list, there were no other reliable population data on the target groups. Hence, only region (NUTS1) by urbanity (DEGURBA) was used in post-stratification weighting.

Distribution of the final weight was asymmetrical for both target groups; however, they were trimmed at both ends to reduce the ratio between the maximum and minimum value of the weight. The final weighting efficiency was 61 % for both target groups.

Luxembourg

Calibration weights were calculated for the sample in Luxembourg.

The anonymised gross sample, received from CTIE, contained information on age and sex (and municipality) of the sampled individuals. Using this data was considered for non-response weighting. However, when comparing the received data against the survey responses on age and sex questions, significant discrepancies were noticed. Almost all respondents reported different age (and sex) to the one listed for them in the sample data. This indicated that the demographic data received in the gross sample was not correctly linked to the selected persons, which consequently meant that the gross sample could not be used for non-response weighting. Hence, only calibration weighting, using the overall proportions from the gross sample could be applied.

Besides the demographic data for selected respondents, the gross sample also contained information on municipality that could be used for deriving region and urbanity. The conclusion reached above about the demographic data received in the gross sample not being correctly linked to the selected persons indicated that the municipality data may have not been correctly linked either, hence urbanity (DEGURBA) was not added to the dataset for the respondents. The whole territory of Luxembourg belongs to the same NUTS2 region. Hence, only age and sex were used in calibration weighting.

([79]) Generation was only used for the North African group.

Official statistics on the demographic variables were not available for the target group, ([80]) so the overall proportions for age by sex in the gross sample were used as targets in calibration weighting.

The ratio between the maximum and minimum value of the final weight was below 15 (1.7) and it did not require trimming. The final weighting efficiency was 99 %.

Netherlands

Location sampling weights and calibration weights were applied for all target groups in the Netherlands.

The target groups were sampled independently; hence the weighting process was done separately for each sample.

The social media platforms were treated as location centres in the location sampling weighting (see section 8.3). They were regarded as virtual location centres, and respondents were asked questions to determine if they had a chance to be sampled via other platforms. For the Turkish target group, in the four municipalities where location sampling recruitment was also applied, the platforms were added to the existing list of location centres as additional location types. Respondents in both samples were asked questions to determine whether they had a chance to be sampled at the location centres and via the social media platforms. For the North African and Syrian target groups where only the social media approach was used, the platforms were treated as separate location types.

Official statistics were available on region, urbanity, age by sex and generation for the target group populations. Reliable estimates were also available for education. ([81]) As a result, region (NUTS1), urbanity (DEGURBA), age by sex and education were used in calibration weighting for all three target groups. Generation was not included in the weighting in an attempt to maximise the efficiency while correcting the sample profile on a limited number of key demographic variables.

Distribution of the final weight was asymmetrical for all three target groups, and they were trimmed at the top end only for the Syrian and Turkish target group. The weights for the North African group were trimmed at both ends to reduce the ratio between

([80]) It was only available for the population of foreign nationality which did not cover the whole target population.

([81]) For the Syrian target group, it was available for the non-school going population aged 15-64 years. Still, it was useful for comparison and for targets in weighting.

the maximum and minimum value of the weight. The final weighting efficiency was 57 % for the North African group, 63 % for the Syrian and the Turkish group.

Poland

Design weights, individual level non-response weights, location sampling weights and post-stratification weights were applied for the sample in Poland.

Two sample approaches were implemented in Poland – mmulti-stage clustered sample, using an individual register and Location sampling. Both samples covered the same municipalities, and a set of questions was asked in the survey to assess whether respondents in one sample had a chance to be selected in the other, which allowed blending the two samples. The survey data showed overlap between the two samples; a part of the population sampled via the register visited the location centres, as well as it was confirmed that a part of the population sampled at the location centres had a chance to be selected from the register. Therefore, the register was regarded as another location centre within each municipality, and the entire sample was treated as the location sample in the weighting process. This is in line with the approach taken in EU-MIDIS II in countries that implemented both a register /address-based sample and location sample and overlap between the two could be determined.

The register sample was weighted first using design weights and individual level non-response weights, before the two samples were combined, treating the register sample as an additional location type, and the location sampling weights, and post-stratification weights were applied on the overall sample.

In the register sample, given that all eligible cases in the covered municipalities were sampled, the combined sampling unit and individual selection weight was equal for all sampled cases. The household level non-response weight could not be calculated using the ECS data for eligible households since almost all confirmed eligible cases were interviewed. The individual level non-response weight was calculated for the register sample using the data on region, urbanity, age and sex available in the gross sample.

The location sampling weights have then been applied to the full sample.

There are no reliable population statistics on the target group population in Poland. The profile of the gross register sample was used in the non-response weighting for that part of the sample. Based on the set of questions asked in the main questionnaire, less than a half of the location sampling sample had a chance to be selected in the register sample (47 % in the unweighted data, 37 % after weighting), which indicated

that the overall demographic profile of the target population may be different. Hence, the gross sample proportions were not used for targets in calibration weighting.

The population statistics on region (NUTS2) obtained from the population register prior to receiving the sample was used in post-stratification weighting of the full sample. ([82])

The ratio between the maximum and minimum value of the final weight was below 15 (8.2) and it did not require trimming. The final weighting efficiency was 81 %.

Portugal

Design weights, household level and individual level non-response weights, and post-stratification weights were applied for the sample in Portugal.

The combined sampling unit and address selection weight did not require trimming since the ratio between the maximum and minimum value of the weight was below 10. The individual respondent selection weight was trimmed as noted in section 8.1.4.

Neighbourhood characteristics were used in household level non-response weighting, while age, sex, working status and generation were used in individual level non-response weighting. The latter weight had outliers and required trimming, as noted in section 8.1.4.

Most of the sample belonged to one NUTS2 region, and similarly to one DEGURBA level. The PSU list was linked to the 2011 version of local administrative units, and due to the changes over the time, it was not possible to add the 2021 version of DEGURBA to the full PSU list. However, this was possible for NUTS2. Apart from the region data available in the PSU list, there were no other reliable population statistics on the target group Hence, only region (NUTS2) was used in post-stratification weighting.

The final weight was trimmed in order to bring the ratio between the maximum and minimum value of the weight below 15. The final weighting efficiency was 65 %.

([82]) Following the weighting, the total size of the coved population aged 0 years and above had to be re-estimated. The population register counts were used and inflated for the 63 % of the population not in the register. Further, the original estimate of the proportion of population aged 0-15 years (20 %) was added to the estimate to reach the final figure.

Spain

Design weights, household level and individual level non-response weights, and calibration weights were applied for both target groups in Spain (NOAFR, SSAFR).

The target groups were sampled independently; hence the weighting process was done separately for each sample.

For four PSUs where there were the number of addresses found in the field was smaller than expected in the PSU list, and one PSU where the fieldwork could not continue given the area was too dangerous for fieldwork, and not all issued addresses were visited, the total number of addresses was re-estimated based on the random route interval applied and the total number of addresses visited. This number was used when calculating the address selection weights.

The combined sampling unit and address selection weight for both samples required trimming to bring the ratio between the maximum and minimum value of the weight below 10. The individual respondent selection weight also required trimming for both groups.

Neighbourhood characteristics were used in household level non-response weighting, while age, sex, working status and generation ([83]) were used in individual level non-response weighting. Both, the household level and individual level non-response weights for both target groups had outliers and required trimming, as noted in section 8.1.4.

Official statistics was available on region, urbanity and generation for the whole target groups and age by sex (for wide age groups) for the first-generation immigrants only. As a result, region (NUTS1), urbanity (DEGURBA), and a variable combining age, sex and generation were used in calibration weighting for both target groups.

Distribution of the final weight was asymmetrical for both target groups, however they were trimmed at both ends to reduce the ratio between the maximum and minimum value of the weight. Moreover, the weights were trimmed beyond 5th and 95th percentile to further reduce the ratio and bring it closer to 15. The final weighting efficiency was 58 % for both target groups.

([83]) Generation was only used for the North African group.

Sweden

Location sampling weights and calibration weights were applied for both target groups in Sweden.

The target groups were sampled independently; hence the weighting process was done separately for each sample.

Official statistics was available on region (NUTS2), age by sex and generation for the target group population. Region and age by sex were used in calibration weighting for both target groups, while generation was not included. This was done in an attempt to maximise the weighting efficiency while correcting the sample profile on a limited number of key demographic variables.

Distribution of the final weight was asymmetrical for the target group of people from African countries south of the Sahara and symmetrical for the Syrian target group, however both weights were trimmed at the top and bottom ends. For the first this was done to reduce the ratio between the maximum and minimum value of the weight. The final weighting efficiency was 62 % for the sample of people from African countries south of the Sahara and 74 % for the Syrian target group. The difference in efficiency is mostly driven by those achieved in the location sampling weighting – 78 % for the former group and 88% for the latter.

Annex 6 - Respondent profiles and sample quality

This section provides details on the target population profile, where the population statistics is available, compared to the achieved sample, both unweighted and weighted. For the target groups covered in EU-MIDIS II, the unweighted and weighted sample profile from that survey is also included in the comparison. It reviews the following demographic variables: age, sex, education, main activity and generation.

Age

The following tables provide the composition of the target population across age categories used in weighting (where applicable), compared to the unweighted and weighted sample profiles of the current survey, as well as of EU-MIDIS II for the target groups covered in both surveys. The sources for target population statistics are referenced in the tables below.

The achieved samples in most of the countries had a balanced distribution across age categories, and the post-stratification/calibration weighting successfully corrected for slight inconsistencies with the population statistics. In Denmark, Germany, the Netherlands and Sweden underrepresentation of older age groups was observed, which needed to be addressed in the calibration weighting.

In comparison to the EU-MIDIS II sample, the sample in the current survey is older in most of the countries (all except Germany, Ireland and the Netherlands), which can be expected for more recent immigrant groups. Also, in EU-MIDIS II, the age profile was not corrected in weighting for most of the countries, which can explain some of the discrepancies.

Table 97 – Age profile (%) - Austria – SSAFR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-28	25	48	42	22	24
29-43	42	44	48	43	42
44-58	26	9	10	29	26

Table 98 – Age profile (%) - Austria – SYR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-28	38	NA	NA	34	34
29-43	42	NA	NA	43	45
44-58	16	NA	NA	19	18
59+	4	NA	NA	4%	4

Table 99 – Age profile (%) - Austria – TUR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-28	32	36	36	38	31
29-43	32	34	33	31	33
44-58	24	23	24	20	24

Table 100 – Age profile (%) – Belgium – NOAFR

	Population (Statbel 2022)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-29	28	27	38	33	29
30-44	35	41	33	34	35
45+	36	32	29	33	36

Table 101 – Age profile (%) – Belgium – SSAFR

	Population (Statbel 2022)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-29	35	NA	NA	37	35
30-44	37	NA	NA	40	37
45+	28	NA	NA	24	28

Table 102 – Age profile (%) – Denmark –SSAFR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	25	29	27	36	25
25-44	45	46	49	41	46
45-59	23	22	22	18	22
60+	7	3	3	5	8

Table 103 – Age profile (%) – Denmark – SYR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	26	NA	NA	30	27
25-44	53	NA	NA	52	53
45-59	16	NA	NA	15	15
60+	4	NA	NA	3	5

Table 104 – Age profile (%) – Denmark –TUR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	18	15	19	25	19
25-44	45	46	43	47	45
45-59	26	30	29	21	25
60+	11	9	9	7	11

Table 105 – Age profile (%) – Finland – SSAFR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-29	39	45	44	40	38
30-39	28	33	30	37	32
40-59	25	20	23	21	26
60+	4	2	3	3	3

Table 106 – Age profile (%) – France – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	NA	15	17	9	10
25-44	NA	45	46	43	40
45-59	NA	24	22	27	26
60+	NA	16	15	21	24

Table 107 – Age profile (%) – France – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	NA	17	22	15	19
25-44	NA	55	46	51	46
45-59	NA	21	24	20	22
60+	NA	7	8	14	13

Table 108 – Age profile (%) – Germany –SSAFR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	20	17	21	29	23
25-44	51	41	40	53	51
45-59	21	30	28	15	20
60+	8	13	11	3	6

Table 109 – Age profile (%) – Germany – SYR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	24	NA	NA	21	22
25-44	58	NA	NA	60	60
45-59	14	NA	NA	15	15
60+	5	NA	NA	4	4

Table 110 – Age profile (%) – Germany – TUR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	16	19	21	24	19
25-44	37	43	41	46	43
45-59	28	27	27	22	25
60+	19	11	11	9	13

Table 111 – Age profile (%) – Greece – SYR

	Population (Household members)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	23	NA	NA	21	23
25-34	39	NA	NA	44	40
35-44	21	NA	NA	23	22
45+	16	NA	NA	12	15

Table 112 – Age profile (%) – Ireland – SSAFR

	Population (Census 2016)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-29	30	23	30	40	30
30-44	44	54	43	30	44
45+	26	23	27	30	26

Table 113 – Age profile (%) – Italy – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	NA	14	21	13	15
25-44	NA	65	57	61	56
45-59	NA	18	20	22	25
60+	NA	2	2	4	4

Table 114 – Age profile (%) – Italy – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	NA	16	21	16	18
25-44	NA	64	65	57	56
45-59	NA	19	14	23	22
60+	NA	1	0	5	4

Table 115 – Age profile (%) – Luxembourg – SSAFR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	20	23	23	20	20
25-44	44	56	56	44	44
45-59	26	19	19	24	26
60+	10	2	2	12	10

Table 116 – Age profile (%) – Netherland – NOAFR

	Population (CBS 2020)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	21	36	23	31	24
25-34	21	29	22	30	23
35-49	31	22	32	31	33
50+	27	14	23	8	21

Table 117 – Age profile (%) – Netherland – SYR

	Population (CBS 2020)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	26	NA	NA	28	28
25-34	27	NA	NA	39	30
35-49	30	NA	NA	27	30
50+	16	NA	NA	6	12

Table 118 – Age profile (%) – Netherland – TUR

	Population (CBS 2020)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	18	35	22	26	19
25-34	22	29	22	29	24
35-49	33	22	32	32	33
50+	27	14	24	13	24

Table 119 – Age profile (%) – Poland – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-39	NA	NA	NA	79	83
40-59	NA	NA	NA	14	13
60+	NA	NA	NA	7	4

Table 120 – Age profile (%) – Portugal – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	NA	15	18	11	14
25-44	NA	37	39	38	37
45-59	NA	28	27	25	26
60+	NA	20	16	26	23

Table 121 – Age profile (%) – Spain – NOAFR

	Population (INE 2020 – immigrants only)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-44	62	80	77	72	67
45+	38	20	23	28	33

Table 122 – Age profile (%) – Spain – SSAFR

	Population (INE 2020 – immigrants only)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-44	69	NA	NA	75	72
45+	31	NA	NA	25	28

Table 123 – Age profile (%) – Sweden – SSAFR

	Population (SCB 2019)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	23	27	28	40	23
25-34	26	33	30	31	27
35-44	24	22	22	14	23
45+	28	19	20	15	27

Table 124 – Age profile (%) – Sweden – SYR

	Population (SCB 2019)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
16-24	22	NA	NA	40	22
25-34	26	NA	NA	26	26
35-44	24	NA	NA	16	21
45+	29	NA	NA	17	30

Sex/gender

The following tables provide the composition of the target population across sex/gender compared to the unweighted and weighted sample profiles of the current survey, as well as of EU-MIDIS II for the target groups covered in both surveys. The sources for target population statistics are referenced in the tables below.

The achieved samples in most of the countries had a balanced distribution across sex, and the post-stratification/calibration weighting successfully corrected for slight inconsistencies with the population statistics. In Greece, the Netherlands and Sweden, the discrepancies were significant, but they were addressed in the calibration weighting.

Compared to the EU-MIDIS II sample, the samples of people from African countries south of the Sahara in Austria and Denmark in the current survey have more women, in line with the current population statistics. Smaller discrepancies could also be observed in the North African sample in Spain and the sample of people from African countries south of the Sahara in Sweden, and the weighted profile of the current survey is aligned with the population statistics, Inconsistencies are also observed in France, Italy and Portugal, but the population statistics on sex is not available for these countries to allow assessing the sample quality.

Table 125 – Sex profile (%) – Austria – SSAFR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	43	28	26	46	43
Men	57	73	75	53	56

Table 126 – Sex profile (%) – Austria – SYR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	51	NA	NA	42	39
Men	61	NA	NA	58	61

Table 127 – Sex profile (%) – Austria – TUR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	48	43	50	53	48
Men	52	57	50	46	51

Table 128 – Sex profile (%) – Belgium – NOAFR

	Population (Statbel 2022)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	49	47	45	46	49
Men	51	53	55	54	51

Table 129 – Sex profile (%) – Belgium – SSAFR

	Population (Statbel 2022)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	52	NA	NA	46	52
Men	48	NA	NA	54	48

Table 130 – Sex profile (%) – Denmark – SSAFR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	49	27	31	54	48
Men	51	73	69	46	52

Table 131 – Sex profile (%) – Denmark – SYR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	43	NA	NA	43	43
Men	57	NA	NA	57	57

Table 132 – Sex profile (%) – Denmark – TUR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	51	50	50	50	51
Men	49	50	50	50	49

Table 133 – Sex profile (%) – Finland – SSAFR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	43	36	42	49	43
Men	57	64	58	51	57

Table 134 – Sex profile (%) – France – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	NA	53	52	44	46
Men	NA	47	48	56	54

Table 135 – Sex profile (%) – France – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	NA	55	51	51	51
Men	NA	45	49	49	49

Table 136 – Sex profile (%) – German – SSAFR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	44	42	48	45	45
Men	56	58	52	55	55

Table 137 – Sex profile (%) – German – SYR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	36	NA	NA	36	37
Men	64	NA	NA	63	62

Table 138 – Sex profile (%) – German – TUR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	49	42	48	49	49
Men	51	58	52	51	50

Table 139 – Sex profile (%) – Greece – SYR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	41	NA	NA	31	40
Men	60	NA	NA	69	60

Table 140 – Sex profile (%) – Ireland – SSAFR

	Population (Census 2016)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	52	54	56	55	52
Men	48	46	44	45	48

Table 141 – Sex profile (%) – Italy – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of Immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	NA	35	41	39	35
Men	NA	65	59	62	65

Table 142 – Sex profile (%) – Italy – SSAFR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	NA	40	40	32	33
Men	NA	60	60	68	67

Table 143 – Sex profile (%) – Luxembourg – SSAFR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	46	49	49	45	46
Men	54	51	51	54	53

Table 144 – Sex profile (%) – Netherland – NOAFR

	Population (CBS 2020)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	49	56	47	57%	52
Men	51	44	53	42	48

Table 145 – Sex profile (%) – Netherland – SYR

	Population (CBS 2020)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	43	NA	NA	39	42
Men	57	NA	NA	59	56

Table 146 – Sex profile (%) – Netherland – TUR

	Population (CBS 2020)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	48	40	48	59	49
Men	52	60	52	40	50

Table 147 – Sex profile (%) – Poland – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	NA	NA	NA	38	36
Men	NA	NA	NA	62	64

Table 148 – Sex profile (%) – Portugal – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	NA	50	48	52	54
Men	NA	50	52	48	46

Table 149 – Sex profile (%) – Spain – NOAFR

	Population (INE 2020 – immigrants only)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	42	52	54	43	41
Men	58	48	46	57	59

Table 150 – Sex profile (%) – Spain – SSAFR

	Population (INE 2020 – immigrants only)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	29	NA	NA	25	29
Men	71	NA	NA	75	71

Table 151 – Sex profile (%) – Sweden – SSAFR

	Population (SCB 2019)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	48	42	42	38	48
Men	52	58	58	62	52

Table 152 – Sex profile (%) – Sweden – SYR

	Population (SCB 2019)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Women	43	NA	NA	32	44
Men	57	NA	NA	68	57

Education

The following tables provide the composition of the target population across education categories, where the population statistics was available, compared to the unweighted and weighted sample profiles of the current survey, as well as of EU-MIDIS II for the target groups covered in both surveys. The sources for target population statistics are referenced in the tables below.

The population statistics available the Netherlands were used for correcting the sample profile across education categories.

Compared to the EU-MIDIS II sample, the current sample seems to be lower educated in Italy (for people from African countries south of the Sahara), Spain (North African group) and Sweden (for people from African countries south of the Sahara). The education profile is similar across both surveys in Austria (Turkish target group), France, Italy (North African group) and the Netherlands (North African group). In all other countries and target groups covered by both surveys, the current sample is better educated.

Table 153 – Education profile (%) – Austria – SSAFR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1	53	36	37	15	14
ISCED 2-3-4-5-6-7-8	47	64	63	85	86

Table 154 – Education profile (%) – Austria – SYR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1	54	NA	NA	16	15
ISCED 2-3-4-5-6-7-8	46	NA	NA	84	85

Table 155 – Education profile (%) – Austria – TUR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1	61	19	20	20	21
ISCED 2-3-4-5-6-7-8	39	81	80	80	79

Table 156 – Education profile (%) – Belgium – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	44	38	34	35
ISCED 3-4-5	NA	44	51	47	47

Table 157 – Education profile (%) – Belgium – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	NA	NA	26	25
ISCED 3-4-5	NA	NA	NA	45	46
ISCED 6-7-8	NA	NA	NA	29	29

Table 158 – Education profile (%) – Denmark – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	42	41	26	24
ISCED 3-4-5	NA	46	44	39	36
ISCED 6-7-8	NA	12	14	35	39

Table 159 – Education profile (%) – Denmark – SYR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	NA	NA	38	38
ISCED 3-4-5	NA	NA	NA	39	39
ISCED 6-7-8	NA	NA	NA	22	23

Table 160 – Education profile (%) – Denmark – TUR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	42	43	27	30
ISCED 3-4-5	NA	35	34	38	36
ISCED 6-7-8	NA	24	23	34	34

Table 161 – Education profile (%) – Finland – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	19	20	5	6
ISCED 3-4-5	NA	54	54	62	60
ISCED 6-7-8	NA	27	27	33	34

Table 162 – Education profile (%) – France – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	33	26	16	15
ISCED 3-4-5	NA	47	46	63	63
ISCED 6-7-8	NA	19	28	20	21

Table 163 – Education profile (%) – France – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	27	26	14	13
ISCED 3-4-5	NA	51	50	64	65
ISCED 6-7-8	NA	21	23	22	22

Table 164 – Education profile (%) – Germany – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	38	43	24	24
ISCED 3-4-5	NA	45	42	3	39
ISCED 6-7-8	NA	17	15	36	37

Table 165 – Education profile (%) – Germany – SYR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	NA	NA	30	31
ISCED 3-4-5	NA	NA	NA	34	36
ISCED 6-7-8	NA	NA	NA	36	33

Table 166 – Education profile (%) – Germany – TUR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	57	59	31	35
ISCED 3-4-5	NA	37	35	41	39
ISCED 6-7-8	NA	6	6	28	27

Table 167 – Education profile (%) – Greece – SYR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	NA	NA	82	82
ISCED 3-4-5	NA	NA	NA	15	16
ISCED 6-7-8	NA	NA	NA	2	1

Table 168 – Education profile (%) – Ireland – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	10	14	10	9
ISCED 3-4-5	NA	54	54	55	52
ISCED 6-7-8	NA	35	29	34	38

Table 169 – Education profile (%) – Italy – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	72	70	67	66
ISCED 3-4-5	NA	25	26	28	28
ISCED 6-7-8	NA	3	3	4	4

Table 170 – Education profile (%) – Italy – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	64	58	72	70
ISCED 3-4-5	NA	31	37	25	28
ISCED 6-7-8	NA	4	5	3	2

Table 171 – Education profile (%) – Luxembourg – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	35	35	22	22
ISCED 3-4-5	NA	43	43	37	37
ISCED 6-7-8	NA	22	22	42	42

Table 172 – Education profile (%) – Netherlands – NOAFR

	Population (CBS 2020 estimates)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	44	36	36	21	41
ISCED 3-4-5	37	47	41	39	37
ISCED 6-7-8	20	17	22	40	22

Table 173 – Education profile (%) – Netherlands – SYR

	Population (CBS 2020 estimates)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	47	NA	NA	24	43
ISCED 3-4-5	32	NA	NA	40	34
ISCED 6-7-8	21	NA	NA	35	23

Table 174 – Education profile (%) – Netherlands – TUR

	Population (CBS 2020 estimates)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	41	38	45	23	37
ISCED 3-4-5	35	48	41	39	37
ISCED 6-7-8	24	15	14	38	26

Table 175 – Education profile (%) – Poland – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	NA	NA	9	10
ISCED 3-4-5	NA	NA	NA	24	23
ISCED 6-7-8	NA	NA	NA	60	60

Table 176 – Education profile (%) – Portugal – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	74	69	62	63
ISCED 3-4-5	NA	22	25	27	27
ISCED 6-7-8	NA	4	5	10	10

Table 177 – Education profile (%) – Spain – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	61	57	70	68
ISCED 3-4-5	NA	35	38	26	27
ISCED 6-7-8	NA	4	4	4	4

Table 178 – Education profile (%) – Spain – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	NA	NA	73	69
ISCED 3-4-5	NA	NA	NA	24	28
ISCED 6-7-8	NA	NA	NA	3	2

Table 179 – Education profile (%) – Sweden – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	31	33	39	38
ISCED 3-4-5	NA	50	50	53	52
ISCED 6-7-8	NA	17	15	5	7

Table 180 – Education profile (%) – Sweden – SYR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
ISCED 0-1-2	NA	NA	NA	37	38
ISCED 3-4-5	NA	NA	NA	48	43
ISCED 6-7-8	NA	NA	NA	11	15

Main activity

The following tables provide the unweighted and weighted sample composition across main activity (employment status) compared to the unweighted and weighted sample profiles of EU-MIDIS II for the target groups covered in both surveys. Only in Austria, the employment status profile is also available for the target populations.

In Finland, France, Germany, Italy (the North-African target group) and Portugal, the proportion of the employed population is in line with the counts reported in EU-MIDIS II. For all other samples covered by both surveys, a higher proportion of the employed population is observed in the current survey. This may be a natural progression in these countries, also linked with older ages recorded in the current survey. In Austria, the sample profile of the current survey is also in line with the population statistics.

Table 181 – Main activity profile (%) – Austria – SSAFR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	56	25	24	61	58
Other	44	75	76	39	42

Table 182 – Main activity profile (%) – Austria – SYR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	45	NA	NA	39	39
Other	55	NA	NA	62	61

Table 183 – Main activity profile (%) – Austria – TUR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	58	55	48	52	55
Other	42	45	52	48	45

Table 184 – Main activity profile (%) – Belgium – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	42	40	47	49
Other	NA	58	60	53	51

Table 185 – Main activity profile (%) – Belgium – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	NA	NA	44	44
Other	NA	NA	NA	56	56

Table 186 – Main activity profile (%) – Denmark – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	32	30	51	56
Other	NA	68	70	49	44

Table 187 – Main activity profile (%) – Denmark – SYR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	NA	NA	36	36
Other	NA	NA	NA	65	65

Table 188 – Main activity profile (%) – Denmark – TUR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	43	44	60	60
	NA	**Other** 57	56	40	40

Table 189 – Main activity profile (%) – Finland – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	49	51	46	50
Other	NA	51	49	54	50

Table 190 – Main activity profile (%) – France – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	38	46	45	45
Other	NA	62	54	55	55

Table 191 – Main activity profile (%) – France – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	54	57	52	54
Other	NA	46	43	49	46

Table 192 – Main activity profile (%) – Germany – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	50	51	47	48
Other	NA	50	49	53	52

Table 193 – Main activity profile (%) – Germany – SYR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	NA	NA	36	36
Other	NA	NA	NA	64	64

Table 194 – Main activity profile (%) – Germany – TUR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	55	53	52	51
Other	NA	45	47	48	49

Table 195 – Main activity profile (%) – Greece – SYR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	NA	NA	39	39
Other	NA	NA	NA	61	61

Table 196 – Main activity profile (%) – Ireland – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	42	38	55	58
Other	NA	58	63	45	42

Table 197 – Main activity profile (%) – Italy – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	63	58	61	60
Other	NA	37	42	39	40

Table 198 – Main activity profile (%) – Italy – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	45	48	66	68
Other	NA	55	52	35	33

Table 199 – Main activity profile (%) – Luxembourg – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	49	49	55	56
Other	NA	51	51	45	44

Table 200 – Main activity profile (%) – Netherlands – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	39	40	53	54
Other	NA	61	60	47	46

Table 201 – Main activity profile (%) – Netherlands – SYR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	NA	NA	31	29
Other	NA	NA	NA	69	71

Table 202 – Main activity profile (%) – Netherlands – TUR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	45	42	50	52
Other	NA	55	58	50	48

Table 203 – Main activity profile (%) – Poland – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	NA	NA	74	73
Other	NA	NA	NA	26	27

Table 204 – Main activity profile (%) – Portugal – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	59	61	60	61
Other	NA	41	39	41	39

Table 205 – Main activity profile (%) – Spain – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	28	24	50	48
Other	NA	72	76	50	52

Table 206 – Main activity profile (%) – Spain – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	NA	NA	60	56
Other	NA	NA	NA	40	44

Table 207 – Main activity profile (%) – Sweden – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	44	45	49	52
Other	NA	56	55	51	48

Table 208 – Main activity profile (%) – Sweden – SYR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Employed	NA	NA	NA	53	52
Other	NA	NA	NA	47	48

Generation

The following tables provide the composition of the target population across immigration generation, where the population statistics was available, compared to the unweighted and weighted sample profiles of the current survey, as well as of EU-MIDIS II for the target groups covered in both surveys. The sources for target population statistics are referenced in the tables below.

The population statistics available in Austria (the Turkish target group), Denmark, Finland and Spain were used for correcting the sample profile across generations. These were not used in the Netherlands and Sweden, to limit the variance in weights. In turn, this meant that the sample profiles were not completely aligned with the population profile.

Compared to the EU-MIDIS II sample, the proportion of second-generation immigrants remained unchanged in Austria, Belgium, Italy, Luxembourg and the Netherlands. More second-generation immigrants are observed in the current survey in Denmark, Germany, Ireland and Spain, while a lower proportion of these is recorded in Finland, France, Portugal and Sweden.

Table 209 – Generation profile (%) – Austria – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	97	97	98	98
Descendants of immigrants	NA	3	4	2	2

Table 210 – Generation profile (%) – Austria – SYR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	NA	NA	99	99
Descendants of immigrants	NA	NA	NA	1	1

Table 211 – Generation profile (%) – Austria – TUR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	65	71	66	57	63
Descendants of immigrants	35	29	34	44	37

Table 212 – Generation profile (%) – Belgium – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	64	53	55	56
Descendants of immigrants	NA	36	48	45	44

Table 213 – Generation profile (%) – Belgium – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	NA	NA	81	82
Descendants of immigrants	NA	NA	NA	19	18

Table 214 – Generation profile (%) – Denmark – SSAFR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	71	87	87	59	70
Descendants of immigrants	29	13	13	41	30

Table 215 – Generation profile (%) – Denmark – SYR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	92	NA	NA	91	92
Descendants of immigrants	8	NA	NA	10	8

Table 216 – Generation profile (%) – Denmark – TUR

	Population (Gross sample – population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	54	65	63	43	53
Descendants of immigrants	46	35	37	57	48

Table 217 – Generation profile (%) – Finland – SSAFR

	Population (Population register)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	91	84	83	81	91
Descendants of immigrants	9	16	17	19	9

Table 218 – Generation profile (%) – France – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	63	62	71	71
Descendants of immigrants	NA	37	38	29	29

Table 219 – Generation profile (%) – France – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	77	75	83	80
Descendants of immigrants	NA	23	25	17	20

Table 220 – Generation profile (%) – Germany – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	87	84	71	78
Descendants of immigrants	NA	13	16	29	22

Table 221 – Generation profile (%) – Germany – SYR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	NA	NA	95	95
Descendants of immigrants	NA	NA	NA	5	5

Table 222 – Generation profile (%) – Germany – TUR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	65	62	44	52
Descendants of immigrants	NA	35	38	56	49

Table 223 – Generation profile (%) – Greece – SYR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	NA	NA	99	98
Descendants of immigrants	NA	NA	NA	1	2

Table 224 – Generation profile (%) – Ireland – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	98	97	82	87
Descendants of immigrants	NA	2	3	18	13

Table 225 – Generation profile (%) – Italy – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	98	97	96	95
Descendants of immigrants	NA	3	3	4	5

Table 226 – Generation profile (%) – Italy – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	96	94	96	95
Descendants of immigrants	NA	4	6	4	5

Table 227 – Generation profile (%) – Luxembourg – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	78	78	77	77
Descendants of immigrants	NA	22	22	23	23

Table 228 – Generation profile (%) – Netherlands – NOAFR

	Population (CBS 2020)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	55	45	61	55	63
Descendants of immigrants	45	55	39	45	37

Table 229 – Generation profile (%) – Netherlands – SYR

	Population (CBS 2020)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	97	NA	NA	97	96
Descendants of immigrants	3	NA	NA	3	4

Table 230 – Generation profile (%) – Netherlands – TUR

	Population (CBS 2020)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	56	43	59	53	61
Descendants of immigrants	44	57	41	47	40

Table 231 – Generation profile (%) – Poland – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	96	NA	NA	97	95
Descendants of immigrants	4	NA	NA	3	5

Table 232 – Generation profile (%) – Portugal – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	NA	86	83	96	95
Descendants of immigrants	NA	14	17	4	5

Table 233 – Generation profile (%) – Spain – NOAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	89	96	95	95	92
Descendants of immigrants	11	4	5	5	8

Table 234 – Generation profile (%) – Spain – SSAFR

	Population	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	89	NA	NA	97	93
Descendants of immigrants	11	NA	NA	3	7

Table 235 – Generation profile (%) – Sweden – SSAFR

	Population (SCB 2019)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	84	90	88	97	97
Descendants of immigrants	16	11	12	3	3

Table 236 – Generation profile (%) – Sweden – SYR

	Population (SCB 2019)	EU-MIDIS II		EU Survey on Immigrants and Descendants of immigrants	
		Unweighted sample	Weighted (W_IR)	Unweighted sample	Weighted (W_IR)
Immigrants	91	NA	NA	98	98
Descendants of immigrants	9	NA	NA	2	2

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