The view from the continent: What people in other member states think about the UK's EU referendum

Methods Note

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In order to understand public perceptions of the UK's EU referendum and to develop a better understanding of the perceived implications of the referendum for the EU and its member states, surveys were conducted in these six EU member states: Germany, France, Ireland, Poland, Spain, and Sweden.

Online Survey & Fieldwork

An online survey was designed to interview respondents across the six countries about their perceptions of the UK's EU referendum. The survey consisted of 50 questions summing up to a total of 76 survey items. It was designed to take up no more than 20 minutes of the respondent's time. Where possible, survey items were adopted from existing standard surveys on political attitudes (such as the European Social Survey, European Value Survey and British Social Attitudes Survey). Where possible, survey questions were asked in the exact same way as in the most recent British Social Attitudes survey in order to be able to mirror and compare results.

The survey was programmed and administered online in cooperation with Millward Brown and Survey Sampling International (SSI). Respondents were recruited via SSI's web panels in the respective countries. They were invited to participate in the survey by email and were directed to a web interface that was accessible on and geared towards smartphones, tablet as well as desktop computers. Respondents were able to choose which internet-enabled device they wanted to use to answer the questions. The majority of respondents across countries answered the survey on a PC or laptop. A total of 18% of respondents chose to answer the survey on a mobile device such as a tablet or smartphone (see ***Table 1***). Respondents were able to start, abandon and continue the survey at their own convenience.

Table 1. Devices used to access the survey, of all completed interviews (count and %)

Device	Count	Percentage
PC/laptop/netbook	6547	82%
Tablet	897	11%
Smartphone	558	7%
TOTAL	8002	100%

Sampling

A total of about 123,000 respondents were invited to participate in the survey between January 22 and February 8, 2016. To avoid potential news biases, surveys were launched in all countries at the same time on Friday, January 22, 2016. 33,910 respondents accepted the invitation to participate in the survey initially (see ***Table 2***).

Table 2. Response rates by country (absolute and %)

	Germany	France	Poland	Spain	Ireland	Sweden
Invited	~22000	~22000	~22000	~22000	~17500	~17500
Participated	3370 (15%)	7815 (36%)	5292 (24%)	12798 (58%)	2010 (11%)	2625 (15%)

Respondents were invited without any prior targeting and were classified according to a sampling frame at the beginning of the interview. The sampling frame was based on detailed quotas and stratification variables that were aimed to achieve a good representation of the population in each country. When the expected quotas that represented the characteristics of the population were filled, further respondents with those characteristics were not allowed to take part in the survey, so their interviews were closed at this point to avoid an over-representation of certain groups.

From January 22 – 24, 2016 all respondents invited to participate were included in the sample by natural fallout (58% of all complete interviews). The remainder of the sample was filled with respondents falling into specific stratification quotas. A total of 23168 interviews (68% of all respondents sampled) were started, but closed in the period from January 25 to February 8, 2016 for respondents not fulfilling stratification targets.

Table 4. Sampled during natural fallout period, January 22 – 24, 2016 (absolute and %)

	Germany	France	Poland	Spain	Ireland	Sweden
Total no. of complete interviews	1500	1500	1500	1500	1000	1002
Of which sampled by natural fallout	1005 (67%)	1020 (68%)	885 (59%)	780 (52%)	480 (48%)	511 (51%)

Stratification variables included gender, geography, age and income brackets, but also in particular education. Targets were chosen based on the most recent Eurostat data (2014). Within this setup of stratification objectives, sampling was random from within the panel to approximate representativeness meaningfully and reduce biases. Additionally, the data was weighted for analyses to adjust for known population characteristics (see details on weighting below).

Respondents were included in the final sample if they completed the entire interview and passed a data quality check. 24% of all respondents who started the interview were included in the final sample. Around 7% of respondents abandoned the interview. Data quality was checked for duplicate entries, missing values due to technical errors of data transmission, flatlining across questions and the total time to complete the survey. Less than 2% of all participating respondents were deleted from the final dataset for doubts of data validity due to duplicate entries and technical errors.

Table 3. Incidence by country (absolute and %)

	Germany	France	Poland	Spain	Ireland	Sweden
Total no. of interviews started	3370	7815	5292	12798	2010	2625
Of which complete	1500 (45%)	1500 (19%)	1500 (28%)	1500 (12%)	1000 (50%)	1002 (38%)
Of which incomplete	208 (6%)	660 (8%)	433 (8%)	677 (5%)	186 (9%)	283 (11%)
Of which closed	1603 (48%)	5604 (72%)	3310 (63%)	10559 (83%)	794 (40%)	1298 (49%)
Of which deleted for data quality reasons	59 (2%)	51 (1%)	49 (1%)	62 (0.5%)	30 (1%)	42 (2%)

Addressing randomisation and selection bias for online panels

All sampling within the sampling framework was based on selection of respondents from SSI's online panel. SSI has developed a network of partnerships with websites, panels, communities and social media groups to pro-actively manage the quality and representative nature of its online sample and reduce the inherent self-selection bias of online panels. Participants are actively targeted via banners, email invitations, telephone alerts and direct messaging across a diverse range of communication platforms to join the panel. The type of messages used to contact respondents also vary and include invitations to give their opinion, win a prize, earn cash or prizes or let their voice be heard. To avoid self-selection bias, specific project details are not generally included in the invitation. Rather, participants are invited to 'take a survey'. The details are disclosed later, when a survey has been selected for them to take within the system.

Survey Representativeness

Tables 5-10 illustrate the sample composition according to social demographic indicators and geography by country compared to the most recent available Eurostat data (2014). Sample representativeness was evaluated based on gender[1], age[2], region[3], gross annual household income (before tax, national insurance or any other deductions)[4] and education[5]. All of these variables were included in the sampling frame (also targeted at achieving Eurostat).

The variable measuring income was based on country-specific income bands. These do not correspond entirely to median categories and therefore were used as a rough indicator to

[1] "Are you ……?" Male/Female
[2] "Please type in your age." Recoded to 18-25, 26-34, 35-44, 45-54, 55-64 and 65+ years
[3] "Which area do you live in?" See list of regions in tables 5-10
[4] "Please select the income band which most closely matches your gross annual household income (before tax, national insurance or any other deductions)." Recoded to household income below/above country's median income, see tables 5-10 for details
[5] "Please select the highest level of education you've completed." Recoded to Less than primary, primary and lower secondary, Upper secondary and post-secondary non-tertiary and Tertiary education

reduce strong socio-economic biases. For this reason, the variable is not considered as accurate as other stratification variables and used indicatory only.

Overall, the sampling process was very good at achieving population representativeness for gender, age and regional distribution in all six countries. Deviations from expected population characteristics were slightly higher in the education variable with respondents reporting lower levels of education being somewhat underrepresented in our total sample (though varying by country). The deviations are in line with standard online sampling procedures and not too far off the actual population distribution. Weighting could be used to adjust for these deviations (see details in tables 5-10 and details on weighting procedure below).

Sample representativeness was further checked with the following indicators: whether respondents stated to have voted in the 2014 European Parliament elections[6] versus the actual election turnout by country; if they did answer 'Yes', which party respondents stated to have voted for in that particular election[7] versus the actual election outcome by political party/ party alliances by country. As is common with all online surveys, people who participated in elections are overrepresented in the total sample. This is consistent across the different countries. Therefore the core aim of the analysis, to be able to compare the results between countries, is not compromised.

It is worth noting though that the analyses presented are more representative of voters than they are of non-voters. Sensitivity checks were carried out in which we weighted the sample for electoral turnout in European Parliament elections, by country, in addition to the demographic weights applied (see details on weighting procedure below). Weighting by electoral turnout in European Parliament elections changed overall survey results only slightly; substantive results with implications for the comparison did not change. The main effect of weighting for electoral turnout appeared to be an increase in the number of respondents who answered "don't know" to questions. Details of these analyses can be obtained upon request.

Details on the weighting procedure

For most country samples, respondents with higher household income were overrepresented (except for Spain). As briefly outlined above, except for Germany, all samples also featured a minor overrepresentation of respondents with upper secondary, post-secondary and tertiary degrees of education. In order to compensate for this sampling error and ensure that results are representative of the national population in terms of demographics and geography, additional weighting was carried out.

Targeting the nationally representative splits in gender, geography, age brackets, and education based in the most recent Eurostat data (2014), weights were created using by means of simultaneous iterative proportional fitting (sometimes also referred to as RIM weights). With this process, an individual weight is created for each respondent that adjusts the total sample in each country such that the selected demographic variables conform to actual known values in the population at the same time. Weights were created such that individual values did not surpass a minimum weight of 0.3 and a maximum weight of 3 per respondent. The standard deviation of all weights per country was set to not exceed 1.0.

[6] "Did you vote in the 2014 European Parliament Elections?"
[7] "Which political party did you vote for?"

When applying these respondent-specific weights to the unweighted sample, the overrepresentation in terms of education is eradicated. Income was deliberately not included in the weighting procedure for reasons of data availability and a higher rate of respondents who did not wish to answer a question on their household income as well as the lower level of accuracy of the income variable, as discussed above (between 12% and 16% per country). Applying the respondent weights, for most country samples the overrepresentation of higher income groups could partially be alleviated.

Sensitivity tests were carried out on the final weighted sample compared to the unweighted sample and revealed only small differences between the findings presented in the report (weighted) and unweighted results (at most two percentage points for any individual statistic).

Comparability across countries

A number of measures were taken to ensure the comparability of results across countries:

- Same survey items: We asked the same survey questions in exactly the same conditions, using the same question wording and response options in each local language. Questions on national context only differed with regard to reference to the particular country. Where in doubt, local experts were asked to provide interpretations of specific concepts and terminology in the local language (e.g. translation of the concept of 'core Europe').
- Translation & back translation: All survey items were translated from English into the respective local languages (German, French, Polish, Spanish, and Swedish) by native speaking certified translators. Translations were checked by other native speakers, back-translated into English, and checked again. Each translated item was checked by a minimum of three different native speakers.
- Sampling framework: In order to achieve consistency in approach and sampling we worked with one survey company in all six countries. No further partners were added to achieve the sampling requirements for this project.

Table 5. Unweighted and weighted sample profile for Germany (N=1500) compared to Eurostat target (in %)

	Germany				
	Eurostat data (2014)	Unweighted Sample (N=1500)	Difference (in %)	Weighted sample (N=1500)	Difference (in %)
Male	49	49	0	49	0
Female	51	51	0	51	0
18-25 years	12	12	0	12	0
26-34 years	13	13	0	13	0
35-44 years	15	15	0	15	0
45-54 years	20	20	0	20	0
55-64 years	15	15	0	15	0
65+ years	25	25	0	25	0
% Household income below median income*	50	35	-15	35	-15
% Household income above median income*	50	65	+15	65	+15
Less than primary, primary and lower secondary education*	20	19	-1	20	0
Upper secondary and post-secondary non-tertiary education*	57	56	-1	57	0
Tertiary education*	23	25	+1	23	0
Baden-Württemberg	13	13	0	13	0
Bayern	16	16	0	16	0
Berlin	4	4	0	4	0
Brandenburg	3	3	0	3	0
Bremen	1	1	0	1	0
Hamburg	2	2	0	2	0
Hessen	7	7	0	7	0
Mecklenburg-Vorpommern	2	2	0	2	0
Niedersachsen	10	10	0	10	0
Nordrhein-Westfalen	22	22	0	22	0
Rheinland-Pfalz	5	5	0	5	0
Saarland	1	1	0	1	0
Sachsen	5	5	0	5	0
Sachsen-Anhalt	3	3	0	3	0
Schleswig-Holstein	3	3	0	3	0
Thüringen	3	3	0	3	0

*excludes Don't Knows / Do not wish to answer, median income per household (Eurostat): €22000

Table 6. Unweighted and weighted sample profile for France (N=1500) compared to Eurostat target (in %)

	France				
	Eurostat data (2014)	Unweighted Sample (N=1500)	Difference (in %)	Weighted sample (N=1500)	Difference (in %)
Male	48	48	0	48	0
Female	52	52	0	52	0
18-25 years	12	13	+1	12	0
26-34 years	14	13	-1	14	0
35-44 years	17	16	-1	17	0
45-54 years	18	19	+1	18	0
55-64 years	16	15	-1	16	0
65+ years	23	24	+1	23	0
% Household income below median income*	50	45	-5	47	-3
% Household income above median income*	50	55	+5	53	+3
Less than primary, primary and lower secondary education*	27	20	-6	27	0
Upper secondary and post-secondary non-tertiary education*	44	47	+4	44	0
Tertiary education*	30	32	+3	30	0
Alsace	3	3	0	3	0
Aquitaine	5	5	0	5	0
Auvergne	2	2	0	2	0
Basse-Normandie	2	2	0	2	0
Bourgogne	2	2	0	2	0
Bretagne	5	5	0	5	0
Centre (FR)	4	4	0	4	0
Champagne-Ardenne	2	2	0	2	0
Corse	1	0	-1	1	0
Franche-Comté	2	1	-1	2	0
Haute-Normandie	3	3	0	3	0
Île de France	18	18	0	18	0
Languedoc-Roussillon	4	4	0	4	0
Limousin	1	1	0	1	0
Lorraine	4	4	0	4	0
Midi-Pyrénées	5	4	-1	5	0
Nord-Pas-de-Calais	6	7	+1	6	0
Pays de la Loire	6	6	0	6	0
Picardie	3	3	0	3	0
Poitou-Charentes	3	3	0	3	0
Provence-Alpes-Côte d'Azur	8	8	0	8	0
Rhône-Alpes	10	11	+1	10	0

*excludes Don't Knows / Do not wish to answer, median income per household (Eurostat): €24600

Table 7. Unweighted and weighted sample profile for Poland (N=1500) compared to Eurostat target (in %)

	Poland				
	Eurostat data (2014)	Unweighted Sample (N=1500)	Difference (in %)	Weighted sample (N=1500)	Difference (in %)
Male	48	48	0	48	0
Female	52	52	0	52	0
18-25 years	13	13	0	13	0
26-34 years	18	18	0	18	0
35-44 years	17	17	0	17	0
45-54 years	16	16	0	16	0
55-64 years	18	17	-1	18	0
65+ years	18	18	0	18	0
% Household income below median income*	50	31	-19	32	-18
% Household income above median income*	50	69	+19	68	+18
Less than primary, primary and lower secondary education*	16	7	-8	16	0
Upper secondary and post-secondary non-tertiary education*	61	67	+6	61	0
Tertiary education*	24	26	+2	24	0
Dolnoslaskie	8	8	0	8	0
Kujawsko-Pomorskie	5	5	0	5	0
Lódzkie	7	7	0	7	0
Lubelskie	6	6	0	6	0
Lubuskie	3	3	0	3	0
Malopolskie	9	9	0	9	0
Mazowieckie	14	13	-1	14	0
Opolskie	3	3	0	3	0
Podkarpackie	5	5	0	5	0
Podlaskie	3	3	0	3	0
Pomorskie	6	6	0	6	0
Slaskie	12	12	0	12	0
Swietokrzyskie	3	3	0	3	0
Warminsko-Mazurskie	4	4	0	4	0
Wielkopolskie	9	9	0	9	0
Zachodniopomorskie	4	4	0	4	0

*excludes Don't Knows / Do not wish to answer, median income per household (Eurostat): €6000

Table 8. Unweighted and weighted sample profile for Spain (N=1500) compared to Eurostat target (in %)

	Spain				
	Eurostat data (2014)	Unweighted Sample (N=1500)	Difference (in %)	Weighted sample (N=1500)	Difference (in %)
Male	49	51	+2	49	0
Female	51	49	-2	51	0
18-25 years	10	11	+1	10	0
26-34 years	15	16	+1	15	0
35-44 years	21	22	+1	21	0
45-54 years	18	19	+1	18	0
55-64 years	14	13	-1	14	0
65+ years	22	20	-2	22	0
% Household income below median income*	50	54	+4	59	+9
% Household income above median income*	50	46	-4	41	-9
Less than primary, primary and lower secondary education*	45	30	-15	44	0
Upper secondary and post-secondary non-tertiary education*	24	30	+7	24	0
Tertiary education*	32	40	+8	32	0
Andalucía	18	18	0	18	0
Aragón	3	3	0	3	0
Canarias	5	3	-2	5	0
Cantabria	1	2	+1	1	0
Castilla y León	5	5	0	5	0
Castilla-la Mancha	4	4	0	4	0
Cataluña	16	18	+2	16	0
Comunidad de Madrid	14	15	+1	14	0
Comunidad Foral de Navarra	1	1	0	1	0
Comunidad Valenciana	11	12	+1	11	0
Extremadura	2	2	0	2	0
Galicia	6	5	-1	6	0
Illes Balears	2	2	0	2	0
La Rioja	1	1	0	1	0
País Vasco	5	5	0	5	0
Principado de Asturias	2	2	0	2	0
Región de Murcia	3	3	0	3	0

*excludes Don't Knows / Do not wish to answer, median income per household (Eurostat): €15500

Table 8. Unweighted and weighted sample profile for Ireland (N=1000) compared to Eurostat target (in %)

	Ireland				
	Eurostat data (2014)	Unweighted Sample (N=1000)	Difference (in %)	Weighted sample (N=1000)	Difference (in %)
Male	49	49	0	49	0
Female	51	51	0	51	0
18-25 years	12	13	+1	12	0
26-34 years	19	19	0	19	0
35-44 years	20	21	+1	20	0
45-54 years	18	19	+1	18	0
55-64 years	14	15	+1	14	0
65+ years	17	12	-5	17	0
% Household income below median income*	50	29	-21	31	-19
% Household income above median income*	50	71	+21	69	+19
Less than primary, primary and lower secondary*	26	15	-10	26	0
Upper secondary and post-secondary non-tertiary education*	39	44	+5	39	0
Tertiary education*	36	41	+5	36	0
Leinster	58	58	0	58	0
Munster	29	29	0	29	0
Connacht	13	13	0	13	0

*excludes Don't Knows / Do not wish to answer, median income per household (Eurostat): €227500

Table 9. Unweighted and weighted sample profile for Sweden (N=1002) compared to Eurostat target (in %)

	Sweden				
	Eurostat data (2014)	Unweighted Sample (N=1002)	Difference (in %)	Weighted sample (N=1002)	Difference (in %)
Male	50	48	-2	50	0
Female	50	52	+2	50	0
18-25 years	14	15	+1	14	0
26-34 years	14	14	0	14	0
35-44 years	17	14	-3	17	0
45-54 years	16	16	0	16	0
55-64 years	15	15	0	15	0
65+ years	24	25	+1	24	0
% Household income below median income*	50	45	-5	46	-4
% Household income above median income*	50	55	+5	54	+4
Less than primary, primary and lower secondary*	22	13	-9	22	0
Upper secondary and post-secondary non-tertiary education*	45	52	+7	45	0
Tertiary education*	33	35	+3	33	0
Mellersta Norrland	4	4	0	4	0
Norra Mellansverige	9	6	-3	9	0
Östra Mellansverige	17	18	+1	17	0
Övre Norrland	5	4	-1	5	0
Småland med öarna	8	7	-1	8	0
Stockholm	22	23	+1	22	0
Sydsverige	15	16	+1	15	0
Västsverige	20	21	+1	20	0

*excludes Don't Knows / Do not wish to answer, median income per household (Eurostat): €28500