



Flash Eurobarometer 355

SPACE ACTIVITIES

SUMMARY

Fieldwork: July 2012

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This survey has been requested by the European Commission, Directorate-General Enterprise and Industry and co-ordinated by Directorate-General for Communication.

This document does not represent the point of view of the European Commission. The interpretations and opinions contained in it are solely those of the authors.

Flash Eurobarometer 355 - TNS Political & Social

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Space activities

Conducted by TNS Political & Social at the request of
the European Commission,
Directorate-General Enterprise and Industry

Survey co-ordinated by the European Commission,
Directorate-General for Communication
(DG COMM "Research and Speechwriting" Unit)

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INTRODUCTION

The European Commission adopted a Communication '**Towards a space strategy for the European Union that benefits its citizens**'¹ on 4th April 2011, reflecting the crucial role of space for the economy and society. It sets out the main objectives for European space policy, including two EU space programmes (Galileo, the European satellite navigation system; and GMES (Global monitoring for Environment and Security)), the protection of space infrastructures, and space exploration. The Communication also calls for the development of an industrial space policy in close co-operation with Member States.

The Commission identified the following objectives for the EU space strategy: promote technological scientific progress; foster innovation and industrial competitiveness; ensure that European citizens fully benefit from European space applications; and strengthen Europe's role in space at an international level. The priority actions of the space strategy are the flagship EU space programmes Galileo and Global Monitoring for Environment and Security (GMES).

Galileo will be Europe's own global navigation satellite system, providing a highly accurate, global positioning service under civil control. The launch of the first fully operational Galileo satellites took place on 21 October 2011; the full Galileo system will include 30 satellites. Early Galileo Services will be made available gradually from 2014 onwards. The service used most by the general public (personal navigation), will be free of charge.

GMES is a European system for monitoring the state of the Earth providing continuous accurate and reliable data and information in six main fields: marine environment, land, atmosphere, emergency management, security and climate change monitoring. GMES uses satellites to obtain data and images. It can yield a better understanding of changes on our planet and how that might influence our daily lives. It will also provide services to help improving the security of citizens and manage crisis situations.

The objective of this survey is to gain insight into Europeans' awareness, expectations and wishes regarding space based services and their opinion on the role of the EU in development of space activities and space exploration.

The outline of this report is as follows.

- Awareness of EU programmes Galileo, GMES and of space collision risks
- Current use of navigation systems and navigation-based services wished for
- Role of the EU in developing space activities and space exploration

¹ Communication from the Commission COM(2011) 152 final, see http://ec.europa.eu/enterprise/policies/space/files/policy/comm_pdf_com_2011_0152_f_communication_en.pdf
For further information on EU Space policy please see: <http://ec.europa.eu/enterprise/policies/space>

This survey was carried out by TNS Political & Social network in the 27 Member States of the European Union between 9th and 12th July 2012. Some 25.536 respondents from different social and demographic groups were interviewed by telephone in their mother tongue on behalf of DG Enterprise and Industry. The methodology used is that of Eurobarometer surveys as carried out by the Directorate-General for Communication ("Research and Speechwriting" Unit)². A technical note on the manner in which interviews were conducted by the Institutes within the TNS Political & Social network is appended as an annex to this report. Also included are the interview methods and confidence intervals³.

Note: In this report, countries are referred to by their official abbreviation. The abbreviations used in this report correspond to:

ABBREVIATIONS			
BE	Belgium	LU	Luxembourg
CZ	Czech Republic	HU	Hungary
BG	Bulgaria	MT	Malta
DK	Denmark	NL	The Netherlands
DE	Germany	AT	Austria
EE	Estonia	PL	Poland
EL	Greece	PT	Portugal
ES	Spain	RO	Romania
FR	France	SI	Slovenia
IE	Ireland	SK	Slovakia
IT	Italy	FI	Finland
CY	Republic of Cyprus*	SE	Sweden
LT	Lithuania	UK	The United Kingdom
LV	Latvia		
<hr/>			
EU27	European Union – 27 Member States		
EU15**	BE, IT, FR, DE, LU, NL, DK, UK, IE, PT, ES, EL, AT, SE, FI		
NMS12***	BG, CZ, EE, CY, LT, LV, MT, HU, PL, RO, SL, SK		
EURO AREA	BE, FR, IT, LU, DE, AT, ES, PT, IE, NL, FI, EL, EE, SI, CY, MT, SK		

* Cyprus as a whole is one of the 27 European Union Member States. However, the 'acquis communautaire' has been suspended in the part of the country which is not controlled by the government of the Republic of Cyprus. For practical reasons, only the interviews carried out in the part of the country controlled by the government of the Republic of Cyprus are included in the 'CY' category and in the EU27 average

** EU15 refers to the 15 countries forming the European Union before the enlargements of 2004 and 2007

*** The NMS12 are the 12 'new Member States' which joined the European Union during the 2004 and 2007 enlargements

* * * * *

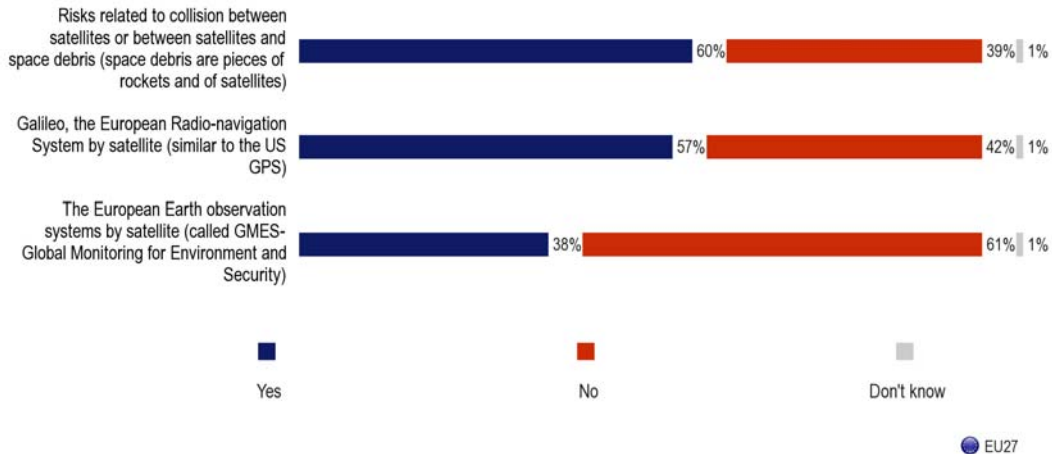
We wish to thank the people throughout the European Union who have given their time to take part in this survey. Without their active participation, this study would not have been possible.

² http://ec.europa.eu/public_opinion/index_en.htm

³ The results tables are included in the annex. It should be noted that the total of the percentages in the tables of this report may exceed 100% when the respondent has the possibility of giving several answers to the question.

1 AWARENESS AND EXPECTATIONS

Q1. Have you ever heard of...?



Over half (57%) of the Europeans interviewed have heard of Galileo, the European satellite navigation system.

Almost four in ten respondents (38%) have heard of the European earth observation systems by satellite, GMES (Global Monitoring for Environment and Security). Those surveyed in the NMS12 are more likely to know of GMES (51% have heard of it) than those in the EU15 countries (35%).

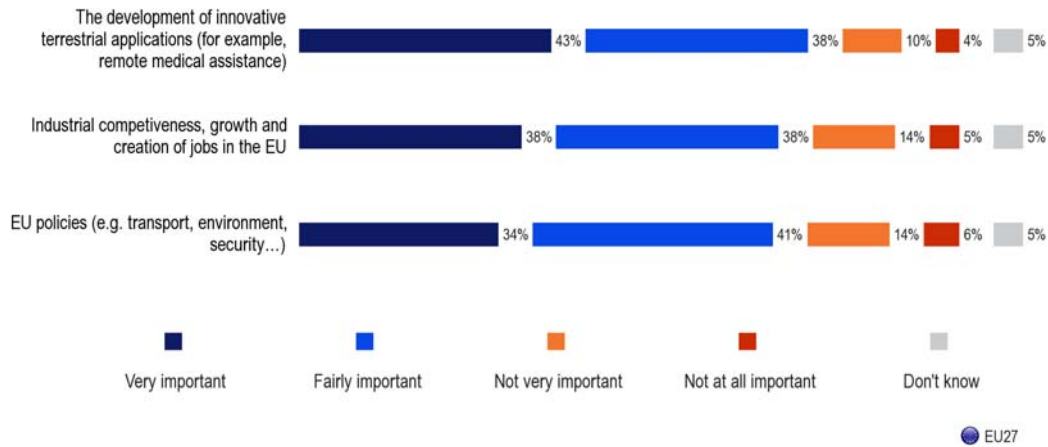
Six in ten Europeans (60%) have heard of risks related to collision between satellites or between satellites and space debris (space debris are pieces of rockets and of satellites).

In 2009 a similar question was asked on Space activities in a survey⁴. At that time, less than a quarter of Europeans (22%) indicated that they were aware of the European Earth observation satellites and that they knew what it was. 34% said they were aware of it but without being sure of what it was and 42% did not know this system.

⁴ Q3. Have you heard about the European Earth Observation satellites? POSSIBLE ANSWERS: Yes, and I know what they do; Yes, but I don't know what they do; No, Don't know
FL272, Space activities in the European Union, http://ec.europa.eu/public_opinion/flash/fl_272_en.pdf

Expectations about space-derived services and technology

Q2. How important do you think space derived services and space technologies are for the following:



The large majority of Europeans (81%), as well as an absolute majority of respondents in every single Member State, believe space derived services and space technologies are important for the development of innovative terrestrial applications, such as remote medical assistance. In 2009, a similar question was asked on space activities in a survey⁵; 74% of respondents agreed that technologies derived from space activities contribute to developing innovative terrestrial applications (24% strongly agreed and 50% to some extent).

In the current survey three-quarters say these services are important for industrial competitiveness, growth and creation of jobs in the EU (76%). In 2009, in the similar survey⁶, 64% of respondents agreed that space activities contribute to industrial competitiveness, growth and creation of jobs in the European Union (16% strongly agreed, 48% agreed).

⁵ Q2 Please tell me how much do you agree or disagree with the following statements:

-A Space activities contribute to industrial competitiveness, growth, and creation of jobs in the European Union

-B Technologies derived from space activities contribute to developing innovative terrestrial applications

ANSWERS POSSIBLE: Strongly agree, Agree, Disagree, Disagree strongly, Don't know

FL272, Space activities in the European Union, http://ec.europa.eu/public_opinion/flash/fl_272_en.pdf

⁶ Q2 Please tell me how much do you agree or disagree with the following statements:

-A Space activities contribute to industrial competitiveness, growth, and creation of jobs in the European Union

-B Technologies derived from space activities contribute to developing innovative terrestrial applications

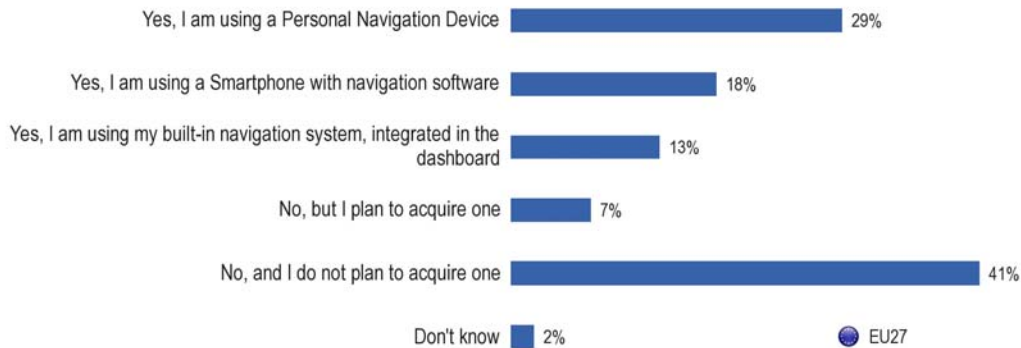
ANSWERS POSSIBLE: Strongly agree, Agree, Disagree, Disagree strongly, Don't know

FL272, Space activities in the European Union, http://ec.europa.eu/public_opinion/flash/fl_272_en.pdf

2 NAVIGATION BASED SERVICES

Use of navigation systems

Q5. Are you using a navigation system in your car or for any other purpose, such as hiking or biking?



Half of the Europeans use *at least one* navigation system (50%) among a Personal Navigation Device, a Smartphone with navigation software and a built-in navigation system, integrated in the dashboard. Few do not use a navigation system yet but are planning to acquire one (7%).

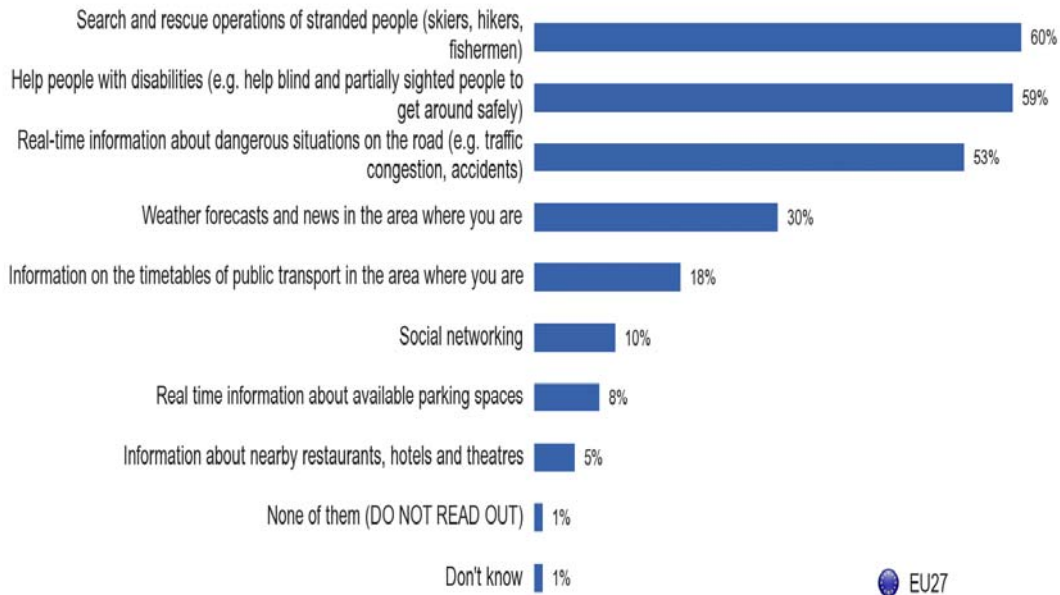
Four in ten Europeans do not use these navigation systems and are not planning to acquire one either (41%).

Member States with the largest proportions of interviewees using at least one of the navigation systems include Denmark (72%), Luxembourg (71%), the Netherlands (70%), Germany (63%) and Belgium (61%); smallest proportions are found in Malta (21%), Bulgaria (26%), Romania (27%), Cyprus and Greece (both 28%).

Respondents in the EU15 countries are more likely than those in the NMS12 countries to use at least one navigation system (53% vs. 40%); a personal Navigation Device (31% vs. 22%); or a dashboard integrated navigation system (14% vs. 9%). However, interviewees in the NMS12 countries are more likely (13%) to plan to acquire one than those in the EU15 countries (6%).

All respondents were asked which navigation-based services accessible via handheld devices they find or would find most useful. The interviewees were presented with eight different services and were asked to choose at most three.

Q4. Which navigation-based services accessible via handheld devices do you or would you find most useful?



The top three navigation-based services, cited by absolute majorities of Europeans have safety in common: search and rescue operations of stranded people, help people with disabilities, and real-time information about dangerous situations on the road.

A sizeable proportion of Europeans wish for navigation-based services that provide practical information, such as weather forecasts and information on public transport.

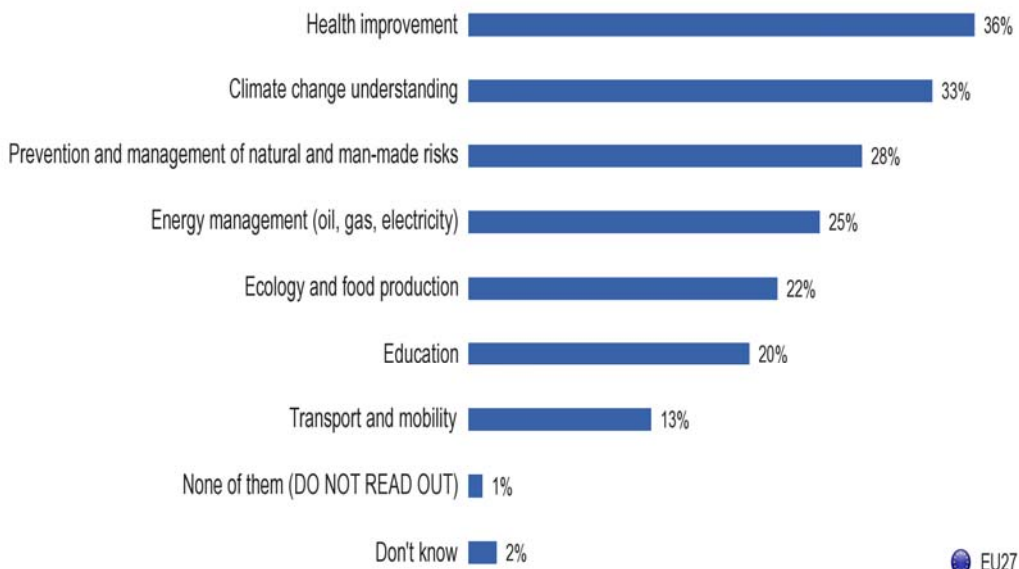
A small proportion of Europeans cite social networking; real time information about available parking spaces; and information about nearby restaurants, hotels and theatres.

3 ROLE OF THE EU

Priority areas for European space activity

The interviewees were informed that space can contribute to a wide range of activities and they were presented with seven options; then they were asked to choose two options that they would like the European space activity to focus on as a priority.

Q3. Space can contribute to a wide range of activities. Which of the options in the following list would you like the European space activity to focus on as a priority?

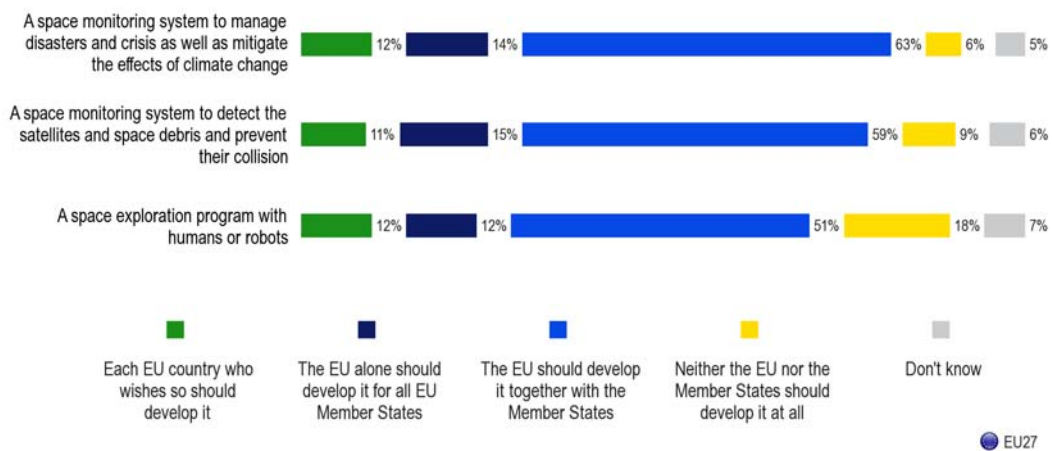


The options chosen most often, each by around one-third of the respondents, are health improvement and climate change understanding. The next most cited options, each by at least one-fourth of the interviewees, are prevention and management of natural and man-made risks and energy management. Two other options are mentioned by at least one-fifth of the interviewees: ecology and food production and education. A minority cited transport and mobility.

Role of the EU in space activities development

The interviewees were informed that the USA, China and Russia are developing their own space activities. Then interviewees were asked what they think should be done when it comes to space activities in the EU. They were asked to say for each of three specific themes by whom they think it should be developed: each EU country who wishes so; the EU alone for all Member States; the EU together with the Member States; neither the EU nor the Member States should develop it at all.

Q6. The USA, China and Russia are developing their own space activities. In your opinion, when it comes to space activities in the EU, what do you think should be done for each of the following themes?



The majority of Europeans wants the EU to play a role in the following themes:

- A space monitoring system to manage disasters and crisis as well as mitigate the effects of climate change (77%)
- A space monitoring system to detect the satellites and space debris and prevent their collision (74%)
- A space exploration programme with humans or robots (63%)

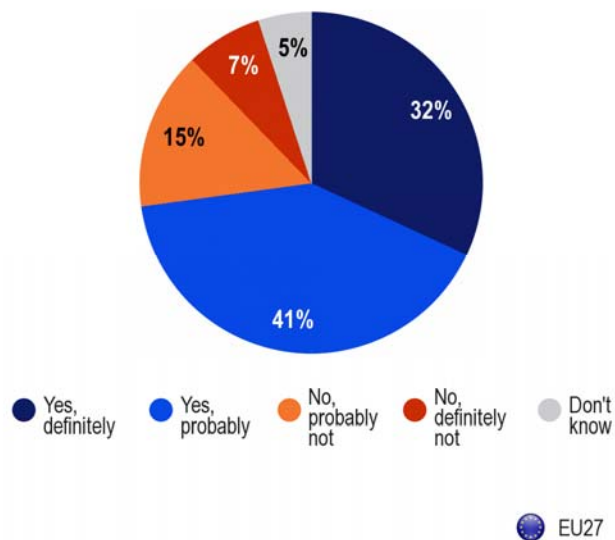
This development by the EU should be done **together with the Member States** says the majority of Europeans (63%, 59% and 51% respectively). Only a minority think each EU country who wishes so should develop it (12%, 11% and 12% respectively). Almost one in five Europeans (18%) believes neither the EU nor the Member States should develop space exploration programme with humans or robots at all.

Level of EU involvement in space exploration

73% believe the EU should do more in the field of Space Exploration: 32% say *yes, definitely* and 41% say *yes, probably*. However, over one-fifth of them say this should not be the case: 15% say *probably not* and 7% say *definitely not*. A further 5% are unable to form an opinion.

In 2009 a similar question was asked on Space activities in a survey⁷. 64% of respondents believed that the EU should do more in the field of space exploration (26% Yes definitely, 38% Yes, perhaps, 28% No, 2% Does not matter/not interested).

Q7. Should the EU do more in the field of Space Exploration?



Base: total sample with exclusion of respondents who think neither the EU nor the Member States should develop a space exploration programme with humans and robots at all; n= 20928

⁷ Q6. Should the European Union do more on the field of Space Exploration? ANSWERS POSSIBLE: Yes, definitely; Yes, perhaps; No; Does not matter/not interested, Don't know.
FL272, Space activities in the European Union, http://ec.europa.eu/public_opinion/flash/fl_272_en.pdf

ANNEXES

TECHNICAL SPECIFICATIONS



FLASH EUROBAROMETER 355

“Space activities”

TECHNICAL SPECIFICATIONS

Between the 9th and the 12th of July 2012, TNS Political & Social, a consortium created between TNS political & social, TNS UK and TNS opinion, carried out the survey FLASH EUROBAROMETER 355 about “Space activities”.

This survey has been requested by the EUROPEAN COMMISSION, Directorate-general for DG ENTREPRISE AND INDUSTRY. It is a general public survey co-ordinated by the Directorate-General for Communication (“Research and Speechwriting” Unit). The FLASH EUROBAROMETER 355 covers the population of the respective nationalities of the European Union Member States, resident in each of the 27 Member States and aged 15 years and over. All interviews were carried using the TNS e-Call center (our centralized CATI system). In every country respondents were called both on fixed lines and mobile phones. The basic sample design applied in all states is multi-stage random (probability). In each household, the respondent was drawn at random following the “last birthday rule”.

TNS has developed its own RDD sample generation capabilities based on using contact telephone numbers from responders to random probability or random location face to face surveys, such as Eurobarometer, as seed numbers. The approach works because the seed number identifies a working block of telephone numbers and reduces the volume of numbers generated that will be ineffective. The seed numbers are stratified by NUTS2 region and urbanisation to approximate a geographically representative sample. From each seed number the required sample of numbers are generated by randomly replacing the last two digits. The sample is then screened against business databases in order to exclude as many of these numbers as possible before going into field. This approach is consistent across all countries.

For each country a comparison between the sample and the universe was carried out. The Universe description was derived from Eurostat population data or from national statistics offices. For all countries surveyed, a national weighting procedure, using marginal and intercellular weighting, was carried out based on this Universe description. In all countries, gender, age, region and size of locality were introduced in the iteration procedure. For international weighting (i.e. EU averages), TNS Political & Social applies the official population figures as provided by EUROSTAT or national statistic offices. The total population figures for input in this post-weighting procedure are listed above.

Readers are reminded that survey results are estimations, the accuracy of which, everything being equal, rests upon the sample size and upon the observed percentage. With samples of about 1,000 interviews, the real percentages vary within the following confidence limits:

Statistical Margins due to the sampling process (at the 95% level of confidence)											
<i>various sample sizes are in rows</i>						<i>various observed results are in columns</i>					
	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	
	95%	90%	85%	80%	75%	70%	65%	60%	55%	50%	
N=50	6,0	8,3	9,9	11,1	12,0	12,7	13,2	13,6	13,8	13,9	N=50
N=500	1,9	2,6	3,1	3,5	3,8	4,0	4,2	4,3	4,4	4,4	N=500
N=1000	1,4	1,9	2,2	2,5	2,7	2,8	3,0	3,0	3,1	3,1	N=1000
N=1500	1,1	1,5	1,8	2,0	2,2	2,3	2,4	2,5	2,5	2,5	N=1500
N=2000	1,0	1,3	1,6	1,8	1,9	2,0	2,1	2,1	2,2	2,2	N=2000
N=3000	0,8	1,1	1,3	1,4	1,5	1,6	1,7	1,8	1,8	1,8	N=3000
N=4000	0,7	0,9	1,1	1,2	1,3	1,4	1,5	1,5	1,5	1,5	N=4000
N=5000	0,6	0,8	1,0	1,1	1,2	1,3	1,3	1,4	1,4	1,4	N=5000
N=6000	0,6	0,8	0,9	1,0	1,1	1,2	1,2	1,2	1,3	1,3	N=6000
N=7000	0,5	0,7	0,8	0,9	1,0	1,1	1,1	1,1	1,2	1,2	N=7000
N=7500	0,5	0,7	0,8	0,9	1,0	1,0	1,1	1,1	1,1	1,1	N=7500
N=8000	0,5	0,7	0,8	0,9	0,9	1,0	1,0	1,1	1,1	1,1	N=8000
N=9000	0,5	0,6	0,7	0,8	0,9	0,9	1,0	1,0	1,0	1,0	N=9000
N=10000	0,4	0,6	0,7	0,8	0,8	0,9	0,9	1,0	1,0	1,0	N=10000
N=11000	0,4	0,6	0,7	0,7	0,8	0,9	0,9	0,9	0,9	0,9	N=11000
N=12000	0,4	0,5	0,6	0,7	0,8	0,8	0,9	0,9	0,9	0,9	N=12000
N=13000	0,4	0,5	0,6	0,7	0,7	0,8	0,8	0,8	0,9	0,9	N=13000
N=14000	0,4	0,5	0,6	0,7	0,7	0,8	0,8	0,8	0,8	0,8	N=14000
N=15000	0,3	0,5	0,6	0,6	0,7	0,7	0,8	0,8	0,8	0,8	N=15000
	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	
	95%	90%	85%	80%	75%	70%	65%	60%	55%	50%	

ABBR.	COUNTRIES	INSTITUTES	N° INTERVIEWS	FIELDWORK DATES		POPULATION 15+
BE	Belgium	TNS Dimarso	1.001	09/07/2012	11/07/2012	8.939.546
BG	Bulgaria	TNS BBSS	1.000	09/07/2012	11/07/2012	6.537.510
CZ	Czech Rep.	TNS Aisa s.r.o	1.004	09/07/2012	11/07/2012	9.012.443
DK	Denmark	TNS Gallup A/S	1.002	09/07/2012	11/07/2012	4.561.264
DE	Germany	TNS Infratest	1.000	09/07/2012	11/07/2012	64.409.146
EE	Estonia	TNS Emor	1.000	09/07/2012	11/07/2012	945.733
EL	Greece	TNS ICAP	1.000	09/07/2012	11/07/2012	8.693.566
ES	Spain	TNS Demoscopia S.A	1.000	09/07/2012	11/07/2012	39.035.867
FR	France	TNS Sofres	1.007	09/07/2012	11/07/2012	47.756.439
IE	Ireland	IMS Millward Brown	1.000	09/07/2012	12/07/2012	3.522.000
IT	Italy	TNS Infratest	1.000	09/07/2012	11/07/2012	51.862.391
CY	Rep. of Cyprus	CYMAR	501	09/07/2012	11/07/2012	660.400
LV	Latvia	TNS Latvia	1.000	09/07/2012	11/07/2012	1.447.866
LT	Lithuania	TNS LT	1.000	09/07/2012	11/07/2012	2.829.740
LU	Luxembourg	TNS Dimarso	505	09/07/2012	11/07/2012	404.907
HU	Hungary	TNS Hoffmann Kft	1.005	09/07/2012	11/07/2012	8.320.614
MT	Malta	MISCO International Ltd	500	09/07/2012	11/07/2012	335.476
NL	Netherlands	TNS NIPO	1.004	09/07/2012	11/07/2012	13.371.980
AT	Austria	TNS Austria	1.001	09/07/2012	11/07/2012	7.009.827
PL	Poland	TNS OBOP	1.000	09/07/2012	11/07/2012	32.413.735
PT	Portugal	TNS EUROTESTE	1.000	09/07/2012	11/07/2012	8.080.915
RO	Romania	TNS CSOP	1.004	09/07/2012	11/07/2012	18.246.731
SI	Slovenia	RM PLUS	1.000	09/07/2012	11/07/2012	1.759.701
SK	Slovakia	TNS AISA Slovakia	1.000	09/07/2012	11/07/2012	4.549.955
FI	Finland	TNS Gallup Oy	1.001	09/07/2012	11/07/2012	4.440.004
SE	Sweden	TNS SIFO	1.000	09/07/2012	11/07/2012	7.791.240
UK	United Kingdom	TNS UK	1.000	09/07/2012	11/07/2012	51.848.010
TOTAL EU27			25.535	09/07/2012	12/07/2012	408.787.006