FRA EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS

TECHNICAL REPORT

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EU LGBTIQ SURVEY III

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Technical report

EU LGBTIQ Survey III

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Country codes

- EU-27 - Survey average of the results for the 27 EU Member States
- EU-30 - Survey average of the results for the 30 surveyed countries (27 EU Member States + Albania, North Macedonia and Serbia)
- AL - Albania
- AT - Austria
- BE - Belgium
- BG - Bulgaria
- CY - Cyprus
- CZ - Czech Republic
- DE - Germany
- DK - Denmark
- EE - Estonia
- EL - Greece
- ES - Spain
- FI - Finland
- FR - France
- HR - Croatia
- HU - Hungary
- IE - Ireland
- IT - Italy
- LT - Lithuania
- LU - Luxembourg

- LV - Latvia
- MK - North Macedonia
- MT - Malta
- NL - Netherlands
- PL - Poland
- PT - Portugal
- RO - Romania
- RS - Serbia
- SE - Sweden
- SI - Slovenia
- SK - Slovakia
- UK - United Kingdom

Abbreviations

- ELC - European Lesbian Conference
- ELMA - European LGBTQIA+ Media Association
- EPOA - European Pride Organisers Association
- EU - European Union
- FRA - European Union Agency for Fundamental Rights
- IGLYO - International Lesbian, Gay, Bisexual, Trans, Queer and Intersex Youth & Student Organisation
- ILGA - International Lesbian, Gay, Bisexual, Trans, and Intersex Association
- LGBTIQ - lesbian, gay, bisexual, trans, intersex and queer people
- MS - Member State(s)
- OII - Organisation Intersex International
- ONS APS - UK Office of National Statistics Annual Population Survey
- SOGIESC - Sexual Orientation, Gender Identity and Expression, Sex Characteristics
- SP - Survey Promoters
- TGEU - TransGender Europe

Introduction

The EU LGBTIQ III survey is a large-scale web-administered survey of the experiences and views of lesbian, gay, bisexual, transgender, intersex and queer (LGBTIQ) people, using an anonymous online questionnaire. The survey was conducted between 15 June and 24 August 2023 via the platform www.lgbtiqsurvey.eu and collected valid responses from 100,577 participants from the 27 European Union (EU) Member States, North Macedonia, Albania and Serbia.

The survey provides evidence on how LGBTIQ people in the EU experience discrimination, violence and harassment in various areas of life, including employment, education, healthcare, housing and other services. The data gathered provide to policymakers and key stakeholders with research evidence that could be used to further promote LGBTIQ equality, by assessing the implementation and impact of legislature, policy and funding, and by addressing gaps in the protection of rights.

The third wave of the survey follows the first two waves of 2012 (LGBT Survey I) and 2019 (LGBTI Survey II), launched by the European Union Agency for Fundamental Rights (FRA) in 2023. In 2012, the first large-scale online survey was launched in the EU and Croatia to collect data on LGBT people's experiences of discrimination, violence and harassment. A total of 93,079 respondents took part in the 2012 survey, providing an indication of the extent of the challenges that LGBT people face across the EU ([1]). In 2019, the second wave of the survey on LGBT(I) ([2]) people was replicated and collected valid responses from 139,799 participants from the 28 EU Member States, North Macedonia and Serbia. The 2019 LGBTI Survey provided the data and evidence basis for the development and adoption of the EU LGBTIQ Equality Strategy 2020-2025 by the European Commission. The third wave of the survey launched in 2023 reached 100,577 respondents providing a unique overview of the progress and challenges on the road to full LGBTIQ equality.

([1]) More information on the first wave of the survey can be found online (https://fra.europa.eu/en/publication/2014/eu-lgbt-survey-european-union-lesbian- gay-bisexual-and-transgender-survey-main).

([2]) Intersex respondents were surveyed for the first time in the 2019 LGBTI survey.

The 2023 survey asked a range of questions about LGBTIQ ([3]) people's experiences of the following issues:

- openness and safe environment;
- a perceived increase or decrease in intolerance, prejudice and violence against LGBTI people;
- discrimination at work and when looking for work and in several other areas of life;
- physical or sexual victimisation;
- harassment;
- the social context of being LGBTIQ;
- background information (age, education, income, civil status);
- issues related to the lives of trans and intersex people.

The LGBTIQ III survey questionnaire builds on the questionnaire developed for the second wave but includes several improvements and revisions. Most notably, the questionnaire was modified to address the need to support multiple SOGIESC (sexual orientation (SO), gender identity and expression (GIE) or sex characteristics (SC)) identities and avoid directly or indirectly enforcing participants to select a single one – as was the case in the previous waves. Such modifications aimed to facilitate the derivation of more granular results concerning discrimination or violence related to the intersections of SOGIESC identifications. At the same time, effort has been made to make sure that the support of multiple layers of respondent identities would not create comparability problems, which would make it difficult or impossible to analyse trends over the previous waves.

The target population of the EU LGBTIQ III survey were people at least 15 years old who consider themselves as either of lesbian, gay, bisexual, trans, intersex, queer and also non-binary, and other gender diverse people, who reside in an EU Member State, Serbia, Albania or North Macedonia using an anonymous online questionnaire that was provided in a total of 31 different languages.

([3]) Queer respondents were surveyed for the first time in the 2023 LGBTIQ survey. The option to self-identify as queer in they survey follows the EU LGBTIQ Strategy 2020-2025 where the term is used.

The LGBTIQ Survey III Main results report includes a glossary of the key terms used in the survey and the results analysis.

FRA designed the survey to achieve a diverse sample of respondents from the target population across all 30 survey countries. Following an EU-wide open call for tenders, FRA commissioned a consortium of Agilis SA, Metron Analysis and Homoevolution, based in Greece, to implement the survey, following FRA's technical specifications. This involved the survey contractors planning and carrying out the survey preparation, survey promotion, data collection, and data processing and analysis activities under FRA's guidance and coordination.

The survey consortium managed the data collection work under the general oversight of a FRA project manager and expert team, who monitored compliance according to strict quality control procedures and had the final say in key stages of the project.

This technical report presents in detail the stages of the survey implementation and the relevant information needed to assess the quality and reliability of the data.

1. Design of the survey

The LGBTIQ III survey was an online survey in which respondents were not selected using probability procedures but volunteered to participate. This approach was implemented due to the lack of relevant sampling frames about the target population in each survey country and the fact that the low prevalence of the target population would have made it difficult to reach them via other established survey methodologies.

Given the survey's design, the respondents are individuals who can be reached online, have access to the internet and have chosen to complete the survey. There is therefore no control over the selection process and , the propensity to participate may be influenced by socio-economic norms, access to and use of internet in the country of residence. To this end, an effort was made to disseminate the survey as broadly as possible, using various recruitment channels across the participating countries. This is a survey that , through the use of social media and effective online and offline promotion, has allowed a wider audience of the general population and the LGBTIQ communities in 30 countries to be informed about and access or promote and disseminate the survey. The survey respondents were therefore able to participate in a spontaneous, easy, unobstructed and flexible way avoiding biases. For example, the respondents could stop the survey at any time, turn off their mobile device or computer and then return to the point and the question they left and continue responding to days or week later.

Furthermore, the questionnaire was developed around core life situations and experiences. It was formulated in direct language that people use in their everyday lives. In this way, it was motivating and empowering to participate to a meaningful a survey that has an impact to EU and Member States policy and law developments. As a result, the survey reached a remarkably high number of respondents under a balanced breakdown of different LGBTIQ communities. The large and balanced sample ensured that data processing and analysis could make the results as representative as possible via appropriate weighting method. To compensate for under-coverage of certain groups, despite the survey dissemination efforts, the remaining imbalances were addressed by applying correction techniques, such as adjustment through weighting, for example addressing possible over-representation of respondents affiliated to or members of LGBTIQ organisations and civil society organisations (CSO).

1.1. Target population estimation

At the design stage of the study, a key objective was to set target sample sizes for strata (benchmarks) formed by the combination of country, age group and L, G, B-Men, B-Women, T, I self-identification. ([4]) These targets guided the promotion activities and data collection to achieve a diverse sample that sufficiently represents the various strata of the target population.

Specifically, these detailed target sample sizes were used:

- For the elaboration of a detailed plan for the promotion campaign, as well as for the guidance and monitoring of its implementation.
- For the facilitation of real-time monitoring of the data collection, i.e., to help identify potential strata where data collection is lagging or problematic and for which corrective actions such as complementary or alternative awareness activities needed to be taken.
- As benchmarks to check the representativeness of the final results for each of the strata.
- As inputs for the weighting methodology and the comparison of results with those of previous survey waves.

This survey team undertook the following steps:

1. Decision about the stratification criteria.
2. Update of the screening population based on most recent data.
3. Desk research and data collection about size estimations.
4. Analysis of the collected data to produce estimates.

([4]) The sample target estimation followed the approach of the 2019 LGBTI Survey II for comparability reasons. The sample design assigned to each survey respondent a single LGBTI respondent category in order to set and achieve the sample targets. In this way the LGB respondents under this approach were mostly cisgender women and men. The trans and the intersex sample target estimates were calculated on the basis of, respectively, the gender identity and the sex characteristics of the respondents, although they also have different LGBH/S sexual orientations and they do also belong in the above LGB respondent categories. After the data collection, the LGBTIQ Survey results data processing under FRA guidance, has adopted a fully intersectional approach in analysing and presenting the results under the different and distinct sexual orientation, gender identity and sex characteristics of the respondents.

5. Application of the estimates to the country population data.
6. Allocation of minimum target sample sizes per stratum.

1.1.1. Stratification

Stratification took place during the sampling design stage to facilitate the dissemination and targeting of the survey and to construct the basis of post-weighting procedures. Age by gender stratification of the LGB sample per country as well as age stratification of the Trans and Intersex sample per country were used at this stage. Final strata included L, G, B-Men, B-Women, T, I self-identification (6 groups) by age (3 groups, 15-34, 35-54 and 55+) by country (30 countries).

1.1.2. Screening population

Screening population data of women and men aged 15+ were updated based on data derived from available country-specific census data and Eurostat's population estimation. Screening population included 30 countries ([5]). Compared with the LBGTI II survey, current screening population included Albania and excluded the United Kingdom resulting in a total screening population of 389,694,636 people. This number was 11% lower than the respective screening population of the previous wave due to the exclusion of the UK. It is noted that the UK's contribution to the final sample of LGBT II study was 9%, which had an effect on the actual target sample size of the LGBTIQ III study.

1.1.3. Desk research/Data collection

A collection of survey and census data was put in place. This step included the following phases:

a) Addressing a query to European Society for Opinion and Marketing Research (ESOMAR) with regards to any available survey data published by ESOMAR members.
b) Implementing extensive desk research in ESOMAR's resources library ANA ([6]).
c) Addressing a query to World Association for Public Opinion Research (WAPOR) with regards to any available survey data published by WAPOR members.

([5]) Source: Eurostat population data on January 1st, 2021. Online data code: DEMO_PJAN

([6]) Exclusive full access to ESOMAR members.

d) Implementing web-based desk research to find any available survey information on LGBTIQ population focusing on targeted countries but extending to other countries as well, such as the United States or Canada.
e) Preparing an online survey targeting local experts in all the surveyed countries asking for size estimations of transgender and intersex populations, as these were mainly the identities for which the desk research was lacking information. In total, 20 experts were targeted, 10 of them responded and 4 of them had no information to provide. The data collected were compared to the findings of the literature review and when documented they were taken into account.
f) Looking for any available census data that incorporated LGBTIQ information.

Phases (d), (e) and (f) were the ones resulting in documented survey data regarding the LGBTIQ population.

1.1.4. Literature review

The information collected by the desk research/data collection phase was evaluated based on a number of criteria to be included in the actual estimation phase. Inclusion and exclusion criteria were the following:

1. Only recent studies were included (2008-2023, with the main focus being 2019-2023).
2. Studies undertaken in other than European countries (i.e. Canada or US) were not taken into account due to cultural differences.
3. Non representative studies due to the implemented data collection methodology (e.g. sample sizes n<1,000 covering all LGBTIQ groups) or the target population and survey scope (e.g. sexual behaviour studies) were excluded.
4. Studies lacking information about size estimations were also not taken into account.

Based on the above, the information collected by the following sources was incorporated in the analysis stage: a) the data derived by the England and Wales Census of 2021 b) the multi-country Ipsos survey conducted in 2021 c) the ONS APS

survey conducted in the UK in 2020 ([7]) and d) the Sexus project conducted in Denmark in 2018. ([8])

Sexual orientation and gender identity information was included in the 2021 Census conducted in England and Wales by the UK Office of National Statistics. These were the only census-related data found (in Europe, apart from the US and Canada) having detailed information about the age and gender strata needed for the purposes of this project. Census day was Sunday 21 March 2021. Detailed sexual orientation data were included in the ONS APS survey which was also considered in the estimates of LGBTI II wave. Sexus project in Denmark provided overall estimates (without age differences) for LGBT population as well as intersex estimates. Ipsos multi-country survey provided overall rough estimates for some of the targeted population.

1.1.5. Sexual orientation data

Sexual orientation data were downloaded from all respective sources and analysed. England/Wales census data and the UK ONS/APS survey had detailed information not only about age by gender groups but also about non-response rates. This enabled the analysis team of the project to recalculate the sexual orientation percentages by excluding respondents with missing data following the same process as the US Household Pulse Survey.[9] By incorporating all other surveys data and taking into account the relative size of the surveyed population, final estimates for LGB population were calculated. In addition, rates for the age population of 16-24 years were assumed to be the same as the target population of 15-24 years taking into account the population size of each age group to result in the final estimates**.** Having no other documented information for countries' variability, these rates were considered the minimum estimations for LGB population to be taken into account for the target sample sizes of this survey.

([7]) UK Office of National Statistics Annual Population Survey - Sexual orientation: age and sex, England and Wales: Census 2021 - Gender identity, England and Wales: Census 2021

([8]) Sex i Danmark, Project Sexus 2019

([9]) US Census Bureau (2021) Sexual Orientation and Gender Identity in the Household Pulse Survey USA

1.1.6. Gender identity data

Following the same procedure, gender identity data were downloaded and analysed. In the case of England and Wales census, adjustment for non-response took place by excluding missing information as in the case of sexual orientation data. By incorporating all other surveys data and taking into account the relative size of the surveyed population, final estimates for Trans population were calculated. The calculated rates correspond to Trans people, an umbrella term that includes self-declared trans women and men, non-binary persons or other identities corresponding to a gender different from the one assigned at birth. Analysis by age was available only in the England and Wales census and this was considered for the respective target sample size estimates after considering the size of population of each age group. Having no other documented information for countries' variability, these rates were considered the minimum estimations for Trans population in the current study.

1.1.7. Sex characteristics – intersex data

Collecting data on intersex people was complicated due to multiple factors. A very good description of these factors (which are common for the people of this group around the world) was found on Intersex Human Rights Australia ([10]):

g) *People born with intersex traits have multiple different legal sex assignments, gender identities and sexual orientations. There are diverse ways of understanding bodies, sexes, and genders, and these should never be disregarded. This means that people with intersex traits can frequently be cisgender women or men or can grow up to express other understandings. Because of this diversity, adding intersex as a category to a question on sex or gender does not generate useful or reliable data. It is also not reasonable to construct intersex as a third sex category or use the existence of intersex traits to justify gender diversity.*
h) *Intersex traits are stigmatised and misunderstood in ways that limit disclosure. Stigma and misconceptions mean that survey questions that ask if someone has an intersex variation may result in false negatives (intersex people not responding) or false positives (people who think that intersex means something else responding).*

([10]) *https://ihra.org.au/16601/intersex-numbers/*

i) *Intersex diagnoses were concealed from individuals (and often their families) until the early part of this century.*

The desk research as well as the experts mini survey failed to find documented survey data for intersex prevalence; reported estimates are widely variable and were thus treated as unreliable ([11]). The sole exception was the Project Sexus survey conducted in Denmark in 2017-2018 and published the following year. This survey estimated the intersex population at a rate of 0.02% ([12]), which was the rate to be used for the calculations of target sample sizes with no age differentiation due to lack of available data.

The estimates considered for the target sample sizes per stratum are shown in the following table.

Table 1 – Target sample size estimates

Groups	Target estimates calculated based on past surveys (as % of the general population)
Gay 15-34	3.02
Gay 35-54	2.44
Gay 55+	1.07
Total Gay	2.11
Lesbian 15-34	2.16
Lesbian 35-54	1.35
Lesbian 55+	0.48
Total Lesbian	1.25
Bisexual Male 15-34	1.70
Bisexual Male 35-54	0.67
Bisexual Male 55+	0.31

([11]) In addition, the Intersex Initiative, a United States-based organisation, estimates that one in 1 500 (0.07%) or 2 000 (0.05 %) children are born visibly intersex, but again the data are not clearly documented.

([12]) Variations in biological sex characteristics, p.27

Groups	Target estimates calculated based on past surveys (as % of the general population)
Total Bisexual Male	0.84
Bisexual Female 15-34	4.98
Bisexual Female 35-54	1.19
Bisexual Female 55+	0.20
Total Bisexual Female	1.90
Trans 15-34	0.93
Trans 35-54	0.58
Trans 55+	0.29
Total Trans	0.57
Total Intersex	0.02

1.1.7.1. Sample size targets

Having estimated the prevalence of LGBTI population based on the above methodology, sample size targets were calculated. Overall target sample size for the LGBTIQ III survey was set to 120,000 respondents, as based on the feasibility experience from the LGBTI II survey. p. More specifically:

> The set target was considered feasible to achieve as the actual sample size of the previous wave was 139,799 valid responses and the current screening population decreased by approximately 10% (with the exclusion of the UK). Larger target sample size results in improved accuracy of overall country result, especially in small or medium sized countries.

To achieve the above minimum target sample size, the following two-phase approach was used:

- **Phase 1 -** A minimum threshold sample has been estimated for each country, as if a probability random sample were in place as implemented in the LGBTI II study. Countries were categorized in three groups according to their population size and a different maximum sampling error (MSE) was introduced in each country group. Small-sized countries had a MSE of ±4.4%, medium-sized ones had a MSE of 2.5% and large-sized countries a MSE of 1.7%. 40% of the overall target sample size, was distributed to each country according to the above procedure.

- **Phase 2** - The remaining designed sample size was proportionally allocated to the target population assuring that a minimum of 30 respondents was needed for a stratification group, i.e., LGBT age groups at country level and overall intersex designed sample at country level.

The above-described procedure resulted in a total of 120,919 target sample size of the survey whose distribution was to be considered during the survey dissemination.

Table 2 – Target sample sizes by country and stratification group

		Gay				Lesbian				Bisexual Male				Bisexual Female				Trans				Intersex			
Country	Sample	15-34	35-54	55 +	Total	15-34	35-54	55+	Total	15-34	35-54	55+	Total	15-34	35-54	55+	Total	15-34	35-54	55+	Total	15-34	35-54	55+	Total
AL	1,076	140	89	44	273	97	51	30	178	79	30	30	139	223	45	30	298	85	43	30	158	2	2	2	30
AT	2,956	360	329	160	849	245	182	84	511	202	90	47	339	565	160	35	760	216	157	94	467	4	6	6	30
BE	3,348	414	360	180	954	289	196	93	578	233	98	53	384	665	173	38	876	252	169	105	526	5	6	7	30
BG	2,579	289	323	144	756	196	169	85	450	163	89	41	293	451	150	36	637	173	150	90	413	4	5	7	30
HR	2,150	257	244	121	622	171	131	70	372	145	67	35	247	393	115	30	538	152	114	75	341	3	4	6	30
CY	773	86	63	30	179	64	37	30	131	49	30	30	109	147	33	30	210	54	30	30	114	1	1	1	30
CZ	3,174	362	407	167	936	244	213	92	549	204	112	48	364	563	188	38	789	217	188	101	506	4	6	7	30
DK	2,464	315	249	134	698	216	137	67	420	177	68	39	284	498	120	30	648	190	117	77	384	5	4	5	30
EE	1,739	209	200	82	491	138	106	57	301	118	55	30	203	318	93	30	441	124	93	56	273	2	3	3	30
FI	2,381	296	249	142	687	200	132	74	406	167	68	41	276	460	116	31	607	177	115	83	375	3	4	6	30
FR	13,967	1,701	1,463	769	3,933	1,207	839	420	2,466	957	402	223	1,582	2,784	740	175	3,699	1,043	708	462	2,213	23	24	32	74
DE	*16,462*	*1,995*	*1,808*	*1,030*	*4,833*	*1,323*	*984*	*536*	*2,843*	*1,123*	*496*	*298*	*1,917*	*3,051*	*867*	*223*	*4,141*	*1,184*	*853*	*603*	*2,640*	*25*	*29*	*42*	*88*
EL	*3,152*	*356*	*377*	*187*	*920*	*239*	*215*	*101*	*555*	*201*	*103*	*54*	*358*	*551*	*190*	*42*	*783*	*213*	*182*	*111*	*506*	*4*	*6*	*8*	*30*
HU	*3,071*	*365*	*372*	*145*	*882*	*245*	*202*	*92*	*539*	*206*	*102*	*42*	*350*	*565*	*178*	*39*	*782*	*218*	*175*	*95*	*488*	*4*	*6*	*6*	*30*
IE	*2,336*	*285*	*265*	*101*	*651*	*202*	*152*	*49*	*403*	*160*	*72*	*30*	*262*	*466*	*134*	*30*	*630*	*175*	*128*	*57*	*360*	*3*	*5*	*4*	*30*
IT	*12,517*	*1,382*	*1,517*	*806*	*3,705*	*931*	*848*	*432*	*2,211*	*778*	*416*	*233*	*1,427*	*2,146*	*748*	*180*	*3,074*	*827*	*726*	*480*	*2,033*	*18*	*25*	*33*	*67*
LV	*859*	*94*	*90*	*39*	*223*	*63*	*51*	*30*	*144*	*53*	*30*	*30*	*113*	*145*	*44*	*30*	*219*	*57*	*43*	*30*	*130*	*1*	*2*	*2*	*30*
LT	*1,960*	*244*	*216*	*94*	*554*	*158*	*117*	*67*	*342*	*138*	*59*	*30*	*227*	*363*	*103*	*30*	*496*	*143*	*102*	*66*	*311*	*3*	*4*	*5*	*30*

		Gay				Lesbian				Bisexual Male				Bisexual Female				Trans				Intersex			
LU	***731***	*78*	*71*	*30*	***179***	*54*	*38*	*30*	***122***	*44*	*30*	*30*	***104***	*123*	*33*	*30*	***186***	*47*	*33*	*30*	***110***	*1*	*1*	*1*	***30***
MT	***710***	*82*	*66*	*30*	***178***	*51*	*31*	*30*	***112***	*46*	*30*	*30*	***106***	*117*	*30*	*30*	***177***	*47*	*30*	*30*	***107***	*1*	*1*	*1*	***30***
NL	***4,331***	*548*	*446*	*243*	***1,237***	*378*	*246*	*119*	***743***	*309*	*122*	*70*	***501***	*873*	*217*	*49*	***1,139***	*332*	*211*	*138*	***681***	*7*	*8*	*9*	***30***
MK	***943***	*111*	*97*	*37*	***245***	*75*	*51*	*30*	***156***	*62*	*30*	*30*	***122***	*172*	*46*	*30*	***248***	*66*	*46*	*30*	***142***	*2*	*2*	*2*	***30***
PL	***9,565***	*1,149*	*1,132*	*464*	***2,745***	*788*	*618*	*274*	***1,680***	*647*	*311*	*134*	***1,092***	*1,818*	*544*	*114*	***2,476***	*694*	*535*	*292*	***1,521***	*14*	*19*	*20*	***51***
PT	***3,108***	*345*	*353*	*179*	***877***	*244*	*215*	*104*	***563***	*194*	*97*	*52*	***343***	*564*	*190*	*43*	***797***	*211*	*176*	*111*	***498***	*4*	*6*	*8*	***30***
RO	***4,564***	*539*	*578*	*218*	***1,335***	*361*	*304*	*128*	***793***	*304*	*159*	*63*	***526***	*832*	*268*	*54*	***1,154***	*322*	*268*	*136*	***726***	*7*	*9*	*9*	***30***
RS	***2,598***	*307*	*296*	*145*	***748***	*209*	*163*	*81*	***453***	*173*	*81*	*42*	***296***	*482*	*143*	*33*	***658***	*184*	*141*	*88*	***413***	*4*	*5*	*7*	***30***
SK	***2,408***	*288*	*293*	*109*	***690***	*196*	*156*	*64*	***416***	*162*	*81*	*32*	***275***	*452*	*137*	*30*	***619***	*173*	*137*	*68*	***378***	*3*	*5*	*5*	***30***
SI	***890***	*96*	*107*	*49*	***252***	*61*	*53*	*30*	***144***	*54*	*30*	*30*	***114***	*140*	*46*	*30*	***216***	*56*	*48*	*30*	***134***	*1*	*2*	*2*	***30***
ES	***10,936***	*1,210*	*1,401*	*603*	***3,214***	*835*	*772*	*321*	***1,928***	*682*	*385*	*175*	***1,242***	*1,926*	*681*	*134*	***2,741***	*732*	*665*	*357*	***1,754***	*16*	*23*	*25*	***57***
SE	***3,171***	*413*	*330*	*171*	***914***	*275*	*176*	*83*	***534***	*232*	*91*	*50*	***373***	*634*	*155*	*34*	***823***	*246*	*154*	*97*	***497***	*6*	*6*	*6*	***30***
Total Target	***120,919***	*14,316*	*13,791*	*6,653*	***34,760***	*9,755*	*7,585*	*3,703*	***21,043***	*8,062*	*3,834*	*2,072*	***13,968***	***22,487***	***6,687***	***1,688***	***30,862***	*8,610*	*6,537*	*4,052*	***19,199***	*180*	*229*	*277*	***1,087***

2. Questionnaire

2.1. Structure and content

The questionnaire of the EU LGBTIQ III survey was based on the questionnaire of the 2019 EU LGBTI survey. It was developed by FRA, after consultation with key stakeholders, human rights institutions and European and global experts who conduct scientific research into sexual orientation, gender identity / expression and sex characteristics.

The revisions to the 2019 survey questionnaire included:

- deletion of some of the questions used in the 2nd wave (2019);
- addition of new questions;
- minor modification to and improvement of the text/ answer categories in some questions.

New questions were included about:

- 'Conversion' practices;
- Online hatred campaigns;
- Cancer diagnosis, treatment and prevention, HIV prevention and diagnosis;
- Mental health and suicidal feelings;
- Rainbow families and parenthood;
- Police complaint handling and victim support.

The full questionnaire is available online.

The questionnaire was structured in twelve (12) distinct sections covering the main topics of the EU LGBTIQ III survey. Each section consisted of a set of questions related to a specific topic and adapted to respondents' self-identification, when this was necessary.

All sections were mandatory apart from the last one offering respondents an open field to share additional experiences as LGBTIQ persons (section J- Individual story). Furthermore, two sections (TR and IX) were made available for trans and intersex

subgroups only respectively. Adding up the questions of all sections yielded a number of 121 main questions of either single or multiple response. The completion of the online questionnaire was made feasible within 19 minutes on average, given that most of the questions were asked only if specific requirements were met (filter rules).

The EU LGBTIQ III survey questionnaire was made available in 31 languages:

- Albanian
- Bulgarian
- Catalan
- Croatian
- Czech
- Danish
- Dutch
- English
- Estonian
- Finnish
- French
- German
- Greek
- Hungarian
- Italian
- Latvian
- Lithuanian
- Luxembourgish
- Macedonian
- Maltese

- Polish
- Portuguese
- Romanian
- Russian
- Serbian (in both Latin and Cyrillic alphabet)
- Slovak
- Slovenian
- Spanish (Castilian)
- Swedish
- Turkish
- Ukrainian

The respondents could choose any language from the pre-specified list and were also allowed to switch language during survey completion.

2.2. Translation process

The English source survey questionnaire was translated into the different languages spoken in the European countries (Bulgarian, Catalan, Czech, Danish, German, Estonian, Greek, Spanish, French, Croatian, Italian, Latvian, Luxembourgish, Lithuanian, Hungarian, Macedonian, Maltese, Dutch, Polish, Portuguese, Russian, Romanian, Albanian, Slovak, Slovenian, Serbian – Latin, Serbian – Cyrillic, Finnish, Swedish, Turkish, Ukrainian). FRA provided the translations of the questionnaire of the EU-LGBTI II survey in all languages except for Ukrainian (which was not included in the second wave of the survey). All the parts of the questionnaire that remained the same were retrieved and the modified or added new questions parts of the EU-LGBTIQ III questionnaire were translated. ILGA-Europe created and provided to FRA a glossary of the main terms used in the questionnaire in all the survey languages, supporting in this way the survey and ensuring consistency of the translations.

For the translation, separate Excel files were created, containing all questions of the questionnaire (each row containing one question and its answer options per row

below it) for each language. The file contained the code of the question, the question wording and answer options in English and the respective translation from the last wave of the survey. Those files were sent to the translation agency.

The questionnaire was translated in an inclusive/neutral way so that all respondents feel included. Translators and adjudicators had to ensure that the gender inclusivity of the questionnaire respects the customs and habits of all languages. They had to aim for conceptual equivalence rather than literal translation of words or phrases. At the same time, they had to avoid colloquialisms, jargon and idioms, and possible confusion on the part of the respondents. Finally, they had to take into consideration issues of gender and age applicability, to avoid terms that respondents might consider offensive.

The procedure set to the translation agency (TransPerfect Ltd (EN 17100:2015 certified)) had the objective of ensuring a perfect correspondence between the source questionnaire and the final translated questionnaire for each language in each country. The distinct phases of the translation included:

1. Translation of the entire survey questionnaire into Ukrainian, which was not available in the previous wave.

2. Translation of new questions and their answer options into the remaining 30 target languages.

3. Adaptation of existing translations of the 2019 wave to take into account minor changes and improvements.

4. Proofreading of the translations of the entire questionnaire in the 31 survey languages used (including both Cyrillic and Latin version of Serbian), , to ensure internal consistency.

5. Proofreading of any changes to the questionnaire suggested by country experts and by FRA, in all 31 languages.

For the Ukrainian translation of the questionnaire, and for the new questions and answer options in all remaining languages the following procedure was implemented:

1. **Translation**: Two translators independently translated the survey questionnaire from English into the target languages. The translators were native speakers of the target language, with experience in translation of survey questionnaires.

2. **Review**: The translators and an adjudicator met to review the two translations, identified possible differences or translation options, and agreed on a merged version.

3. **Adjudication**: The adjudicator took a final decision about the translation and reconciled between suggested versions or translation options from the preceding steps.

4. **Proofreading** by the experts who checked the correctness of the target language, with reference to the source questionnaire. The country experts, coming from LGBTIQ organisations, safeguarded that language/country concepts, question formulation, and wording used were appropriately reflected in the target language. The translated questionnaires were also delivered to FRA experts for further review and consultation.

5. **Final version:** The experts' comments were implemented in the corresponding target language.

Harmonisation was used for those languages where significant differences exist in the language variant used (e.g. different vocabulary, differences in language). For example, Dutch (Belgium, Netherlands), Greek (Cyprus, Greece), German (Austria, Germany, Luxembourg, Switzerland).

The whole procedure was managed and supervised by Metron Analysis.

The translation process resulted in finalized country-specific versions of questionnaires ready for their development in the online survey tool.

3. Online data collection tool and infrastructure

The technical implementation of the EU LGBTIQ III survey included a) the online data collection tool, i.e. the interactive electronic questionnaire; and (b) the survey dashboard, i.e. a set of online real-time monitoring tools providing information on the progress of the survey as well as tools for the real-time analysis of the collected data. The online data collection tool included the landing page and provided information to the respondents about privacy, offered answers to frequently asked questions, as well as access to the Helpdesk. The survey was accessible at https://lgbtiqsurvey.eu/.

The online survey was hosted on highly available servers in Oracle Cloud Infrastructure and consisted of an Oracle Database Server for data storage, a load balancer distributing the workload to two parallel Oracle WebLogic Application Servers, Oracle Backup service, and Oracle WAF (Web Application Firewall) offering advanced protection against cyberthreats (including several methods for bot detection). The data centres hosting the servers were located within the EU (Frankfurt, Germany).

of The EU LGBTIQ III survey online data collection tool offered enhanced functionality, such as complex branching rules, piping, multilingualism, as well as mechanisms to address speed, reliability, security and respondent's privacy.

The online tool was a lightweight web-based application built using JavaScript and Java technologies and an Oracle Relational Database System for the data storage. Performance was one of the major concerns from the very beginning of the design of the survey. First, at the database level, careful design decisions were taken to avoid operations that slow down the database server. In the user interface, the option of JavaScript and AJAX technology contributed to the performance, as this implied no refreshes of the web page and hence faster and better user experience. Finally, the middle tier acted as a simple intermediate with limited responsibility such filtering and protecting HTTP requests, without complex logic making the application to run faster. Performance was also guaranteed at physical layer through the sizing of servers.

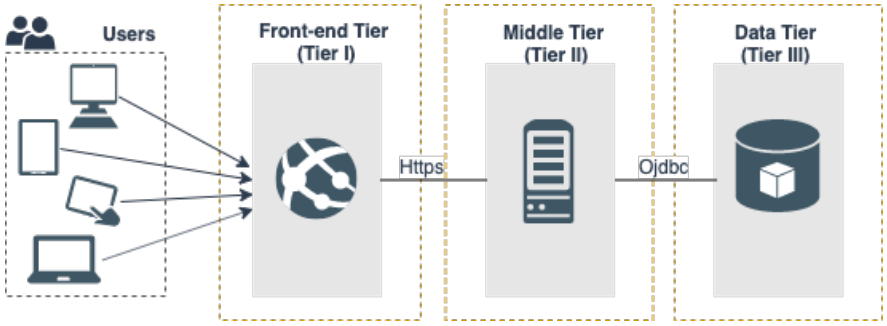
As far as security is concerned, measures were taken at multiple levels:

- At the HTTP layer with the use of SSL protocol, ensuring that the communication between respondents' device and the application was encrypted;
- Oracle WAF protecting from cyber-attacks and offering multi-layer bot detection.

3.1. Software architecture

The software was designed with a 3-tier architecture model, which is an industry-proven architecture used to support enterprise level client-server applications. The software architecture consists of the layers illustrated in the following figure:

Figure 1 – Three tier system architecture of the online survey



3.1.1. Front-end tier

It is the tier that respondents interact with, composed of the user interface and contains all the presentation logic; the code responsible for rendering survey questions based on their type (implementing a templating mechanism for each question type), getting respondent's responses from interface components and preparing the submission of survey data and paradata. The front-end is also responsible for the collection of paradata that provide information regarding the kind of device used to complete the survey, such as type of browser, layout engine, operating system, device type/model. This information is entirely extracted from the User-Agent (UA) string, a self-identifying HTTP header browsers send when accessing a webpage.

Some of the application's business logic,[13] such as the support of complex routing rules, based on a well-structured internal representation of rules, piping mechanism and multi-linguality is implemented in this layer.

The front-end was written mostly in JavaScript and HTML and build upon AngularJS, one of the most popular client-side frameworks for dynamic web applications.

[13] Business logic determines how and when to carry out operations such as transactions or calculations, building off the applicable business rules. Business logic defines the tasks and procedural steps necessary to perform the required operations.

Since the interaction with respondents is performed in this tierthe user interface was carefully designed to be:

- user-friendly, easy to use and highly performant.
- responsive, so it could adapt on different viewports and work well across browsers on desktops, tablets and mobile phones. To ensure survey usability on small screens, such as mobile devices, certain and careful design steps were taken:
    - avoided questions in tables because tables do not fit on smaller screens and require respondents to zoom and scroll horizontally just to read the text. For example, matrix questions were split into sub-questions.
    - avoided making the respondents scroll horizontally as much as possible. In addition to decomposing and splitting this involved the display of multiple-choice questions vertically as opposed to horizontally
    - avoided drag and drop questions (e.g. for ranking) and developed specific functionality that enabled ranking without drag and drop.
    - optimized font size and navigation buttons for usability with smart phones.
    - customized prompts and error messages to be shown with the right font size, length and colour.
    - avoided popups (e.g. for error messages).
- compatible with three major versions of the most popular web browsers (e.g. Google Chrome, Mozilla Firefox, Opera, Safari, IE, Edge), as well as embedded browsers widely adopted by most social network applications (Facebook, Twitter, Instagram, LinkedIn, Messenger, Pinterest, etc.). The application was developed to be cross-browser compatible and tested on a wide combination of devices, operating systems, browsers and browsers versions.

3.1.2. Middle tier

This tier consisted of a J2EE web application, deployed on a WebLogic 12c application server and it implements the functional business logic of the application. It acts as an intermediate between the front-end and data tier, facilitating their communication and offering a layer of abstraction.

The main responsibilities of the middle tier were to:

- Handle and filter the HTTP requests received from the front-end tier and perform the requested operations.
- Identify and block HTTP requests coming from non-legitimate source (i.e. bots).
- Create and maintain log files containing information about the executed operations, as well as warnings and errors written by the application.
- Invoke database stored procedures for the data storage using a JDBC connector for their in between communication. It should be noted that the retrieval of any of the data stored in the database, including answers provided by respondents, is not allowed for security reasons and thus not implemented.
- Manage a pool of active database connections, reducing the overall connection overhead required by the database instance.
- Manage database transactions preserving the integrity of data and ensuring that the database is kept in a consistent state.
- Take security measures by implementing HTTP security headers.

3.1.3. Data tier

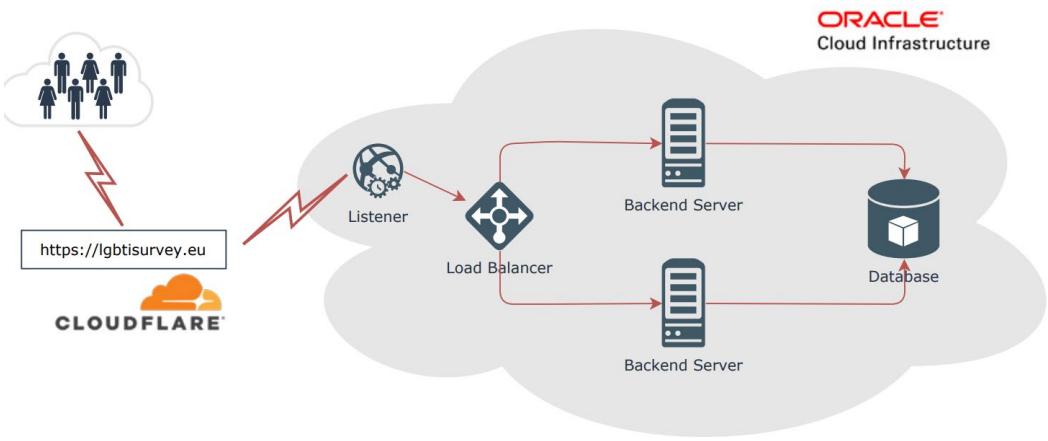
The data tier consisted of an Oracle 12c relational database management system responsible for the data storage. The same database was used for the dashboard, an online monitoring system, developed by Agilis, to provide real-time statistics about the survey.

3.2. Physical architecture

The following illustration depicts the physical architecture of the system. All system components were installed as cloud services on an Oracle Cloud Infrastructure (OCI) which was offered through a global network of Oracle managed data centres. The Oracle Cloud Infrastructure provided security features at every layer of the cloud and services for monitoring the health, capacity and performance of the underlying components by using metrics and notifications.

This architecture utilised the flexibility and scalability benefits of a cloud-based architecture in terms of allowing the on-demand scaling-up and down of resources in case it was deemed required.

Figure 2 – Physical architecture of of the online survey



3.3. Security and privacy

3.3.1. Respondent privacy

Several security controls were in place to protect the survey data from unauthorised access, use or disclosure.

The survey did not collect any personal data that could be used to uniquely identify a particular individual natural person. Through this survey anonymous information for statistical and research purposes was collected to assess the situation and contribute to the improvement of the protection and respect of the LGBTI people's rights, promoting their non-discrimination and equality in society.

The survey data were stored on computer systems in a fully anonymised way with limited access to a restricted number of people.

For the management and assessment of the data collection, the survey collected anonymous metadata and paradata such as information concerning the type of browser and device used to complete the online survey (PC, smartphone, tablet, etc.), the referrer site, and the time of submission. To preserve respondent's anonymity, names, addresses or IP addresses were NOT collected at any stage, while the collected paradata mentioned above cannot reveal respondent's identity.

Some technically necessary cookies had to be used for security purposes, e.g. by services that block fraudulent responses to the survey or cyber-attacks to the survey's

servers. These cookies did not store any personal or identifying information. These cookies could be deleted after the submission of the questionnaire using the appropriate options of your browser.

This application could temporarily store responses on the respondent's device (local storage) to allow leaving the questionnaire and resuming at a later time. This was possible only after respondent's explicit consent, while denial of this functionality did not prevent the respondent from filling in the questionnaire. At the end of the survey, the local storage was deleted automatically, leaving no trace on user's device.

No real IP address of any respondent was visible to application servers and hence, IP of the respondent was not logged at any level

Logging events at the back-end (application server, middle tier of the application, and database) did not include any personal information nor the IP as any requests made to the back-end were already anonymised.

The respondent's session during the web survey was protected using the SSL/HTTPS protocol. There was no option to access the survey in an unprotected insecure mode.

The Cloudflare system sitting in front of the infrastructure's servers, which protects the web survey from malicious activity like DDoS attacks, malicious bots and other intrusions, masks respondent's origin IP address for proxied DNS records so attackers cannot bypass Cloudflare and directly attack the origin web server. This ensured the security and privacy of the backend servers enabling data safety.

3.3.2. Application-level security measures

Several important security measures were taken at application level to protect respondent's privacy and make the application resistant to malicious threats, such as SSL Security, HTTP Security Headers, X-Frame-Options, X-XSS-Protection, Strict-Transport-Security, X-Content-Type-Options.

3.4. Survey tool and website

3.4.1. Landing page - website

Upon entering the survey website, a visitor/respondent was greeted by the landing page.

An exhaustive list of actions the user may take on this screen:

- Increase/Decrease the font size (top left of page)
- Turn on/off the high contrast mode (top left of page)
- Change the user interface language (top right of page)
- Navigate to the main page by clicking on ‘The survey’ (page footer)
- Read the privacy notes, frequently asked questions or get help (page footer)
- Take the survey after clicking accept or deny on the cookie consent message.

Figure 3 – Landing page

Figure 4 – Landing page (high contrast)

Before taking the survey, a respondent had to accept or deny the use of cookies and local storage.

Should a respondent agree to the use of these technologies, they were able to automatically save their responses locally to their device and continue taking the survey at a later time, regardless of the current percentage of completion. Regardless of the acceptance or rejection of the cookies, a respondent could complete the survey, without the added functionality of taking the survey in stages. Accepting the use of cookies and cookie related technologies, **did not store any data whatsoever that could be used for personal identification**.

Upon completing the survey and submitting the responses, all local data was deleted.

Figure 5 – Landing page after a respondent has partially completed the survey

3.4.2. Online survey web application

The online LGBTI survey was conducted using a robust and fully customizable web-based application, specially developed by Agilis to cover the specific survey requirements:

- support many question types, complex branching rules and piping mechanism
- offer dynamic multilinguality
- offer advanced features such as continue the survey at a later time.
- implement usability strategies to facilitate participation (indication of the remaining time)
- follow the branding and visual identity of the survey.

The application was tested and proved in realistic usage conditions and conforming to all usability, operational, technical infrastructure and security requirements.

Figure 6 – The survey tool - the first question

After clicking the 'Take the survey' button a respondent was transferred to the survey tool.

Navigation between the questions was achieved by clicking the arrow buttons below the question. A respondent was always able to return to the previous questions and change their answers if necessary. However, they could not proceed to the next question without answering the current one. The options "Don't know", "Not applicable" and "Prefer not to say", appeared after a respondent pressed next without providing an answer, allowing the respondent to proceed to the next question.

Figure 7 – Error message

Should a respondent try to proceed to the next question without providing an answer, an error message was displayed above the question to inform them that the question requires an answer, and the extra options stated above were made available for selection.

On the top of the page (above the question and below the header), a respondent could track their progress with the use of a progress bar, filling the screen towards the right edge as the survey reached its completion.

At all times while taking the survey, the respondent had access to the following features: Increase/Decrease font size, enable/disable high contrast mode, change UI language and get help from the help desk.

3.4.3. Question types

The survey tool supported many different types of questions. See below a complete list of the question types with representative screenshots.

- Dropdown select
- Single select

- Multiple select
- Multiple select with limit (up to 3)
- Multiple select with limit (up to 3), ranked
- Matrix (multiple single select)
- Ranked response (from 0 to 10)
- Simple numeric (integers only)
- Custom textual (‘other option’)
- Free text

Figure 8 – Dropdown select

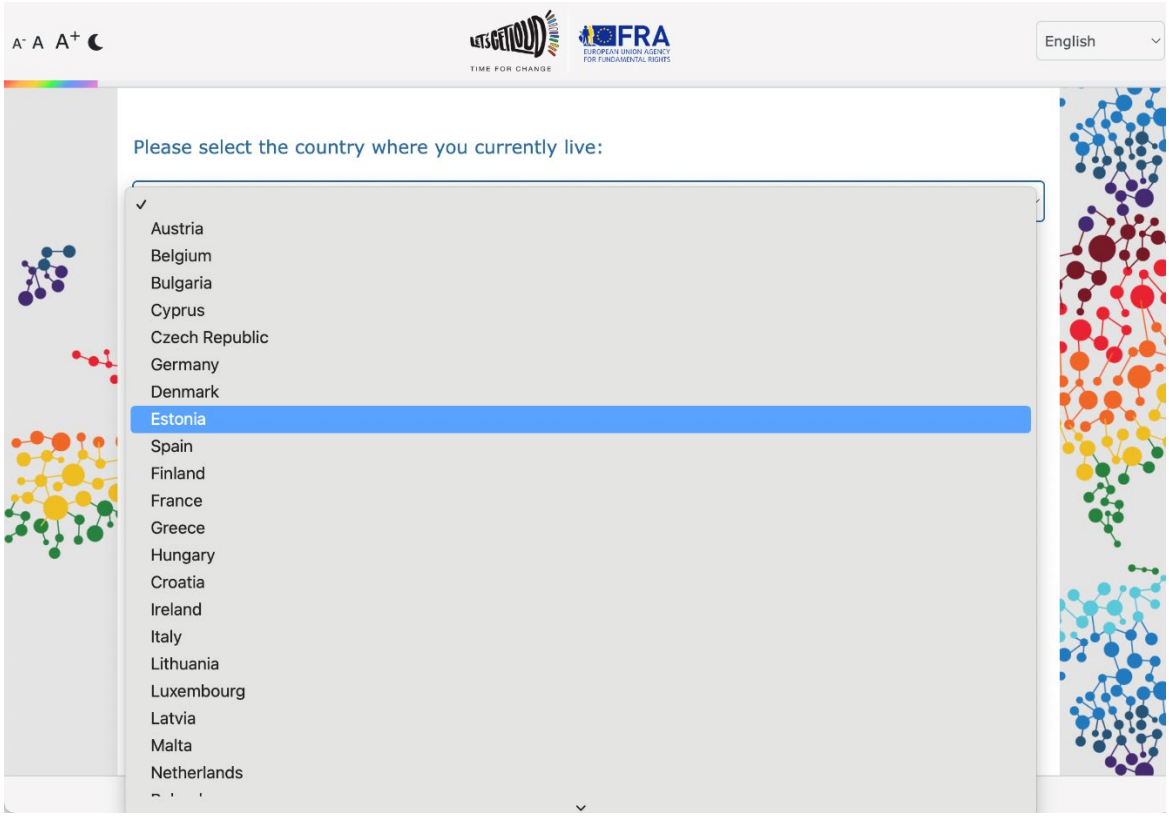


Figure 9 – Single select (with custom textual response)

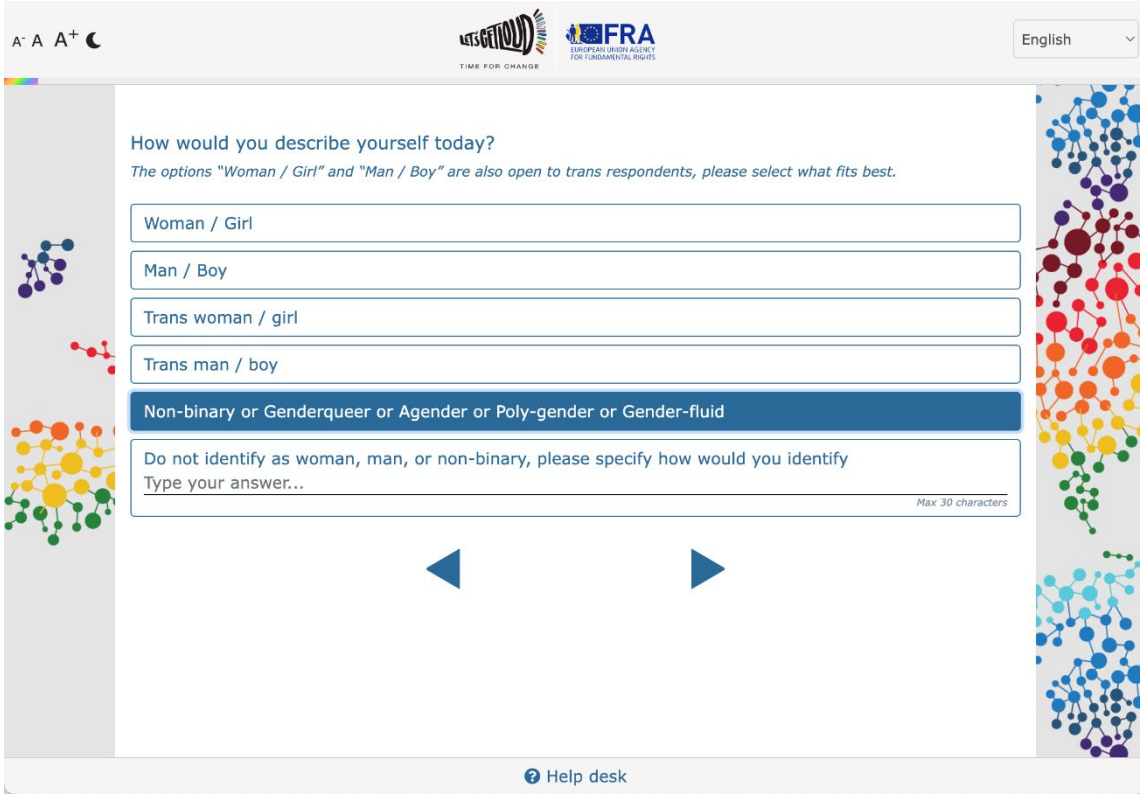


Figure 10 – Multiple select question

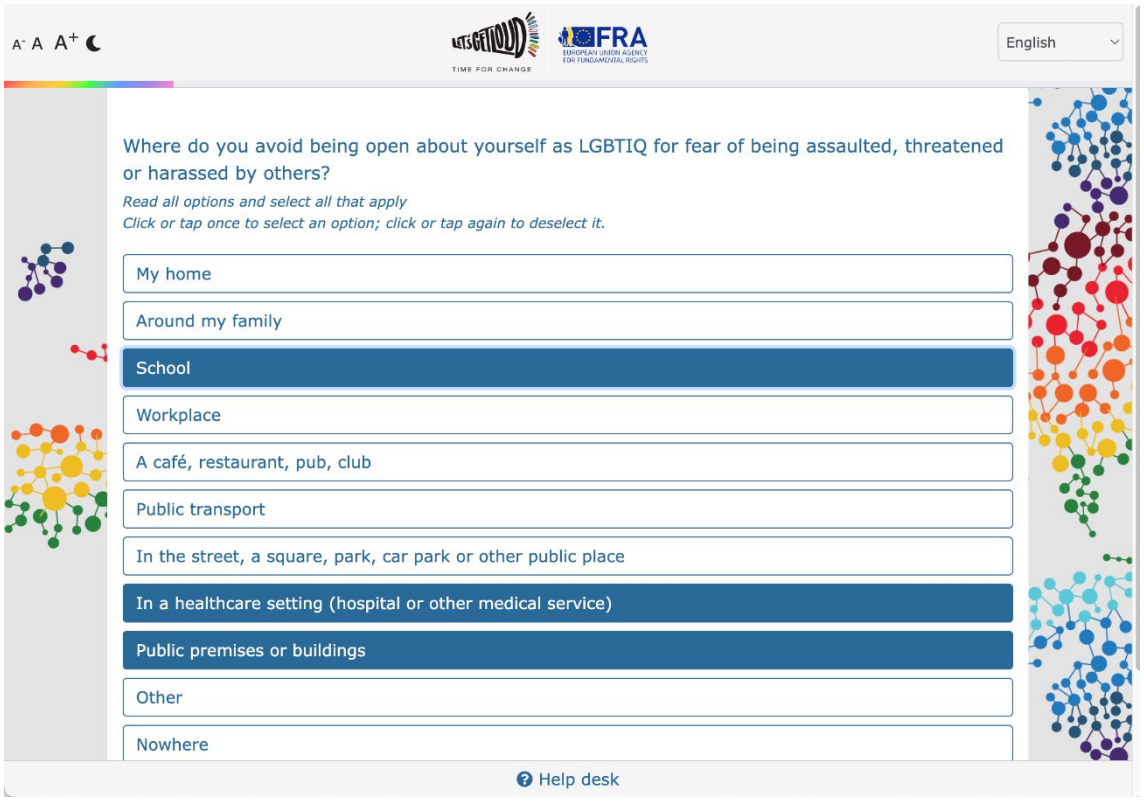


Figure 11 – Multiple select question with limit (maximum 3 selections)

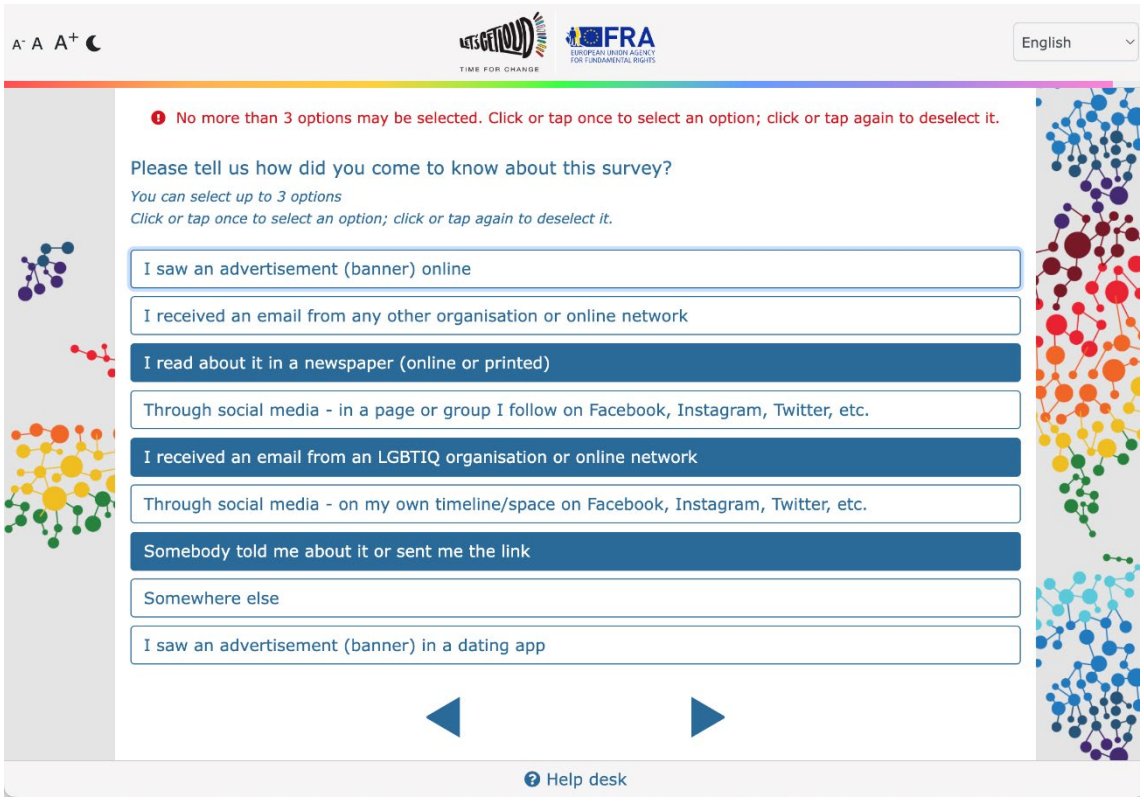


Figure 12 - Multiple select with limit (up to 3), ranked. Respondent may change their response by clicking on the 'Reset selection button'

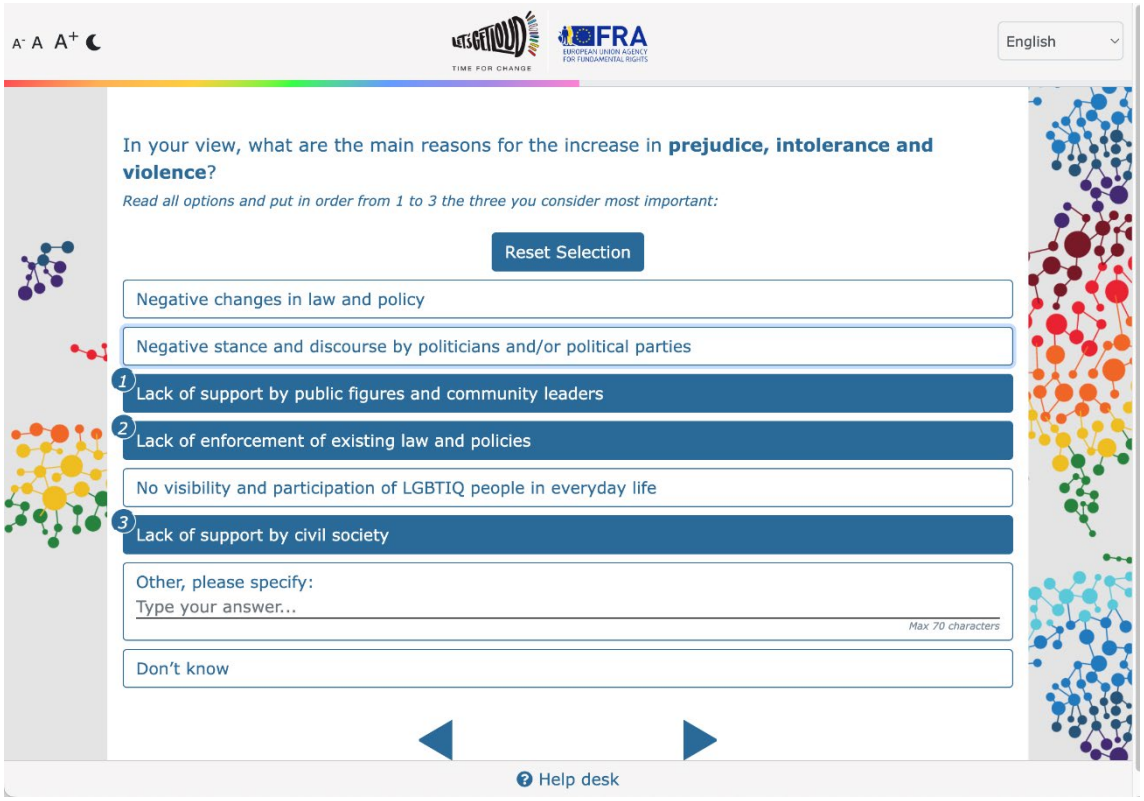


Figure 13 - Matrix (multiple single select)

Figure 14 - Ranked response (from 0 to 10)

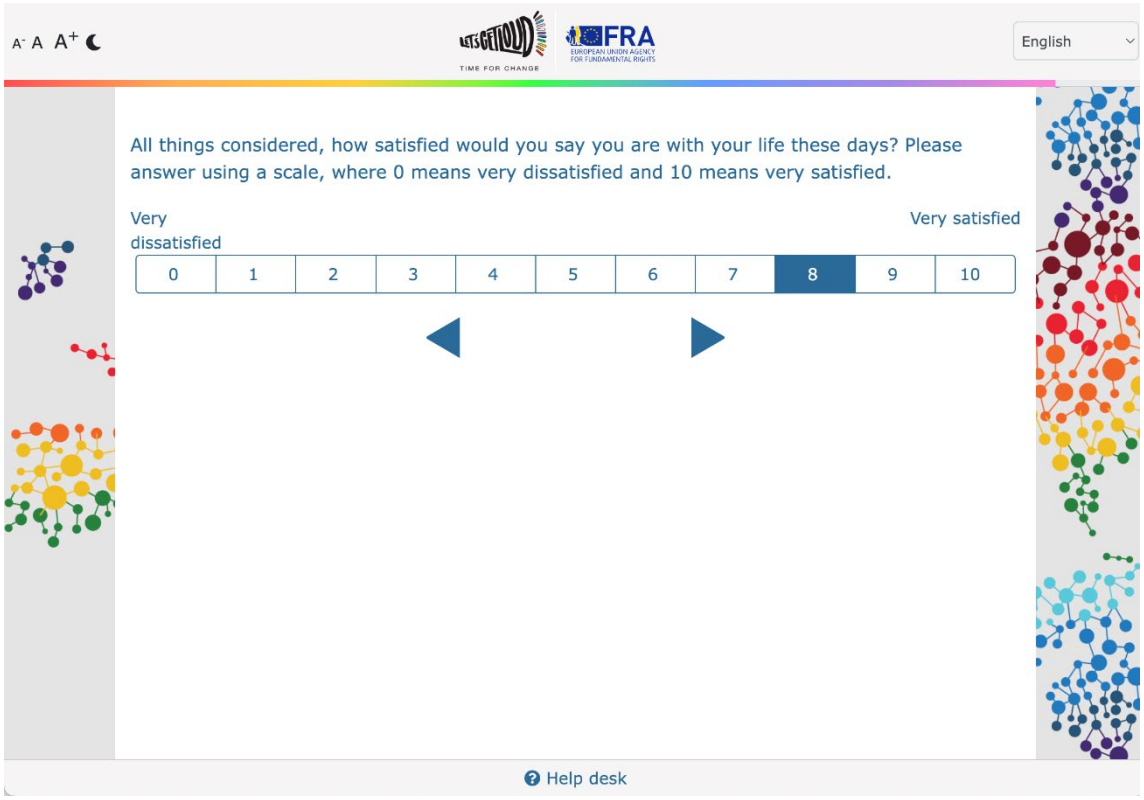
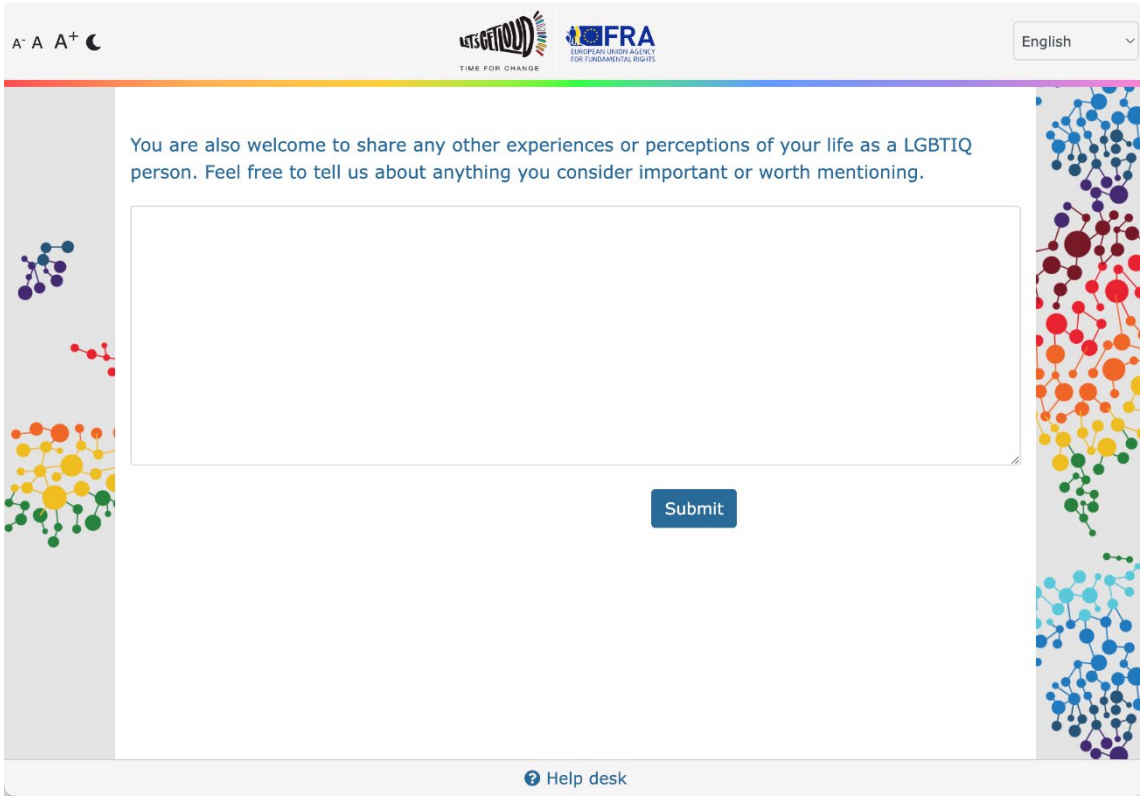


Figure 15 - Free text



3.4.3.1. Error messages

Depending on respondent's action and type of question and whether they were at the landing page or the survey tool, a number of errors might be displayed, translated in the selected UI language. Those were:

- *Something went wrong. Please try again to take the survey.*
  This error was displayed when respondent clicked on the 'Take the survey' button at the landing page, but an error preventing that action occurred.

- *Something went wrong. Please try again to submit your responses.*
  This error was displayed on the final question of the survey, after respondent clicked on the submit button and the action had failed.

- *Please provide an answer.*
  This error was displayed when respondent attempted to go the next question, without having answered the current one.

- *Please provide a number (in digits).*
  This error was displayed in simple numeric questions when respondent input something other than an integer.

- *Please provide a whole number less than or equal to your age.*
  This error appears in cases where the user is asked to state a number of years, e.g. How many years they have lived in their current country, and the answer is greater than their stated age.

- *No more than 3 options may be selected. Click or tap once to select an option; click or tap again to deselect it.*
  This error was displayed when respondent tried to enter more than 3 responses to a question that accepts 3 responses at maximum.

3.4.3.2. Piping

At certain points, values were specific to each respondent were used throughout the questionnaire. Those values were a respondent category and their country and were displayed in brackets ([]), in the question or answer texts. See screenshots below.

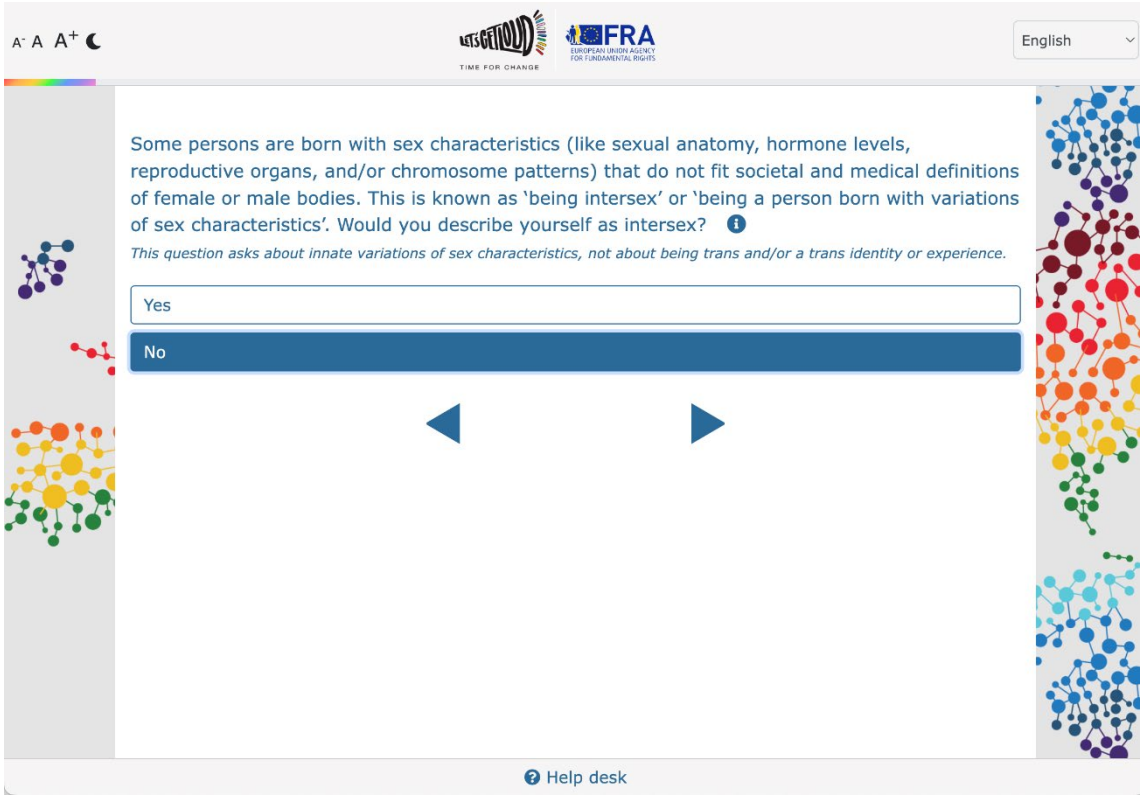
Figure 16 - Country value piping ('Greece' in this example)

3.4.3.3. Branching

Depending on the answers that the respondent provided, some parts of the survey became relevant and some other parts became irrelevant and were displayed accordingly. For example, if a respondent answered 'yes' to the following question,

they were redirected to that part of the questionnaire at the end of a current section. Otherwise, that part would have been skipped entirely for that respondent.

Figure 17 - Branching



3.4.3.4. Additional information

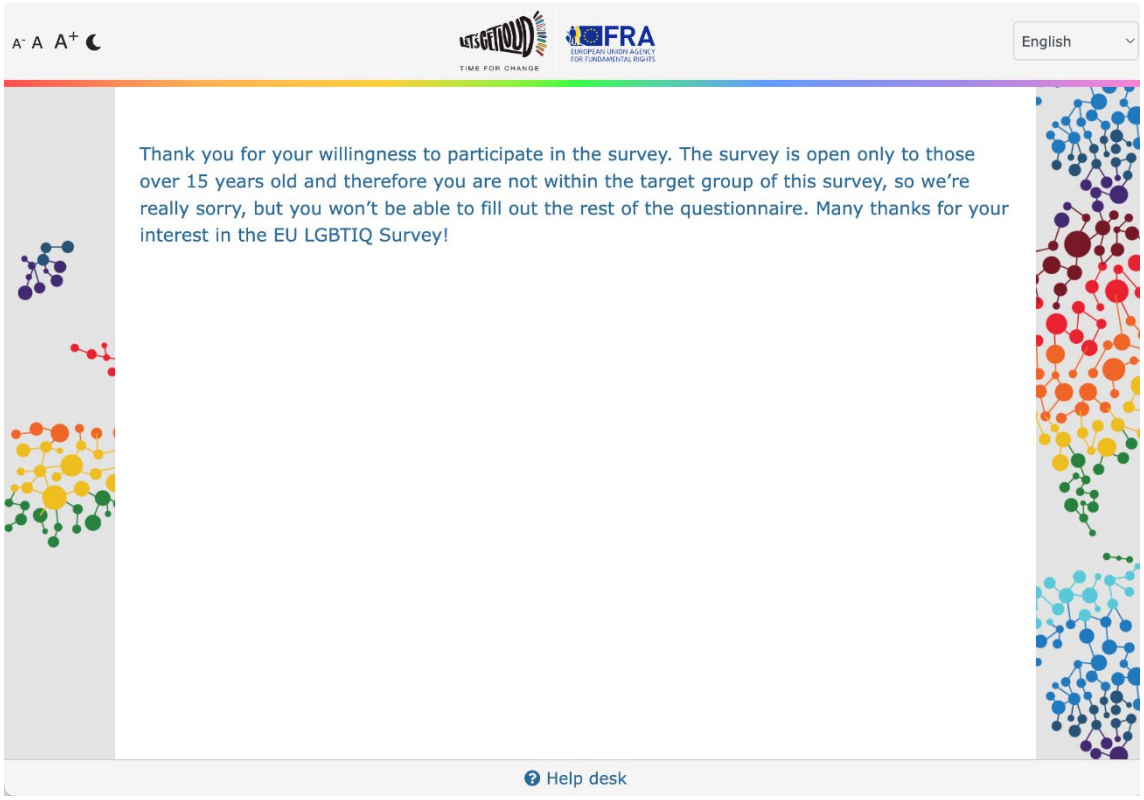
In certain sections of the questionnaire, or specific questions, respondents might require further information before being able to provide an answer. For those cases, respondent could click on the 'i' button to show/hide that extra information under the question in italics. See screenshot below.

Figure 18 - Display additional information via the (i) button

3.4.3.5. User criteria filtering

Should a respondent not meet the requirements for the survey (underage, not living in the EU, not being an LGBTI person), they were filtered out and redirected to the thank you page. See example below.

Figure 19 - Filter out underage users



3.4.4. Helpdesk

A helpdesk facility was set up to support respondents with any questions or problems with the survey. The JIRA Service Desk platform of Atlassian was opted as the best solution. To facilitate the respondents, the helpdesk was accessible via email, i.e. respondents could click on the Helpdesk link located in the footer of the survey tool / web site and write an email to the helpdesk support using their default client application (e.g. Outlook). All the emails were automatically recorded in the helpdesk system and an automatic email notification was sent to the support team.

The helpdesk platform offered a user-friendly web user interface, which allowed the support agents to handle efficiently the incoming requests, prioritize them and respond timely (responded maximum within 24 hours, depending on the nature of the request).

The support team involved IT people addressing technical issues and domain experts ready to address requests related to the survey questionnaire's content.

The helpdesk system recorded a number of technical-related issues, which in their vast majority concerned the case of accessing the survey through the embedded browser

of the “Romeo” app, which led to issues with the use of drop-down menus in mobile phones (see Section 3.1 for the actions undertaken for fixing this issue).

3.5. Online dashboard

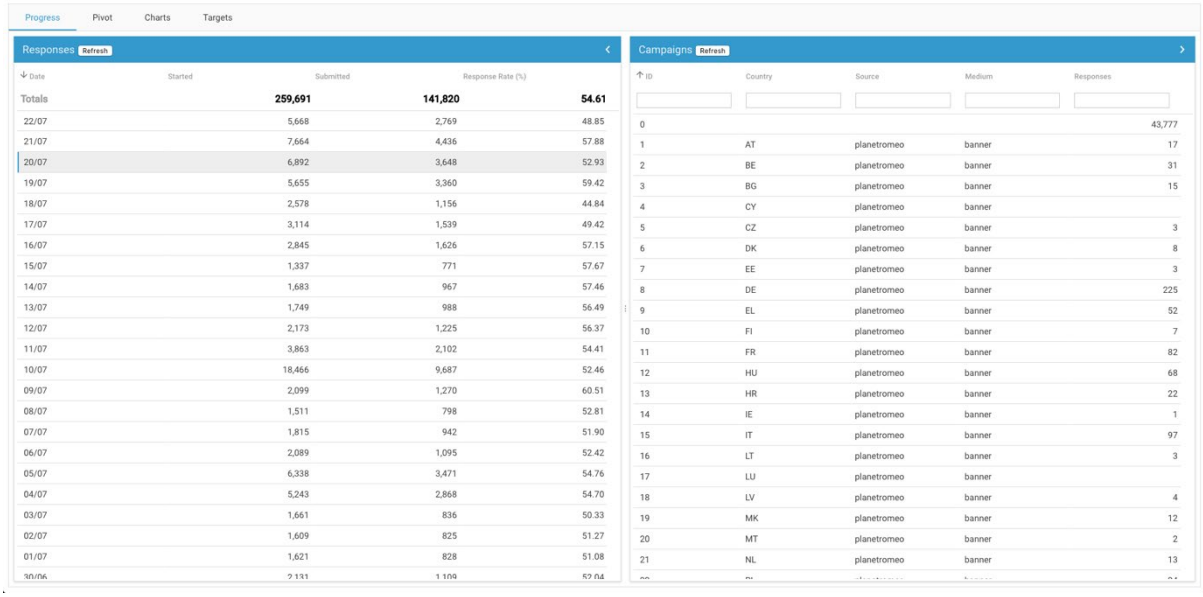
3.5.1. Dashboard overview

The LGBTI survey dashboard was an ad hoc solution used by the project team to monitor the progress of the LGBTI survey on a day-by-day basis. It was comprised of a set of screens and graphs that gave a comprehensive picture of the status of the survey on many different levels. The information was broken down in four sections, with each section providing a different level of detail and information. Those sections were:

- Progress
- Pivot
- Charts
- Targets

3.5.2. Progress

Figure 20 - Progress section



The progress section was divided into two panels. On the left side of the screen there was the responses panel and, on the right, the panel with the survey promotion campaigns leading to the former.

- **Responses panel**
  The responses panel displayed the total number of questionnaires that were started per day, the number of submitted questionnaires per day and the ratio of completed questionnaires/started questionnaires. On the top-most line of the table, those numbers were summed to provide an aggregated view of the survey progress.

- **Campaigns panel**
  The campaigns panel displayed a list of all available campaigns, and the total number of respondents that each campaign had contributed. It could be sorted according to country, source, medium and total number respondents per campaign.

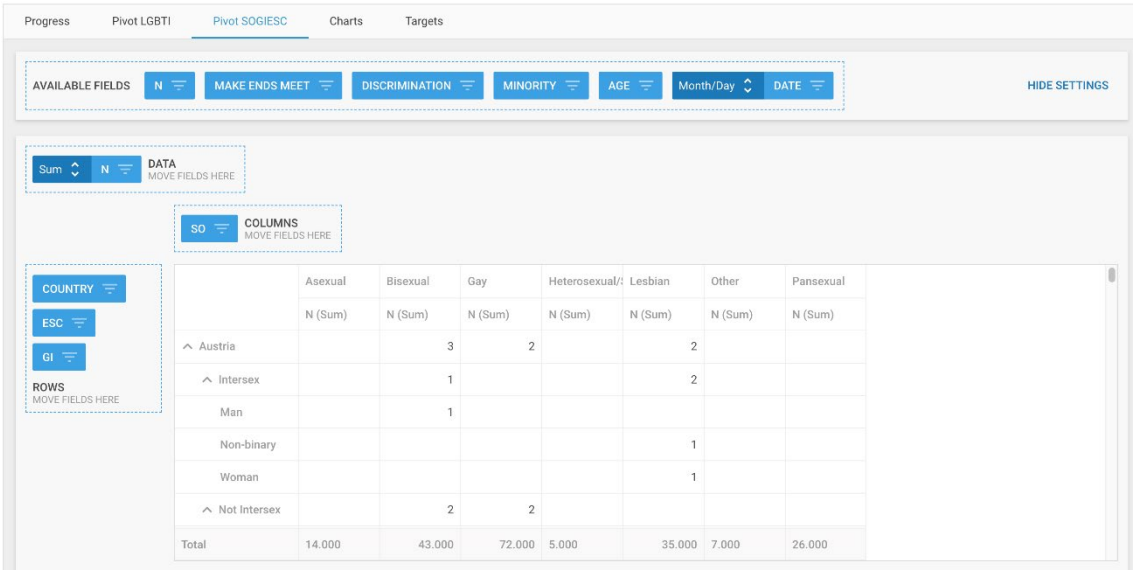
Both panels could be manually refreshed to depict a most recent view of the survey results.

3.5.3. Pivot

The pivot view provided a tabular representation of the available data. The user could drag any field from the available fields section to the columns, rows or data section and customise this view. For example, a table below displays the number of respondents by country and respondent category and their multiple intersectional SOGIESC identities. At the bottom of this view, the user had access to two additional functionalities:

- Export Data, to download the current view as an excel file
- Refresh Data, to provide a more update view of the current state of the survey.

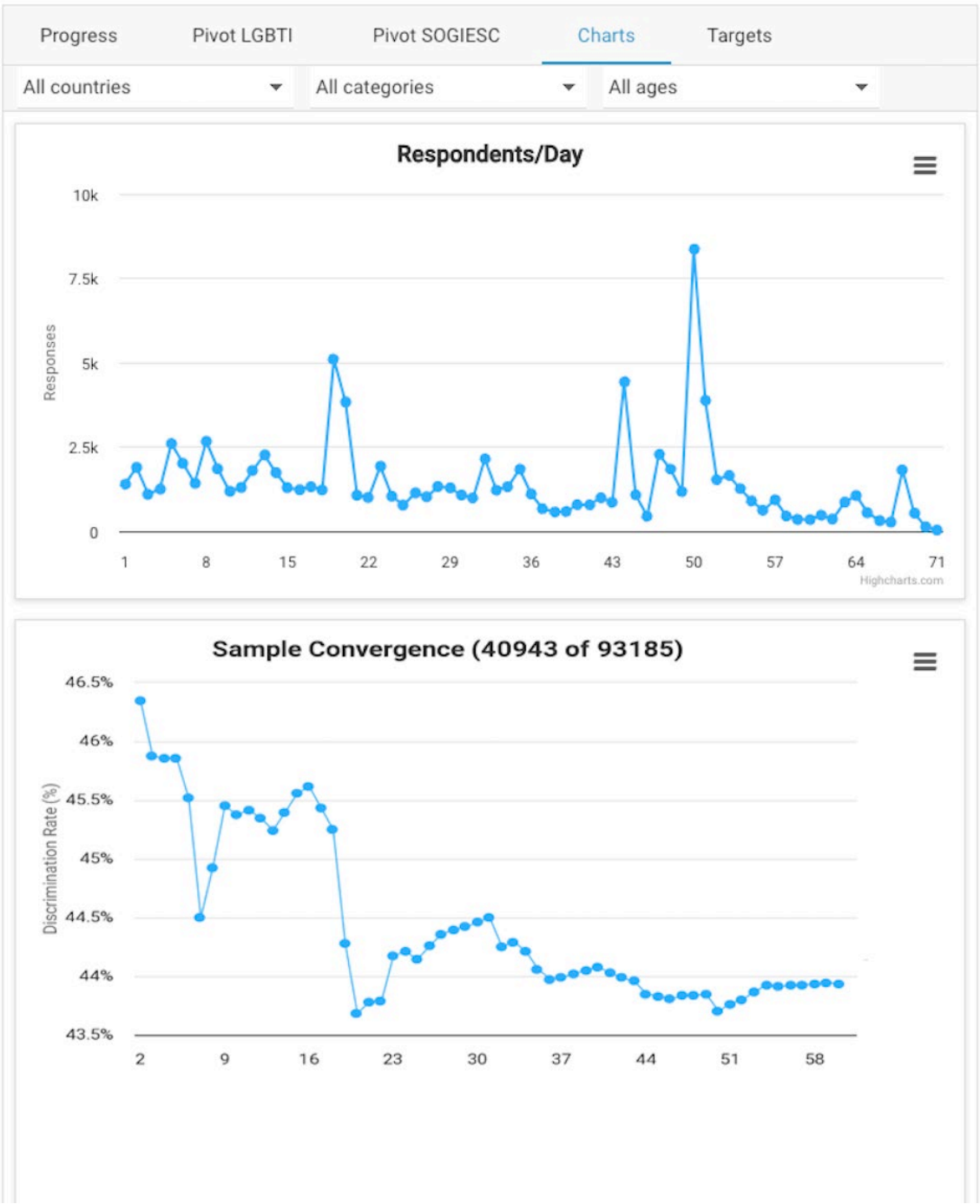
Figure 21 - Pivot section



3.5.4. Charts

The charts' view consisted of two charts, the number of responses per day chart, and the sample convergence chart.

Figure 22 - Charts section



- *Respondents/day*
  The chart (Figure 21) presents a graphic representation of the day by day completed questionnaires. Each point in the chart represents a day.

- *Sample convergence*
  In Figure 21, the user could view the sample convergence based on a sample "key" question (in this case, discrimination), i.e., the ratio of number of respondents who have been discriminated against, to the total number of

respondents. This chart provided aggregated results and not for each day separately. Each point in the chart, represented the sum of all previous days plus the current day. Sample convergence was the effect that the value of a specific selected variable converged to a specific value while data were collected. In the beginning of the data collection this value fluctuated heavily when the amount of data was still small while the magnitude of the fluctuation decreased when more data points were accumulated. Sample convergence was used as a heuristic method to determine the adequacy of sample size in non-probabilistic sampling designs.

Both views support the following filtering criteria:

- Country
- Respondent category
- Respondent age group

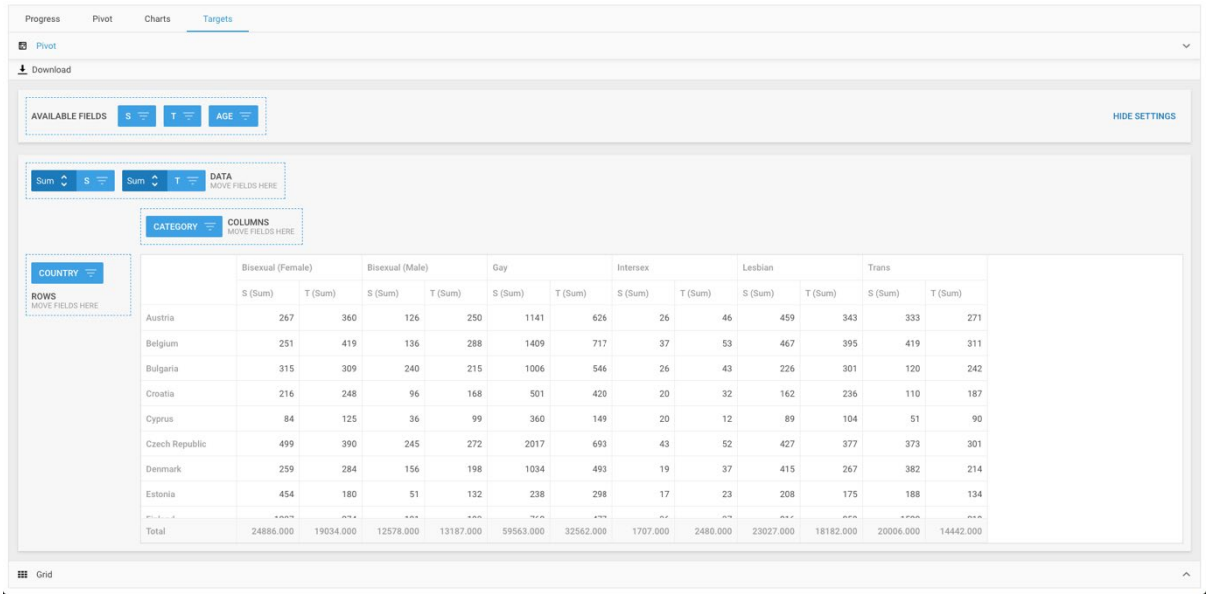
In addition, both charts could be exported as images, pdfs, csv files or excel files.

3.5.5. Targets

The targets' view consisted of two interchangeable panes available by clicking on the corresponding title (Pivot, Grid).

- *Pivot view*
  This view was similar to the previously described section with the difference that it included the target number of completed questionnaires that have been set for each country respondent category and age group.

Figure 23 - Targets section, pivot view



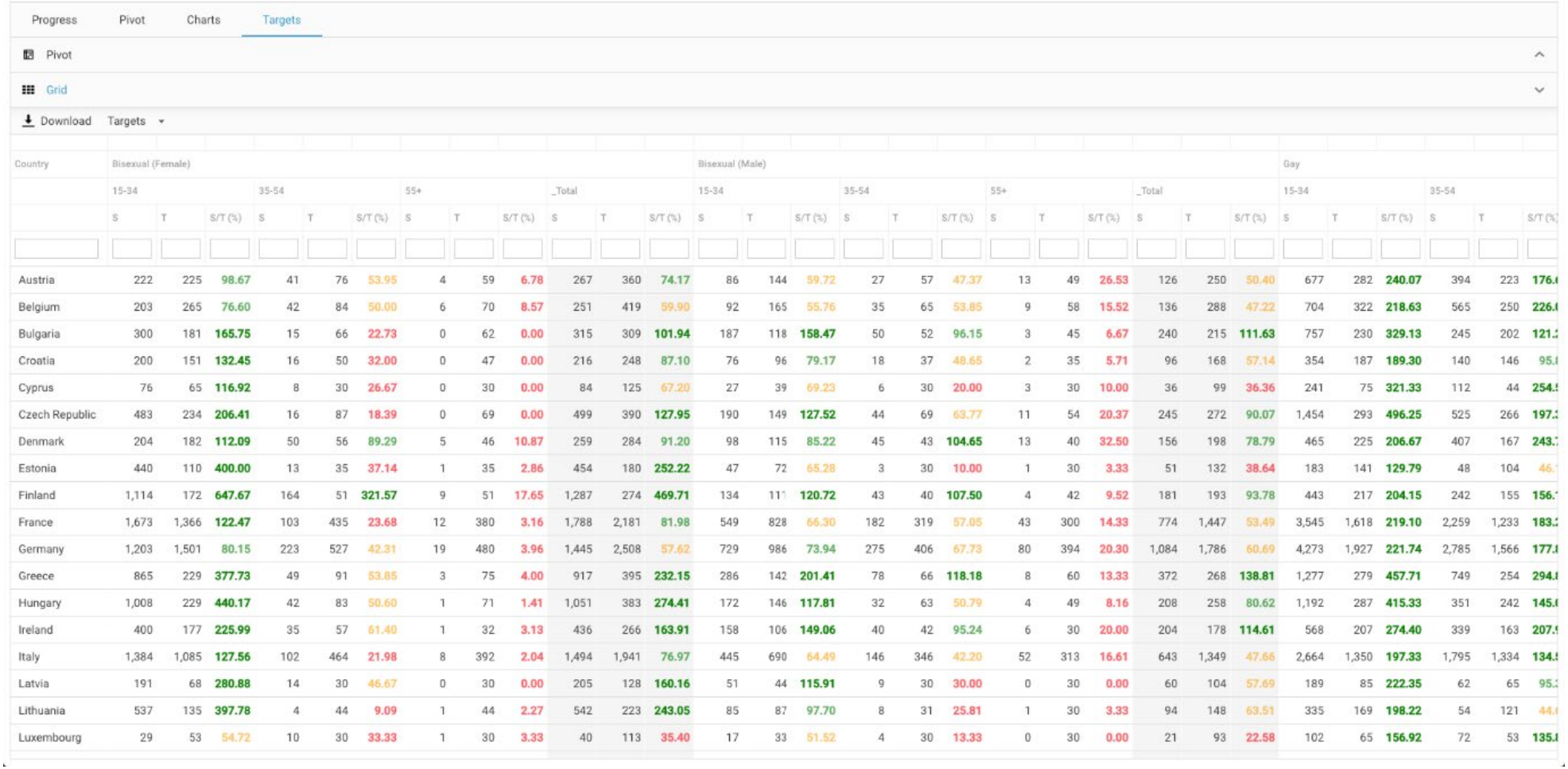
- *Grid view*

  The grid view was a simple tabular view displaying a breakdown of the number of submitted questionnaires, target questionnaires and submitted/target ration per respondent category, age group and country.

  This view utilized colour coding to depict whether the target sample had been reached or not, and at what degree that had been achieved (red for less than 40%, orange for 40-70%, light green for over 70% and up to 100%, and green for over 100%).

  The user may swap the targets value for the threshold values by selecting 'Thresholds' from the dropdown menu at the top of the pane as well as download the information as an excel file.

Figure 24 - Targets section, grid view



Country	Bisexual (Female)												Bisexual (Male)												Gay					
	15-34			35-54			55+			_Total			15-34			35-54			55+			_Total			15-34			35-54		
	S	T	S/T (%)	S	T	S/T (%)	S	T	S/T (%)	S	T	S/T (%)	S	T	S/T (%)	S	T	S/T (%)	S	T	S/T (%)	S	T	S/T (%)	S	T	S/T (%)	S	T	S/T (%)
Austria	222	225	98.67	41	76	53.95	4	59	6.78	267	360	74.17	86	144	59.72	27	57	47.37	13	49	26.53	126	250	50.40	677	282	240.07	394	223	176.6
Belgium	203	265	76.60	42	84	50.00	6	70	8.57	251	419	59.90	92	165	55.76	35	65	53.85	9	58	15.52	136	288	47.22	704	322	218.63	565	250	226.0
Bulgaria	300	181	165.75	15	66	22.73	0	62	0.00	315	309	101.94	187	118	158.47	50	52	96.15	3	45	6.67	240	215	111.63	757	230	329.13	245	202	121.2
Croatia	200	151	132.45	16	50	32.00	0	47	0.00	216	248	87.10	76	96	79.17	18	37	48.65	2	35	5.71	96	168	57.14	354	187	189.30	140	146	95.8
Cyprus	76	65	116.92	8	30	26.67	0	30	0.00	84	125	67.20	27	39	69.23	6	30	20.00	3	30	10.00	36	99	36.36	241	75	321.33	112	44	254.5
Czech Republic	483	234	206.41	16	87	18.39	0	69	0.00	499	390	127.95	190	149	127.52	44	69	63.77	11	54	20.37	245	272	90.07	1,454	293	496.25	525	266	197.3
Denmark	204	182	112.09	50	56	89.29	5	46	10.87	259	284	91.20	98	115	85.22	45	43	104.65	13	40	32.50	156	198	78.79	465	225	206.67	407	167	243.7
Estonia	440	110	400.00	13	35	37.14	1	35	2.86	454	180	252.22	47	72	65.28	3	30	10.00	1	30	3.33	51	132	38.64	183	141	129.79	48	104	46.1
Finland	1,114	172	647.67	164	51	321.57	9	51	17.65	1,287	274	469.71	134	111	120.72	43	40	107.50	4	42	9.52	181	193	93.78	443	217	204.15	242	155	156.1
France	1,673	1,366	122.47	103	435	23.68	12	380	3.16	1,788	2,181	81.98	549	828	66.30	182	319	57.05	43	300	14.33	774	1,447	53.49	3,545	1,618	219.10	2,259	1,233	183.2
Germany	1,203	1,501	80.15	223	527	42.31	19	480	3.96	1,445	2,508	57.62	729	986	73.94	275	406	67.73	80	394	20.30	1,084	1,786	60.69	4,273	1,927	221.74	2,785	1,566	177.8
Greece	865	229	377.73	49	91	53.85	3	75	4.00	917	395	232.15	286	142	201.41	78	66	118.18	8	60	13.33	372	268	138.81	1,277	279	457.71	749	254	294.8
Hungary	1,008	229	440.17	42	83	50.60	1	71	1.41	1,051	383	274.41	172	146	117.81	32	63	50.79	4	49	8.16	208	258	80.62	1,192	287	415.33	351	242	145.0
Ireland	400	177	225.99	35	57	61.40	1	32	3.13	436	266	163.91	158	106	149.06	40	42	95.24	6	30	20.00	204	178	114.61	568	207	274.40	339	163	207.9
Italy	1,384	1,085	127.56	102	464	21.98	8	392	2.04	1,494	1,941	76.97	445	690	64.49	146	346	42.20	52	313	16.61	643	1,349	47.66	2,664	1,350	197.33	1,795	1,334	134.5
Latvia	191	68	280.88	14	30	46.67	0	30	0.00	205	128	160.16	51	44	115.91	9	30	30.00	0	30	0.00	60	104	57.69	189	85	222.35	62	65	95.3
Lithuania	537	135	397.78	4	44	9.09	1	44	2.27	542	223	243.05	85	87	97.70	8	31	25.81	1	30	3.33	94	148	63.51	335	169	198.22	54	121	44.6
Luxembourg	29	53	54.72	10	30	33.33	1	30	3.33	40	113	35.40	17	33	51.52	4	30	13.33	0	30	0.00	21	93	22.58	102	65	156.92	72	53	135.8

4. Usability testing of the questionnaire and the online tool

4.1. Testing methodology

The testing phase started after the finalisation of the questionnaire, its translation and its implementation in the software survey tool to:

- Validate the system (i.e. survey tool and database) in terms of satisfying technical and functional requirements as well as technical reliability;
- Test the software survey tool's usability;
- Test the questionnaire's conceptual and cognitive aspects
- Test the efficiency the overall system in the final deployment on the operational technical infrastructure.

The aim of the above tasks was to identify areas for which corrections, improvements, modifications and fine tunings were necessary in both the technical and conceptual aspects, as well as to ensure that no major obstacle or risk were identified, and the survey could be safely launched. Moreover, the results of this phase provided valuable input for future improvements of the survey, even in cases where no corrective action has been deemed necessary.

After the finalization of the questionnaire and the respective translations, and their loading on the Survey tool, testing of usability, usage analysis and cognitive testing were conducted with test users - respondents, which led to minor corrections and technical improvements.

Before the launch of the survey, and after the deployment on the operational "production" technical infrastructure, the integrated operational system (i.e. servers, database, survey tool etc.) were tested through an extensive simulation testing and load/stress testing.

4.2. Software development testing

Unit and integration testing according to established software engineering best practices was executed at several stages during the software development life cycle. This included:

- Unit testing for software modules (i.e. database, middle-tier components, front-end tool). Unit testing consisted in checking software output for pre-specified input corresponding to normal and error conditions.
- Integration testing for the entire system, consisting of running end-to-end test cases (i.e. from the user interface (UI) to the Database).
- Test cases referring to specific user requirements (especially logic for branching and piping).
- Automated simulation testing of random responses.

Test cases were specifically elaborated to test the implementation of questionnaire logic (such as branching, piping, rules for allowable options etc.).

Automated simulation testing was done using a test version of the tool specially programmed to be used by the Protractor testing tool. This tool simulated a user-respondent and selected random response options. Any system errors were logged, and the protractor input was automatically compared to the questionnaire submitted to the database.

All testing was done in a testing and acceptance environment.

4.3. Tool usability analysis / unsupervised cognitive testing

The aims of this testing phase were:

- to test and validate the online tool's user interface (UI) usability and intuitiveness to identify potential problems or improvements in the UI's design;

- to analyse the actual responding to the questionnaire to identify questions with high level of friction ([14]), which potentially pose difficulties in understanding or in deciding on what response to give;
- to acquire direct feedback from users, especially on cognitive issues as well as on their experience, through a user survey;
- to provide in depth insight in problematic areas identified in live supervised cognitive sessions.

4.3.1. Usability analysis methodology

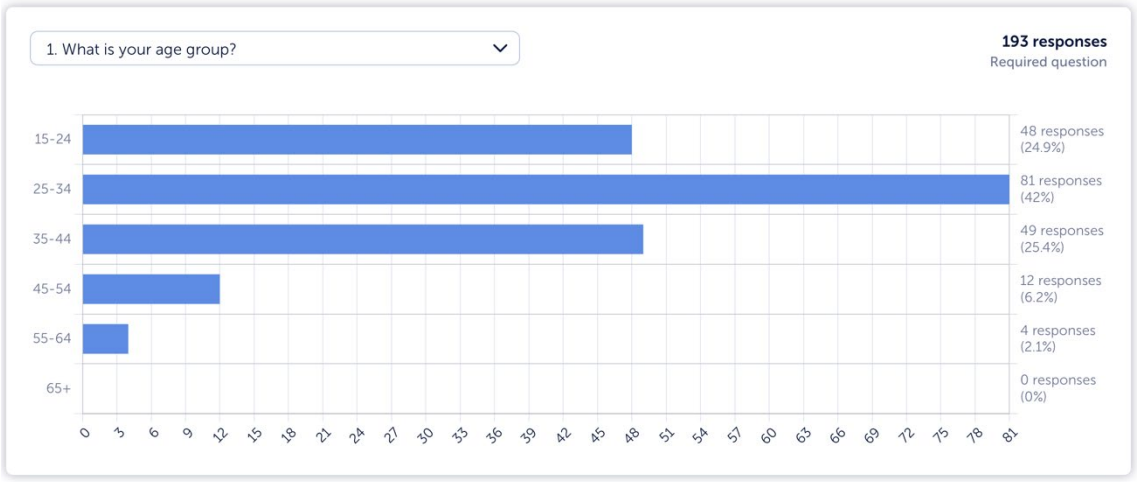
The mouseflow.com service was used for this phase. The service is widely used for large scale usability and cognitive testing of online surveys, since it simulates on the web the typical facilities provided by usability testing laboratories in traditional face-to-face interview surveys. More details and demos of the tool can be found at http://www.mouseflow.com.

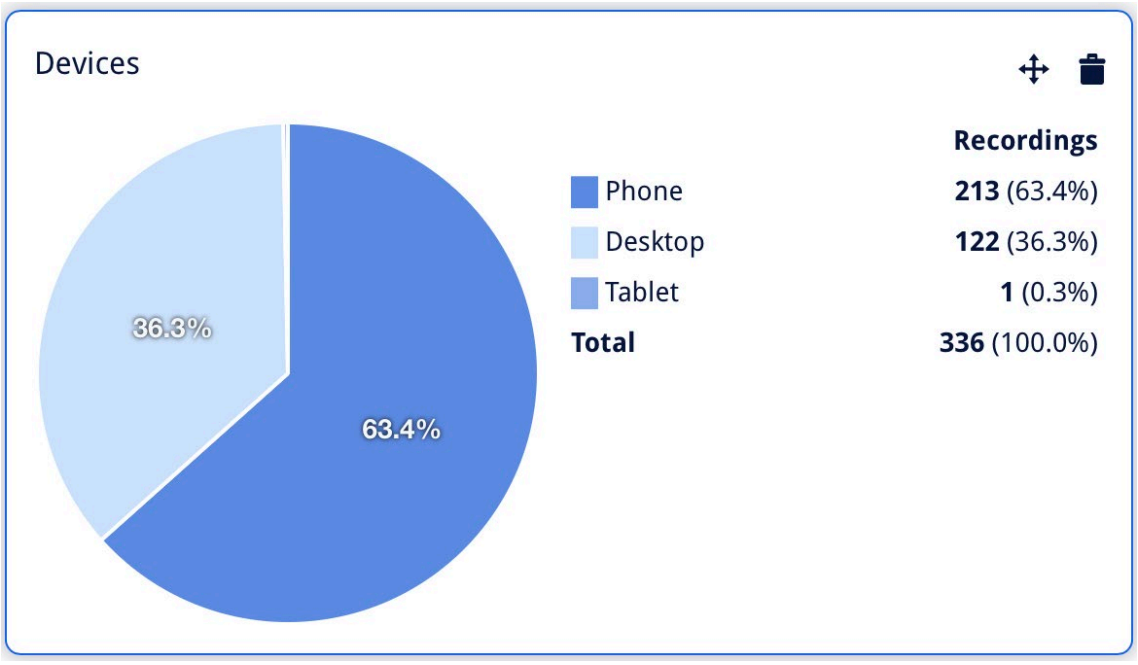
The service, through the inclusion of specific code in the survey tool, can monitor the tool's usage by test users and analyse the data collected to:

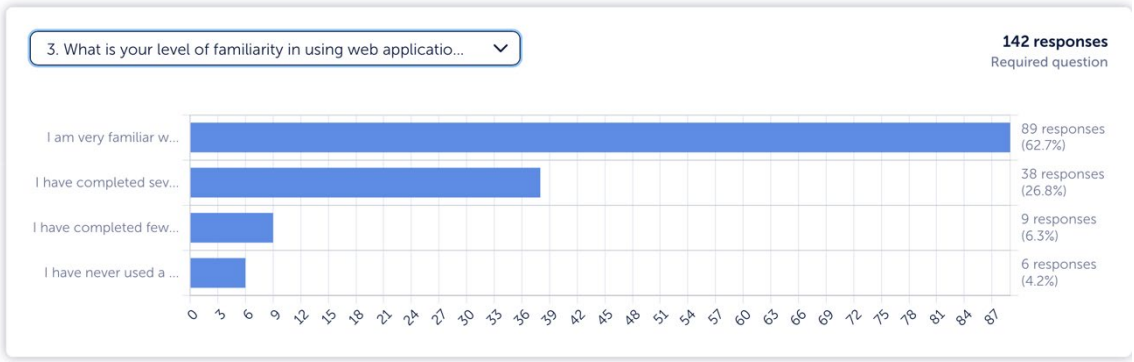
- provide detailed usage statistics (times, engagement levels, friction indicators, etc.);
- provide "heatmaps" i.e. graphical representations of each screen's usage in terms of clicks, mouse movement and user attention, for visual analysis;
- keep anonymised recordings of each user session, including mouse movements, scrolling etc., which can be viewed and analysed to detect usage patterns, problematic points etc.;
- acquire direct feedback by automatically presenting the user with questions at specific points in each usage scenario.

([14]) Friction is an indicator of user difficulty or frustration, calculated by a proprietary algorithm and based on the detection of user behaviour in terms of mouse usage speed and rate, clicking rates, patterns of moving or clicking etc.

Figure 25 - Mouse flow testing statistics







Page	Views	Visit time	Engagement	Clicks	Render	Scroll	Friction	Size
/lgbtiq-testing/index.html	224	1m 15s	39.3s	2,376	0.69s	92%	0.1	34.17 KB
/question_c18	18	27.4s	24.1s	137	0.01s	93%	0.0	57.38 KB
/question_finish	18	2m 31s	1m 16s	324	0.01s	98%	0.3	30.52 KB
/question_a7	16	14.2s	13.1s	100	0.01s	85%	0.0	34.37 KB
/question_f11	12	36.6s	34.8s	140	0.01s	100%	0.0	86.39 KB
/question_c15	10	23.6s	21.5s	91	0.01s	64%	0.0	40.09 KB
/question_h6	8	21.7s	14.4s	58	0.01s	97%	0.0	89.74 KB
/question_h3	7	18.6s	16.5s	48	0.01s	93%	0.0	38.92 KB
/question_h4	5	11.6s	11.6s	28	0.01s	96%	0.0	36.24 KB
/question_h5_1	5	9.4s	9.4s	34	0.01s	94%	0.0	35.98 KB
/question_h5_2	5	8.1s	8.1s	28	0.01s	94%	0.0	35.99 KB
/question_c19	2	19.3s	17.1s	21	0.01s	76%	0.0	42.6 KB
/question_ix2	1	52.9s	40.9s	14	0.02s	100%	0.0	54.95 KB

To implement this testing phase:

1. A special version of the tool was created (to include the mouse flow code directives) and deployed to be accessible via the web. This version also included a starting page with instructions to the testers.

   A panel of 265 volunteer test-users was recruited by Survey Promoters (SP) during the week before the launching of the testing activity and throughout the testing period (i.e. from June, 12nd, to June 15th). In this recruitment process, care was taken to ensure that the panel was balanced in terms of user characteristics, i.e. LGBTI identity, age, level of familiarity with web surveys, language etc. Specific guidelines and directions were given in written to the NSCP's concerning these selection criteria and the NSCP's identified and contacted potential volunteers using their own contact network in respective LGBTI communities. Moreover, the test users were briefed by NSCPs on the aims of the test and what was expected from them. The testing was also enriched by the distribution of the test site link among FRA experts.

2. The guidelines provided to test-users asked them to fill-in the questionnaire exactly as you would do if you were an actual respondent. Test-users were informed that the aim of this testing was to check (a) the linguistic quality of the questionnaire, i.e. that the translation of the

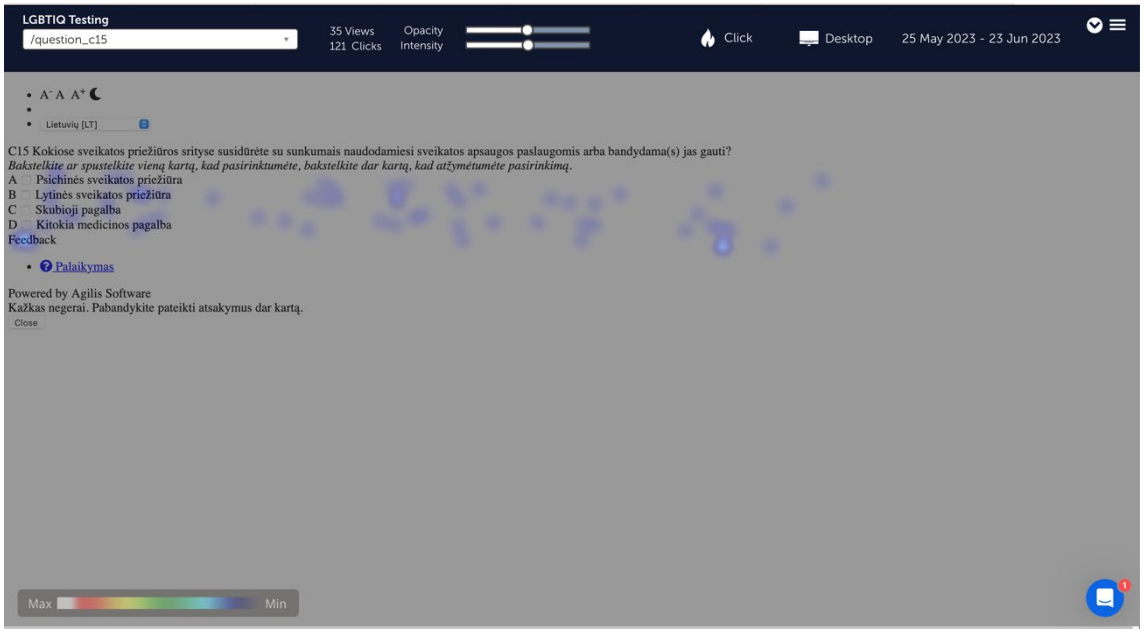
questionnaire in their native language was clear, comprehensible, unambiguous but also non-offensive, (b) the cognitive quality of the questionnaire, i.e. that questions were easy to understand and answer and there were no logical ambiguities or inconsistencies, (c) the usability of the questionnaire software. Thus, the methodology followed foresaw supervision of typical usage of the questionnaire software, to avoid distortion of usability statistics.

3. The application was kept on-air during the period from 12 June to 15 June and follow-up actions were taken where necessary to ensure timely participation.

4. The test results were analysed as follows:

- Analysis targeted the new questions introduced in this survey wave.
- The overall usage statistics was used to identify questions with more than expected friction, i.e. more than average usage and engagement times; only “net” time was measured by the tool, excluding time spent on feedback questions.
- Heatmaps of selected target questions, for clicks, mouse movement and user attention, were visually inspected to identify potential problems, as well as usage patterns (such as frequent usage of the information button or the “back” button);
- For specific user sessions, for which high overall friction levels of usage and engagement durations had been observed, session recordings were replayed, inspected and analysed by experts in detail, to identify problematic areas and gain insight.
- Direct user feedback to questions at specific points in each usage scenario were compiled and analysed.
- Database records (i.e. completed questionnaires) in the database were checked for consistency, i.e. following the various logical rules.

Figure 26 – Example mouseclick/tap heatmap (question C15)



Mouseclick/tap heatmaps are graphical depictions of screen usage for each distinct screen (i.e. question) as aggregated among all test users. The colour of the map indicates the frequency of clicking/taping on each region of the screen.

Mouse/finger movement heatmaps are graphical depictions of mouse or finger movement for each distinct screen (i.e. question) as aggregated among all test users. The colour of the map indicates the frequency of movement on each region of the screen.

Attention heatmaps are graphical depictions of user engagement for each distinct screen (i.e. question) as aggregated among all test users. The colour of the map indicates the average level of engagement of users for the specific screen.

4.4. Usage analysis findings

The main findings of this usage analysis were the following:

- No blocking technical or software malfunction leading to premature closure of the survey session was observed.
- No excessive mouse movement was identified in mouse movement heatmaps, indicating that users were confident on how to use the different UI controls; therefore, the UI was evaluated as intuitive and user friendly (as also corroborated by direct feedback and interviews).

- No excessive scrolling was identified across devices and screen resolutions (except from few expected cases), therefore rendering in small screens was deemed adequate.

- In UI measurements, friction depends on the subject and the nature of the application. Overall, no excessively high level of friction was detected for any question, which means that there was no question with observed friction significantly greater than the average levels measured for all questions.

4.5. Supervised cognitive interviews

Cognitive interviews methodology aims at ensuring cognitive equivalence and optimization of the phrasing of selected questions to achieve a better and common understanding of these questions among different countries and different identities of LGBTIQ respondents.

The cognitive interviews methodology in this study was adopted to investigate cognitive processes involved when answering the new questions, which were included in the EU LGBTIQ III survey on discrimination and victimisation of lesbian, gay, bisexual, trans, queer and intersex persons and were not included in the previous wave (2019). The cognitive interviews' aim was to discuss possible issues raised at a cognitive level to achieve common comprehension and ensure that questionnaire's answers and questions will represent the intended research questions of this survey.

The Cognitive interview study took place under the consultation of FRA, including continuous communication regarding emerging issues.

Between March 5th and June 16th, 2023, **twenty-six (26) cognitive** interviews were carried out, representing **twenty-six different languages** of the survey: Albanian, Bulgarian, Croatian, Danish, Dutch, Estonian, Finnish, French, German, Greek, Hungarian, Italian, Latvian, Lithuanian, Macedonian, Maltese, Polish, Portuguese, Romanian, Russian, Serbian, Slovak, Slovenian, Spanish, Turkish, Ukrainian. The cognitive interview guide included some questions regarding the "Respondents' background" (Questions: A0-A6), some questions that were preceding/leading to the new questions under investigation and all the new EU LGBTIQ III survey questions (14 Questions: A7, IX2, IX9, IX12, IX15, C15, C18, C19, F11, G14, H3-H6).

After each new question there were open-ended probes that aimed to encapsulate the possible difficulties in answering the new questions and the understanding of both questions and the corresponding answers.

Eventually, the cognitive interviews analysis revealed that – out of the 14 new questions under investigation – eleven (11) questions worked fine as they were, one (1) question changed before fieldwork in the final questionnaire and two (2) questions had suggested changes that could be considered in the next wave of the Survey – if any.

4.6. Technical infrastructure validation, load and stress testing

The technical infrastructure for the operational production system was installed on Oracle Cloud Services and included:

- The Oracle Database, with on-line backup and recovery services
- Two mirror application servers, where the survey tool and dashboard have been deployed
- One load balancer, accepting user requests and routing them to the appropriate server.
- A firewall/proxy service (Oracle WAF) filtering requests that were detected as malicious or suspect
- Captcha challenges (provided by Oracle WAF), automatically detecting bots.

This configuration was scalable and additional resources could be added at all levels if needed, with minimum downtime. ([15])

The configuration has been validated with preconfigured test cases. Moreover, several load/stress tests have been performed using JMeter tools ([16]) to determine resilience of the systems to usage peaks.

The system proved to be fully operational and at normal performance (as measured by response times) at levels of usage as high as 2.000 quasi-concurrent users (i.e. users

([15]) When a website or web service is not available online or does not function well enough for end users to complete a task, the site is considered to be experiencing downtime.

([16]) Apache JMeter is an Apache project that can be used as a load testing tool for analysing and measuring the performance of a variety of services, with a focus on web applications.

whose requests arrive within a timespan of three minutes), which is well above the expected peak usage.

5. Survey promotion campaign

The survey promotion and awareness-raising campaign “Let's Get Loud” was successfully rolled out among LGBTIQ people in the 27 EU Member States, Serbia, North Macedonia and Albania. The general guidelines and aim for the communication of the LGBTIQ Survey III were maximum inclusiveness, intersectionality, participation and representation of the LGBTIQ people. During the creative phase of the campaign, special consideration was given to the feedback received from the International LGBTIQ Organisations as well as the Survey promoters each country. Keeping in mind the lessons learned from the previous survey, the overall strategy was to still aim for maximum dissemination of the survey and thus reach a high number of participants, but at the same time give more focus to targeted promotion to underrepresented groups through specific country and overall strategies. Additionally, a core survey promotion guideline was to reach out to mainstream media and influencers in all countries to achieve even broader dissemination and transform the campaign into a “what’s hot now” campaign so that it would become even more viral. The feedback received from the survey promotion and LGBTIQ networks and organisations’ team as well as the media regarding the call to action and the creatives was exceptionally positive. The survey promotion communication message “Time for change” aimed at involving and motivating a larger and mainstream and general population audience to promote the survey.

5.1. Goals of the campaign

The goals of this communication strategy were to:

- Let LGBTIQ people know about the survey - thus create brand awareness.
- Achieve maximum reach with mainstream media to enhance the promotion and reach to an even broader audience
- Motivate LGBTIQ people to take part in the survey (following a link).
- Motivate LGBTIQ people to share the survey to their social media, friends and LGBTIQ environment, to have maximum reach to underrepresented groups.

And eventually to:

- Collect a large number of LGBTIQ people replies to the European LGBTIQ Survey, following the success in responses of the previous survey.

- Cover the most diverse group of respondents possible, both in terms of affiliation with the gay, lesbian, bisexual, trans and intersex groups, and in terms of socio-demographic characteristics (intersectionality and inclusiveness) within these groups.

In order to reach the broadest possible segments of the target group(s), the explicit aim of the communication was to:

- Use dedicated channels to reach out to the L, G, B, T, I, Q groups, where applicable.
- Set up fall-back solutions to reach out to sub-populations.

5.2. Target groups of the strategy

The survey's target group was the target group of the communication activity as well. That is, the communication addressed the following persons:

- People who describe themselves as Lesbian, Gay, Bisexual, Trans, Queer or Intersex, and all other persons who are not comfortable with any of these labels, but are not heterosexual, or cisgender (non-binary, queer, asexual, androgynous, aromantic, genderfluid).
- People who have lived in any of the 27 EU Member States, Serbia, North Macedonia and Albania for the last year, regardless of legal circumstances (residency) or citizenship.
- People who are aged at least 15.

5.3. Communication plan (Approach)

The campaign "Let's Get Loud" was implemented in 27 EU countries, Serbia, North Macedonia and Albania, therefore there was no cohesive strategy for each underrepresented group in all countries.

For each country, a different strategy was devised with the support of the country Survey Promoters and country experts. As a rule, the largest part of the survey promotion budget was provided via the SPs to the grass-root networks and organisations and channels in each country so that they can efficiently promote the

survey and try to reach underrepresented people through their own channels. Under each survey country fallback plan, the contractor worked closer with the identified channels and organisations and provided additional budget to those channels in order to maximise their efforts and the survey reach out to one or more under-represented target groups.

The FRA and the contactors consortium benefitted of the strong support and valuable consultations of TGEU, OII and ILGA-Europe, as well as EPOA, IGLYO, ELC, and ELMA who used their connections and channels to help achieve the survey objectives. At the same time, several contacts with LGBTIQ networks' affiliated organisations and NGOs that are not LGBTIQ focussed were used to promote the survey in their respective wider spectrum channels at both EU and MS levels. These organisations address people with disabilities, women, people of diverse ethnic and racial backgrounds, senior citizens, refugees and other minorities. In some cases, there were specific LGBTIQ organisations that work with specific groups of LGBTIQ people such (disabled people, elderly people, refugees etc.).

Additionally, the communication efforts focused on habit specific or identity specific online spots to give voice to underrepresented parts of the community and achieve a better representation of the SOGIESC intersectional profiles of its members. Some examples are LG BTIQ forums, trans-intersex health groups, student groups in universities, Facebook groups etc.

Below some general guidelines applied for the underrepresented groups for each country:

- **Older (50+) LGBTIQ:** The NSPs reached out to groups and organisations for elderly LGBTIQ people in their respective countries, if available. Based on habit-based behaviours, they also reached out to specific groups or services (e.g. book clubs, special nights in bars etc.). Offline survey promotion strategies were deployed through community events and, if they exist, hospitality venues, walk-in centres or support services. The communication materials included senior characters, with increased recognition and thus boosting as much as possible the participation rate of these groups.

- **Trans:** Reaching out to Trans people was coordinated along with the valuable help of TGEU on pan European as well as on national level. The channels and social media / newsletters were used to reach out to the trans population effectively. The creatives and communication materials included diverse representations, which contributed to the participation rate of these groups.

- **Intersex:** In coordination with OII, as well as on national level NSPs provided a list of Intersex organisations, unofficial groups, and key figures throughout Europe. Communication was established with other LGBTIQ groups that might have intersex members or that treat the intersex population as a high priority in their work. Further outreach by word of mouth was also encouraged. The creatives and communication materials included diverse representations, which contributed to the participation rate of intersex people.

- **Bisexual**: Following the suggestions of the NSPs regarding the list of bisexual organisations and inclusive media through-out Europe allowed -where it was possible- to target the specific groups. Those channels, their social media / newsletters and dating apps such as, Grindr and HER, and more ran promotions on their websites and apps. International LGBTIQ news portals could reach out to bisexual people too.

- **Refugees and immigrants:** A list of organisations that work with LGBTIQ refugees and immigrants was provided by NSPs. Dating apps were also used to reach out to these specific groups. There were possibilities - in some countries - to reach out to this population through activities in refugee camps. The creatives and communication materials included diverse representations, which contributed to the participation rate of these groups.

- **People of diverse ethnic and/or racial origins**: The country plans included specific groups of people with diverse ethnic and/or racial origins. In some countries as per the 2019 survey experience, close communication with affiliated groups and NGOs that were not LGBTIQ specific had good results. The creatives and communication materials included diverse representations to encourage recognition and thus were made as inclusive as possible, aiming to increase the participation rate of these groups.

- **Lesbians**: Focusing on lesbians' groups was achieved via the suggested list from NSPs along with the help of ELC that disseminated the survey to its respective members. Furthermore, the country teams provided an updated list of lesbian organisations and inclusive media throughout Europe. Lesbians were also reached effectively through general LGBTIQ organisations, specific dating apps (HER) and media. The creatives and communication materials included diverse representations, which contributed to the participation rate of these groups.

- **LGBTIQ Youth:** The digital and social media nature of the communication materials for the survey and the creatives resulted in a high participation of young LGBTIQ people, especially of those aged 15–24. For these groups, social media influencers via Instagram and TikTok, known to reach a young audience, were

involved. IGLYO also played a significant role in the dissemination of the survey to its respective members.

- **Queer**: The SPs focussed on people with a Q self-identification allowing to target the specific group that commonly does not follow mainstream media. Furthermore, the use of social media alongside the help received by influencers as well as the offline points as prides helped reaching this group effectively and delivering the desired results. The optimum channels of reaching the Queer communities was to establish collaboration with Queer national groups, alternative forums and pages in the social media, queer dedicated dating apps (e.g. OKCupid) and Queer venues. The creatives and communication materials included diverse representations, which contributed to the participation rate of these groups.

5.4. Website

The survey website www.LGBTIQsurvey.eu was designed to be both minimal and simple, yet efficient and accessible to everybody:

- The colour pallets for the website were chosen carefully so colour-blind people would not have any problem accessing the website.
- The website was easily accessed by assistive technologies, to be accessible for blind people.
- The website was fully responsive and thus very mobile friendly.

5.5. Brand and creatives

Through several brainstorming meetings with LGBTIQ experts in various countries, along with the respective feedback from the International LGBTIQ organizations, FRA and the contractors' consortium created the brand "Let's get Loud" with the tagline "Time for Change''. a clear call for action. The communication used a single style template that contained text elements (tagline) which was translated into each language. The visual identity was designed in a way that it could be flexibly used in various applications and on various platforms.

The rainbow-inspired gradient colours are a well-established visual identification of the contemporary LGBTIQ flag and were used throughout the campaign. The leading

faces of the campaign were also chosen after careful consideration to represent each LGBTIQ identity at the extent possible.

The use of social media was de-centralised, meaning that it was encouraged to all the channels that support this survey. They were all provided with official materials and guidelines for their use. Instead of considering the language barrier a limitation it was embraced and every single communication material in each respective language was created and disseminated accordingly. This has been a key factor of the great virality the campaign achieved. This approach gave a boost in the virality and effectiveness of the communication and contributed to the feeling that the LGBTIQ community was really involved towards the success of this project.

5.5.1. Logo & Tagline

LET'S GET LOUD

TIME FOR CHANGE

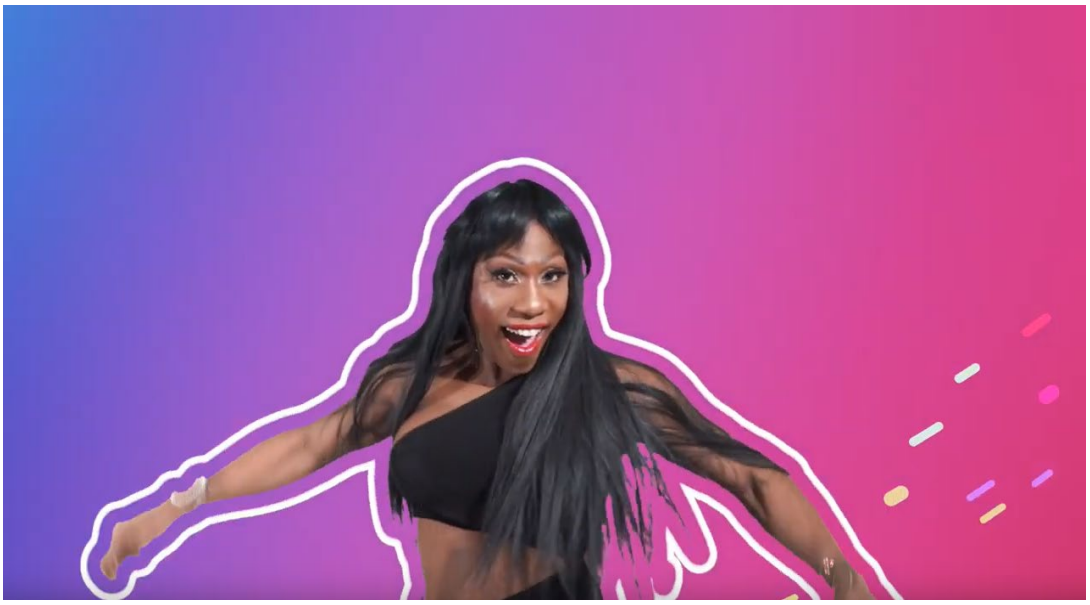
FRA

EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS

5.5.2. Video & Stills

Video Link: www.youtube.com/watch?v=LaQl3stqlOE

5.5.2.1. Stills



5.5.3. Banners

Through the network of associates and the common share drive, the delivery of the communication materials was very fast. Prior to the survey launch all the communication materials were created, translated and shared with all the involved parties. Hence any last-minute changes, special requests and customizations were delivered within one working day.

The following banners were used individually (for specific target groups) and grouped into animated banners for the general LGBTIQ audience.

Images included different graphics for the gay, lesbian, bisexual, trans and intersex groups. Banners were created in sizes and orientations matching the requirements of the channel outlets that carried them. The applications below are just some of those that were used.


LET'S GET LOUD
TIME FOR CHANGE
EU LGBTIQ SURVEY
TAKE THE SURVEY
FRA


LET'S GET LOUD
TIME FOR CHANGE
EU LGBTIQ SURVEY
TAKE THE SURVEY
FRA


LET'S GET LOUD
TIME FOR CHANGE
EU LGBTIQ SURVEY
TAKE THE SURVEY
FRA


LET'S GET LOUD
TIME FOR CHANGE
EU LGBTIQ SURVEY
TAKE THE SURVEY
FRA


FRA
EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS
LET'S GET LOUD
LET'S GET LOUD
TIME FOR CHANGE
EU LGBTIQ SURVEY
TAKE THE SURVEY


FRA
EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS
LET'S GET LOUD
LET'S GET LOUD
TIME FOR CHANGE
EU LGBTIQ SURVEY
TAKE THE SURVEY

5.6. Performance

Table 3 – Survey performance – completion and drop-out rate

Completed questionnaires (before cleaning and validation)	102,002
Unfinished questionnaires	76,405
Dropout rate	42.83%

The dropout rate was similar to the 2019 survey and was mostly attributable to the length of the questionnaire. This was expected and thus planned for.

For the campaign “Let's get loud” paid channels were chosen that gave the opportunity to follow the performance of the digital campaign live and receive weekly performance reports . Following the good practice of 2019 survey, for different communication channels planned and implemented (per country/ type/ paid-nonpaid) different links allowed to track the traffic from each channel to the survey URL . In this way the survey team could assess in real-time the efficiency of the specific channel, ex. social media, influencers, other media channels and tools (webpages, banners, advertisements) and could review promptly the survey promotion plan achieving a more balanced and less under-represented sample. Live access to the demographic data daily from the survey database and the pivot tables of the dashboard (presented

above) provided with a picture of distribution of the sample and allowed to adjust the survey promotion efforts to address over/under representation.

The above allowed an early overview and quality feedback on which channels and approaches were effective and which were not during the survey data collection. Similarly, the project (?) team could assess on time the available information about minimum target sample remaining per country/segment and thus to activate and prioritise respective survey promotion tools, channels, fallback plans and offline strategies .

Early in the survey data collection the team realised that while all campaigns have manifested high reach and number of clicks, very few people from the audiences who reached the page actually started the survey (varying from 10-25% of those reaching the survey URL page). This could be attributed to survey fatigue reasons as the LGBTIQ communities were very often invited to fill in surveys in the last years. However, the survey promotion campaign reached out but did not achieve participation mostly of cisgender LGB groups who appeared to be the less responsive and willing to participate in the survey despite having reached to its first page. Below are most of the channels used by the filled surveys absolute number (completed).

Table 4 – Survey promotion campaign channels by the numbers of completed survey responses

Campaign Name	Responses
Grindr Serbia	110
EPOA	112
Her Finland	112
Her Spain	115
Her Portugal	116
Grindr Slovakia	117
Malta	119
Grindr Bulgaria	125
ERA N. Macedonia	125
TZINE Greece	134
Grindr Denmark	139
Austria Media	139

Campaign Name	Responses
Lithuania	141
Ireland Promo Grindr	145
Serbia	152
Grindr Croatia	153
Netherlands	155
Belgium Promo Grindr	156
Her Netherlands	160
Her Italy	161
Denmark Media	162
ERA Slovenia	164
Grindr Finland	166
ERA Albania	180
Her Sweden	182
Grindr Czech Republic	183
Belgium	202
Grindr Belgium	222
REPLIKA Poland	226
Grindr Portugal	233
N. Macedonia	242
Grindr Hungary	265
ELC	278
Grindr Greece	285
Finland Media	293
France Media	307
Her Belgium	312
Spain	327
Her France	328

Campaign Name	Responses
Grindr Sweden	345
Share Button	367
Lithuania Media	385
Grindr Romania	409
Estonia	409
Grindr Netherlands	417
Greece	450
Latvia	465
BLU Germany	469
Her Austria	478
Slovakia	481
GCN Ireland	510
Ireland	520
Her Germany	527
France	548
TGEU	548
Grindr Spain	612
Share Button	615
JEANNE France	679
GAYIT Italy	686
Grindr Italy	688
Grindr Germany	702
Austria	783
Share Button	800
ERA Croatia	833
SHANGAY Spain	896

Campaign Name	Responses
Romania	961
Poland Media	970
LUI Czech Republic	972
Germany	982
Grindr Poland	1,032
Denmark	1,039
Grindr France	1,072
Sweden	1,150
ANTIVIRUS Greece	1,219
ERA Serbia	1,260
Spain Media	1,323
Italy	1,374
Czech Republic	1,570
WINQ Netherlands	1,817
HUMEN Hungary	2,034
TETU France	2,727
QUEER Germany	2,909
Poland	5,383
Finland	6,486
Direct Visits	43,857
Total	**102,002**

6. Data collection

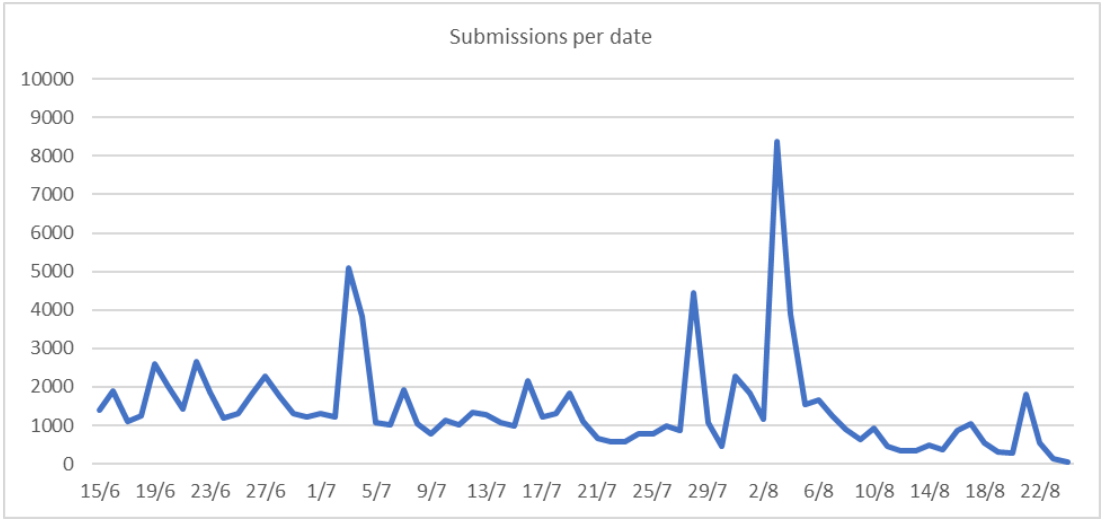
The survey was launched on 15 June 2023 and was concluded on 24 August 2023. Figure 27 shows the daily progress of data inflow.. An average daily flow was below 3,000 respondents with a few noticeable spikes at the beginning and end of July (around 5,100 and 4,500 respondents per day respectively – mostly boosted by Gay participants) as well as the most prominent spike on 3 August, with almost 8,400 respondents (mostly boosted by Trans participants).

As in the 2nd LGBTI survey wave, the total sample size exceeded 100,000 questionnaires. In total, the survey was completed with 102,002 questionnaires and this refers to the number of submitted questionnaires before performing the data cleaning and validation discussed in the next chapter.

The target sample size in each country has been achieved, with some exceptions when analysing the target population by age groups – having as a general rule that the number of cases in each age subgroup should be more than 30. These cases where dealt with weighting adjustments, discussed elsewhere in this document.

The mean time for completing the survey was 19 minutes. In general, there were small variations regarding completion times among the different languages. Each questionnaire section had its own demands regarding time to complete with section C (about discrimination experiences) requiring the most time to complete compared to all other sections.

Figure 2727 - Daily submissions: (upper) of all participants, (lower) by target group



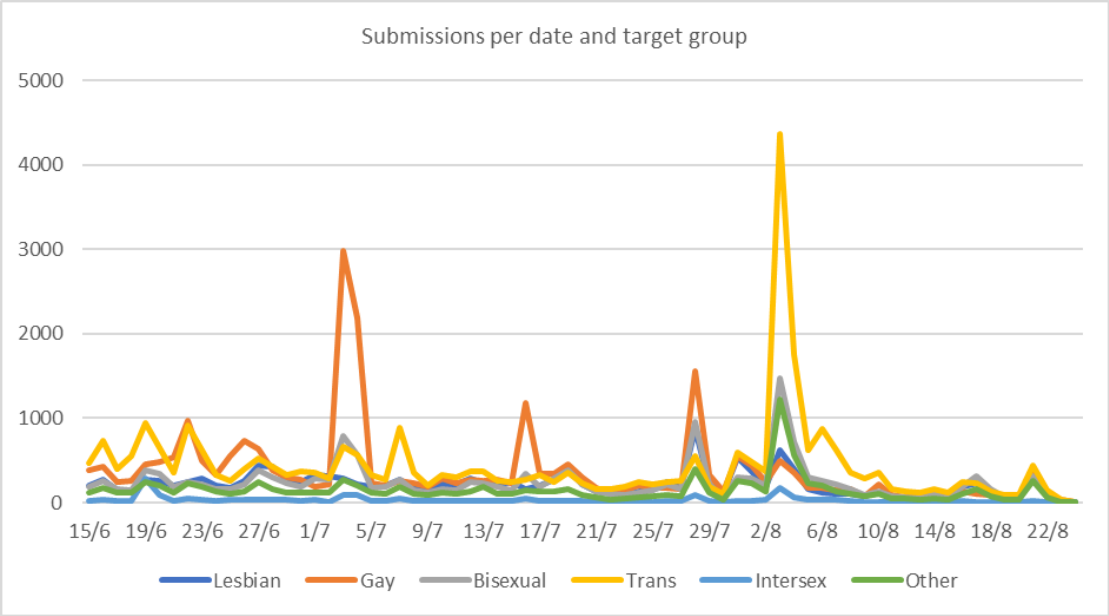


Table 5 – Average completion time (in minutes) for fully completed questionnaires per language

Language	Mean	Standard deviation	Language	Mean	Standard deviation
Bulgarian	20	8	Macedonian	20	8
Catalan	19	8	Maltese	21	9
Czech	19	8	Dutch	18	7
Danish	19	7	Polish	18	7
German	20	8	Portuguese	19	7
Estonian	20	8	Russian	21	9
Greek	19	7	Romanian	19	8
English	19	8	Albanian	18	6
Spanish	19	8	Slovak	20	8
French	19	7	Slovenian	17	7
Croatian	17	7	Serbian - Latin	19	7
Italian	18	7	Serbian - Cyrillic	18	6
Latvian	19	8	Finnish	19	8
Luxembourgish	20	7	Swedish	20	8

Language	Mean	Standard deviation	Language	Mean	Standard deviation
Lithuanian	19	8	Turkish	19	7
Hungarian	20	8	Ukrainian	21	6
			Total	19	8

Note: Total duration is available as survey paradata.

Table 6 – Average completion time for fully completed questionnaires per questionnaire section

Section	Mean	Standard deviation	Section	Mean	Standard deviation
A (respondent self-identification-intro)	133 sec (2 min)	80	E (Violence)	39 sec (1 min)	30
B (openness & safe environment)	138 sec (2 min)	80	F (Harassment)	191 sec (3 min)	108
Trans specific	111 sec (2 min)	82	G (Respondent socioeconomic background)	152 sec (3 min)	78
Intersex specific	130 sec (2 min)	89	H (Health)	53 sec (1 min)	40
C (discrimination)	295 sec (5 min)	132	I (Awareness of the survey)	52 sec (1 min)	39
D (Trends & government responses)	85 sec (1 min)	69			

Note: Section duration is the computed sum of the partial durations of each question in the respective section. The partial durations are available as survey paradata.

The sample includes persons who identify themselves as lesbian, gay, bisexual, transgender, intersex, as well as persons who are not heterosexual or cisgender and are not comfortable assigning themselves to any of these categories. On this basis, respondents were categorized into six main groups: lesbian, gay, bisexual, trans, intersex and other.

6.1. Sample and respondents' profile

The survey was concluded with 102,002 fully completed questionnaires (before data cleaning). Germany, France and Poland contributed the most in the final sample, taking into account their relative estimated target population as compared to other countries (see ***Table 7***). Six countries exceeded their estimated target sample size, as can be seen in the "Realized/Target sample (%)" column, which shows percentages above 100% for these countries – most notable example is Finland. Moreover, the role of promotion campaigns in the number of completed questionnaires is significant for the majority of countries, with at least 4 out of 10 completed questionnaires in the achieved sample that can be attributed to specific campaigns. Most notable case is Serbia (93% of the country's achieved sample attributed to campaigns), with Finland, Hungary and Romania closely following. On the contrary, the achieved samples in Bulgaria and Slovenia reflect a minor contribution of campaigns to their realized samples.

Table 7 – Estimates of target LGBTI population, target sample and realized sample by survey country before cleaning-validation

Country	Estimated target population	Estimated target sample	Realized sample	Realized/ Target sample (%)	% of realized sample from campaigns
AT	297,535	2,956	2,628	89	43
BE	379,091	3,348	2,023	60	43
BG	219,201	2,579	1,815	70	15
HR	130,169	2,150	1,533	71	65
CY	32,321	773	353	46	36
CZ	342,526	3,174	3,996	126	67
DK	194,887	2,464	2,244	91	68

Country	Estimated target population	Estimated target sample	Realized sample	Realized/ Target sample (%)	% of realized sample from campaigns
EE	42,542	1,739	1,219	70	41
FI	178,389	2,381	8,669	364	82
FR	2,160,338	13,967	12,016	86	51
DE	2,673,459	16,462	16,966	103	42
EL	338,349	3,152	2,965	94	77
HU	321,542	3,071	3,011	98	81
IE	167,154	2,336	1,937	83	50
IT	1,858,247	12,517	5,008	40	63
LV	59,369	859	799	93	73
LT	90,195	1,960	1,048	53	60
LU	22,453	731	598	82	13
MT	18,469	710	341	48	44
NL	583,661	4,331	5,384	124	54
PL	1,252,071	9,565	9,976	104	76
PT	329,289	3,108	1,865	60	25
RO	630,687	4,564	1,810	40	82
SK	182,640	2,408	1,224	51	62
SI	66,576	890	1,523	171	18
ES	1,533,378	10,936	5,506	50	67
SE	342,039	3,171	3,182	100	59
MK	72,678	943	521	55	74
RS	223,578	2,598	1,570	60	93
AL	101,566	1,076	272	25	78
Total	**14,844,399**	**120,919**	**102,002**	**84**	**59**

Table 8 – EU LGBTIQ Survey Sample size by survey country and respondents' sexual orientation after cleaning-validation

	Lesbian	Gay	Bisexual	Pan-sexual	Asexual	Hetero-sexual / Straight	Other	TOTAL	Lesbian	Gay	Bisexual	Pan-sexual	Asexual	Hetero-sexual / Straight	Other	Total
AT	579	581	599	400	270	43	120	2,592	22%	22%	23%	15%	10%	2%	5%	100%
BE	394	684	390	267	150	24	50	1,959	20%	35%	20%	14%	8%	1%	3%	100%
BG	401	566	529	150	87	28	28	1,789	22%	32%	30%	8%	5%	2%	2%	100%
HR	301	410	508	148	84	17	40	1,508	20%	27%	34%	10%	6%	1%	3%	100%
CY	95	129	54	27	6	8	12	331	29%	39%	16%	8%	2%	2%	4%	100%
CZ	805	1571	835	370	269	34	76	3,960	20%	40%	21%	9%	7%	1%	2%	100%
DK	489	685	460	255	230	30	68	2,217	22%	31%	21%	12%	10%	1%	3%	100%
EE	267	198	359	202	121	13	31	1,191	22%	17%	30%	17%	10%	1%	3%	100%
FI	1,894	1,101	2,557	1776	829	115	325	8,597	22%	13%	30%	21%	10%	1%	4%	100%
FR	3,228	3,221	2,367	2,009	763	134	225	11,947	27%	27%	20%	17%	6%	1%	2%	100%
DE	3,483	3,860	3,864	2,584	2,174	220	659	16,844	21%	23%	23%	15%	13%	1%	4%	100%
EL	535	1,275	633	292	65	38	94	2,932	18%	43%	22%	10%	2%	1%	3%	100%
HU	599	1,109	734	222	192	52	55	2,963	20%	37%	25%	7%	6%	2%	2%	100%
IE	401	572	473	159	165	11	99	1,880	21%	30%	25%	8%	9%	1%	5%	100%

	Lesbian	Gay	Bisexual	Pan-sexual	Asexual	Hetero-sexual / Straight	Other	TOTAL	Lesbian	Gay	Bisexual	Pan-sexual	Asexual	Hetero-sexual / Straight	Other	Total
IT	822	1,618	1,361	568	362	79	149	4,959	17%	33%	27%	11%	7%	2%	3%	100%
LV	159	234	219	99	55	10	18	794	20%	29%	28%	12%	7%	1%	2%	100%
LT	211	308	269	139	65	13	35	1,040	20%	30%	26%	13%	6%	1%	3%	100%
LU	127	245	91	61	31	7	17	579	22%	42%	16%	11%	5%	1%	3%	100%
MT	69	150	60	29	10	8	8	334	21%	45%	18%	9%	3%	2%	2%	100%
NL	1,023	1,340	1,158	653	509	84	210	4,977	21%	27%	23%	13%	10%	2%	4%	100%
PL	2,034	3,205	2,548	1,062	734	121	195	9,899	21%	32%	26%	11%	7%	1%	2%	100%
PT	375	564	508	211	113	33	42	1,846	20%	31%	28%	11%	6%	2%	2%	100%
RO	370	577	475	188	96	23	60	1,789	21%	32%	27%	11%	5%	1%	3%	100%
SK	211	503	259	129	90	9	18	1,219	17%	41%	21%	11%	7%	1%	1%	100%
SI	315	491	418	154	87	10	35	1,510	21%	33%	28%	10%	6%	1%	2%	100%
ES	859	2,222	1,671	246	334	77	45	5,454	16%	41%	31%	5%	6%	1%	1%	100%
SE	579	802	791	434	344	56	156	3,162	18%	25%	25%	14%	11%	2%	5%	100%
MK	105	164	134	56	18	8	18	503	21%	33%	27%	11%	4%	2%	4%	100%
RS	330	450	501	134	58	29	47	1,549	21%	29%	32%	9%	4%	2%	3%	100%

	Lesbian	Gay	Bisexual	Pan-sexual	Asexual	Hetero-sexual / Straight	Other	TOTAL	Lesbian	Gay	Bisexual	Pan-sexual	Asexual	Hetero-sexual / Straight	Other	Total
AL	34	88	81	29	5	3	13	253	13%	35%	32%	11%	2%	1%	5%	100%
EU-27	**20,625**	**28,221**	**24,190**	**12,834**	**8,235**	**1,297**	**2,870**	**98,272**	**21%**	**29%**	**25%**	**13%**	**8%**	**1%**	**3%**	**100%**
EU-30	**21,094**	**28,923**	**24,906**	**13,053**	**8,316**	**1,337**	**2,948**	**100,577**	**21%**	**29%**	**25%**	**13%**	**8%**	**1%**	**3%**	**100%**

Table 9 – EU LGBTIQ Survey Sample size by survey country and respondents' Gender Identity and Expression

	Women cisgender	Men cisgender	Trans women	Trans men	Non-binary-Gender diverse ALL (minus Trans men+ women)	Other (Not trans, not cis)	Total	Women cisgender	Men cisgender	Trans women	Trans men	Non-binary-Gender diverse ALL (minus Trans men+ women)	Other (Not trans, not cis)	Total
AT	1,049	634	169	144	582	14	**2,592**	40%	24%	7%	6%	22%	1%	**100%**
BE	624	757	98	100	367	13	**1,959**	32%	39%	5%	5%	19%	1%	**100%**
BG	793	702	31	79	178	6	**1,789**	44%	39%	2%	4%	10%	0%	**100%**
HR	744	482	14	50	212	6	**1,508**	49%	32%	1%	3%	14%	0%	**100%**
CY	140	137	10	10	32	2	**331**	42%	41%	3%	3%	10%	1%	**100%**
CZ	1,345	1,663	129	253	557	13	**3,960**	34%	42%	3%	6%	14%	0%	**100%**
DK	787	732	125	121	441	11	**2,217**	35%	33%	6%	5%	20%	0%	**100%**
EE	561	195	25	93	306	11	**1,191**	47%	16%	2%	8%	26%	1%	**100%**
FI	4,103	1,120	306	758	2,238	72	**8,597**	48%	13%	4%	9%	26%	1%	**100%**
FR	4,687	3496	592	760	2,343	69	**11,947**	39%	29%	5%	6%	20%	1%	**100%**
DE	5,831	4,224	1,197	1,044	4,406	142	**16,844**	35%	25%	7%	6%	26%	1%	**100%**
EL	1,045	1,384	43	79	365	16	**2,932**	36%	47%	1%	3%	12%	1%	**100%**

	Women cisgender	Men cisgender	Trans women	Trans men	Non-binary-Gender diverse ALL (minus Trans men+ women)	Other (Not trans, not cis)	Total	Women cisgender	Men cisgender	Trans women	Trans men	Non-binary-Gender diverse ALL (minus Trans men+ women)	Other (Not trans, not cis)	Total
HU	1,142	1,217	79	139	369	17	**2,963**	39%	41%	3%	5%	12%	1%	**100%**
IE	579	611	127	129	417	17	**1880**	31%	33%	7%	7%	22%	1%	**100%**
IT	1,727	1,892	143	204	968	25	**4,959**	35%	38%	3%	4%	20%	1%	**100%**
LV	322	254	20	44	149	5	**794**	41%	32%	3%	6%	19%	1%	**100%**
LT	395	334	37	56	215	3	**1,040**	38%	32%	4%	5%	21%	0%	**100%**
LU	221	262	21	13	59	3	**579**	38%	45%	4%	2%	10%	1%	**100%**
MT	102	161	10	22	39	0	**334**	31%	48%	3%	7%	12%	0%	**100%**
NL	1,596	1,522	369	302	1150	38	**4,977**	32%	31%	7%	6%	23%	1%	**100%**
PL	3,664	3,450	371	669	1,707	38	**9,899**	37%	35%	4%	7%	17%	0%	**100%**
PT	678	631	61	106	358	12	**1,846**	37%	34%	3%	6%	19%	1%	**100%**
RO	612	705	54	96	312	10	**1,789**	34%	39%	3%	5%	17%	1%	**100%**
SK	388	547	33	41	206	4	**1,219**	32%	45%	3%	3%	17%	0%	**100%**
SI	685	559	14	56	194	2	**1,510**	45%	37%	1%	4%	13%	0%	**100%**

	Women cisgender	Men cisgender	Trans women	Trans men	Non-binary-Gender diverse ALL (minus Trans men+ women)	Other (Not trans, not cis)	Total	Women cisgender	Men cisgender	Trans women	Trans men	Non-binary-Gender diverse ALL (minus Trans men+ women)	Other (Not trans, not cis)	Total
ES	1,921	2,421	153	202	728	29	**5,454**	35%	44%	3%	4%	13%	1%	**100%**
SE	887	830	343	298	788	16	**3,162**	28%	26%	11%	9%	25%	1%	**100%**
MK	202	182	9	21	86	3	**503**	40%	36%	2%	4%	17%	1%	**100%**
RS	682	522	32	71	234	8	**1,549**	44%	34%	2%	5%	15%	1%	**100%**
AL	85	122	6	4	36	0	**253**	34%	48%	2%	2%	14%	0%	**100%**
EU-27	**36,628**	**30,922**	**4,574**	**5,868**	**19,686**	**594**	**98,272**	**37%**	**31%**	**5%**	**6%**	**20%**	**1%**	**100%**
EU-30	**37,597**	**31,748**	**4,621**	**5,964**	**20,042**	**605**	**100,577**	**37%**	**32%**	**5%**	**6%**	**20%**	**1%**	**100%**

Table 10 – EU LGBTIQ Survey Intersex respondents by survey country

	Intersex	
	N	%
AT	41	2.1
BE	41	2.1
BG	25	1.3
HR	36	1.9
CY	5	0.3
CZ	95	4.9
DK	49	2.6
EE	19	1.0
FI	132	6.9
FR	178	9.3
DE	295	15.4
EL	40	2.1
HU	43	2.2
IE	49	2.6
IT	91	4.7
LV	16	0.8
LT	25	1.3
LU	8	0.4
MT	6	0.3
NL	100	5.2
PL	218	11.4
PT	42	2.2
RO	58	3.0
SK	23	1.2
SI	23	1.2
ES	88	4.6

	Intersex	
SE	79	4.1
MK	18	0.9
RS	56	2.9
AL	21	1.1
EU-27	**1,825**	**100.0**
EU-30	**1,920**	**100.0**

Table 111 – EU LGBTIQ Survey Intersex respondents by age group

	Intersex respondents	
Age group	N	%
15-17	135	7
18-24	585	30
25-39	826	43
40-54	259	13
55+	115	6
Total	1920	100.0

Table 122 – EU LGBTIQ Survey respondents by age groups and sexual orientation

	Lesbian		Gay		Bisexual		Pansexual		Asexual		Heterosexual/Straight		Other		Total	
Age group	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
15-17	1,517	7.2	1,014	3.5	2,267	9.1	1461	11.2	758	9.1	115	8.6	330	11.2	**7,462**	**7**
18-24	6,708	31.8	6,025	20.8	10,210	41.0	4,830	37.0	3,690	44.4	391	29.2	1,261	42.8	**33,115**	**33**
25-39	9,125	43.3	12,830	44.4	10,188	40.9	5,526	42.3	3,421	41.1	545	40.8	1,050	35.6	**42,685**	**42**
40-54	2,737	13.0	6,478	22.4	1,748	7.0	1,059	8.1	376	4.5	192	14.4	236	8.0	**12,826**	**13**
55+	1,007	4.8	2,576	8.9	493	2.0	177	1.4	71	0.9	94	7.0	71	2.4	**4,489**	**4**
Total	**21,094**	**100.0**	**28,923**	**100.0**	**24,906**	**100.0**	**13,053**	**100.0**	**8,316**	**100.0**	**1,337**	**100.0**	**2,948**	**100.0**	**100,577**	**100.0**

Table 133 – EU LGBTIQ Survey respondents by age groups and gender identity and expression

	Women cisgender		Men cisgender		Trans women		Trans men		Non-binary-Gender diverse ALL (minus Trans men+ women)		Other (Not trans, not cis)		Total	
Age group	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	N	%
15-17	2,811	7.5	989	3.1	327	7.1	1,089	18.3	2,179	10.9	67	11.1	**7,462**	**7.4**
18-24	12,775	34.0	6,818	21.5	1,743	37.7	2,875	48.2	8,720	43.5	184	30.4	**33,115**	**32.9**
25-39	17,209	45.8	14,130	44.5	1,800	39.0	1,746	29.3	7,564	37.7	236	39.0	**42,685**	**42.4**
40-54	3,788	10.1	7,021	22.1	485	10.5	211	3.5	1,238	6.2	83	13.7	**12,826**	**12.8**
55+	1,014	2.7	2,790	8.8	266	5.8	43	0.7	341	1.7	35	5.8	**4,489**	**4.5**
Total	**37,597**	**100.0**	**31,748**	**100.0**	**4,621**	**100.0**	**5,964**	**100.0**	**20,042**	**100.0**	**605**	**100.0**	**100,577**	**100.0**

In general, younger respondents (aged 15-34) for each respondent group were better represented than older ones, with 75% of respondents being below 34 years old, in accordance with the previous wave of the survey. This can be attributed to the fact that younger people are more active on the recruitment channels and on the social media, therefore displaying more awareness about current surveys that may be advertised by these channels.

6.2. Socio-economic characteristics of respondents

Respondents are equally distributed regarding their education level (49% hold up to lower education and 51% hold higher education) and residency (51% are residents of big cities vs. 49% residents of smaller settlements).

Table 14 – Education attainment by sexual orientation

	Lesbian		Gay		Bisexual		Pansexual		Asexual		Heteros-exual/ Straight		Other		Total	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
No formal education	49	0%	75	0%	77	0%	58	0%	26	0%	7	1%	14	0%	**306**	**0%**
Primary education	747	4%	704	2%	1,064	4%	611	5%	371	4%	59	4%	157	5%	**3,713**	**4%**
Lower secondary education	1,770	8%	2,035	7%	2,126	9%	1,356	10%	822	10%	143	11%	309	10%	**8,561**	**9%**
Upper secondary education	5,544	26%	6,229	22%	7,599	31%	4,098	31%	3,080	37%	437	33%	1,004	34%	**27,991**	**28%**
Post-secondary education other than college/ university	1,964	9%	2,604	9%	2,080	8%	1,281	10%	677	8%	145	11%	208	7%	**8,959**	**9%**
Bachelor or equivalent	5,256	25%	6,812	24%	6,206	25%	3,125	24%	1,888	23%	268	20%	639	22%	**24,194**	**24%**
Master or equivalent	5,121	24%	8,991	31%	5,210	21%	2258	17%	1,315	16%	232	17%	543	18%	**23,670**	**24%**
Doctoral or equivalent	643	3%	1,473	5%	544	2%	266	2%	137	2%	46	3%	74	3%	**3,183**	**3%**
Total	**21,094**	**100%**	**28,923**	**100%**	**24,906**	**100%**	**13,053**	**100%**	**8,316**	**100%**	**1,337**	**100%**	**2,948**	**100%**	**100,577**	**100%**

Table 155 – Education attainment by gender identity and expression

	Women cisgender		Men cisgender		Trans women		Trans men		Non-binary-Gender diverse ALL (minus Trans men+ women)		Other (Not trans, not cis)		Total	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
No formal education	64	0%	67	0%	29	1%	42	1%	101	1%	3	0%	**306**	**0%**
Primary education	1,223	3%	674	2%	221	5%	516	9%	1,050	5%	29	5%	**3,713**	**4%**
Lower secondary education	2,788	7%	2,111	7%	521	11%	957	16%	2,127	11%	57	9%	**8,561**	**9%**
Upper secondary education	9,903	26%	6,944	22%	1,708	37%	2,238	38%	7,041	35%	157	26%	**27,991**	**28%**
Post-secondary education other than college/university	3,111	8%	2,928	9%	491	11%	569	10%	1,803	9%	57	9%	**8,959**	**9%**
Bachelor or equivalent	10,015	27%	7,536	24%	918	20%	1,075	18%	4,508	22%	142	23%	**2,4194**	**24%**
Master or equivalent	9,470	25%	9,873	31%	628	14%	518	9%	3,042	15%	139	23%	**23,670**	**24%**
Doctoral or equivalent	1,023	3%	1,615	5%	105	2%	49	1%	370	2%	21	3%	**3,183**	**3%**
Total	**37,597**	**100%**	**31,748**	**100%**	**4,621**	**100%**	**5,964**	**100%**	**20,042**	**100%**	**605**	**100%**	**100,577**	**100%**

Table 166 – Employment status by Sexual Orientation

	Lesbian		Gay		Bisexual		Pansexual		Asexual		Heterosexual /Straight		Other		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Don't know	1	0	1	0	2	0	1	0	1	0	0	0	2	0	**8**	**0**
Prefer not to say	4	0	1	0	2	0	1	0	1	0	0	0	0	0	**9**	**0**
In full-time paid work (including on paternity or other temporary leave)	9,146	43	15,978	55	8,440	34	4,109	31	2,217	27	479	36	758	26	**41,127**	**41**
In part-time or temporary paid work	1,820	9	1,783	6	2,373	10	1,347	10	838	10	132	10	319	11	**8,612**	**9**
Self-employed	1,414	7	2,671	9	1,328	5	782	6	300	4	103	8	139	5	**6,737**	**7**
In unpaid or voluntary work	150	1	151	1	204	1	159	1	104	1	12	1	47	2	**827**	**1**
Unemployed	944	4	1,144	4	1,337	5	739	6	570	7	115	9	184	6	**5,033**	**5**
Student, pupil	6,252	30	5,334	18	9,870	40	4,901	38	3,556	43	368	28	1,253	43	**31,534**	**31**
Retired	291	1	823	3	177	1	63	0	41	0	28	2	23	1	**1,446**	**1**
Unable to work due to long-standing health problems	579	3	480	2	623	3	591	5	463	6	59	4	109	4	**2,904**	**3**
Fulfilling domestic tasks	72	0	76	0	96	0	72	1	37	0	7	1	18	1	**378**	**0**
Compulsory military or civilian service	57	0	60	0	50	0	41	0	29	0	4	0	15	1	**256**	**0**
Other	364	2	421	1	404	2	247	2	159	2	30	2	81	3	**1,706**	**2**

	Lesbian		Gay		Bisexual		Pansexual		Asexual		Heterosexual /Straight		Other		Total	
Total	**21,094**	**100**	**28,923**	**100**	**24,906**	**100**	**13,053**	**100**	**8,316**	**100**	**1,337**	**100**	**2,948**	**100**	**100,577**	**100**

Table 17 – Employment status by Gender Identity and Expression

	Women cisgender		Men cisgender		Trans women		Trans men		Non-binary-Gender diverse		Other (Not trans, not cis)		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	**N**	**%**
Don't know	2	0	2	0	0	0	0	0	4	0	0	0	**8**	**0**
Prefer not to say	5	0	0	0	0	0	0	0	4	0	0	0	**9**	**0**
In full-time paid work (including on paternity or other temporary leave)	15,681	42	17,698	56	1,479	32	1,141	19	4,946	25	182	30	**41,127**	**41**
In part-time or temporary paid work	3,408	9	1,884	6	415	9	598	10	2,235	11	72	12	**8,612**	**9**
Self-employed	2,297	6	2,871	9	261	6	241	4	1,018	5	49	8	**6,737**	**7**

	Women cisgender		Men cisgender		Trans women		Trans men		Non-binary- Gender diverse		Other (Not trans, not cis)		Total	
In unpaid or voluntary work	237	1	143	0	79	2	87	1	278	1	3	0	**827**	**1**
Unemployed	1,390	4	1,245	4	506	11	449	8	1,401	7	42	7	**5,033**	**5**
Student, pupil	12,670	34	5,987	19	1,361	29	2,941	49	8,381	42	194	32	**31,534**	**31**
Retired	310	1	891	3	88	2	29	0	116	1	12	2	**1,446**	**1**
Unable to work due to long-standing health problems	760	2	422	1	297	6	308	5	1,095	5	22	4	**2,904**	**3**
Fulfilling domestic tasks	159	0	86	0	28	1	17	0	83	0	5	1	**378**	**0**
Compulsory military or civilian service	77	0	75	0	15	0	18	0	68	0	3	0	**256**	**0**
Other	601	2	444	1	92	2	135	2	413	2	21	3	**1,706**	**2**
Total	**37,597**	**100**	**31,748**	**100**	**4,621**	**100**	**5,964**	**100**	**20,042**	**100**	**605**	**100**	**100,577**	**100**

Table 188 – Making ends meet – by sexual orientation and gender identity and expression (%)

	Lesbian	Gay	Bisexual	Pansexual	Asexual	Heterosexual/Straight	Other	Total
	%	%	%	%	%	%	%	
With difficulty	37	33	39	44	37	47	42	**37**
Fairly to very easily	63	67	60	56	62	53	57	**62**
Do not know/Do not say	0	0	0	1	0	1	0	**0**
Total	100	100	100	100	100	101	100	**100**

	Women cisgender	Men cisgender	Trans women	Trans men	Non-binary-Gender diverse	Other (Not trans, not cis)	Total
	%	%	%	%	%	%	**%**
With difficulty	36	32	48	47	43	39	**37**
Fairly to very easily	64	68	52	52	56	60	**62**
Do not know/Do not say	0	0	0	1	0	1	**0**
Total	100	100	100	100	100	100	**100**

6.3. Drop-outs

More than half (57%) of respondents who started the survey completed it successfully. The dropouts included questionnaires that were not completed either because the respondents did not fulfil the eligibility criteria (being at least 15 years old, LGBTIQ self-identification, living in the EU-27+RS, MK, AL for more than 1 year) or because they discontinued the survey at some point. However, some eligible respondents who stopped the survey could start again at a later time. Because of the anonymous set-up, it is not known how many of these people returned later and filled in the survey. The incomplete questionnaire of these users would have been included in the dropouts; thus, it is likely that the true average response rate is higher since in the end they did complete the survey.

As shown in Table 16, 71,770 visitors who accessed the survey website started the survey but did not finish it. Almost 50% of these visitors left the survey during the introduction (4%) or in section A (46%). A relatively high drop-out rate is also seen in sections B (10%) and C (24%).

Drop-outs from section A include about 13,608 respondents who did not meet the eligibility criteria of the survey (Table 17). Most non-eligible respondents (48%) were screened out because they were not associated with any of the LGBTIQ categories. People not fulfilling this criterion were typically heterosexual or responded 'Other' regarding their sexual orientation, and at the same time they did not self-identify as intersex or trans people.

Table 199 – Number respondents dropping out by the questionnaire section reached

Section	N	%
Introduction	2,642	4
A (respondent self-identification-intro)	32,936	46
B (openness & safe environment)	7,476	10
Trans specific	1,116	2
Intersex specific	424	1
C (discrimination)	17,414	24

Section	N	%
D (Trends & government responses)	1,588	2
E (Violence)	1,396	2
F (Harassment)	4,597	6
G (Respondent socioeconomic background)	1,173	2
H (Health)	613	1
I (Awareness of the survey)	395	1
Total	**71,770**	**100**

Table 20 – Screened out respondents by eligibility criterion failed

Eligibility criterion	N	%
Age ≥ 15 years	1,088	8
Self-identification in the LGBTI target group	6,531	48
Currently living in:		
(i) any 27 EU Member States, Serbia, and North Macedonia	3,913	29
(ii) for 1 year or more	2,076	15
Total	**13,608**	**100**

6.4. Paradata

The survey data were complemented by another set of data focusing on how the questionnaire data was collected. The paradata can be summarized as follows:

- Browser:
  - name (e.g. Firefox, Chrome, Safari),
  - version and major version,

    - user agent (e.g. Mac, Windows, Linux),
    - width, height
    - language of the browser,
    - engine name and version,
    - cookies (enabled or not)
- Device:
    - device type,
    - vendor
    - model,
    - width and height of the screen,
    - OS name
    - OS version
- Referral site
    - Campaign ID
    - Total duration
    - Duration of response to each question
    - Timestamp (Starting date, Submission date)
    - Captcha score: the score of the probability of being a robot

6.5. Most effective channels of promoting the survey

Table 20 presents the effectiveness of communication channels for the survey. Social media played a major part in promoting the survey, with 65% of respondents overall mentioning them as their source of information. Following was word of mouth (sb.

told me or sent me a link – 19%) and banners (online or at dating apps -12% in total). Other sources (newspapers, emails) had minor impact.

Table 211 – How did the survey respondents learn about the survey (multiple answers) by sexual orientation (%)

	Lesbian	Gay	Bi-sexual	Pan-sexual	Asexual	Hetero-sexual/ Straight	Other	Total of each channel
	%	%	%	%	%	%	%	**%**
I read about it in a newspaper (online or printed)	2	5	1	2	1	1	2	**3**
I received an email from an LGBTIQ organisation or online network	7	6	4	6	2	9	6	**5**
I received an email from any other organisation or online network	2	2	1	2	1	4	3	**2**
Somebody told me about it or sent me the link	17	15	19	24	21	19	21	**18**
Through social media - on my own timeline/space on Facebook, Instagram, Twitter, etc.	28	22	30	27	37	28	31	**27**
Through social media - in a page or group I follow on Facebook, Instagram, Twitter, etc.	36	27	36	37	41	34	30	**33**
I saw an advertisement (banner) online	5	7	5	5	3	5	5	**6**
I saw an advertisement (banner) in a dating app	6	17	9	6	1	4	7	**10**
Somewhere else	5	8	5	4	4	8	5	**6**

(*) Respondents were allowed to select more than one answer option, hence percentages do not sum to 100%.

Table 222 – How did the survey respondents learn about the survey (multiple answers) by gender identity (%)

	Women cisgender	Men cisgender	Trans women	Trans men	Non-binary-Gender diverse	Other (Not trans, not cis)	Total
	%	%	%	%	%	%	%
I read about it in a newspaper (online or printed)	1	4	3	1	2	1	3
I received an email from an LGBTIQ organisation or online network	5	5	9	8	6	7	5
I received an email from any other organisation or online network	2	2	2	1	2	4	2
Somebody told me about it or sent me the link	19	16	20	23	21	20	18
Through social media - on my own timeline/space on Facebook, Instagram, Twitter, etc.	31	22	29	30	32	26	27
Through social media - in a page or group I follow on Facebook, Instagram, Twitter, etc.	39	27	34	37	35	33	33
I saw an advertisement (banner) online	5	7	3	4	5	8	6
I saw an advertisement (banner) in a dating app	5	18	6	4	4	5	10
Somewhere else	4	8	5	4	5	9	6

(*) Respondents were allowed to select more than one answer option, hence percentages do not sum to 100%.

Table 233 – How did intersex respondents learn about the survey (multiple answers) (%)

	Intersex
	%
I read about it in a newspaper (online or printed)	3
I received an email from an LGBTIQ organisation or online network	8
I received an email from any other organisation or online network	3
Somebody told me about it or sent me the link	15
Through social media - on my own timeline/space on Facebook, Instagram, Twitter, etc.	30
Through social media - in a page or group I follow on Facebook, Instagram, Twitter, etc.	25
I saw an advertisement (banner) online	7
I saw an advertisement (banner) in a dating app	11
Somewhere else	9

(*) Respondents were allowed to select more than one answer option, hence percentages do not sum to 100%.

6.6. Most effective campaigns

Paradata information was gathered regarding promotion campaigns through which respondents learned and completed the survey, in the form of a campaign (campaign ID). This identifier was used to measure the impact of promotion campaigns in each country. 59% of the completed questionnaires came via promotion campaigns, as shown in Table 21, with most countries having a share of more than 40%. Most notable examples are Finland, Hungary, Romania, and Serbia with shares of more than 80%, while on the opposite side countries such as Bulgaria, Luxemburg and Slovenia had share of less than 20% regarding the impact of promotion campaigns in the completion of the survey.

Table 244 – Share of submitted questionnaires (uncleaned data) that came through the links of promotion campaigns by country

Country	% of campaign	Country	% of campaign
Austria	43	Lithuania	60
Belgium	43	Luxembourg	13
Bulgaria	15	Malta	44
Croatia	65	Netherlands	54
Cyprus	36	Poland	76
Czechia	67	Portugal	25
Denmark	68	Romania	82
Estonia	41	Slovakia	62
Finland	82	Slovenia	18
France	51	Spain	67
Germany	42	Sweden	59
Greece	77	N. Macedonia	74
Hungary	81	Serbia	93
Ireland	50	Albania	78
Italy	63	**Total average of all campaigns**	**59**

Country	% of campaign	Country	% of campaign
Latvia	73		

6.7. Respondent feedback

During the data collection period a helpdesk regarding survey related issues was organised. The respondents could access it through the survey's website. The received requests summed up to 66. In the table below, the support requests are grouped by subject.

Table 255 – Helpdesk- respondent feedback

Subject	Number of requests
Technical issue - privacy notice button	12
Technical issue - other	9
Irrelevant to the survey query	7
Phrasing comment	5
Unclear questions	5
Information on the survey's ending date	3
Request to promote the survey	3
Country of citizenship drop-down list sorting caused them not to be able to find their country	3
Translation comment	3
Interest on the results of the survey	2
Request to add organisations in the support list of the survey	2
Education question problem (dual citizenship)	2
Other (*)	10
Total	**66**

(*) Survey not open to their country, Issue of combining country/language, Technical issue - Blind accessibility issues, Screen out doubted, Privacy related question - e-mail address, General comment/ communication, Comments on many distinct parts of the questionnaire, Mistake in age/retake survey, Comment on the different identities - 'trans umbrella', Number of responses per person

In the first days of the survey launch there was a problem with the privacy notice button. Respondents that used extensions to block the cookie warnings from the websites they visited, could not press the acceptance button of the privacy notice and thus they could not start the questionnaire. The problem was fixed by the support team.

Other technical issues were reported by people who claim to have lost their answered questionnaire just before completing it. The support team informed them that the data were being saved several times while they answered the questionnaire and in this way their answers were not lost.

Another issue that was reported twice has to do with the problem that people with dual citizenship faced when they were asked about their time in school. They had no option to say that they did not go to school in the country they were living in and reporting in the survey. This will be addressed with explanation-clarification and branching in future survey waves.

Respondents contacted the helpdesk mainly in English, but there were also requests in French, German, Italian, Polish, Danish, Estonian and Greek.

7. Data processing

When survey data collection was completed, a series of steps were undertaken to ensure the quality and accuracy of the data collected and produce a clean and complete datafile, ready for the calculation of the indicators. The steps covered validation rules to monitor errors and assess response patterns reflecting inconsistencies, as well as cleaning-up strategies to identify and further handle suspicious entries. Finally, weighting adjustments were applied to the data to correct for potential over/under-representation of respondents' groups.

7.1. Error handling

During the data preparation stage two programming errors were detected. The errors concerned the order of response options in the following questions:

> A4: 'How would you describe your current gender identity?': reversed order of codes for 'A trans woman' and 'A trans man' responses in the Estonian questionnaires (71 in total)
> A5: 'What sex were you assigned at birth?': reversed order of codes for 'Female' and 'Male' responses in the Turkish questionnaires (18 in total).

To safeguard that these errors would not affect the ensuing validation or the results of any future analysis, answers were recoded accordingly. Corrections were made only on questionnaires that were completed in the specified languages based on the language that was selected at the beginning of the survey.

7.2. Data validation

To validate the correctness and ensure the high quality of the collected data a series of steps were undertaken (see section ***7.2.1***). This included tests to evaluate the length of time respondents took to answer the questionnaire, checks for consistency/ logical tests and tests to detect falsification attempts and duplicate responses. Each validation test was applied at respondent level and stored in the data in the form of a flag (Pass/Fail; Yes/No). A decision about the validity of each completed questionnaire was made based on the results of the validation tests and a set of pre-specified criteria. Questionnaires that were assessed as erroneous, suspicious or inconsistent were excluded from the dataset.

Validation actions were implemented on the uncleaned dataset of 102,002 responses, after removing testers and system duplicates. These resulted in a cleaned dataset of 100,577 responses that comprises the final dataset which were used for analytical purposes.

The following section elaborates on the validation tests and the decision criteria that were evaluated in combination to assess each questionnaire. For each test, a brief description is provided accompanied by a summary of the outcomes of this specific test. Examination of the performance of all tests combined is presented in the end of this section.

In the framework of the cleaning and validation strategy, time features included in the collected paradata and translated open-text fields to English were utilized.

7.2.1. Suspicious or invalid entries based on completion duration

The first step was meant to detect respondents completing the survey too quickly as compared to the length and expected minimum duration of the questionnaire. Speeding through the questions implies that respondents have not been reading and answering the questions carefully and thoughtfully, thus limiting the validity of their responses.

To identify speeders two indicators were used: a) the time spent for the completion of the questionnaire (total duration) and b) the time spent across subsections of the questionnaire (partial completion time).

7.2.1.1. Total duration speeders

Total completion time is the difference between the starting time and the time of submission. Very long times -typically exceeding 75 minutes as seen in Table 21 can be explained by several reasons, such as interrupted completion or by late submission, and have no impact on the quality of the data. In contrast, short times are suspicious and therefore were subject to further investigation.

Table 266 – Distribution of total completion time

Total duration (min)	Number of observations
[5-10)	5,227
[10-15)	30,058
[15-20)	29,310
[20-25)	16,351
[25-30)	7,871
[30-35)	4,068
[35-40)	2,259
[40-45)	1,369
[45-50)	981
[50-55)	669
[55-60)	464
[60-65)	384
[65-70)	314
[70-75)	246
75+	2,406
Total	**101,977**

For assessing the quality of total completion time, respondents were divided into subgroups created as combinations of:

- The respondent categories namely cisgender lesbian, gay and bisexual (LGB); trans only (T); intersex only (I); and intersex with a trans identity (T&I) that were derived based on their responses in:
  - A2: 'How would you describe yourself today?'
  - A3: 'Are / were you a trans person?'
  - A5: 'What sex were you assigned at birth?'
  - A6: 'Please select the answer that best matches your sexual orientation'

    - A8: ‘Would you describe yourself as intersex?’; and

- The number of different types of violent incidents, including discrimination, harassment and/or physical/sexual attack, that were experienced because of being LGBTIQ.

The number of different types of incidents was expected to affect the total duration of completion because specific experiences increased the number of survey questions asked, and thus led to longer expected completion times. Moreover, respondent category was relevant because of the additional questionnaire sections for trans and intersex respondents. Intersex respondents who also identified as trans were asked to complete both the intersex section and the trans section, therefore total duration was expected to be longer.

Total completion time was studied separately for each combination of respondent category (cis LGB, T, I, T&I) and number of incidents (0-none, 1-only one type, 2- any combination of two types, 3-all types of incidents). Due to the limited number of intersex respondents however, total survey completion time was investigated only between those who do or do not identify as trans people, and the number of incidents was not considered in their total completion time. Cut-off points that defined the minimum time required to pass the total duration speeding test were chosen based on experience from the previous survey in such a way that the same proportion of respondents were identified as ‘speeders’ among the subgroups. A respondent was flagged as follows:

- a speeder (i.e. fail) if duration was less than or equal to 0.5 percentile of the total duration distribution;

- with a warning if duration was between 0.5 and 0.7 percentile; warnings served as an indication for further assessment together with the results of other validation tests;

- a non-speeder (i.e. pass) if duration was greater than 0.7 percentile.

A total of 515 (0.5%) respondents were captured as speeders and 211 (0.2%) were flagged with a warning.

It is worth mentioning that evaluation of the total duration speeders was also performed with the set of cut-off points that were used in 2019 survey wave, i.e. 0.7/1 percentiles. Finally, it was decided to keep the more conservative 0.5/0.7 thresholds.

Table 277 – Cut-off durations in seconds defining speeding: fail if [min, 0.5], warning if (0.5, 0.7] and pass if (0.7, max]

Respondent category	Percentile	Number of incidents			
		0	1	2	3
Cis LGB+	0.5	400 (≈7 min)	457 (≈8 min)	495 (≈8 min)	542 (≈9 min)
	0.7	416 (≈7 min)	470 (≈8 min)	511 (≈9 min)	561 (≈9 min)
Trans only	0.5	458 (≈8 min)	508 (≈8 min)	551 (≈9 min)	578 (≈10 min)
	0.7	467 (≈8 min)	526 (≈9 min)	568 (≈9 min)	611 (≈10 min)
Intersex only	0.5	386 (≈6 min)			
	0.7	390 (≈7 min)			
Intersex & trans	0.5	386 (≈6 min)			
	0.7	410 (≈7 min)			

Table 288 – Results of total duration speeding test

Validation test	No of observations	Decision
Total Duration Speeder (0.5 percentile-speeder cutoff point)	515 (0.5%) speeders 211 (0.2%) warnings 101,251 (99.3%) non-speeders	Remove speeders. Evaluate warnings together with other validation tests.

7.2.1.2. Partial duration speeders

Partial completion time measures time spent on questionnaire sections of the and complements the assessment of total completion time. It is important in identifying hidden speeders who may have speed-up response within each section, but their total completion time contained delays and thus lied within the acceptable limits mentioned above.

Seven sections were selected for this test to minimize the effect of routing and includes questions answered by most respondents (Sections A-intro, B-Trends, C-

Discrimination, F-Harassment, G-Socioeconomic background, H-Health, I). Section duration was derived as the sum of the time (in seconds) spent on each question of the section. Analogically to the approach used for total duration speeders, 0.5 and 0.7 percentiles were selected to pick-out section speeders (fails) and non-speeders (pass) and to give intermediate warnings. The choice of the above set of cut-off points was based on insights gained from the data and the fact that led to more conservative decisions compared to 2019 survey cut-off points (0.7/1). Each respondent ended up with seven flags, showing the outcome of the test per section. Finally, the flags were combined into a single flag summarizing performance across all sections. Decision about partial speeding was judged from the number of speeding flags and the number of warnings. Respondents failed the test if they were flagged as speeders in 4 sections at least or if they got speeding flags and warnings in about half of the sections.

Overall, 106 (0.1%) respondents were captured as partial speeders by the test and another 172 (0.2%) were given a warning.

Table 2299 – Cut-off section durations in seconds defining speeding: fail if [min, 0.5], warning if (0.5, 0.7] and pass if (0.7, max]

Percentile	Section						
	A	B	C	F	G	H	I
0.5	39.0	45.0	89.0	39.0	52.0	20.0	16.0
0.7	41.0	47.0	93.0	41.0	54.0	20.0	17.0

Table 30 – Decision rule for seven-section duration speeders

Condition		Decision
Number of speeding flags	**Number of warnings**	
0	≤ 2	Non-speeder
0	[3, 4, 5]	Warning
0	≥ 6	Speeder
1	≤ 1	Non-speeder
1	[2, 3, 4]	Warning
1	≥ 5	Speeder
2	≤ 1	Non-speeder

Condition		Decision
Number of speeding flags	**Number of warnings**	
2	2	Warning
2	≥ 3	Speeder
3	≤ 1	Warning
3	≥ 2	Speeder
≥ 4	≥ 0	Speeder

Table 31 – Results of partial duration speeding test

Validation test	Number of observations	Decision
Seven-section Duration Speeder (0.5 percentile-speeder cutoff point)	106 (0.1%) speeders 172 (0.2%) warnings 101,699 (99.7%) non-speeders	Remove speeders. Evaluate warnings together with other validation tests.

7.2.2. Inconsistent and erroneous entries

The following methods aimed to evaluate consistency of response patterns in selected questions through logical checks. Inconsistencies are reflected by contradiction among a respondent's answers in distinct parts of the questionnaire and do not necessarily signify that false information is provided; however, when appearing on a frequent basis they may be indicative of inattentive participation and of limited reliability and accuracy of the responses. Consequently, integration of conceptual matching tests was deemed a meaningful element of the data cleaning strategy.

7.2.2.1. Conceptual matching using logical tests

To check the consistency of answers, a set of seventeen (17) logical consistency rules were developed, specifying the conditions that shall hold among survey questions under which semantically conflicts may occur. The rules were constructed upon a thorough review of the questionnaire and on the basis of 2019 approach (three rules were removed since they are not applicable in 2023 survey; two of 2019 rules addressed to trans and intersex respondents were incorporated in the same rule since 2023 questionnaire asks all LGBTIQ people; and two new rules were added as

compared to 2019). If a respondent's answer violated the defined logical condition, the test resulted in a 'fail' and in a 'pass' score otherwise.

The results of all logical tests were eventually combined into a total score indicating the percentage of valid tests that failed. Questionnaires with a score equal to or greater than 0.3 (30% of tests failing) were flagged as a 'fail', whereas questionnaires with a score between 0.1 and 0.3 were given a warning. This conservative approach was applied because most rules are imperfect in the light of certain exceptional cases and/or alternative understanding of questions among respondents. Thus, respondents should not be directly excluded upon a single failure but based on a scoring approach that signifies the degree of inconsistency. Moreover, setting the cut-off point at 30% - corresponding to violation of five rules at minimum- the conceptual matching test is relatively permissive in the sense that less than 0.1% of respondents failed.

Table 3232 – Logical rules for conceptual matching test

Routing	Rule (passing criteria)	Number of fails
None	A1 [age] < 85	59
None	A1 [age] >= 55 AND B6_E [schoolmates/co-students] = -98 [does not apply]	2,216
None	(A1 - A10_1 [Age moved to the country where the respondent currently lives] > 20 years) AND (C9_A [Openly talk about you being LGBTIQ at school] = -98 [Does not apply] OR C9_B [Hide or disguise that you were LGBTIQ at school] = -98 [Does not apply] OR C9_C [Experience negative comments or conduct at school because of you being LGBTIQ] = -98 [Does not apply] OR C9_D [Hear or see negative comments or conduct because a schoolmate/peer was perceived to be LGBTI] = -98 [Does not apply] OR C9_E [Have problems when going to bathrooms and changing rooms] = -98 [Does not apply])	3,598

Routing	Rule (passing criteria)	Number of fails
None	(A1 - A10_1 [Age moved to the country where the respondent currently lives] > 20 years) AND (C12_A [Has anyone supported, defended or protected you and your rights<as LGBTIQ person?] = -98 [Does not apply] OR C12_B [Have you heard or seen anyone supporting, protecting or promoting the rights of LGBTI?] = -98 [Does not apply])	3,336
None	B1 [age of first LGBTIQ realization] <= B2 [age of first telling sb you are LGBTIQ]	441
Yes (TR1 = 1)	Trans: TR2 [age of first body intervention] >= 15 years	556
Yes (A8=1)	Intersex: B1 [age of first Intersex realization] > 1 year	82
None	(C12_A [Has anyone at school supported, defended or protected you and your rights as LGBTIQ person?] = 3 OR 4 [Often/Always]) AND (C12_B [Heard or seen anyone at school supporting, protecting or promoting the rights of lesbian, gay, bisexual, trans and/or intersex persons] <> 1 [Never])	624
None	(B5_B = 1 [Selected]) AND (B6_A <> 4 [All]) [agreement between openness to family members] OR (B5_C = 1 [Selected]) AND (B6_E <> 4 [All]) [agreement between openness to schoolmates/co-students] OR (B5_D = 1 [Selected]) AND (B6_D <> 4 [All] OR B6_G <> 4 [All]) [agreement between openness to work colleagues/ customers, clients, etc. at work]	2,490
None	(H1 >= 9) AND (G16 <> 5 [Very bad]) [agreement between satisfaction with life these days and health in general]	73
None	(H1 >= 9) AND (H2 <> 1 [All the time]) [agreement between satisfaction with life these days and feeling downhearted/depressed the last two weeks]	139
None	(H1 >= 9) AND (G19 <> 1 [With great difficulty]) [agreement between satisfaction with life these days and household's total income]	197

Routing	Rule (passing criteria)	Number of fails
None	(G16 = 1 [Very good]) AND (G17 = 2 [No]) [agreement between general health status and long-standing illness/health problem]	2,943
None	(G2 = 8 [Unable to work due to long-standing health problems]) AND (G17 = 1 [Yes]) [agreement between inability to work due to long-standing health problems and having illness or health problem]	110
None	(C7 = 1 [Yes]) AND (G2 =1 OR 2 [In full-time paid work/ In part-time or temporary paid work]) [agreement between having a paid job the last 5 years and working status]	766
None	(H5_1 = 1 [Yes]) AND (G17 = 1 [Yes]) [agreement between long-standing illness or health problem and being diagnosed with cancer in the past 12 months]	197
None	(B3 = 9 [Do not have a same-sex partner]) AND (G4 <> 2 [Married/ registered partnership with same-sex partner]) [agreement between civil status with same-sex partner and statement about avoiding holding hands]	154

Note: The codes correspond to the coding of questions and answer options in the questionnaire

Table 3333 – Results of conceptual matching test

Validation test	Number of observations	Decision
Percentage of valid logical rules that fail above 0.3 (max. 17 rules)	37 (<0.1%) fail 3,741 (3.7%) warnings 98,199 (96.3%) pass	Remove failures. Evaluate warnings together with other validation tests.

7.2.2.2. Inconsistent response patterns associated with screening questions

A parallel examination of responses in the screening questions was employed. As in the 2019 survey, focus was given to self-identification questions and the question about sexual orientation since those are critical in terms of the reliability of the data. Questionnaires that included one of the following contradictory patterns were marked for permanent removal:

- **Lesbian, Gay, and Bisexual respondents (with no trans or intersex identity)**
  - Born as Female (A5 = 1), described as a Man/boy (A2=2) and sexually oriented as Gay (A6=2): 18 failures
  - Born as Male (A5 = 2), described as a Woman/girl (A2=1) and sexually oriented as Lesbian (A6=1): 11 failures

Table 3344 – Results of inconsistency tests associated with screening questions for LGB respondents

Validation test	Number of observations	Decision
Inconsistency in A5, A2, A6: Born Female, described as Man and sexually oriented as Gay (excl. Trans and Intersex)	19 (<0.1%) fail 101,958 (>99.9%) pass	Remove
Inconsistency in A5, A2, A6: Born Male, described as Female and sexually oriented as Lesbian (excl. Intersex and Trans)	13 (<0.1%) fail 101,964 (>99.9%) pass	

- **Trans respondents**
  - Self-described as Trans woman/girl (A2=3) and current gender identity described as a Trans man (A4=2)
  - Self-described as Trans man/boy (A2=4) and current gender identity described as a Trans woman (A4=1)

Overall, 20 trans respondents failed this test.

Table 3355 – Results of inconsistency tests associated with screening questions for Trans respondents

Validation test	Number of observations	Decision
Inconsistency between A2 and A4: Trans woman/Trans man	20 (<0.1%) fail 101,957 (>99.9%) pass	Remove

- **Cis heterosexual who passed the eligibility criteria because of 'Other' sexual orientation**

- Cis respondents (A3=2) who are not intersex (A8=2) not queer (A7=2 or 3) who are self-described as Woman/girl (A2=1) or Man/boy (A2=2) and specify in the open-text of A6 that they are sexually oriented as heterosexual/straight: 66 failures

Table 3366 – Results of inconsistency tests associated with screening questions for cis heterosexual respondents

Validation test	Number of observations	Decision
Inconsistency in A2, A3, A6, A7, A8: Cis Heterosexual Not Intersex and Not Queer	66 (0.1%) fail 101,911 (99.9%) pass	Remove

Note: to supplement validation and cleaning actions, inconsistency tests ran again after editing of the screening questions as in sections below.

7.2.3. Fraudulent and fraud-suspicious entries

The following three-level activities were undertaken:

- **Answers to open-text questions**
  Answers to the open questions were used to identify potentially fraudulent entries or falsification attempts suspected of mocking. Inspection of the text was performed by a non-automated detection method, including manual scanning of the free text that had been translated to English. The search intended to track down mocking, spurious cases, as flagged by specific wording or from the context in the open-text fields. Following previous experience, individual stories were also checked for offensive, insulting or aggressive language from respondents who appeared to use the survey as a means to express political or ideological beliefs. In ambiguous cases in which making a judgment on fraudulence was not straightforward, the decision was taken upon extended review of the whole questionnaire. Almost 0.5% of respondents were identified as fraud. Those cases were marked for permanent removal and came mostly from intersex or trans profiles (74% of fraud entries).

Table 3377 – Results of manual check of answers in the open text

Validation test	Number of observations	Decision
Invalid, suspicious or fraud by inspection of (translated) text in open fields	460 (0.5%) fraud-suspicious 101,517 (99.5%) not fraud-suspicious	Remove

- **Coordinated attempts from known referrers**
  Shortly after the launch of the survey, a coordinated attempt from a website from the Netherlands aiming to interfere with the survey and influence the results came to the attention of FRA. This attempt originated from a website with users mainly in the Netherlands, aiming to skew the results of the survey against trans people (17). The site is a current affairs website and opposes political correctness. The discussions in the chat forum of such website about the survey were of a fraudulent nature with an expressed intention to falsify the survey results. The majority of respondents coming from this specific referrer participated in the survey as self-identified trans respondents and tried to disseminate the survey sharing its link among this channel members who highly oppose the rights of trans people. Therefore, respondents from the flagged website were marked for removal. Overall, 532 respondents were identified, half of which were also detected by previous test by inspection of text in the open-text questions.

Table 3388 – Exclusion of fraud or suspicious entries from referrer

Validation test	Number of observations	Decision
Fraud referrer (geenstijl.nl)	532 (0.5%) suspicious 101,445 (99.5%) not suspicious	Remove

Suspicious entries based on suspicious terms-related content

The aim of this test was to detect similar falsification submissions apart from the above referrer website with known attacks. The contractor undertook a rigorous review of the online group conversations in the aforementioned site and drafted a list of terms that were typically found in threads where group members discussed about responses to the survey questions and pertained primarily to question A5: 'What sex were you assigned at birth?'. With this knowledge at hand, five terms were picked as being most representative and formed a brief list of suspicious terms that such groups opposing trans people tend to adopt ([18]). The list was then integrated into a search function, which enabled case-insensitive search of these words inside the free text of survey question A5, translated into English:

- observed;
- assigned;

([17]) https://www.geenstijl.nl/5171117/hee-een-multiple-choice-quiz-over-eu-lhbgtiq/

([18]) Similar terms were detected during the previous wave in threads of radical feminists expressing a trans-exclusionary agenda and were detected for attempting coordinated attacks to skew the results of 2019 survey.

- detected;
- determined;
- born.

A total of 12 questionnaires were initially captured. However, a human check showed that the amount had been inflated by a number of questionnaires that were caught because of the specific wording, but they were not all suspicious for fraudulence as implied by the content of their response. Finally, only two questionnaires were removed.

Table 39 – Results of suspicious terms-related content search test

Validation test	Number of observations	Decision
Fraud suspicious questionnaires based on suspicious terms-related content	2 (<0.05%) suspicious 101,975 (>99.9%) not suspicious	Remove

7.2.4. Duplicate entries inspection

The purpose of this test was to detect entries with a very high probability of coming from the same respondent. Because of the extent of the questionnaire, the probability of the same person delivering exactly the same responses twice or more is extremely low, especially in open-text fields. In view of respondents' anonymity, the aim of duplicates inspection test was to acquire a sufficient degree of confidence that duplicate entries came from the same respondent by relying on the extent of similarity in their responses. An entry was considered a duplicate only if its responses:

- proved to be the same as those in an earlier case as evidenced by time of submission across a pre-specified set of 64 questions of closed form (near duplicates) ([19]); and
- showed similarities on closer inspection of the content of the text in open fields, or of respondent's paradata (e.g. browser, device).

In the case of duplicate entries, the first entry was kept.

([19]) Preferably questions not involved in routings because missing values die to filtering effect produce a monotonous pattern for a large number of respondents which is difunctional in this kind of analysis.

The criterion detected fifteen entries. Upon review of the questionnaires and consultation with FRA, four entries were considered as duplicates and marked for removal.

Table 40 – Results of search for duplicates

Validation test	Number of observations	Decision
Near duplicate test (Indicator of each last matching case as primary)	4 (<0.1%) duplicates 101,973 (>99.9%) primary cases	Remove

7.2.5. Performance of all validation tests combined

The final decision about exclusion of an entry was taken upon parallel assessment of the outcomes of all validation tests. An entry was:

- **excluded** if any of the tests failed or more than two tests resulted in warning (1,425 observations, 1.4%);
- **included but given a warning** if exactly one test gave a warning and all other tests passed (3,673 observations, 3.6%); and
- **accepted** if all tests passed (96,905 observations, 95%).

Warnings were kept in the cleaned dataset and only questionnaires receiving a 'fail' were removed as invalid or suspicious. The cleaned dataset consisted of 100,577 questionnaires.

7.3. Data editing

A number of editing processes followed the first stage of data cleaning. These were aimed at eliminating the number of open responses in selected questions (option 'Other, please specify') by recategorizing them into the available answer options. Since screening questions are critical for categorisation of respondents in the dimensions of sexual orientation (SO), gender identity (GI) and sex characteristic (ESC) -dimensions used later in the analysis-, editing actions focused on the following survey questions:

- A2: 'How would you describe yourself today?';

- A4: ‘How would you describe your current gender identity?’;
- A5: ‘What sex were you assigned at birth?’;
- A6: ‘Please select the answer that best matches your sexual orientation’.

Based on a preliminary human check in the open answers a list of typical keywords was prepared for each question (e.g. ‘non binary’ in A2, ‘agender’ in A4). These keywords were then integrated into a search function seeking these words inside the text of equivalent questions (translated into English). The composed list included syntactic and punctuation forms of these terms (e.g. nonbinary or non-binary). Once detected, responses were re-categorized accordingly into the matched answer option (e.g. if a respondent had typed ‘non binary’ in ‘Other, please specify’ of A2, their answer was categorized as ‘Non-binary or Genderqueer or Agender or Poly-gender or Gender-fluid’). To improve the accuracy of results, assessment of responses in multiple questions through logical rules was also performed, combining information from multiple screening questions (e.g. if not a trans and not intersex woman, then sex assigned at birth was categorized as ‘female’). Where necessary additional corrections were performed via human checks using information extracted from other questions and the stories (custom corrections). An indicative list of the editing rules that were applied and the number of edits achieved per question are displayed in Table 36 and Table 37, respectively.

Table 41 – Editing rules per question

Question	Indicative list of editing rules
A2: 'How would you describe yourself today?'	Keywords: 'man'; 'men'; 'boy'; 'male' → **Man/ boy** 'woman'; 'women'; 'girl'; 'frau'; 'female' → **Woman/ girl** 'demi'; 'iron'; 'neutral'; 'non-bin'; 'enby'; 'alexigender'; 'genderqueer'; 'genderfluid'; 'fluid'; 'flux'; 'polyge'; 'androgyn' → **Non-binary or Genderqueer or Agender or Poly-gender or Gender-fluid** Logical rules: (A2=other) & ('human' in A2_open) → Do not identify as woman, man, or non-binary (A2=other) & ('trans' in A2_open) & ('male'; 'man'; 'masc'; 'guy'; 'ftm' in A2_open) → **trans man/ boy** (A2=other) & ('trans' in A2_open) & ('woman'; 'girl'; 'fem'; 'mtf' in A2_open) > 0))) →**trans woman/ girl** (A2=other) & (A2_open is blank) → Do not identify as woman, man, or non-binary
A4: 'How would you describe your current gender identity?'	Keywords: 'nonbin'; 'demi'; 'half'; 'iron'; 'xenogen' → **non-binary** 'void'; 'agender'; 'genderless' → **agender** 'bigen'; 'bi-' → **poly-gender** 'flux'; 'fluid'; 'genderflexible' → **gender fluid** 'queer' → gender queer 'transge' → **other** ('trans' in A4_open) & ('man'; 'masc'; 'male'; 'guy'; 'boy' in A4_open) →**trans man** ('trans' in A4_open) & ('fem'; 'wom'; 'frau'; 'girl' in A4_open) →**trans woman** ('pan'; 'poly' in A4_open) → **poly-gender** A4_open='woman'; 'girl' → **trans woman** A4_open='man'; 'boy'; 'masc' → **trans man** Logical rules: (A4=other) & (A4_open is blank) & (A2_edt=trans woman) → **trans woman** (A4=other) & (A4_open is blank) & (A2_edt=trans man) → **trans man** ('trans' in A4_open) & ('man'; 'male'; 'masc'; 'boy'; 'girl'; 'fem' NOT in A4_open) → **other** (A4=other) & ('female' in A4_open) & (A2=woman) & (A3=Yes) → **trans woman**

Question	Indicative list of editing rules
A5: 'What sex were you assigned at birth?'	Keywords: 'man'; 'male'; 'boy'; 'masc'; 'penis' → **male** 'woman'; 'fem'; 'girl'; 'xx' → **female** Logical rules: (A5=other) & ((A2 = trans woman) OR (A4 = trans woman)) & (A8 = No)) → non intersex trans woman to **male**. (A5=other) & ((A2 = trans man) OR (A4 = trans man)) & (A8 = No)) → non intersex trans man to **female**. (A5 =other) & (A8=No) & (A4=NA) & (A6=Lesbian)) → Non trans and non-intersex lesbian to **female**. (A5 =other) & (A8=No) & (A4=NA) & (A6=Gay)) → Non trans and non-intersex gay to **male**. (A5 =other) & (A8=No) & ('female'; 'woman' in A2_open) → Non intersex, self-identified as woman to **female**.

Question	Indicative list of editing rules
A6: 'Please select the answer that best matches your sexual orientation'	Keywords: 'bi'; 'fluid'→ **bisexual** 'bin'→ **other** 'asex'; 'aegosex'; 'gray'; 'ace'; 'demi' → **asexual** 'omni'; 'pan'; 'abro'; 'poly' → **pansexual** 'lesb'; 'sapph' → **lesbian** 'gay' → **gay** 'hetero'; 'straight' → **hetero/straight** 'heteroflex' → **other** Logical rules: (A2='man"|'trans man'|'Non-binary or Genderqueer or Agender or Poly-gender or Gender-fluid') & ('andro'; 'achillean'; 'minsex'; 'boy'; 'man'; 'male' in A6_open)→ **gay** (A2='woman'|'trans woman'|'Non-binary or Genderqueer or Agender or Poly-gender or Gender-fluid') & ('gyno'; 'femm'; 'finsex'; 'girl'; 'woman'; 'female' in A6_open)→ **lesbian** ('homo' in A6_open) & (A2=man) → **gay** ('homo' in A6_open) & (A2=woman) → **lesbian** (A4=trans man) & (A6=lesbian) & (A8=No)) → **other** (A4 =trans woman) & (A6=gay) & (A8=No)) → **other** (A2=man/boy) & (A4 =NA) & (A5=female|male) & (A6 =lesbian) & (A8=Yes)) → **other** (A4=trans man & (A6=lesbian) & (A8=Yes)) → **other** (A4=trans woman & (A6=gay) & (A8=Yes)) → **other** (A2=woman/girl) & (A4=NA) & (A6=gay) & (A8=Yes)) → **other** (A2=man/boy) & (A6=lesbian) & (A8=No)) → **other** (A2= woman/girl) & (A6=gay) & (A8=No)) → **other**

Table 42 – Number of edits achieved per question (cleaned data, N=100,577).

Question	Number and percentage of open answers (out of *N*)	Number of successful edits and percentage (out of *N*)	Percentage of successful edits (out of open answers)
A2: 'How would you describe yourself today?'	1,722 (1.7%)	203 (0.2%)	11.8%
A4: 'How would you describe your current gender identity?'	2,204 (2.2%)	1,619 (1.6%)	73.5%
A5: 'What sex were you assigned at birth?'	269 (0.3%)	173 (0.2%)	64.3%
A6: 'Please select the answer that best matches your sexual orientation'	5,237 (5.2%)	2,616 (2.6%)	50%

Based on the recategorized answers in the screening questions, respondents were classified into the three basic analysis dimensions as shown in Table 40.

Table 4433 – Distribution respondents across the SO-GI-ESC dimensions (cleaned data, N=100,577).

Dimension	Respondent groups	Criteria
Sexual orientation (SO)	Lesbian	A6= Lesbian (21,094; 21%)
	Gay	A6= Gay (28,923; 28.8%)
	Bisexual	A6= Bisexual (24,906; 24.8%)
	Asexual	A6= Pansexual (13,053; 13%)
	Pansexual	A6= Asexual (8,316; 8.3%)
	Straight	A6= Heterosexual/Straight (1,337; 1.3%)
	Other SO	A6= Don't know/Other (2,948; 2.9%)

Dimension	Respondent groups	Criteria
Gender Identity (GI)	Women cisgender	A2=Woman/girl AND A3=No (37,597; 37.4%)
	Men cisgender	A2=Man/boy AND A3=No (31,748; 31.6%)
	Trans women	A4= A trans woman (4,621; 4.6%)
	Trans men	A4= A trans man (5,964; 5.9%)
	Non-binary-Gender diverse (minus Trans men & Trans women)	A4= A cross-dressing woman OR A cross-dressing man OR Non-binary OR Genderqueer OR Gender-fluid OR Agender OR Poly-gender OR Other OR Prefer not to say OR Don't know (20,042; 19.9%)
	Other (Not trans, not cis)	None of the above conditions hold (605; 0.6%)
Sex Characteristics-(ESC) (*)	Intersex	A8=Yes (1,920; 1.9%)
	Non-Intersex	A8=No (98,657; 98.1%)
Respondent category based on 2019 classification	Lesbian women (cisgender endosex)	A6= Lesbian AND A3=No AND A8=No AND A2=Woman/girl (15,602; 15.5%)
	Gay men (cisgender endosex)	A6= Gay AND A3=No AND A8=No AND A2=Man/boy (25,863; 25.7%)
	Bisexual women (cisgender endosex)	A6= Bisexual AND A3=No AND A8=No AND A2=Woman/girl (13,220; 13.1%)
	Bisexual men (cisgender endosex)	A6= Bisexual AND A3=No AND A8=No AND A2= Man/boy (3,934; 3.9%)
	Trans but intersex	A2= Trans woman / girl OR Trans man / boy OR Non-binary or Genderqueer or Agender or Poly-gender or Gender-fluid AND A3=Yes AND A8=No (29,423; 29.3%)
	Intersex	A8=Yes (1,920; 1.9%)
	Unclassified (**)	None of the above conditions hold (10,615; 10.6%)

(*) Editing corrections were not required for A8.

(**) Excluded from analysis of comparisons with 2019/2012

7.4. Weighting of data

7.4.1. Overview

The objectives of the weighting procedures are:

- to correct for imbalances occurring in the final dataset because of differences in response rates, reaching and recruiting tactics as well as the nature of the methodology of data collection, which is opt-in online survey.
- to correct for over-representation of affiliates of LGBTIQ organizations in the survey.
- to allow for EU-level analysis of the results.
- to allow comparisons with previous survey waves (1st wave: LGBT Survey I in 2012, 2nd wave: LGBTI Survey II in 2019) in terms of target population and weighting strategy.

Even in absence of robust statistical data for the target population, weighting of data is the best method to compensate for any imbalances.

To achieve this, the following types of weights were calculated and implemented depending on the case:

1. **Affiliation weights**, used to correct for over-representation of LGBTIQ organizations in the sample.
2. **Benchmark weights**, used to correct for deviations in sample distribution compared to population estimates of LGBTI segments by age and country.
3. **Country weights**, calculated as the product of the above weights.
4. **EU level weights**, calculated as the product of country weights and the estimated country distribution of target population.

The above weights calculations were adapted depending on whether weights were calculated for:

a) The standalone analysis of findings from the LGBTIQ III survey.
b) The comparison of results between LGBTIQ III and LGBTI II surveys.
c) The comparison of results between LGBTIQ III, LGBTI II and LGBTI surveys.

7.4.2. Weights for standalone analysis of findings of LGBTIQ III survey

7.4.2.1. Calculation of affiliation weights

Affiliation weights were introduced for the first time in the LGBTI II survey. These are based on the assumption that, due to the recruitment processes of the survey, respondents affiliated to LGBTIQ organizations have higher probability to participate in the survey than the non-affiliated ones. The following six steps are made to calculate the affiliation weights:

- **Step 1.** Create a "*Participation to surveys"* variable as a proxy variable to the participation in this survey. It is a dummy variable taking the values of 1, if the respondent had certainly or possibly participated in other LGBTIQ surveys (FRA 2019, FRA 2012, or any other similar survey) or 0, if the respondent had not participated in any LGBTIQ survey.

- **Step 2.** Create two "*Affiliation to LGBTIQ organizations"* variables denoting different intensity in terms of affiliation.
  The first affiliation variable was a dummy variable associated with strong affiliation taking the values of 1, if the respondent was an active member, volunteer, or regular contact and 0, otherwise.
  The second affiliation variable was a dummy variable associated with weak affiliation taking the values of 1, if the respondent did not have a strong affiliation but was a follower or supporter4 and 0, otherwise.

- **Step 3.** Allow for age differences by creating an *Age* variable merging the age groups 35-54 and 55+ in one group to have sufficient sample size to perform further analysis by comparing 15-34 years old v. 35+ years old respondents.
  By exploring the distributions of the above variables in the following table, it is noticed that:

  - Approximately 1 out of 3 respondents (31.2%) may have participated in other LGBTIQ surveys in the past (ranging from 22.7% to 41.8%) – this rate is very close to that of LGBTI II survey (31.5%)

  - Being an active member or a regular contact of a LGBTIQ organization increases to 15.5% (range 6.5% to 24.7%) versus 11.8% in 2019 (+3.7 percentage points)

  - Being a follower or supporter of a respective organization increases to 32.9% (range 21.2% to 50.3%) from 23.7% in 2019 (+9.2 percentage points)

Therefore, in the LGBTIQ III survey, the contribution of affiliated respondents in the sample is higher than that of the LGBTI II survey. However, the majority of the survey respondents were neither activists nor supporters of LGBTIQ organisations.

Table 4444 – Participation in other surveys and affiliation variables by country (%) Uncleaned datafile

Country	Participation in other surveys	Active member or regular contact	Follower or supporter
	%	%	%
ALL-30	**31.2**	**15.5**	**32.9**
AL	31.3	9.9	22.4
AT	32.7	24.7	34.6
BE	32.4	20.9	22.7
BG	29.9	8.3	31.1
HR	38.5	8.3	29.2
CY	41.4	21.0	36.0
CZ	41.2	9.2	44.4
DK	29.4	19.9	28.3
EE	30.5	9.6	45.1
FI	26.1	10.4	44.1
FR	26.1	14.5	26.6
DE	29.3	23.4	29.8
EL	34.8	15.1	25.6
HU	35.6	6.5	27.0
IE	37.2	23.3	25.8
IT	34.2	19.6	27.1
LV	36.7	8.8	42.8
LT	38.0	11.3	38.9
LU	22.7	17.6	26.8
MT	39.0	23.2	31.7
NL	31.2	19.0	25.7

Country	Participation in other surveys	Active member or regular contact	Follower or supporter
MK	35.7	14.6	25.1
PL	28.7	8.0	50.3
PT	33.6	15.5	26.6
RO	36.2	12.7	41.2
RS	36.4	7.1	34.8
SK	41.8	9.5	44.5
SI	32.0	10.0	29.3
ES	30.3	17.3	21.2
SE	36.1	18.8	31.3

- **Step 4.** Prepare a set of n=60 logistic regression models (controlling for age group and country) having as dependent variable the *participation to surveys* and as independent variables the *two affiliation* variables. Based on the results of the logistic regression models on the uncleaned datafile:

    1. Almost all odds ratios are found to be significant suggesting that the probability of survey participation is about 5 times higher among strongly affiliated respondents and 3 times higher among weak affiliated ones when compared to the non-involved respondents.

    2. Not strong differences are detected between age groups while overall contribution of affiliation to surveys' participation is between 10% (for those aged below 35 years) to 13% (for those aged 35 years and above).

Table 4455 – Results of logistic regression models per age group and country, uncleaned datafile

	Age under 35 years			Age 35 years and above		
	Nagelkerke Pseudo-R2	Active member, volunteer, or regular contact (Odds ratios)	Follower of activities or financial supporter (Odds ratios)	Nagelkerke Pseudo-R2	Active member, volunteer, or regular contact (Odds ratios)	Follower of activities or financial supporter (Odds ratios)
AL	.276	40.923	4.358	.274	11.083	n.s.
AT	.101	4.708	2.589	.132	5.130	2.258
BE	.132	5.391	2.591	.155	5.435	3.325
BG	.112	5.660	3.098	.139	8.068	2.697
HR	.123	8.871	2.708	.206	11.688	3.269
CY	.209	12.925	n.s.	.140	5.333	3.307
CZ	.093	4.635	2.722	.127	6.722	2.665
DK	.055	2.967	2.061	.091	3.417	2.781
EE	.050	3.275	2.100	.090	4.517	n.s.
FI	.083	5.588	2.469	.095	4.907	2.561
FR	.073	3.966	2.156	.064	3.049	1.962
DE	.083	3.986	2.084	.108	4.209	2.491
EL	.071	3.661	2.056	.055	3.025	1.574
HU	.120	6.165	3.304	.196	8.112	5.181
IE	.084	3.561	2.414	.092	3.541	n.s.
IT	.084	4.024	2.134	.110	4.086	2.230
LV	.089	4.675	2.601	.117	9.720	2.452
LT	.080	4.080	2.362	.094	3.900	2.768
LU	.062	3.019	2.524	.193	8.801	3.477
MT	.171	7.733	n.s.	.251	10.472	4.028

	Age under 35 years			Age 35 years and above		
NL	.068	3.170	2.199	.128	5.053	2.698
MK	.073	3.155	2.524	.221	7.714	4.898
PL	.087	5.579	2.819	.140	5.986	3.892
PT	.096	3.945	2.791	.174	5.662	4.263
RO	.102	4.555	2.915	.150	4.818	4.198
RS	.065	4.926	2.007	.084	5.263	n.s.
SK	.111	7.327	2.511	.243	13.750	5.207
SI	.162	7.007	3.966	.174	9.000	3.912
ES	.099	4.431	2.587	.107	4.189	2.265
SE	.118	5.107	2.647	.061	2.429	2.468
% sig. results	**100%**	**100%**	**93%**	**100%**	**100%**	**87%**
g.mean	**0.097**	**5.147**	**2.571**	**0.129**	**5.722**	**3.043**

Dependent variable: certain or possible earlier LGBTIQ survey participation - reference category for affiliation is the non active involvement- geometric means are only shown for the highly significant results

n.s.=non significant

- **Step 5.** The affiliation weights are calculated as the inverse values of the odds ratios for each country and age group. Therefore, a respondent having higher probability of participating in the survey due to the affiliation received a lower weight than someone who is not affiliated in any LGBTIQ organization.

    1. After standardization of weights, these are applied in the uncleaned dataset as an intermediate weighting variable to check their weighting effect on the actual results.

    2. A primary outcome of the survey, such as the discrimination prevalence rate is calculated in both the raw and the weighted dataset.

    3. By applying the affiliation weight, it was found that there is a regular decreasing pattern of discrimination prevalence rate per country or

respondent category (-3.4% overall), which is in the same direction as in the LGBTI II survey (-2.3%) suggesting that affiliated respondents are more aware of or exposed to discrimination than non-affiliated ones.

4. In all countries and respondents' groups, weighting efficiency scores (W.E.S) exceed 70%.

Table 4466 – The effect of affiliation weights on discrimination prevalence rate per country, uncleaned datafile

	Discrimination prevalence rate		
Country	**Unweighted**	**Weighted by affiliation weights**	**W.E.S.**
ALL-30	**44.1%**	**40.7%**	**0.81**
AL	57.9%	52.8%	0.81
AT	47.9%	43.9%	0.75
BE	40.2%	37.2%	0.78
BG	54.2%	52.4%	0.81
HR	41.6%	39.1%	0.82
CY	50.6%	48.7%	0.77
CZ	41.1%	38.8%	0.79
DK	34.9%	32.8%	0.84
EE	37.5%	34.9%	0.87
FI	33.8%	30.4%	0.80
FR	42.8%	39.1%	0.86
DE	49.2%	44.9%	0.80
EL	48.0%	45.8%	0.88
HU	46.4%	44.8%	0.82
IE	44.1%	40.7%	0.83
IT	44.1%	40.6%	0.83
LV	46.5%	43.1%	0.81
LT	51.8%	49.5%	0.83

	Discrimination prevalence rate		
LU	38.2%	34.8%	0.79
MT	31.3%	31.5%	0.76
NL	38.5%	35.4%	0.83
MK	46.9%	43.1%	0.83
PL	52.0%	48.6%	0.76
PT	44.2%	41.6%	0.80
RO	50.2%	47.6%	0.76
RS	48.6%	46.8%	0.89
SK	53.1%	50.3%	0.76
SI	35.5%	31.1%	0.77
ES	42.7%	39.1%	0.83
SE	34.3%	29.3%	0.80

- **Step 6.** Although the process of affiliation calculation did not take into account the respondents' identity in terms of sexual orientation, gender identity or sex characteristics, a further analysis of the weighting effect by LGBTI categorization was made.
  Median affiliation weights by group of respondents, as shown in Table 44, confirm that Trans or Intersex respondents are more likely to have participated in the survey due to strong or weak affiliation, than CIS-LGB ones.

Table 477 – Median affiliation weights by group of LGBTI respondents, uncleaned datafile

Respondent groups	Weight
CIS-LGB <35	1.38
CIS-LGB 35+	1.33
Trans <35	0.72
Trans 35+	0.61

Respondent groups	Weight
Intersex	0.66

7.4.2.2. Calculation of benchmark weights

The benchmark weights are used to correct for over or under representation of a specific LGBTI by age group and country. The following five steps were made to calculate the benchmark weights:

7.4.2.3. Step 1. Exploratory checking of LGBTI by age distributions.

In the preparation phase of the survey , estimates of the LGBTI population per country were made to facilitate targeting and monitoring of the survey progress. The overall achieved sample size was 2.1 times higher than the threshold values set and 0.8 times lower than the targeted one, as based on the uncleaned datafile. Analytical ratios are shown in Table 43.

Intersex and trans (especially the younger respondents) are well targeted in the survey in contrast to older trans and LGB in some countries.

Table 4848 – Achieved vs. Targeted sample ratios *([20])*

Country	LGB 15-34	LGB 35+	Total LGB	Trans 15-34	Trans 35+	Total Trans	Intersex	Total
AL	0.3	0.1	0.2	0.4	0.1	0.3	1.1	**0.3**
AT	0.8	0.5	0.7	3.3	0.7	1.9	1.7	**0.9**
BE	0.5	0.4	0.5	1.8	0.4	1.0	2.1	**0.6**
BG	1.1	0.3	0.7	1.5	0.1	0.7	1.1	**0.7**
HR	1.0	0.3	0.7	1.6	0.1	0.8	1.3	**0.7**
CY	0.4	0.5	0.4	0.8	0.2	0.5	0.5	**0.5**

([20] Cells with a three times higher ratio than the targeted one are marked in green and those with less than a third in red)

Country	LGB 15-34	LGB 35+	Total LGB	Trans 15-34	Trans 35+	Total Trans	Intersex	Total
CZ	1.7	0.5	1.1	3.9	0.2	1.8	3.3	**1.3**
DK	0.6	0.9	0.7	2.9	0.6	1.7	1.8	**0.9**
EE	0.8	0.3	0.5	3.2	0.2	1.5	0.9	**0.7**
FI	3.4	1.7	2.7	15.4	2.6	8.6	4.5	**3.6**
FR	0.9	0.4	0.7	3.1	0.3	1.6	2.5	**0.9**
DE	0.9	0.6	0.7	4.5	0,8	2.5	3.6	**1.0**
EL	1.2	0.7	0.9	1.8	0.3	0.9	1.5	**0.9**
HU	1.3	0.5	0.9	2.4	0.2	1.2	2.1	**1.0**
IE	0.6	0.7	0.6	3.2	0.5	1.8	1.7	**0.8**
IT	0.5	0.2	0.3	1.4	0.1	0.6	1.4	**0.4**
LV	1.2	0.5	0.8	3.2	0.3	1.6	0.6	**0.9**
LT	0.7	0.2	0.4	2.0	0.1	1.0	0.8	**0.5**
LU	0.8	0.8	0.8	1.4	0.5	0.9	0.5	**0.8**
MT	0.4	0.5	0.5	1.2	0.2	0.7	0.3	**0.5**
NL	0.9	0.9	0.9	4.5	1.0	2.7	7.9	**1.2**
MK	0.7	0.2	0.5	1.5	0.2	0.8	0.9	**0.6**
PL	1.3	0.4	0.9	3.6	0.2	1.7	4.6	**1.0**
PT	0.7	0.3	0.5	2.1	0.2	1.0	1.4	**0.6**
RO	0.5	0.1	0.3	1.3	0.1	0.6	2.2	**0.4**
RS	0.8	0.3	0.6	1.5	0.1	0.8	1.9	**0.6**
SK	0.6	0.3	0.5	1.5	0.1	0.7	0.8	**0.5**
SI	2.5	0.9	1.7	4.3	0.2	1.9	0.8	**1.7**
ES	0.5	0.4	0.5	1.2	0.2	0.6	1.6	**0.5**
SE	0.6	0.7	0.7	4.6	0.9	2.8	2.7	**1.0**
Total	**0.9**	**0.5**	**0.7**	**3.0**	**0.4**	**1.6**	**2.1**	**0.8**

7.4.2.4. Step 2. Exploration of identities included in the survey.

- In the questionnaire preparation phase of the survey, a change in the sexual orientation question was made, including answer boxes for pansexual/asexual. In the LGBTI II survey, respondents had to select their better matching sexual orientation in the other-please specify box.

- Having a wider sexual orientation answers option in the 2023 survey may have helped respondents to identify themselves more easily in the LGB+ sexual orientation group than in previous waves. While in LGBTI II survey, the cis-LGB+ respondents' group was very small and was excluded from the analysis. In the 2023 survey, this group was significantly larger and it was decided to include it in the final dataset and to use for the weights and analysis. For this purpose, new background calculations were made to estimate updated population sizes taking into account these groups of respondents, which could be used in the benchmark weighting process.

7.4.2.5. Step 3. Definition of final respondent categorization and comparisons to population estimates.

Therefore, the final sample was compared to population estimates which differed from the grouping described in the background research. The updated benchmark weights took into account the actual sample size per cisgender LGB+ Trans categories and age groups (in two groups, 15-34 years old and 35 years and above, to have sufficient sample) ([21]). The basic overall deviations from the population estimates are detected in the under-represented older age groups of bisexual male and female respondents and the over-represented group of young trans respondents.

([21]) Intersex were not post-weighted on a specific intersex population estimate figure, due to the lack of robust population estimates in the background research. The majority of intersex sample had another identity in terms of sexual orientation or gender identity and they were weighted on their other identity estimates. A small portion of the sample corresponding to intersex or queer respondents who had not had any other identity received a benchmark weight of 1.

Table 4949 – Sample and population estimates per LGB+T group and age, uncleaned data file

Respondent category	Age group	Population estimates %	Sample %
Cis Lesbian	15 - 34	7.4%	10.8%
	35+	8.6%	4.7%
Cis Gay	15 - 34	10.8%	13.9%
	35+	15.6%	12.1%
Bisexual Cis Men	15 - 34	6.1%	2.9%
	35+	4.4%	1.0%
Bisexual Cis omen	15 - 34	17.1%	11.2%
	35+	6.3%	1.8%
Cis LGB+	15 - 34	5.6%	8.8%
	35+	3.6%	1.9%
Trans	15 - 34	6.5%	26.4%
	35+	8.1%	4.4%

7.4.2.6. Step 5. Calculation of benchmark weights per country

Comparisons to population estimates are performed by each country and analytical country benchmark weights are calculated as shown in Table 47. Calculated benchmark weights correct for the following in most countries:

- Under-representation of older aged respondents
- Under-representation of bisexual respondents (especially in older ages, male respondents in Poland, female respondents in Czechia, and female respondents in France)
- Over-representation of young trans respondents (especially in Estonia, Germany and Sweden)

Table 5050 – Calculated benchmark weights per country, LGB+T group and age, uncleaned data file *([22])*

	Cisgender Lesbian		Cisgender Gay		Cisgender Bisexual male		Cisgender Bisexual Female		Cisgender LGB		Trans	
	15-34	**35+**	**15-34**	**35+**	**15-34**	**35+**	**15-34**	**35+**	**15-34**	**35+**	**15-34**	**35+**
AL	1.62		0.84		.88		1.77		0.83		0.62	
AT	.82	1.18	1.08	1.52	4.2		1.66	2.57	.55	1.43	.25	1.10
BE	.83	1.70	.74	.91	2.5		2.44	3.78	.71	1.31	.30	1.25
BG	.44	2.75	.53	1.57	.99	2.63	1.29		1.07		.41	4.85
HR	.52	3.55	.64	1.83	1.98		1.01		0.83		0.79	
CY	.76	.64	.74	.68	4.53		2.33		1		0.72	
CZ	.55	2.38	.41	1.48	1.77	5.97	1.59	8.43	1.26		.29	4.46
DK	1.15	.77	1.36	0.74	3.31		2.78	2.17	.75	.94	.29	1.23
EE	.61	2.41	1.50	3.28	4.13		1.26		0.64		.20	3.24
FI	.65	1.81	2.40	3.19	4.11	5.72	1.20	2.03	.50	.89	.22	1.25
FR	53	1.53	.78	1.51	2.54	4.76	2.03	6.48	.57	2.63	.25	2.61
DE	89	1.52	1.33	1.36	2.83	5.46	1.85	3.34	.57	1.46	.21	1.16
EL	.73	1.69	.48	.85	1.60	4.39	1.44	2.94	.76	2.31	.46	2.70
HU	.54	2.49	.49	1.20	1.85	3.02	1.32	5.12	.79	3.25	.36	3.57
IE	1.00	1.08	1.08	.91	2.48		2.47	2.82	1.02	1.38	.23	1.44
IT	.87	2.23	.66	1.14	1.38	3.78	1.27	3.50	.55	2.03	.26	2.84
LV	.60	2.04	.68	1.51	2.50		1.40		1.02		0.55	
LT	1.1		.59	1.96	2.70		1.70		0.89		0.49	
LU	.72	1.05	.76	.59	3.98		2.62		0.81		.62	1.22
MT	0.88		.75	.58	3.19		2.63		1.38		0.64	
NL	.94	1.76	1.43	.94	2.99	3.09	2.25	3.84	.70	1.06	.25	.87
MK	0.95		.66	1.49	1.91		1.68		0.85		0.57	
PL	.58	3.16	.53	1.71	1.91	6.06	1.37	4.32	.71	4.06	.26	4.42
PT	.69	2.09	.74	1.12	1.46	2.34	1.41	3.57	0.97		.26	2.30

([22]) Age groups were merged in cases of LGB+T groups in countries with low sample sizes.

	Cisgender Lesbian		Cisgender Gay		Cisgender Bisexual male		Cisgender Bisexual Female		Cisgender LGB		Trans	
RO	.56	3.48	.51	1.76	1.01	2.30	2.07		1.06		.27	4.19
RS	.48	3.07	.64	1.62	1.85		1.19		1.2		.34	3.52
SK	.69	2.70	.44	1.16	2.17		2.24		1.02		0.63	
SI	.53	1.62	.63	1.25	2.14		.99	2.86	0.89		0.84	
ES	.94	1.73	.67	.72	1.69	3.06	1.12	2.04	1.16	2.78	.38	2.35
SE	1.32	1.79	1.44	1.12	3.05	2.74	2.69	2.00	.83	1.18	.19	.92

7.4.2.7. Country weights

Country weights are calculated as the standardized product of affiliation and benchmark weights.

The overall effect of country weights – adjusting for imbalances within country sample distribution of LGB+T by age and correcting for the affiliation effect – on LGB+TI groups of respondents is shown in Table 48.

As expected, young trans respondents receive lower weights than other groups while bisexual male respondents (both age groups) higher.

Table 51 – Median country weights per LGB+TI and age groups, uncleaned datafile

LGBTI group	Age group	weight
Cis Lesbian	15 - 34	0.69
	35+	1.36
Cis Gay	15 - 34	0.80
	35+	1.08
Bisexual Cis Men	15 - 34	2.27
	35+	3.65
Bisexual Cis Women	15 - 34	1.44

LGBTI group	Age group	weight
	35+	2.15
Cis LGB+	15 - 34	0.74
	35+	1.30
Trans	15 - 34	0.17
	35+	0.93
Intersex	15+	0.42

7.4.2.8. EU weights

EU weights are the final weights since they manage to:

- Adjust for the affiliation effect by age and country
- Correct for imbalances of the LGB+T by age distribution and country.
- Correct for deviations from the expected distribution of target population by country.

EU weights are calculated as the product of country weights and the expected target population distribution by country as estimated in the updated background research.

Two EU weights were applied as follows:

- The EU-30 weight for all countries participating in the survey.
- The EU-27 weight for EU member countries.

7.4.3. Weights for comparison analysis of the findings from LGBTIQ III and LGBTI II surveys

Comparisons between LGBTIQ III and LGBTI II surveys take the following parameters into account:

- Differences in target population in terms of countries: like-to-like countries are 29 (excluding Albania in 2023 dataset and the UK in 2019 one)
- Differences in target population in terms of LGBTIQ segments: targeting of LGBTIQ III survey expanded to the LGB+TIQ population – for a like-to-like comparison, the following arrangements in the 2023 dataset were considered:
  - Queer only sample was excluded (which was not included in the 2019 survey)
  - Cis-LGB+ sample was excluded (which was not included in the 2019 survey)
- Differences in weighting: in the like-to-like 2023 dataset (in terms of countries and LGBTI population), similar weighting procedures were repeated for comparison purposes:
  - To recalculate affiliation weighting since the target population is significantly different and the outcome of the logistic regression models was expected to differ as well.
  - To correct benchmark imbalances without the Queer respondents& the LGB+ sample while taking into account the Intersex estimated population as done in the 2nd wave in 2019 survey.
  - To create new EU27 weights for EU comparisons considering the differences in the country population estimates.

The same steps as in the standalone weighting of LGB+TIQ III 2023 survey were followed:

1. Affiliation probabilities were calculated for each country, age groups and type of affiliation. As in the standalone analysis, almost all regression models suggest that respondents having strong affiliation are almost 5 times more likely to participate in the survey (those with weak affiliation 3 times more likely) than the non-involved respondents. Affiliation weights were calculated after inversion and standardization.
2. Benchmark weights were calculated with the new target population and population estimates:

Table 52 – Sample and population estimates per LGBTI group and age, uncleaned data file

Respondent category		Population estimates %	Sample%
Cis Lesbian	15 - 34	8.1%	12.0%
	35+	9.4%	5.2%
Cis Gay	15 - 34	11.9%	15.3%
	35+	17.1%	13.4%
Bisexual cis Men	15 - 34	6.7%	3.2%
	35+	4.8%	1.1%
Bisexual cis Women	15 - 34	18.7%	12.4%
	35+	6.9%	2.0%
Trans	15 - 34	7.1%	28.4%
	35+	8.8%	4.4%
Intersex	15+	0.6%	2.5%

Country weights were calculated as the standardized product of affiliation and benchmark weights.

EU-29 and EU-27 final weights were prepared to correct for deviations from the countries' distribution of the updated target LGBTI population.

LGBTI II survey's dataset was adapted by including a final EU-29 weighting variable for the analysis of the data excluding the UK.

7.4.4. Weights for comparison analysis of the findings from LGBTIQ III, LGBTI II and LGBT I surveys

Comparisons between LGBTIQ III, LGBTI II and LGBT I surveys take the following parameters into account:

- Differences in countries covered: like-to-like countries are 27 (excluding Albania, North Macedonia, Serbia in 2023 dataset, excluding the UK, North Macedonia, Serbia in 2019 datafile and excluding the UK in 2012 datafile).Differences in target

population in terms of LGBTIQ segments: for a like-to-like comparison the following dataset arrangements take place:

- The 2023 dataset the following sample segments were excluded: a) Queer; b) Cis-LGB+; c) Intersex respondents, as it has been performed in the comparisons between LGBTI II and LGBT I surveys.
- The 2019, 2012 datasets were used for comparisons.

- Differences in age: for a like-to-like comparison the following data arrangements take place:
  - In the 2023 dataset analysis was limited to 18+ population.
  - The 2019, 2012 datasets were used for comparisons.
- Differences in weighting:
  - The 2023 datafile was weighted as the 2019-2012 comparisons datafile, that is:
    - Benchmark weights on the 18+ population excluding intersex.

Table 533 – Sample and population estimates per LGBT group and age, uncleaned data file

Respondent category		Population estimates %	Sample%
Cis Lesbian	18 - 34	7.6%	12.0%
	35+	10.3%	5.8%
Cis Gay	18 - 34	11.4%	16.1%
	35+	18.7%	14.9%
Bisexual cis Men	18 - 34	6.1%	3.2%
	35+	5.2%	1.3%
Bisexual cis Women	18 - 34	17.0%	12.3%
	35+	7.5%	2.2%
Trans	18 - 34	6.6%	27.3%
	35+	9.6%	5.0%

Table 544 – Summary of weighting procedures and strategy

	Analysing LGBTIQ III	Comparing to LGBTI II	Comparing to LGBTI II & LGBT I
Target population (min age, SO, GI):	15+ LGB+TIQ	15+ LGBTI	18+ LGBT
Countries (all)	N=30 (all)	N=29 (excl. AL/2023, UK/2019)	-
Countries (EU)	N=27 (excl. AL, MK, RS)	N=27 (excl. AL, MK, RS/2023, UK, MK, RS/2019)	N=27 (excl. AL, MK, RS/2023, UK, MK, RS/2019, UK/2012)
Country weights	Benchmark & Affiliation	Benchmark & Affiliation	Benchmark only
2023 dataset change	-	Exclude a) Cis-LGB+. b) Queer only c) adjust countries	Exclude a) Cis-LGB+ b) Queer only c) Intersex d) 15-17 y.o. sample e) adjust countries
2019 dataset change	-	Adjust counties	-
2012 dataset change	-	-	-

7.4.5. Trimming

Weights trimming is a process of reducing the effect of outlying weighting values on the weighted outcome of a survey. For this purpose, a trimming rule of identifying very high (more than 10.0) or very low (less than 0.1) weighting values was implemented[13].

- In case a weight value is below 0.1: a) 0.1 is set as the new value; b) the new sum of weights to be contributed by the remaining weights is distributed evenly among them with the help of a constant factor applied to them.
- In case a weight value is above 10.0: a) 10.0 is set as the new value; b) the new sum of weights to be contributed by the remaining weights is distributed evenly among them with the help of a constant factor applied to them.

Trimming was put in effect in the following parts of the weighting procedure, both in the uncleaned and the cleaned datafile with minor variations between them:

1. Affiliation weights were checked for the need of trimming, and low value trimming took place only in Albania (LGB+TIQ III standalone analysis) and Croatia (comparison with LGBTI II)
2. Benchmark weights were checked for the need of trimming, and no trimming was needed to take place.
3. Country weights:

- In the case of LGB+TIQ III standalone analysis: values ranged from 0.05 to 13.04, with 4.1% of weight values being lower than the 0.1 low threshold rule (19 countries) and 0.05% higher than the 10.0 upper threshold rule (2 countries). The weights were trimmed accordingly. Low value weights were more prominent in the case of young trans respondents who were corrected both for high affiliation and over-representation in the benchmark weights.

- In the case of the comparison analysis with LGBTI II: values ranged from 0.01 to 13.54, with 4.3% of weight values being lower than the 0.1 low threshold rule (24 countries) and 0.06% higher than the 10.0 upper threshold rule (2 countries). The weights were trimmed accordingly. Similarly, low value weights were more prominent in the case of young trans respondents who were corrected both for high affiliation and over-representation in the benchmark weights.

4. EU weights were not trimmed.

Table 555 – Weighting variables

No	Variable name	Variable label
1	AFFW_2023	Affiliation weights 2023
2	AFFW_2023_2019	Affiliation weights 2023 comparison to 2019
3	BENCHW_2023	Benchmark weights 2023
4	BENCHW_2023_2019	Benchmark weights 2023 comparison to 2019
5	BENCHW_2023_2019_2012	Benchmark weights 2023 comparison to 2019 and 2012
6	BENCHW_AFFW_2023	Country weights 2023 (product of Affiliation and Benchmark weights 2023)
7	BENCHW_AFFW_2023_2019	Country weights 2023 comparison to 2019 (product of respective Affiliation and Benchmark weights)
8	BENCHAFFW_2023TR	Trimmed Country weights 2023 (product of Affiliation and Benchmark weights 2023)

No	Variable name	Variable label
9	BENCHAFFW_2023_2019TR	Trimmed Country weights 2023 comparison to 2019 (product of respective Affiliation and Benchmark weights)
10	BENCHAFFW_2023TREU30	EU-30 Final weights 2023
11	BENCHAFFW_2023TREU27	EU-27 Final weights 2023
12	BENCHAFFW_2023_2019TREU29	EU-29 Final weights 2023 comparison to 2019
13	BENCHAFFW_2023_2019TREU27	EU-27 Final weights 2023 comparison to 2019
14	BENCHW_2023_2019_2012TREU27	EU-27 Final weights 2023 comparison to 2019 and 2012

Annex - Literature review sources

ID	Reference	Country	Source	Publication year	URL
1	Sexual orientation: age and sex, England and Wales: Census 2021	UK (England & Wales)	ONS	2023	https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/sexuality/articles/sexualorientationageandsexenglandandwales/census2021
2	Gender identity, England and Wales: Census 2021	UK (England & Wales)	ONS	2023	https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/genderidentity/bulletins/genderidentityenglandandwales/census2021
3	APS 2020Q: Sexual orientation, UK	UK	ONS	2022	https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/sexuality/bulletins/sexualidentityuk/latest
4	Counting the LGBT population	Austria, France, Germany, Hungary, Italy, Netherlands, Poland, Spain, UK	Dalia Research	2016	https://web.archive.org/web/20161107221026/https://daliaresearch.com/counting-the-lgbt-population-6-of-europeans-identify-as-lgbt/
5	Society at a Glance 2019	France, Germany, Ireland, Italy, Sweden, UK	OECD	2019	https://doi.org/10.1787/soc_glance-2019-en

ID	Reference	Country	Source	Publication year	URL
6	To bi or not to bi? Enquête sur l'attirance sexuelle entre femmes	France	IFOP	2017	https://www.ifop.com/publication/to-bi-or-not-to-bi-enquete-sur-lattirance-sexuelle-entre-femmes/
7	LGBT+ Pride 2021 Global Survey	Belgium, France, Germany, Hungary, Italy, Netherlands, Poland, Sweden, Spain, UK (GB)	Ipsos	2021	https://www.ipsos.com/sites/default/files/ct/news/documents/2021-06/LGBT%20Pride%202021%20Global%20Survey%20Report_3.pdf
8	Canada Census 2021	Canada	Statistics Canada	2022	https://www150.statcan.gc.ca/n1/daily-quotidien/220427/dq220427b-eng.htm
9	LGBT+ Community in Ireland	Ireland	Oireachtas Library and Research Centre	2019	https://data.oireachtas.ie/ie/oireachtas/libraryResearch/2019/2019-06-28_l-rs-infographic-lgbt-community-in-ireland-a-statistical-profile_en.pdf
10	Attraction, Identity and Connection in Great Britain in 2022	UK (GB)	Ipsos for Stonewall UK	2022	https://www.stonewall.org.uk/system/files/rainbow_britain_report.pdf
11	Life on the Margins : Survey Results of the Experiences of LGBTI People in Southeastern Europe	Albania, Croatia, North Macedonia, Slovenia	World Bank	2018	http://documents.worldbank.org/curated/en/123651538514203449/Life-on-the-Margins-Survey-Results-of-the-Experiences-of-LGBTI-People-in-Southeastern-Europe
12	Gallup Poll Social Series	USA	Gallup	2022	https://news.gallup.com/poll/389792/lgbt-identification-ticks-up.aspx
13	Survey of LGBT Americans	USA	PEW	2013	https://www.pewresearch.org/social-trends/2013/06/13/a-survey-of-lgbt-americans/

ID	Reference	Country	Source	Publication year	URL
14	Adult LGBT Population in the United States	USA	Williams Institute	2020	https://williamsinstitute.law.ucla.edu/publications/adult-lgbt-pop-us/
15	How Many Adults and Youth Identify as Transgender in the United States?	USA	Williams Institute	2020	https://williamsinstitute.law.ucla.edu/publications/trans-adults-united-states/
16	LGBTQ People in the US: Select Findings from the Generations and TransPop Studies	USA	Williams Institute	2020	https://williamsinstitute.law.ucla.edu/publications/generations-transpop-toplines/
17	Nonbinary LGBTQ Adults in the United States	USA	Williams Institute	2021	https://williamsinstitute.law.ucla.edu/publications/nonbinary-lgbtq-adults-us/
18	Pulse Survey November 2021 (online survey)	Ireland	Central Statistics Office	2021	https://www.cso.ie/en/releasesandpublications/fp/fp-psolo/pulsesurveynovember2021-ourlivesonlinesnapshotofresults/snapshotofresults/
19	Pulse Survey May-June 2021 (online survey)	Ireland	Central Statistics Office	2021	https://www.cso.ie/en/releasesandpublications/fp/fp-pslahsr/pulsesurveymay-june2021-lifeathomesnapshotofresults/snapshotofresults/
20	Sex i Danmark	Denmark	Project Sexus	2019	https://files.projektsexus.dk/2019-10-26_SEXUS-rapport_2017-2018.pdf
21	National LGBT Survey	UK	Government Equalities Office	2018	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/722314/GEO-LGBT-Survey-Report.pdf

ID	Reference	Country	Source	Publication year	URL
22	Proportion of people identified as transgender and non-binary gender in Brazil	Brazil	Spizzirri, G., Eufrásio, R., Lima, M.C.P. et al	2021	https://doi.org/10.1038/s41598-021-81411-4
23	LGBTI in OECD Countries	OECD countries		2017	https://doi.org/10.1787/d5d49711-en
24	Survey of sex/gender diversity in the GEDA 2019/2020-EHIS study	Germany	Robert Koch Institute	2022	https://doi.org/10.25646/9958
25	Intersex Fact Sheet	Worldwide	United Nations	n.d.	https://www.unfe.org/wp-content/uploads/2017/05/UNFE-Intersex.pdf
26	Intersex population figures	Worldwide	Intersex Human Rights Australia	2013	https://ihra.org.au/16601/intersex-numbers/
27	Sexual Orientation in Germany - Results of a Representative Survey	Germany	Haversath, J; Gärttner, K M; Kliem, S; Vasterling, I; Strauss, B; Kröger, C	2017	https://doi.org/10.3238%2Farztebl.2017.0545
28	LGBT Identification Rises to 5.6% in Latest U.S. Estimate	USA	Gallup	2021	https://news.gallup.com/poll/329708/lgbt-identification-rises-latest-estimate.aspx
29	LGBT Demographics: Comparisons among population-based surveys	USA	Gates, Gary J	2014	https://escholarship.org/uc/item/0kr784fx

ID	Reference	Country	Source	Publication year	URL
30	Sexual Orientation and Gender Identity in the Household Pulse Survey	USA	US Census Bureau	2021	https://www.census.gov/library/visualizations/interactive/sexual-orientation-and-gender-identity.html
31	LGBT+ population of Aotearoa: Year ended June 2020	New Zealand	Stats NZ Tatauranga Aotearoa	2020	https://www.stats.govt.nz/reports/lgbt-plus-population-of-aotearoa-year-ended-june-2020
32	Findings from the Victorian Population Health Survey 2017	Australia	Victorian Agency for Health Information	2017	https://vahi.vic.gov.au/sites/default/files/2021-12/The-health-and-wellbeing-of-the-LGBTIQ-population-in-Victoria.pdf
33	U.S. LGBT Identification Steady at 7.2%	USA	Gallup	2023	https://news.gallup.com/poll/470708/lgbt-identification-steady.aspx
34	Mapping LGBT people living conditions & social participation	Denmark	Vive - National research and analysis center	2018	https://www.vive.dk/media/pure/18049/8565518
35	LGBT-persons and general practice	Denmark	The Danish Health Authority	2019	https://www.sst.dk/-/media/Udgivelser/2019/LGBT-personer-og-almen-praksis.ashx?la=da
36	LGBT-people's well-being on the labor market final report August	Denmark	Danish Ministry of Employment	2019	https://mfvm.dk/fileadmin/user_upload/MFVM/Foedevare/LGBT-personers_trivsel_paa_arbejdsmarkedet_endelig_rapport_august.pdf
37	Partner violence_LGBT relationships	Denmark	Vive - National research and analysis center	2018	https://www.vive.dk/media/pure/17692/6794565

ID	Reference	Country	Source	Publication year	URL
38	Sexual Identity Late in Life	Denmark	Lonely Elderly Care Foundation	2019	https://egv.dk/images/publikationer/Seksuel_identitet_sent_i_livet.pdf
39	The sex life survey	Denmark	Danish AIDS Foundation	2017	https://aidsfondet.dk/wp-content/uploads/2021/06/emis-rapport-1.pdf
40	Intersex People by Country 2023	Global	U.S. Census Bureau's estimate of the world population size	2023	https://worldpopulationreview.com/country-rankings/intersex-people-by-country
41	Intersex population figures	Australia	Intersex Human Rights Australia	2019	https://ihra.org.au/16601/intersex-numbers/
42	How common is intersex?	North America	The Intersex Society of North America (ISNA)	2008	https://isna.org/faq/frequency/
43	How Common is Intersex? An Explanation of the Stats.	Global	The Intersex Campaign for Equality (IC4E)	2015	https://www.intersexequality.com/how-common-is-intersex-in-humans/

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