

Flash-EB 238 ..... Jul 2008 ..... ZA 4816

Flash Eurobarometer 238  
July 2008

Europeans' attitudes towards animal cloning

Basic bilingual questionnaire

The GALLUP Organization

## Flash 238 – Animal Cloning

### GENERAL BACKGROUND

#### KNOWLEDGE / AWARENESS ABOUT ANIMAL CLONING

##### Q1. Are you aware of the term “animal cloning”?

- I've heard of it and I know what it means..... 1
- I've heard of it but I do not know what it means..... 2
- I have never heard of it ..... 3
- [DK/NA] ..... 9

##### Q2. Please tell me if the following statements are true or false:

- True..... 1
  - False ..... 2
  - [DK/NA] ..... 9
- a) Cloned animals are an identical replica or copy of the animal used as a source for such cloning ..... 1 2 9
- b) Animal cloning involves genetic modification..... 1 2 9

### GENERAL BACKGROUND

#### KNOWLEDGE / AWARENESS ABOUT ANIMAL CLONING

##### Q1. Connaissez-vous l'expression “clonage des animaux” ?

- J'en ai entendu parler et je sais ce que cela signifie..... 1
- J'en ai entendu parler mais je ne sais pas ce que cela signifie ..... 2
- Je n'en ai jamais entendu parler ..... 3
- [NSP/SR] ..... 9

##### Q2. Veuillez me dire si les affirmations suivantes sont vraies ou fausses :

- Vrai ..... 1
  - Faux ..... 2
  - [NSP/SR] ..... 9
- a) Les animaux clonés sont une réplique identique ou une copie identique de l'animal utilisé comme source pour un tel clonage ..... 1 2 9
- b) Le clonage animal implique une modification génétique..... 1 2 9

**Q3. Do you tend to agree or disagree with the following statements?**

- Agree..... 1
- Disagree..... 2
- [DK/NA] ..... 9

- a) Animal cloning is morally wrong ..... 1 2 9
- b) Animal cloning might lead to human cloning ..... 1 2 9
- c) Animal cloning will cause animals unnecessary pain,  
suffering and distress ..... 1 2 9
- d) The long term effects of animal cloning on nature are  
unknown ..... 1 2 9
- e) Genetic diversity within livestock populations may  
decrease because of animal cloning..... 1 2 9

**Q4. Animal cloning can serve different purposes. Please tell me if  
animal cloning is always justifiable, without any constraints or  
justifiable under certain circumstances or never justifiable ...**

[READ OUT AND ROTATE A-C]

- Always justifiable, without any constraints..... 1
  - Justifiable under certain circumstances ..... 2
  - Never justifiable..... 3
  - [DK/NA] ..... 9
- A) ... to improve the robustness of animals against  
diseases ..... 1 2 3 9
  - B) ... to preserve rare animal breeds..... 1 2 3 9
  - C ... for food production purposes..... 1 2 3 9

**Q3. Etes-vous plutôt d'accord ou plutôt pas d'accord avec les  
affirmations suivantes ?**

- D'accord ..... 1
- Pas d'accord..... 2
- [NSP/SR] ..... 9

- a) Le clonage des animaux est moralement mauvais ..... 1 2 9
- b) Le clonage des animaux pourrait conduire au clonage  
humain ..... 1 2 9
- c) Le clonage des animaux occasionnera une douleur,  
une souffrance et une détresse inutiles pour les  
animaux ..... 1 2 9
- d) Les effets à long terme du clonage des animaux sur  
la nature sont inconnus ..... 1 2 9
- e) La diversité génétique au sein du cheptel pourrait  
diminuer en raison du clonage des animaux..... 1 2 9

**Q4. Le clonage des animaux peut servir à différentes fins. Veuillez  
me dire si le clonage des animaux est toujours justifié, sans  
aucune contrainte, justifié dans certaines circonstances ou  
jamais justifié ?**

[LIRE ET FAIRE UNE ROTATION DES ITEMS A-C]

- Toujours justifié, sans aucune contrainte..... 1
  - Justifié dans certaines circonstances..... 2
  - Jamais justifié ..... 3
  - [NSP/SR] ..... 9
- A) pour améliorer la résistance des animaux aux  
maladies ..... 1 2 3 9
  - B) pour préserver les espèces animales rares..... 1 2 3 9
  - C à des fins de production alimentaire ..... 1 2 3 9

INTERVIEWER READ OUT:

CLONING MAY BE USED IN THE FUTURE TO IMPROVE SOME CHARACTERISTICS OF FARMED ANIMALS FOR FOOD PRODUCTION.

DUE TO THE HIGH COST OF CLONING, THIS TECHNIQUE WILL BE MAINLY USED TO PRODUCE CLONED ANIMALS, WHICH REPRODUCE WITH NON-CLONED ANIMALS. THEIR OFFSPRING WILL BE USED TO PRODUCE MEAT OR MILK.

I WILL NOW ASK FOR YOUR OPINIONS ABOUT THE USE OF CLONING ANIMALS FOR FOOD PRODUCTION.

ENQUETEUR LIRE :

LE CLONAGE PEUT ÊTRE UTILISÉ À L'AVENIR POUR AMÉLIORER CERTAINES CARACTÉRISTIQUES DES ANIMAUX D'ÉLEVAGE POUR LA PRODUCTION ALIMENTAIRE.

EN RAISON DU COÛT ÉLEVÉ DU CLONAGE, CETTE TECHNIQUE SERA PRINCIPALEMENT UTILISÉE POUR PRODUIRE DES ANIMAUX CLONÉS, QUI SE REPRODUIRONT AVEC DES ANIMAUX NON-CLONÉS.

LEURS PROGÉNITURES SERONT UTILISÉES POUR PRODUIRE DE LA VIANDE OU DU LAIT

JE VAIS MAINTENANT VOUS DEMANDER VOTRE AVIS SUR L'UTILISATION DU CLONAGE DES ANIMAUX POUR LA PRODUCTION ALIMENTAIRE.

**CLONING OF ANIMALS FOR FOOD PRODUCTION PURPOSES**

**Q5.** People have various opinions on the issue of cloning animals for producing food. I would read you some statements and please let me know if you agree or disagree with them

- Agree..... 1

- Disagree..... 2

- [DK/NA] ..... 9

a) For the European food industry to be competitive, animal cloning for food production must be applied. .... 1 2 9

b) We do not yet have enough experience yet about the long-term health and safety effects of using cloned animals for food..... 1 2 9

c) Using cloning for food production is not acceptable, as it would treat animals as commodities rather than as creatures with feelings..... 1 2 9

d) Using cloning for food production would be much more efficient in the long run and lower the cost of food products for consumers ..... 1 2 9

e) Cloning animals for human consumption is not just a technical issue, as it could be seen as unacceptable on ethical grounds..... 1 2 9

**CLONING OF ANIMALS FOR FOOD PRODUCTION PURPOSES**

**Q5.** Les gens ont différentes opinions sur la question du clonage des animaux pour la production alimentaire. Je vais vous lire certaines affirmations et souhaiterais que vous me disiez si vous êtes d'accord ou pas d'accord avec celles-ci

- D'accord ..... 1

- Pas d'accord..... 2

- [NSP/SR] ..... 9

a) Pour que l'industrie alimentaire européenne soit compétitive, le clonage des animaux pour la production alimentaire doit être pratiqué..... 1 2 9

b) Nous n'avons pas encore assez d'expérience en ce qui concerne les effets sur la santé et la sécurité à long terme liés à l'utilisation d'animaux clonés pour l'alimentation..... 1 2 9

c) Utiliser le clonage pour la production alimentaire est inacceptable, car cela reviendrait à traiter les animaux comme des produits plutôt que comme des animaux ayant des émotions ..... 1 2 9

d) Utiliser le clonage pour la production alimentaire serait beaucoup plus efficace à long terme et réduirait le coût des produits alimentaires pour les consommateurs ..... 1 2 9

e) Le clonage des animaux pour la consommation humaine n'est pas seulement une question technique car il pourrait être considéré comme inacceptable pour des raisons éthiques ..... 1 2 9

**Q6. What benefits would justify, for you as a consumer, the breeding of cloned animals for food production: What is the most important benefit to justify? And the second most important?**

- Nutrition/health benefits ..... 01
- Improved quality/taste/variety ..... 02
- Price/economic benefits ..... 03
- Animal cloning can help to solve the food problem worldwide ..... 04
- [None] ..... 88
- [DK/NA] ..... 99

**Q7. Please rate the following sources of information in terms of which you would trust the most to inform you about how safe cloned animals or their offspring were for human consumption? And which one would be the second most trusted source for you?**

- European institutions ..... 1
- Consumer organisations ..... 2
- Scientists ..... 3
- Media ..... 4
- The food industry ..... 5
- Animal welfare organisations ..... 6
- The national and European (e.g. European Food Safety Authority) agencies responsible for food safety ..... 7
- The national government ..... 8
- [None] ..... 88
- [DK/NA] ..... 99

**Q6. Quels avantages justifieraient, pour vous en tant que consommateur, l'élevage d'animaux clonés pour la production alimentaire : Quel est l'avantage le plus important ? Et le second avantage le plus important ?**

- Avantages pour la santé / la nutrition ..... 01
- Amélioration de la qualité, du goût, de la variété ..... 02
- Avantages économiques / Prix ..... 03
- Le clonage des animaux peut aider à résoudre les problèmes alimentaires mondiaux ..... 04
- [Aucun] ..... 88
- [NSP/SR] ..... 99

**Q7. Parmi les sources d'information suivantes, pouvez-vous me dire celle en laquelle vous avez le plus confiance pour savoir dans quelle mesure les animaux clonés ou leurs progénitures sont sains pour la consommation humaine? Et quelle serait selon vous, la deuxième source la plus digne de confiance ?**

- Les institutions européennes ..... 1
- Les organisations de consommateurs ..... 2
- Les scientifiques ..... 3
- Les médias ..... 4
- L'industrie alimentaire ..... 5
- Les associations de protection des animaux ..... 6
- Les agences nationales et européennes (ex. Autorité Européenne de Sécurité des Aliments) responsables de la sécurité alimentaire ..... 7
- Le gouvernement national ..... 8
- [Aucun] ..... 88
- [NSP/SR] ..... 99

**BUYING MEAT/MILK AND INFORMATION WHEN BUYING MEAT/MILK**

**Q8.** If a source, that you trust, did state that meat and milk from cloned animals were safe to eat, how likely would you be to buy such products?

- Very likely ..... 1
- Somewhat likely ..... 2
- Somewhat unlikely ..... 3
- Not likely at all ..... 4
- [DK/NA] ..... 9

**Q9.** And, if a source, that you trust, did state that meat and milk from animals where one of the parents was a clone (offspring), were safe to eat, how likely would you be to buy them?

- Very likely ..... 1
- Somewhat likely ..... 2
- Somewhat unlikely ..... 3
- Not likely at all ..... 4
- [DK/NA] ..... 9

**BUYING MEAT/MILK AND INFORMATION WHEN BUYING MEAT/MILK**

**Q8.** Si une source, en laquelle vous avez confiance, déclarait que la viande et le lait provenant d'animaux clonés étaient sains à manger, seriez-vous prêt à acheter ces produits ? Cela serait

- Très probable ..... 1
- Assez probable ..... 2
- Assez peu probable ..... 3
- Pas du tout probable ..... 4
- [NSP/SR] ..... 9

**Q9.** Et si une source en laquelle vous avez confiance déclarait que la viande et le lait provenant d'animaux dont l'un des parents est un clone (progéniture), étaient sains à manger, seriez-vous prêt à les acheter ? Cela serait

- Très probable ..... 1
- Assez probable ..... 2
- Assez peu probable ..... 3
- Pas du tout probable ..... 4
- [NSP/SR] ..... 9

**Q10. If products from offspring of cloned animals would be available, would you consider it to be important to have special labelling indicating that the food was obtained from the offspring of a cloned animal?**

- Yes, certainly..... 1
- Yes, probably ..... 2
- No, probably not ..... 3
- No, certainly not ..... 4
- [DK/NA] ..... 9

**Q11. In your opinion who would benefit and who would not benefit if cloning for food production was allowed?**

- Would benefit ..... 1
  - Would not benefit ..... 2
  - [DK/NA] ..... 9
- 
- a) Consumers..... 1 2 9
  - b) Farmers..... 1 2 9
  - c) Food companies/food industry ..... 1 2 9

**Q10. Si des produits issus de la progéniture d'animaux clonés étaient disponibles, considéreriez-vous comme important le fait d'avoir un étiquetage spécial précisant que l'aliment est issu de la progéniture d'un animal cloné ?**

- Oui, certainement..... 1
- Oui, probablement..... 2
- Non, probablement pas ..... 3
- Non, certainement pas ..... 4
- [NSP/SR] ..... 9

**Q11. Si le clonage pour la production alimentaire était autorisé, pouvez-vous me dire qui, selon vous, en bénéficierait ou n'en bénéficierait pas ?**

- Bénéficieraient..... 1
  - Ne bénéficieraient pas..... 2
  - [NSP/SR] ..... 9
- 
- a) Les consommateurs ..... 1 2 9
  - b) Les exploitants agricoles ..... 1 2 9
  - c) Les sociétés alimentaires/l'industrie alimentaire ..... 1 2 9

**D1. Gender**

[DO NOT ASK - MARK APPROPRIATE]

- [1] Male  
[2] Female

**D2. How old are you?**

[ ] [ ] years old  
[00] [REFUSAL/NO ANSWER]

**D3. How old were you when you stopped full-time education?**  
[Write in THE AGE WHEN EDUCATION WAS TERMINATED]

[ ] [ ] years old  
[00] [STILL IN FULL TIME EDUCATION]  
[01] [NEVER BEEN IN FULL TIME EDUCATION]  
[99] [REFUSAL/NO ANSWER]

**D1. Sexe**

[NE PAS DEMANDER - NOTER COMME APPROPRIE]

- [1] Homme  
[2] Femme

**D2. Quel âge avez-vous?**

[ ] [ ] ans  
[00] [REFUS/PAS DE REONSE]

**D3. Quel âge aviez-vous quand vous avez terminé vos études à temps plein?**

[Noter l'âge de fin d'études]

[ ] [ ] ans  
[00] [Toujours en train de poursuivre des études à temps plein]  
[01] [Jamais suivi des études à temps plein]  
[99] [REFUS/PAS DE REONSE]

D4. As far as your current occupation is concerned, would you say you are self-employed, an employee, a manual worker or would you say that you are without a professional activity? Does it mean that you are a(n)...

[IF A RESPONSE TO THE MAIN CATEGORY IS GIVEN, READ OUT THE RESPECTIVE SUB-CATEGORIES - ONE ANSWER ONLY]

- Self-employed

→ i.e.	- farmer, forester, fisherman .....	11
	- owner of a shop, craftsman .....	12
	- professional (lawyer, medical practitioner, accountant, architect,...) .....	13
	- manager of a company.....	14
	- other .....	15

- Employee

→ i.e.	- professional (employed doctor, lawyer, accountant, architect) .....	21
	- general management, director or top management .....	22
	- middle management .....	23
	- Civil servant.....	24
	- office clerk .....	25
	- other employee (salesman, nurse, etc...) .....	26
	- other .....	27

- Manual worker

→ i.e.	- supervisor / foreman (team manager, etc...).....	31
	- Manual worker .....	32
	- unskilled manual worker .....	33
	- other .....	34

- Without a professional activity

→ i.e.	- looking after the home .....	41
	- student (full time) .....	42
	- retired .....	43
	- seeking a job .....	44
	- other .....	45
	- [Refusal].....	99

D4. Concernant votre emploi actuel, êtes vous indépendant, employé, ouvrier ou sans activité professionnelle? Cela veut-il dire que vous êtes un (une)...

[SI UNE REPONSE EST DONNEE A LA CATEGORIE PRINCIPALE, LIRE LES SOUS CATEGORIES RESPECTIVES - UNE SEULE REPONSE POSSIBLE]

- Profession libérale/ indépendant

→ i.e.	- agriculteur, sylviculteur, pêcheur.....	11
	- commerçant, artisan .....	12
	- profession libérale (avocat, médecin, comptable, architecte...) .....	13
	- Dirigeant d'entreprise.....	14
	- Autre .....	15

- Employé (e)

→ i.e.	- Cadre employé (médecin sous convention, avocat, comptable, architecte) .....	21
	- Direction générale, directeur ou direction supérieure .....	22
	- Cadre moyen.....	23
	- Fonctionnaire .....	24
	- employé(e) de bureau.....	25
	- Autre salarié (commercial, infirmière etc...) .....	26
	- Autre .....	27

- Ouvrier

→ i.e.	- superviseur/agent de maîtrise (chef d'équipe, etc....)	31
	- Ouvrier .....	32
	- Ouvrier non qualifié .....	33
	- Autre .....	34

- Sans activité professionnelle

→ i.e.	- Femme/ Homme au foyer.....	41
	- Etudiant (temps plein).....	42
	- Retraité .....	43
	- Demandeur d'emploi.....	44
	- Autre .....	45
	- [Refus].....	99

**D6. Would you say you live in a ...?**

- metropolitan zone ..... 1
- other town/urban centre ..... 2
- rural zone ..... 3
- [Refusal] ..... 9

**D6. Diriez-vous que vous vivez...?**

- zone métropolitaine ..... 1
- autre ville/centre urbain ..... 2
- zone rurale ..... 3
- [Refus] ..... 9

Flash EB Series #238

## Europeans' attitudes towards animal cloning

Conducted by  
The Gallup Organization, Hungary  
upon the request of  
Directorate General Health and Consumers



Survey coordinated by  
Directorate General 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.

THE GALLUP ORGANIZATION

## Survey Details

This survey on the General population survey on “*Consumer attitudes towards animal cloning* in EU27” was conducted for the European Commission, DG Communication Unit A3 and – DG Health and Consumers , Unit E4 .

Telephone interviews were conducted in each country with the exception of the Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Hungary Poland, Romania and Slovakia where both telephone and face-to-face interviews were conducted (70% webCATI and 30% F2F interviews).

Telephone interviews were conducted in each country between the 7/03/2008 and the 7/7/2008 by these Institutes:

Belgium	BE	Gallup Europe	(Interviews : 07/03/2008 - 07/07/2008 )
Czech Republic	CZ	Focus Agency	(Interviews : 07/03/2008 - 07/07/2008)
Denmark	DK	Hermelin	(Interviews : 07/03/2008 - 07/07/2008)
Germany	DE	IFAK	(Interviews : 07/03/2008 - 07/07/2008)
Estonia	EE	Saar Poll	(Interviews : 07/03/2008 - 07/07/2008)
Greece	EL	Metroanalysis	(Interviews : 07/03/2008 - 07/07/2008)
Spain	ES	Gallup Spain	(Interviews : 07/03/2008 - 07/07/2008)
France	FR	Efficience3	(Interviews : 07/03/2008 - 07/07/2008)
Ireland	IE	Gallup UK	(Interviews : 07/03/2008 - 07/07/2008)
Italy	IT	Demoskopea	(Interviews : 07/03/2008 - 07/07/2008)
Cyprus	CY	CYMAR	(Interviews : 07/03/2008 - 07/07/2008)
Latvia	LV	Latvian Facts	(Interviews : 07/03/2008 - 07/07/2008)
Lithuania	LT	Baltic Survey	(Interviews : 07/03/2008 - 07/07/2008)
Luxembourg	LU	Gallup Europe	(Interviews : 07/03/2008 - 07/07/2008)
Hungary	HU	Gallup Hungary	(Interviews : 07/03/2008 - 07/07/2008)
Malta	MT	MISCO	(Interviews : 07/03/2008 - 07/07/2008)
Netherlands	NL	Telder	(Interviews : 07/03/2008 - 07/07/2008)
Austria	AT	Spectra	(Interviews : 07/03/2008 - 07/07/2008)
Poland	PL	Gallup Poland	(Interviews : 07/03/2008 - 07/07/2008)
Portugal	PT	Consulmark	(Interviews : 07/03/2008 - 07/07/2008)
Slovenia	SI	Cati d.o.o	(Interviews : 07/03/2008 - 07/07/2008)
Slovakia	SK	Focus Agency	(Interviews : 07/03/2008 - 07/07/2008)
Finland	FI	Hermelin	(Interviews : 07/03/2008 - 07/07/2008)
Sweden	SE	Hermelin	(Interviews : 07/03/2008 - 07/07/2008)
United Kingdom	UK	Gallup UK	(Interviews : 07/03/2008 - 07/07/2008)
Bulgaria	BG	Vitosha	(Interviews : 07/03/2008 - 07/07/2008)
Romania	RO	Gallup Romania	(Interviews : 07/03/2008 - 07/07/2008)

### Representativeness of the results

Each national sample is representative of the population aged 15 years and above.

## Sizes of the sample

In most EU countries the target sample size was 1000 respondents, in Cyprus, Malta and Luxembourg the target sample size was 500. The table below shows the achieved sample size by country.

The below table shows the achieved sample size by country

A weighting factor was applied to the national results in order to compute a marginal total where each country contributes to the European Union result in proportion to its population.

The table below presents, for each of the countries:

- (1) the number of interviews actually carried out in each country
- (2) the population-weighted total number of interviews for each country

## TOTAL INTERVIEWS

	Total Interviews			
	Conducted	% of Total	EU27 Weighted	% on Total (weighted)
<b>Total</b>	<b>25607</b>	<b>100</b>	<b>25607</b>	<b>100</b>
BE	1006	3.9	543	2.1
BG	1005	3.9	423	1.7
CZ	1003	3.9	549	2.1
DK	1003	3.9	275	1.1
DE	1000	3.9	4489	17.5
EE	1019	4.0	72	0.3
EL	1003	3.9	588	2.3
ES	1003	3.9	2207	8.6
FR	1009	3.9	3038	11.9
IE	1000	3.9	201	0.8
IT	1008	3.9	3141	12.3
CY	503	2.0	38	0.1
LV	1002	3.9	124	0.5
LT	1003	3.9	179	0.7
LU	503	2.0	23	0.1
HU	1008	3.9	529	2.1
MT	502	2.0	21	0.1
NL	1000	3.9	839	3.3
AT	1000	3.9	422	1.6
PL	1006	3.9	2010	7.8
PT	1006	3.9	550	2.1
RO	1002	3.9	1129	4.4
SI	1004	3.9	108	0.4
SK	1008	3.9	282	1.1
FI	1001	3.9	273	1.1
SE	1000	3.9	469	1.8
UK	1000	3.9	3085	12.0

## **Questionnaires**

1. The questionnaire prepared for this survey is reproduced at the end of this results volume, in English (see hereafter).
2. The institutes listed above translated the questionnaire in their respective national language(s).

...

## **Sampling error**

The results in a survey are valid only between the limits of a statistical margin caused by the sampling process. This margin varies with three factors:

1. The sample size (or the size of the analysed part in the sample): the greater the number of respondents is, the smaller the statistical margin will be;
2. The result in itself: the closer the result approaches 50%, the wider the statistical margin will be;
3. The desired degree of confidence: the more "strict" we are, the wider the statistical margin will be.

As an example, examine this illustrative case:

1. One question has been answered by 500 people;
2. The analysed result is around 50%;
3. We choose a significance level of 95 % (it is the level most often used by the statisticians, and it is the one chosen for the Table hereafter);

In this illustrative case the statistical margin is: (+/- 4.4%) around the observed 50%. And as a conclusion: the result for the whole population lies between 45.6% and 54.4 %.

Hereafter, the statistical margins computed for various observed results are shown, on various sample sizes, at the 95% significance level.

STATISTICAL MARGINS DUE TO THE SAMPLING PROCESS (AT THE 95 % LEVEL OF CONFIDENCE)

Various sample sizes are in rows;

Various observed results are in columns:

	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%
N=50	6,0	8,3	9,9	11,1	12,0	12,7	13,2	13,6	13,8	13,9
N=500	1,9	2,6	3,1	3,5	3,8	4,0	4,2	4,3	4,4	4,4
N=1000	1,4	1,9	2,2	2,5	2,7	2,8	3,0	3,0	3,1	3,1
N=1500	1,1	1,5	1,8	2,0	2,2	2,3	2,4	2,5	2,5	2,5
N=2000	1,0	1,3	1,6	1,8	1,9	2,0	2,1	2,1	2,2	2,2
N=3000	0,8	1,1	1,3	1,4	1,5	1,6	1,7	1,8	1,8	1,8
N=4000	0,7	0,9	1,1	1,2	1,3	1,4	1,5	1,5	1,5	1,5
N=5000	0,6	0,8	1,0	1,1	1,2	1,3	1,3	1,4	1,4	1,4
N=6000	0,6	0,8	0,9	1,0	1,1	1,2	1,2	1,2	1,3	1,3

## Evaluation of the samples

... The weighting of the dataset is a three-fold exercise. For cross-country weights please refer to the table on previous page. ...

In the *first step* we will apply the basic **selection probability weights**, primarily to avoid the overcoverage of households with multiple telephone lines. In the same step, we calculate the weights that corrects the estimations based on the merged **dual frame** samples, i.e., weights that deal with phone owners;

In the *second step*, on a country-by-country basis, a **nonresponse population weighting** was carried out. As nonresponse rates vary by social segments, the sample characteristics reflect such differences as well (i.e., there are usually less males and especially less young people in the samples than in the universe.) In this step, we compensated for the nonresponse bias that stems from the field execution process. The most advanced method for eliminating such deviations is the so-called *Raking Adjustment for Nonresponse* (raking). Gallup applied this method. This procedure performs iterative proportional fitting in contingency table analysis. This method is also used to deal with the problem of large variability of weights . when weighting classes are formed based on full cross-classification of the auxiliary variables, the result is a large number of weighting classes with unstable response rates.

However, one drawback is that raking assumes that the variables used for adjustment are independent. Raking works in the following way:

- 1) sets initial weight factor values in each cross-classification term to 1;
- 2) adjusts the weight factors of the first cross-classification term so the weighted sample is representative for the variables involved;
- 3) adjusts the weight factors for the next cross-classification term so the weighted sample becomes representative with respect to the variables involved (this might disrupt the representativeness with respect to the variables involved);
- 4) repeats this adjustment for all cross-classification terms;
- 5) repeats all steps until the factors do not change.

A common approach to weighting is to determine the sample weights adjusting for unequal probabilities of selection, revise these weights to compensate for different sub-class response rates, and finally modify the weights again to conform the weighted sample distribution for certain variables (e.g., age, gender, education, activity etc.) to the known population distributions of the same variables.

The following variables will be used in all national raking procedures (with categories levels used):

### Age X Sex

male, 15-29  
male, 30-49  
male, 50+  
female, 15-29  
female, 30-49  
female, 50+

### Activity

Active worker  
retired  
Other non-active worker

### Regions ( NUTS2)

Please note that levels might be collapsed to achieve convergence or universe information is not available in the necessary detail.

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