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**EUROBAROMETER 56.2**

**EUROPEANS AND  
RADIOACTIVE WASTE**

**REPORT**

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**FOR**

**DG ENERGY AND TRANSPORT**

**MANAGED AND ORGANISED BY**

**DG PRESS AND COMMUNICATION  
EUROPEAN COMMISSION**

**19 APRIL 2002**

This opinion poll, managed and organised by the European Commission's DG Press and Communication was conducted on the request of the Directorate General for Energy & Transport

The survey was carried out between 13 October and 19 November 2001 in all 15 EU Member States under the co-ordination of INRA (EUROPE) – European Co-ordination Office, based in Brussels.

The questionnaire and the names of the institutes involved in the research are provided in the annexes.

The European Commission is not liable for any matters arising from this research.

The original version of this report is written in English.

## TABLE OF CONTENTS

	Page
<b>Scope of the survey</b>	<b>2</b>
<b>Methodology</b>	<b>3</b>
<b>Executive summary</b>	<b>4</b>
<b>Chapter I: How well informed Europeans feel about radioactive waste</b>	<b>11</b>
<b>Chapter II: Trusted sources of information on radioactive waste management</b>	<b>15</b>
<b>Chapter III: Basic knowledge about radioactive waste</b>	<b>19</b>
<b>Chapter IV: Siting of high-level radioactive waste disposal facilities</b>	<b>25</b>
<b>Chapter V: Attitudes to present impasse in the disposal of high-level radioactive waste</b>	<b>28</b>
<b>Chapter VI: Living close to a radioactive waste disposal facility – people’s concerns</b>	<b>31</b>
<b>Chapter VII: Knowledge of current disposal programmes for low-level radioactive waste</b>	<b>33</b>
<b>Chapter VIII: Concern about radioactive waste management</b>	<b>37</b>
<b>Chapter IX: Europeans’ views on broader nuclear issues</b>	<b>41</b>
 <b>Annexes:</b>	
<b>I: Technical specifications</b>	
<b>II: Questionnaire in English</b>	
<b>III: Questionnaire in French</b>	

## **SCOPE OF THE SURVEY – Europeans and radioactive waste**

This important survey investigated a mix of beliefs, knowledge and wishes of a representative sample of citizens of the EU.

The survey considered value-based as well as specific factual questions, thus both opinions and levels of knowledge in the field of radioactive waste were investigated.

The first two chapters report on how well the European Union population think they are informed about the subject and which sources of information they trust.

The next chapter looks at knowledge about where radioactive waste comes from and other factual aspects.

Chapters IV-VI investigate reactions to such issues as national versus regional disposal sites, reasons for the present impasse in developing geological repositories and people's concerns about such sites.

Chapter VII looks at the level of knowledge regarding current management strategies for low-level radioactive waste in the various EU Member States.

Chapter VIII presents the level of people's concern about radioactive waste management in general, not only in their own country but also in the rest of the EU as well as in the Central and Eastern European Countries (CEECs).

Finally, Chapter IX looks at a mix of questions dealing with broader nuclear power and waste-related issues.

## METHODOLOGY

This survey was carried out between 13 October and 19 November 2001. This was wave 56.2 of the standard Eurobarometer and was undertaken at the request of the European Commission's Directorate-General Energy & Transport under the management of DG Press and Communication (Opinion Polls). The research itself was conducted by the European Opinion Research Group, a consortium of market and public opinion research agencies made up of INRA (Europe) and GfK Worldwide.

This survey covers the population of the European Union aged 15 and over: in total, some 16,000 interviews were conducted with approximately 1000 interviews in each country with the exception of Germany (1000 in the ex-West Germany and 1000 in the ex-East Germany), Luxembourg (604) and the UK where, out of the total of 1300 interviews there were 312 in Northern Ireland.

In each country, a number of sampling points was chosen which would reflect the population size and density. This random sampling technique gives an accurate representation of metropolitan, urban and rural areas. Starting addresses were selected at random and further addresses were selected as every *n*th address by standard random route procedures.

All interviews were face-to-face in respondents' homes and conducted in the appropriate national language.

Despite the efforts to achieve as accurate a picture as possible, readers are reminded that survey results are estimations. With samples of approximately 1000 interviews in each group, the uncertainties vary between 1.9% and 3.1%.

Readers should also note that where multiple answers could be given, it is possible that response totals may exceed 100%, indicating that some respondents made multiple choices.

The EU averages (referred to as EU 15 in the tables) quoted in this report are population-weighted averages of the individual country results (see Annex I for population sizes).

In subsequent tables: B = Belgium, DK = Denmark, D-W = old West Germany, D-total = Germany (West and East results combined), D-E = old East Germany, GR = Greece, E = Spain, F = France, IRL = Ireland, I = Italy, L = Luxembourg, NL = the Netherlands, A = Austria, P = Portugal, FIN = Finland, S = Sweden, UK = United Kingdom (i.e. including Northern Ireland).

Where appropriate, comparisons are made between this survey and a similar one carried out at the end of 1998 as part of Eurobarometer wave 50. The report on this survey can be found at the following Web address:

[http://europa.eu.int/comm/energy/nuclear/pdf/eb50\\_radwaste\\_en.pdf](http://europa.eu.int/comm/energy/nuclear/pdf/eb50_radwaste_en.pdf)

## EXECUTIVE SUMMARY

This Eurobarometer survey into public awareness and attitudes to radioactive waste was conducted between 13<sup>th</sup> October and 19<sup>th</sup> November 2001 in all 15 EU Member States with nearly 16,000 people interviewed.

Where appropriate, the results of this survey are compared with those of a similar study conducted in the autumn of 1998 to see if there are any noteworthy changes in levels of understanding and opinion in this field.

The percentages quoted usually refer to the whole sample polled rather than just those who expressed an opinion. Where there is a high number of 'don't knows' then the results may also be quoted as a percentage of those who actually expressed an opinion.

### 1. Level of information on radioactive waste

Respondents were asked to self-assess how well informed they were of the subject, ranging from 'very well informed' to 'not at all well informed'

There are differences between men and women, with men generally considering themselves better informed, as do those with higher levels of education.

Similar trends are noted for respondents with a high level of media exposure.

When comparing individual countries, large variations from the average EU figures are evident. For example, considering the category 'not at all well informed', there is a very large variation between respondents in Belgium (48%), Portugal (47%) and Spain (43%) compared with countries such as Denmark (10%), Sweden (12%) and Finland (16%).

Comparing the 1998 survey with that conducted in 2001, there is minimal change in the total figures for the EU 15.

### 2. Confidence in sources of information

The survey assessed what were considered to be trusted sources of information on this topic both as regards the situation in the respondents' home country as well as the situation in other EU countries

Concerning the respondents' home country, independent scientists (32.0%) and NGOs (31.4%) are the most trusted sources across the EU 15 in the 2001 survey.

The least trusted sources are the nuclear industry itself (10.2%) and the EU (11.0%).

Within each country, Swedes are most trusting of NGOs (70.1%) and Portuguese least trusting (19.1%).

Italians are least trusting of independent scientists (15.7%) and the Danes most trusting (49.5%).

The EU and nuclear industry are broadly trusted to the same extent. For the EU, the responses range from Finland (6.1%) to Sweden (19.9%). Sweden also shows by far the greatest trust in the nuclear industry (36.2%), with Italy and Austria the least (4.4%).

Looking back to a broadly comparable question in the 1998 survey, national governments (45.2%) were the most trusted sources of information for EU 15 citizens, closely followed by the media (42.5%). EU *environment departments* were trusted by 22.0% of the people polled. Political parties (10.8%) and 'other sources' (3.8%) were the least trusted sources.

From the latest survey, national agencies responsible for radioactive waste management are considered trustworthy in Sweden (59.5%) but much less so in Spain (14.4%). However, these bodies may not be very well known in many countries, and in others (e.g. Denmark, 45.5%) they are considered trustworthy even though no such agency actually exists.

The 2001 survey then looked at those sources trusted by EU citizens regarding information about radioactive waste in other EU countries.

As in the domestic case, Independent scientists (26.7%) and NGOs (25.7%) come out best. The nuclear industry (7.8%) and National Governments (9.1%) are the least trusted. However, trust in the EU has now jumped to 21%.

There may be an element of 'who would you go to for information' in the way people responded to this question.

### **3. Basic knowledge about radioactive waste**

When questioned as to whether nuclear power stations produce radioactive waste, 91% of all Europeans correctly believe that they do, with only 2% saying no and 6% being unsure.

Standing out amongst the 'don't knows' are Portugal (15%) and Greece (11%).

As the questions became more 'technical', the 'don't know' group became more significant.

For example, 69% of respondents are aware that hospitals produce nuclear waste. However, many respondents across the EU are either unsure (16%) or believe they do not (15%).

However, only 44% of those polled realise that the oil industry also produces radioactive waste, with nearly one-third (30%) replying 'don't know'.

When respondents were asked whether the statement 'all radioactive waste is very dangerous' was true, the percentage of people replying in the affirmative decreased slightly from 79% to 75% over the period 1998-2001. Those who correctly answered 'no' increased from 10% to 14% over this period.

More than one third of respondents (37%) replied 'don't know' when asked whether radioactive waste is produced in smaller quantities than other types of hazardous wastes. Some 45% of respondents correctly answered 'yes'.

In the case of other questions that appeared in both the 1998 and 2001 surveys ('do hospitals produce radioactive waste?' and 'are there several types of radioactive waste?'), there were no appreciable shifts in opinion.

#### **4. Siting of disposal facilities for high-level radioactive waste**

This question relates to whether each country should have its own facility, or whether regional shared sites should be developed.

Across the EU as a whole, 63% of all respondents endorse the concept that each European country that produces the most hazardous category of waste should be responsible for developing its own disposal site. However, this is a significant decrease relative to the 75% in the 1998 survey who believed this was the best strategy.

Over this same period, there has been a corresponding increase in the acceptance of the regional solution, with the EU 15 figures climbing from 12% to 18% (with a similar increase in 'don't knows'). In Greece, Spain, France, Ireland and Portugal, support for a regional solution has approximately doubled since the 1998 survey, again with a similar leap in the number of 'don't knows'. In the Netherlands, the country most in favour of the regional solution, supporters of the purely national strategy no longer had an absolute majority.

Between 1998 and 2001, substantial increases in the number of 'don't knows' are noticed in Spain (14% to 24%) and Portuguese (12% to 26%). The highest number was recorded in Ireland (34% cf 27% in 1998). Note that in general throughout the survey there are considerably higher than average numbers of 'don't knows' in Spain and Portugal.

#### **5. The impasse in the disposal of highly radioactive waste – people's attitudes**

The 1998 poll asked respondents four 'yes/no' questions related to why no country had yet managed to dispose of high-level radioactive waste. The most commonly agreed reason, selected by 83% of the respondents, was that implementation of such disposal was politically unpopular. Three-quarters of the people polled in 1998 also believed that another reason was simply that there was no safe way to get rid of this waste. The least supported reason, selected by 51% of the people polled, was that 'all the possibilities and all the risks' were being studied before a decision was made.

Three years later in the 2001 survey, respondents were asked instead to choose just one of these three reasons.

In total, 14% throughout the Union do not have an opinion why no country had yet disposed of this waste. However, this average figure is made up of widely varying figures from different countries, ranging from 4% in Sweden to 34% in Portugal.

The concepts of 'political unpopularity' and 'assessment of options and risks' each attract approximately 20% of the respondents.

However, 46% believe that the reason why no disposal of the most hazardous category of radioactive waste had yet taken place is simply because there exists no safe way to do it.

## **6. Public concerns regarding proximity to underground disposal sites**

In both the 1998 and 2001 surveys, respondents were asked about their concerns regarding proximity to a disposal site for radioactive waste. The questions differed in that the 1998 survey allowed multiple responses, while the more recent survey asked for the most important concern only.

In 1998, the issue that caused the most concern was health (74%), with impact on the local environment (71%) and long-term risks (67%) also being very important.

The 2001 survey highlighted similar concerns, with the risk of leaks while the site was operating (39%) and long-term risks for future generations, i.e. up to thousands of years, (38%) being rated virtually identical in terms of importance.

Although only 11% of the EU 15 express most concern about the risks associated with waste transports, Finns (19%) and Swedes (25%) both rate these risks as more important than the other short-term risks associated with site operation.

A major drop in local property values is seen to be of little concern (3.5%).

## **7. Current disposal programme for low-level waste**

The 2001 survey asked respondents what they thought happens in their country to the treated low-level and short-lived (i.e. least hazardous) waste that is routinely packed into steel drums. However, they could only choose one option from the list provided. In 1998 a similar question was asked, but people were allowed to select more than one management option.

In the three years between the two surveys, the percentage of people responding that they did not know rose from 17% to 26%. Also, the number selecting the banned practice of sea dumping fell from 26% to 10%. These figures could be as a result of greater precision in the wording of the question in the latter survey and the fact that in

1998, there might have been confusion between disposal of solid waste and ocean discharges of radioactive effluents.

In the UK, France, Spain, Sweden and Finland, burial in shallow disposal sites is the most common method of disposal. Overall, this method is the one most used in the EU in terms of quantities of waste, though at the moment it is being practised only in the countries cited above. In all other countries (except Luxembourg, which probably exports its very small quantities of waste) temporary storage is the management strategy that is currently being practised. With this in mind, in four of these other countries, plus Luxembourg, the highest ranked choice is in fact the correct answer (if the 'don't knows' are ignored).

The growth of the 'don't knows' was substantial in several countries over the three years since the 1998 survey. The most significant being Portugal (34% to 50%), Ireland (29% to 42%), Italy (27% to 42%) and Spain (31% to 42%). In fact, only 8% of people in Spain knew the correct answer (shallow disposal), though results in the other countries practising this form of management were not much better.

## **8. Concern about radioactive waste management at home and abroad**

Respondents were asked to assess their concern about the management of radioactive waste in their own country, in other EU countries and in the Central and Eastern European Countries (CEECs) wishing to join the European Union.

The respondents who are 'very worried' at the way radioactive waste is handled in their own country amount to 29% across the EU. However, this figure is misleading since results for individual countries range from Sweden at 11%, through Austria at 33% to Greece with 65%.

The results also show significant shifts in opinion between 1998 and 2001. The average EU figure for those 'very worried' about the way radioactive waste is managed in their own country fell from 41% to 29% between the two surveys, though there was a 5% increase in the 'fairly worried' category, with a similar increase in the 'not very worried' category.

Once again, these average figures tend to hide some significant variations at the national level. For example, In 1998 only 16% of Danish respondents were 'not very worried' about the way their country managed radioactive waste. Three years later, this figure had nearly trebled to 47%, with a similar but opposite effect in the 'very worried' group, falling from 46% to 12%.

Concerning the figures relating to management of waste in other countries, people in general are more worried about other EU countries than their own, and more worried about the CEECs than the EU. In the case of the CEECs, the level of concern has increased slightly since 1998, the 2001 survey showing that 49% of the 16,000 people questioned are 'very worried', compared with a figure of 47% in the 1998 survey.

The results in this section show large variations from country to country and the EU average figures can therefore be misleading.

## 9. General opinions on broader nuclear issues

In this final section, opinions on five separate issues / propositions are assessed:

*(a) The media are fair in their reporting of radioactive waste issues.*

Opinion on this is divided almost exactly 50:50 across Europe as a whole, with a total of 41.6% either strongly agreeing or tending to agree while 41.3% strongly disagree or tend to disagree.

Once again, however, there are marked differences between different member countries, with 59.4% of Irish people strongly agreeing or tending to agree with the statement compared with only 26.8% of Italians.

*(b) The nuclear industry is open in providing information about radioactive waste.*

Less than 1 in 5 Europeans (18.9%) either strongly agree or tend to agree with this statement.

The extremes are represented by Sweden, where 40% of those polled think that the industry is open in providing information, and Italy where the figure is only 10%.

Nearly 30% of Spaniards polled say they do not know.

*(c) An advantage of nuclear power is that it produces less greenhouse gas emissions than other energy sources.*

Well over one-third of those polled throughout the EU replied 'don't know', though this ranged from 3.6% in Sweden to as high as 55% in Spain. Indeed, the figure for 'don't know' is very similar to the total agreeing with the statement (41%). This shows an appreciable lack of knowledge on the part of large a fraction of the EU population.

In Sweden and Denmark, 47% and 42% respectively of respondents strongly agree with the proposition. This compares with a European average of only 12.5%.

*(d) If all waste is managed safely, nuclear power should remain an option for electricity production in the EU.*

Across Europe, an average of 51% of the respondents agree, of which 15% strongly so, with this statement. On average there are 24% who 'don't know'. Therefore, after elimination of the latter, there is a two to one majority supporting the statement across Europe as a whole, with a majority in all Member States except Austria.

In Austria, the results are diametrically opposite to those in the rest of the EU. One explanation could be the 'Temelin effect'.

Even if the sometimes sizeable number of 'don't knows' are not discounted, there is still an absolute majority in support of the statement in Belgium, Denmark, France, Italy, Luxembourg, Netherlands, Finland and UK.

However, these results should also be viewed in the light of the replies to question 5, which show that some 46% of the EU population believe that the reason why no disposal of high-level waste has yet taken place is because there is no safe way to do it.

Again, there are much higher than average 'don't knows' in Spain and Portugal.

*(e) The generation using nuclear power should be responsible for dealing with its waste and not leave it for future generations to manage.*

In total, 80% of those polled agree with this concept, with 50% agreeing strongly.

This question of responsibility was also raised in the 1998 survey, though in this instance the options were 'this generation' (54%), 'future generations' (6.1%) and 'both' (35%).

**CHAPTER I**

**HOW WELL INFORMED EUROPEANS FEEL  
ABOUT RADIOACTIVE WASTE**

In this first question, respondents were asked to self-assess their level of knowledge of radioactive waste issues by ranking themselves in one of four categories. An additional option - 'don't know' - was also included.

To determine the averages quoted in the table, 'very well informed' scores 4 points, 'fairly well informed' scores 3 points, 'not very well informed' 2 points and 'not at all well informed' 1 point ('don't know' = 0 points). The arithmetic midpoint is therefore 2.5.

Q.1 *How well informed do you think you are about radioactive waste? (ONE ANSWER ONLY)*

1. *Very well informed*
2. *Fairly well informed*
3. *Not very well informed*
4. *Not at all well informed*
5. *Don't know*

Table I.1 How well informed Europeans feel about radioactive waste, 2001 (in %)

Country	Very well informed	Fairly well informed	Not very well informed	Not at all well informed	Average	Don't know
<b>B</b>	1.1	11.3	37.3	48.4	1.64	1.9
<b>DK</b>	6.4	26.3	56.9	10.1	2.29	0.3
<b>D-W</b>	2.4	24.5	50.2	20.9	2.09	2.0
<b>D-total</b>	2.3	25.0	49.4	21.1	2.09	2.1
<b>D-E</b>	1.8	27.3	46.7	21.8	2.09	2.5
<b>GR</b>	4.6	22.9	40.1	30.8	2.01	1.6
<b>E</b>	0.8	10.3	41.7	43.2	1.67	4.0
<b>F</b>	2.4	14.6	41.4	40.6	1.78	1.1
<b>IRL</b>	3.8	21.5	40.7	30.5	1.99	3.5
<b>I</b>	2.0	15.2	51.1	30.8	1.88	0.9
<b>L</b>	2.9	23.6	44.8	27.0	2.02	1.8
<b>NL</b>	3.1	32.1	44.8	17.8	2.21	2.2
<b>A</b>	4.2	16.9	45.5	27.4	1.98	6.0
<b>P</b>	0.8	14.5	35.1	47.3	1.68	2.2
<b>FIN</b>	7.2	33.0	42.7	16.1	2.32	1.1
<b>S</b>	3.7	27.4	56.5	11.7	2.23	0.6
<b>UK</b>	2.8	14.6	39.1	41.8	1.78	1.7
<b>EU 15</b>	<b>2.4</b>	<b>18.3</b>	<b>44.9</b>	<b>32.5</b>	<b>1.90</b>	<b>1.9</b>

Comparing the 2001 survey with that conducted in 1998 (see Table I.2), there was minimal change in the overall figures across the European Union as a whole (EU 15).

The average in the 1998 survey produced a figure of 1.93 while the 2001 survey shows a slight decrease to 1.90. The percentage of people considering themselves 'very well informed' changed from 2.5% to 2.4%, 'fairly well informed' from 19.6% to 18.3%, 'not very well informed' from 44% to 45% and 'not at all well informed' from 31.7% to 32.5%.

Table I.2 How well informed Europeans felt about radioactive waste, 1998 (in %)

Country	Very well informed	Fairly well informed	Not very well informed	Not at all well informed	Average	Don't know
<b>B</b>	2.0	16.4	44.9	35.2	1.85	1.3
<b>DK</b>	5.2	26.0	55.6	12.5	2.24	0.7
<b>D-W</b>	3.7	25.0	45.6	22.7	2.10	2.7
<b>D-total</b>	3.5	24.3	46.1	23.1	2.08	2.7
<b>D-E</b>	2.6	21.6	48.0	24.5	2.02	2.7
<b>GR</b>	2.2	19.3	50.6	26.6	1.97	1.3
<b>E</b>	0.7	10.9	46.3	38.7	1.73	3.4
<b>F</b>	1.6	16.2	33.9	47.7	1.71	0.6
<b>IRL</b>	2.7	18.6	35.2	40.7	1.83	2.8
<b>I</b>	2.1	17.8	45.8	31.4	1.90	2.9
<b>L</b>	3.4	20.2	44.9	29.6	1.97	1.9
<b>NL</b>	2.9	34.0	47.5	14.8	2.25	0.8
<b>A</b>	2.8	18.8	40.1	34.8	1.89	3.5
<b>P</b>	0.8	10.1	36.0	49.0	1.61	4.1
<b>FIN</b>	2.7	32.1	60.0	4.5	2.33	0.8
<b>S</b>	4.0	36.1	48.6	10.8	2.33	0.2
<b>UK</b>	3.2	18.4	44.4	31.7	1.93	2.3
<b>EU 15</b>	<b>2.5</b>	<b>19.6</b>	<b>44.0</b>	<b>31.7</b>	<b>1.93</b>	<b>2.2</b>

Therefore, most European citizens still do not believe that they are well informed about radioactive waste - virtually 80% consider themselves in this category.

However, a more detailed analysis of the figures shows a wide variation in perceived levels on a country-by-country basis. In 2001, the average figure for respondents claiming to have the lowest level of information is 33%. However, the Belgians (48%), Portuguese (47%) and Spaniards (43%) consider themselves even less well informed. It should be appreciated that both Belgium and Spain have important nuclear power programmes. At the same time, the seemingly much better informed Danes and Swedes are only just in double figures at 10% and 12% respectively.

Looking at demographics (Table I.3) there are no real surprises.

People who were better educated or received more media information through their watching, listening or reading habits consider themselves, inevitably, better informed.

Again, perhaps because of the technical aspects of the subject, men tend to consider themselves better informed than women.

*EUROPEANS AND RADIOACTIVE WASTE  
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Table I.3 How well informed Europeans feel about radioactive waste, 2001, socio-demographic analysis (in %)

Variables	Total in group	Very well informed	Fairly well informed	Not very well informed	Not at all well informed	Average	Don't know
<b>Gender</b>							
Male	7689	3.4	22.5	45.0	27.3	2.02	1.9
Female	8234	1.5	14.3	44.9	37.4	1.80	1.9
<b>Age</b>							
15-24	2518	1.5	16.3	45.1	34.9	1.84	2.3
25-39	4583	2.1	18.5	47.2	30.9	1.92	1.4
40-54	3670	2.7	20.2	46.2	29.0	1.97	1.8
55+	5152	2.9	17.6	41.9	35.3	1.88	2.2
<b>Education level</b>							
<=15	4620	1.5	14.0	40.7	41.2	1.75	2.7
16-19	6489	2.3	17.4	46.3	32.1	1.90	1.9
20+	3278	3.9	25.5	47.2	22.3	2.11	1.1
Still studying	1535	2.3	19.5	46.9	29.9	1.94	1.4
<b>Urban or rural</b>							
Rural / village	4556	1.8	17.7	44.2	34.2	1.87	2.1
Small town	6678	2.5	18.4	46.0	31.4	1.92	1.7
Large town	4597	2.9	18.6	43.9	32.6	1.92	2.0
Don't know	92	3.7	12.6	49.8	30.4	1.89	3.5
<b>Income level</b>							
++	2775	3.8	24.6	49.0	21.9	2.10	0.7
+	2594	2.4	20.7	48.3	28.1	1.97	0.5
-	2648	2.8	18.5	43.1	33.8	1.90	1.8
--	2518	1.6	15.3	40.1	40.5	1.77	2.5
D K / Refusal	5388	1.9	15.1	44.3	35.7	1.83	3.0
<b>Media Use</b>							
+++ Heavy	6096	3.0	23.9	46.2	25.1	2.05	1.7
++ Medium	5205	2.6	17.4	47.1	31.8	1.91	1.0
-- Light	3645	1.6	12.6	41.8	41.5	1.74	2.5
--- Very light	880	0.3	7.6	37.6	48.9	1.57	5.5
<b>Profession</b>							
Self-employed	1381	4.2	17.9	46.3	30.3	1.96	1.3
Managers	1309	4.7	27.8	47.0	18.2	2.19	2.3
Employees/other White collar	1808	1.3	19.4	50.5	27.7	1.94	1.1
Manual workers	3518	2.3	16.9	45.6	34.0	1.87	1.1
House-persons	2059	0.8	12.8	43.9	40.1	1.74	2.2
Unemployed	833	2.5	14.3	42.4	36.1	1.82	4.7
Retired	3480	2.5	19.2	40.3	35.4	1.89	2.6
Students	1535	2.3	19.5	46.9	29.9	1.94	1.4
<b>EU 15</b>	<b>15923</b>	<b>2.4</b>	<b>18.3</b>	<b>44.9</b>	<b>32.5</b>	<b>1.90</b>	<b>1.9</b>

## **CHAPTER II**

### **TRUSTED SOURCES OF INFORMATION ON RADIOACTIVE WASTE MANAGEMENT**

**EUROPEANS AND RADIOACTIVE WASTE  
INRA (EUROPE) ECO**

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The first question in this chapter deals with trusted sources of information on management of radioactive waste in the respondent's own country. Since respondents were able to make multiple selections, totals can exceed 100%.

Q.2(a) Which, if any, of the following would you trust to give you information about the way radioactive waste is managed in (OUR COUNTRY)? (multiple answers possible).

1. National agencies in charge of dealing with radioactive waste (**NA**) (e.g. ANDRA in France, SKB in Sweden etc.)
2. The (national) government (**Gov**)
3. Non-governmental organisations (NGOs) concerned about the environment (**NGO**)
4. Independent scientists (**IS**)
5. The media (**MED**)
6. The European Union (**EU**)
7. The nuclear industry (**NUC**)
8. International organisations working on peaceful uses of nuclear technology (**INT**)
9. None (**None**)
10. Don't know (**D K**)

TABLE II.1 Trusted sources of information on how radioactive waste is managed in ones own country

Country	NA	GOV	NGO	IS	MED	EU	NUC	INT	None	D K
<b>B</b>	27.7	29.1	29.9	36.3	28.9	14.2	12.9	25.6	10.1	10.6
<b>DK</b>	45.5	46.7	25.0	49.5	24.3	13.3	7.7	26.9	3.3	2.8
<b>D-W</b>	41.2	30.9	28.6	37.0	19.8	10.8	9.8	22.5	13.4	10.3
<b>D-total</b>	40.7	30.5	27.7	37.1	19.6	10.7	10.2	23.0	13.0	10.9
<b>D-E</b>	38.8	29.2	24.6	37.4	18.6	10.4	11.7	24.8	11.7	13.4
<b>GR</b>	21.8	24.3	24.3	41.6	24.9	11.6	5.9	25.6	4.1	5.0
<b>E</b>	14.4	32.8	32.3	24.2	27.3	12.8	8.7	14.3	3.6	18.4
<b>F</b>	19.4	25.0	37.1	33.3	23.5	11.3	11.1	22.7	10.9	8.5
<b>IRL</b>	27.5	30.9	34.3	40.3	29.8	14.4	13.8	26.7	5.2	14.4
<b>I</b>	20.8	19.6	29.4	15.7	17.4	8.1	4.4	15.3	4.6	18.6
<b>L</b>	34.7	45.9	43.8	32.0	30.7	19.4	8.9	18.7	1.2	9.5
<b>NL</b>	25.5	44.1	32.6	41.9	24.2	16.5	7.3	24.5	4.1	8.6
<b>A</b>	35.4	21.4	36.6	38.1	21.0	8.7	4.4	14.1	7.1	10.8
<b>P</b>	15.4	35.2	19.1	30.5	12.8	10.2	5.5	12.2	5.0	19.2
<b>FIN</b>	32.8	21.3	26.0	41.0	41.4	6.1	15.1	19.0	4.9	8.8
<b>S</b>	59.5	52.5	70.1	34.3	55.2	19.9	36.2	39.5	0.4	3.5
<b>UK</b>	24.5	26.8	29.7	36.7	22.3	9.8	14.9	32.1	11.5	11.1
<b>EU 15</b>	<b>27.0</b>	<b>28.5</b>	<b>31.4</b>	<b>32.0</b>	<b>22.8</b>	<b>11.0</b>	<b>10.2</b>	<b>22.3</b>	<b>8.5</b>	<b>12.2</b>

Across the EU, the most trusted group is seen to be independent scientists in whom 32% of respondents said they had confidence.

At the other end of the scale, only one in ten Europeans trust information from the nuclear industry.

Once again, there are large country-by-country variations. For example, an average of 27% of people across the Union trust national agencies in charge of dealing with

radioactive waste. However, while 60% of Swedes expressed trust in this source of information, in France and Portugal the figures are less than 20%, and in Spain only one person in seven trust this source. These views may or may not relate to how well known these agencies are in the respective countries and the perception of their role by the population. Some of these agencies are public and have strong links to national governments (as in the case of Spain) whereas others are private, effectively having been set up by the nuclear industry. The latter is the case in Sweden, so it is interesting to compare the high degree of trust noted here with the response to question 9(b) and the much lower score in the table above for the nuclear industry itself (even if this is by far the industry's highest score in any of the countries). It should also be noted that in those EU countries without a nuclear power programme such specialised agencies do not exist, yet there are still significant numbers of people in these countries who selected this option.

Danes expressed high levels of trust in many sources, including national agencies (46%, though no such specialised agency exists - see comment above), their government (47%) and independent scientists (50%). The comparable figures for Italians were 21%, 20% and 16%.

The degree of confidence that people have in the European Union as a source of trusted information is low, the EU ranking last but one in the overall listings. This is significantly lower than the score in the 1998, though in that survey this source was called 'EU departments dealing with environmental issues'.

On the other hand, governments fared comparatively well across the board. Countries where they were trusted by at least 25% of the respondents numbered eleven out of the EU 15, with only Greece, Italy, Austria and Finland falling below this figure. The result for Finland is somewhat puzzling in view of the recent decision, agreed at all levels from the local community to the government and Parliament, regarding the selection of a site for the disposal of their spent nuclear fuel.

However, the above results will disappoint those national agencies, especially in Spain and France, dedicated to the management of radioactive waste and whose mandate includes providing information to the public (particularly when 20% of Europeans either don't trust anybody or just 'don't know').

The second question deals with the same trust issues but with reference to the EU as a whole rather than the respondent's home country.

Q.2(b) *Which, if any, of the following would you trust to give you information about the way radioactive waste is managed in the other European Union countries? (multiple answers possible).*

1. *National agencies in charge of dealing with radioactive waste (NA) (e.g. ANDRA in France, SKB in Sweden etc.)*
2. *The (national) government (GOV)*
3. *Non-governmental organisations (NGOs) concerned about the environment (NGO)*
4. *Independent scientists (IS)*
5. *The media (MED)*

6. The European Union (**EU**)
7. The nuclear industry (**NUC**)
8. International organisations working on peaceful uses of nuclear technology (**INT**)
9. None (**none**)
10. Don't know (**D K**)

TABLE II.2 Trusted sources of information on how radioactive waste is managed elsewhere in the EU

Country	N A	GOV	NGO	IS	MED	EU	NUC	INT	None	D K
<b>B</b>	17.4	9.2	26.1	35.6	24.4	25.7	14.9	27.6	10.3	15.2
<b>DK</b>	33.1	27.0	23.6	46.3	20.6	22.2	6.5	26.7	4.8	4.4
<b>D-W</b>	17.8	7.6	27.2	33.9	13.9	21.6	9.3	22.3	15.4	18.5
<b>D-total</b>	17.1	7.2	25.3	33.2	13.3	21.5	9.2	22.9	15.1	19.5
<b>D-E</b>	14.5	5.9	18.3	30.4	11.2	21.3	8.9	25.1	14.0	23.5
<b>GR</b>	14.3	7.1	20.8	35.7	21.8	20.0	6.2	27.0	4.6	7.0
<b>E</b>	9.5	10.7	29.1	22.7	22.3	26.0	7.2	15.3	4.5	24.6
<b>F</b>	10.5	5.6	30.2	25.7	17.0	18.7	8.2	20.9	12.6	17.7
<b>IRL</b>	16.1	9.8	26.0	30.4	20.2	18.1	10.0	23.5	5.2	25.7
<b>I</b>	11.7	3.6	22.1	12.3	11.8	23.3	3.8	19.0	5.1	25.7
<b>L</b>	27.2	17.0	36.3	37.3	26.7	33.5	15.2	27.8	0.9	14.1
<b>NL</b>	16.7	29.7	28.1	38.7	19.8	25.0	4.5	25.0	5.1	13.4
<b>A</b>	17.2	10.6	30.9	32.5	19.0	16.4	5.4	14.9	8.7	15.0
<b>P</b>	9.0	11.0	13.2	25.2	9.1	25.1	5.8	16.0	6.8	25.7
<b>FIN</b>	11.5	7.3	16.4	30.9	30.0	16.3	8.0	21.8	9.3	17.5
<b>S</b>	21.0	23.1	57.5	30.1	47.5	39.3	20.6	42.9	0.8	10.6
<b>UK</b>	12.9	10.3	20.5	25.8	13.3	13.7	8.7	26.0	15.1	21.5
<b>EU 15</b>	<b>13.7</b>	<b>9.1</b>	<b>25.7</b>	<b>26.7</b>	<b>16.6</b>	<b>21.2</b>	<b>10.2</b>	<b>22.1</b>	<b>10.2</b>	<b>20.0</b>

The major difference between the national and EU-wide cases is that the relatively high levels of trust felt by respondents towards their own governments and low levels felt towards the EU are reversed, the EU now being seen as substantially more trustworthy.

At the same time, the level of trust in information from national agencies halves from 27% to 13.7% when the reference is to other EU countries' national agencies rather than their own (though the distinction between agencies of different countries was not specifically made in the question so there could have been some confusion on this point).

There may be an element of 'who would you go to for information' in the way people responded to this question.

## **CHAPTER III**

### **BASIC KNOWLEDGE ABOUT RADIOACTIVE WASTE**

In this section, six short questions in the form statements were presented to respondents, who were asked to respond with a straightforward true / false / don't know.

This allows an analysis of people's basic knowledge about radioactive waste and whether there are any widely held misconceptions.

Q.3(i) *Nuclear power stations produce radioactive waste (true / false / don't know)*

TABLE III.1 Nuclear power stations produce radioactive waste

Country	True	False	Don't know
<b>B</b>	91.5	1.1	7.4
<b>DK</b>	96.0	2.0	2.0
<b>D-W</b>	94.8	1.8	3.4
<b>D-total</b>	94.0	2.0	4.1
<b>D-E</b>	90.9	2.4	6.7
<b>GR</b>	84.8	4.5	10.8
<b>E</b>	91.8	0.9	7.3
<b>F</b>	91.9	2.5	5.6
<b>IRL</b>	90.4	0.7	8.9
<b>I</b>	90.8	2.9	6.2
<b>L</b>	94.1	2.2	3.7
<b>NL</b>	91.5	3.7	4.8
<b>A</b>	95.6	0.8	3.5
<b>P</b>	83.3	1.3	15.3
<b>FIN</b>	93.5	1.0	5.5
<b>S</b>	96.6	1.7	1.6
<b>UK</b>	87.6	3.2	9.2
<b>EU 15</b>	<b>91.3</b>	<b>2.3</b>	<b>6.3</b>

On average, 91% of respondents across Europe knew that nuclear power stations produce radioactive waste. The number of 'don't knows' was 6%, but, on a country basis, high levels of 'don't knows' were evident in Portugal (15.3%) and Greece (10.8%), though both are non-nuclear power countries. In total, 8% of women, as opposed to 4.7% of men, replied 'don't know' to this question.

Q.3(ii) *Hospitals produce radioactive waste (true / false / don't know)*

Understandably, as the questions become more difficult, the number of 'don't knows' increases. In this case, 16% of the respondents fall in this category, with a further 15% erroneously believing that hospitals did not produce radioactive waste. Therefore, nearly one person in three (31%) is not aware of the true facts.

The figures below are very similar to those in the 1998 survey where the 'don't knows' amounted to 18%, and those believing that hospitals did not produce radioactive waste totalled 12%.

TABLE III.2 Hospitals produce radioactive waste

Country	True	False	Don't know
<b>B</b>	69.8	13.9	16.3
<b>DK</b>	75.3	12.1	12.6
<b>D-W</b>	62.3	20.3	17.3
<b>D-total</b>	60.3	20.8	18.9
<b>D-E</b>	52.8	22.3	24.9
<b>GR</b>	61.1	20.2	18.7
<b>E</b>	72.0	9.4	18.6
<b>F</b>	74.2	13.7	12.1
<b>IRL</b>	67.8	10.7	21.5
<b>I</b>	68.7	14.8	16.5
<b>L</b>	81.6	9.2	9.3
<b>NL</b>	83.6	6.1	10.3
<b>A</b>	73.6	11.1	15.3
<b>P</b>	55.0	18.2	26.8
<b>FIN</b>	68.3	14.5	17.2
<b>S</b>	74.0	18.0	8.1
<b>UK</b>	71.7	12.4	15.9
<b>EU 15</b>	<b>68.9</b>	<b>14.8</b>	<b>16.3</b>

Q.3(iii) *The oil industry produces radioactive waste (true / false / don't know)*

TABLE III.3 The oil industry produces radioactive waste

Country	True	False	Don't know
<b>B</b>	47.4	22.9	29.6
<b>DK</b>	26.0	40.9	33.2
<b>D-W</b>	28.3	33.0	38.7
<b>D-total</b>	27.2	34.1	38.6
<b>D-E</b>	23.1	38.5	38.4
<b>GR</b>	64.4	16.7	18.9
<b>E</b>	60.6	14.5	24.9
<b>F</b>	57.1	22.0	20.9
<b>IRL</b>	51.0	16.6	32.5
<b>I</b>	52.5	24.4	23.0
<b>L</b>	40.4	32.9	26.7
<b>NL</b>	34.1	27.9	38.0
<b>A</b>	27.3	31.2	41.5
<b>P</b>	58.8	13.2	28.0
<b>FIN</b>	30.5	37.3	32.3
<b>S</b>	23.4	53.2	23.4
<b>UK</b>	38.9	23.8	37.3
<b>EU 15</b>	<b>44.1</b>	<b>25.8</b>	<b>30.1</b>

The oil industry produces significant quantities of radioactive waste, normally in the form of scales in pipes and equipment used in oil and gas extraction.

Owing to the increasing level of difficulty, the number of 'don't knows' has again risen, this time to 30%. Portuguese respondents and certain groups, notably women and older people, have larger than the average representation in the 'don't know' camp.

The EU average figures hide a wide spread of individual country results. For example, the average figure for respondents correctly believing this statement to be true is 44%, but the range of responses varied from 64% in Greece to 23% in ex-East Germany. Similarly, those people believing the statement to be false varied between 13% in Portugal to 53% in Sweden, the figure for the EU 15 being 26%.

Q.3(iv) *There are several categories of radioactive waste (true / false / don't know)*

TABLE III.4 There are several categories of radioactive waste

Country	True	False	Don't know
<b>B</b>	73.4	5.9	20.7
<b>DK</b>	84.0	3.4	12.6
<b>D-W</b>	74.5	4.3	21.1
<b>D-total</b>	73.3	4.9	21.7
<b>D-E</b>	69.0	7.0	24.0
<b>GR</b>	76.1	3.9	20.0
<b>E</b>	67.9	3.9	28.2
<b>F</b>	81.2	4.5	14.4
<b>IRL</b>	72.8	2.1	25.1
<b>I</b>	76.5	4.5	18.9
<b>L</b>	87.5	2.9	9.6
<b>NL</b>	79.9	3.6	16.6
<b>A</b>	64.3	9.0	26.7
<b>P</b>	62.1	5.4	32.5
<b>FIN</b>	78.8	5.4	15.8
<b>S</b>	84.6	4.8	10.5
<b>UK</b>	78.1	3.0	18.8
<b>EU 15</b>	<b>75.6</b>	<b>4.4</b>	<b>20.1</b>

There is not a large variation in the number of respondents correctly believing this statement to be true over the EU as a whole, the average being 76% of the population.

Once again, however, there appears to be a relatively low level of knowledge about this aspect since 20% of the EU population answered 'don't know', with, in the case of Spain and Portugal, this figure rising to 28 and 33% respectively.

When the EU total figures are compared with those of the 1998 survey, there is a maximum difference of only about 1% between the corresponding responses. There is also very little variation between the individual country results from the two surveys.

Q.3(v) *All radioactive waste is very dangerous (true / false / don't know)*

Since the 1998 survey there has been a slight increase, from 11 to 14%, in the number of people realising that not all waste that is classified as radioactive is very dangerous.

In fact, the majority of the radioactive waste by volume produced in the EU is classified as low-level waste and can be handled and managed without the same protective measures needed for the more hazardous spent nuclear fuel and vitrified high-level waste. Much of this waste is classified as radioactive by virtue of the fact that it

originates from within a radiation-controlled zone (e.g. discarded workers' overalls from nuclear installations) and could not be considered to be very dangerous.

TABLE III.5 All radioactive waste is very dangerous

Country	True	False	Don't know
<b>B</b>	71.4	17.3	11.3
<b>DK</b>	62.7	28.6	8.7
<b>D-W</b>	76.7	13.6	9.7
<b>D-total</b>	76.6	13.2	10.3
<b>D-E</b>	76.3	11.5	12.2
<b>GR</b>	84.6	4.8	10.5
<b>E</b>	78.7	7.1	14.1
<b>F</b>	76.7	14.7	8.6
<b>IRL</b>	77.0	9.6	13.4
<b>I</b>	81.7	7.7	10.6
<b>L</b>	75.0	16.4	8.6
<b>NL</b>	54.6	29.2	16.2
<b>A</b>	78.1	9.6	12.3
<b>P</b>	71.8	8.5	19.7
<b>FIN</b>	74.4	17.1	8.5
<b>S</b>	69.0	24.0	7.0
<b>UK</b>	65.8	21.4	12.8
<b>EU 15</b>	<b>74.7</b>	<b>14.0</b>	<b>11.3</b>

Q.3(vi) *Radioactive waste is produced in smaller quantities than other hazardous waste (true / false / don't know)*

TABLE III.6 Radioactive waste is produced in smaller quantities than other hazardous waste

Country	True	False	Don't know
<b>B</b>	47.2	14.8	38.0
<b>DK</b>	57.9	14.4	27.6
<b>D-W</b>	38.7	22.9	38.4
<b>D-total</b>	39.6	22.0	38.4
<b>D-E</b>	43.3	18.5	38.3
<b>GR</b>	53.7	14.7	31.6
<b>E</b>	43.6	12.3	44.1
<b>F</b>	49.3	20.2	30.6
<b>IRL</b>	45.2	13.4	41.4
<b>I</b>	41.2	17.1	41.8
<b>L</b>	58.3	20.5	21.3
<b>NL</b>	50.1	13.2	36.7
<b>A</b>	39.5	20.2	40.3
<b>P</b>	43.7	11.4	44.9
<b>FIN</b>	60.9	15.8	23.4
<b>S</b>	52.4	23.9	23.7
<b>UK</b>	44.4	19.9	39.6
<b>EU 15</b>	<b>44.5</b>	<b>18.3</b>	<b>37.2</b>

A high percentage of respondents opted for the reply 'don't know' in response to this question. In general terms, quantities of radioactive waste, especially in the most hazardous category, are relatively small compared with other categories of toxic and

hazardous wastes. The EU 15 average for 'don't knows' is 37%, with Spain, Italy, Austria and Portugal all at over 40%. Therefore, throughout the EU as a whole, most people profess either not to know the answer or answered incorrectly. Again, this indicates confusion or a lack of understanding on the part of a large number of respondents.

## **CHAPTER IV**

### **SITING OF HIGH-LEVEL RADIOACTIVE WASTE DISPOSAL FACILITIES**

This chapter looks at the attitude of respondents to the siting of disposal facilities at national versus regional level. In other words, it examines where the public sees the balance between national responsibility and collective action at Community level. Although the questions were phrased slightly differently in the 1998 and the 2001 surveys, the underlying issue remains the same.

In the 2001 survey the question was phrased as follows:

- Q.4 *From an economic and environmental point of view, building an underground disposal site for the most hazardous category of radioactive waste, such as that from spent nuclear fuel, is a complex project. In your opinion, where should such sites be built? (ONE ANSWER ONLY)*
- *In each EU country that produces this category of radioactive waste.*
  - *In only a few EU countries with access shared amongst co-operating countries.*
  - *Don't know.*

In the 1998 survey, the choices were phrased:

- *only a few underground tips should be built and access should be given to those European Union countries which would be prepared to pay;*
- *each country which produces radioactive waste should have its own underground tips.*
- *Don't know.*

The questions are considered sufficiently similar to allow a comparison of the results to be made. The overall figures show that between 1998 and 2001 there has been an apparent change in European attitudes away from individual country responsibilities towards a more regional outlook. However, because of the different wording of the questions in the two surveys, care must be taken not to read too much into this trend.

The percentage of Europeans believing that disposal of radioactive waste is more suited to a regional approach rose by 50% from 12% to 18%. However, the proportion of 'don't knows' also increased from 13% to 18%. Accordingly, the percentage of Europeans believing that the responsibility for underground disposal sites for the most hazardous radioactive waste should rest solely with the producing country slipped from 75% to 63% over the period in question.

A more marked shift, relative to the EU average, is seen in five European Union Member States (Greece, Spain, France, Ireland and Portugal), where support for a regional solution has approximately doubled since the 1998 survey, with a similar leap in the number of 'don't knows'.

TABLE IV.1 Where should underground disposal sites for the most hazardous radioactive waste be constructed? Comparative figures 1998 and 2001.

Country	National 1998	National 2001	Regional 1998	Regional 2001	Don't know 1998	Don't know 2001
<b>B</b>	79.7	63.5	11.4	19.5	8.9	17.0
<b>DK</b>	67.7	52.8	26.1	37.4	6.3	9.8
<b>D-W</b>	63.4	61.0	20.7	18.4	14.7	20.7
<b>D-total</b>	62.7	60.2	22.0	18.8	14.2	21.0
<b>D-E</b>	59.9	57.4	27.0	20.5	12.4	22.2
<b>GR</b>	88.4	72.6	7.8	13.3	3.8	14.1
<b>E</b>	81.4	61.9	5.1	14.6	13.5	23.5
<b>F</b>	82.6	68.3	9.4	18.2	8.0	13.5
<b>IRL</b>	65.2	52.0	7.9	14.4	26.8	33.6
<b>I</b>	78.8	69.2	6.8	11.9	14.4	18.9
<b>L</b>	68.8	63.1	16.6	26.1	14.5	10.8
<b>NL</b>	69.2	48.1	24.2	35.7	6.6	16.2
<b>A</b>	65.1	60.9	15.9	18.2	19.0	20.9
<b>P</b>	81.6	61.9	6.5	11.9	11.9	26.2
<b>FIN</b>	72.0	60.2	19.0	26.9	9.0	12.9
<b>S</b>	73.9	72.2	19.9	21.3	6.2	6.5
<b>UK</b>	75.6	61.1	8.4	18.9	16.0	20.0
<b>EU 15</b>	<b>74.8</b>	<b>63.3</b>	<b>12.4</b>	<b>17.9</b>	<b>12.5</b>	<b>18.8</b>

Although the most significant changes in attitude occur in the five countries mentioned above, the general drift away from national responsibility towards a regional solution is clearly shown in Table IV.1. Even in the Netherlands and Denmark, the two countries most favourable towards a regional solution in the 1998 survey, there was still a significant strengthening of support for the regional solution. Indeed, in the Netherlands there is no longer an outright majority supporting a purely national solution.

While the EU average of respondents expressing a preference for the concept of a regional solution in waste management is 18%, higher figures are noted for men (20%), 15 to 24 year olds (20%), those educated to 20+ years (21%), managers (21%), students (20%) and higher income earners (21%).

**CHAPTER V**

**ATTITUDES TO PRESENT IMPASSE IN THE DISPOSAL OF HIGH-  
LEVEL RADIOACTIVE WASTE**

This chapter looks at the perceived reasons why no disposal of the most hazardous categories of radioactive waste has yet taken place in any European country.

- Q.5 *No European country has yet disposed of the most hazardous category of radioactive waste. Do you think that this shows...? (ONE ANSWER ONLY)*
- *that there is no safe way to dispose of this waste*
  - *that all the possibilities and all the risks are being carefully assessed before a final decision is taken*
  - *how politically unpopular it is to take decisions about disposing of any hazardous waste*
  - *don't know.*

The 1998 survey presented the same options as listed above but in individual questions, therefore it is not possible to make a direct comparison with the 2001 survey in which only one option could be chosen from the list.

TABLE V.1 Reasons for non-disposal of the most hazardous radioactive waste

Country	No safe way	Careful assessment	Politically unpopular	Don't know
<b>B</b>	45.6	24.8	17.7	11.9
<b>DK</b>	46.0	20.4	28.3	5.4
<b>D-W</b>	45.2	22.0	22.1	10.7
<b>D-total</b>	43.6	22.0	22.3	12.0
<b>D-E</b>	37.8	22.1	23.1	17.0
<b>GR</b>	31.4	28.7	19.5	20.3
<b>E</b>	48.8	18.0	12.0	20.8
<b>F</b>	52.3	22.5	16.5	8.6
<b>IRL</b>	49.0	10.9	17.5	22.6
<b>I</b>	46.0	23.6	14.0	16.4
<b>L</b>	50.4	25.5	15.3	8.8
<b>NL</b>	40.4	23.6	23.3	12.7
<b>A</b>	55.9	16.9	17.1	10.2
<b>P</b>	31.3	24.2	10.1	34.3
<b>FIN</b>	34.8	25.9	29.3	10.1
<b>S</b>	45.0	25.1	25.7	4.2
<b>UK</b>	47.2	16.8	22.9	13.1
<b>EU 15</b>	<b>46.0</b>	<b>21.4</b>	<b>18.7</b>	<b>13.9</b>

On average, 14% of the EU population replied 'don't know' to this question. Four countries, Greece, Spain, Ireland and Portugal show higher than 20% of 'don't knows'. The figure in Portugal is especially high. Note that of these countries only Spain has significant quantities of this type of waste. In contrast, fewer than 5% of the people polled in Sweden and Denmark replied 'don't know'.

However, the key result from this question is that 46% of all Europeans believe that the reason why no waste in this category has yet been disposed of is simply because there is no safe way to do it. This result should be viewed in conjunction with that from question 9(d).

Fewer than half this number believe the reason to be that the options and risks were being carefully assessed (21%), and those quoting purely political reasons to be the cause make up 19% of those polled.

It is perhaps interesting to note that the country for which the scores for the three main options are the most equal is Finland, which also shows a lower than average number of 'don't knows'. This country has recently gone through quite an intense political and public debate on the issue of siting of a national deep geological repository, culminating in the selection of a site acceptable to the politicians, industry and the local community concerned. One could therefore assume that the public in this country has been more exposed to the issues than in most if not all other EU countries.

In the 1998 survey, which effectively allowed more than one of the above options to be selected as the reason for the present impasse, the most popular choice was 'politically unpopular' (on average, 83% of the EU public replied 'yes' to this question) followed by "no safe way" (75%) and "careful assessment" (51%). The average number of 'don't know' replies to these questions was 12%, 12% and 18% respectively.

## **CHAPTER VI**

### **LIVING CLOSE TO A RADIOACTIVE WASTE DISPOSAL FACILITY – PEOPLE'S CONCERNS**

This chapter considers the concerns of Europeans if a deep disposal site were constructed near their homes. The survey of 1998 also investigated this issue but allowed multiple responses. The 2001 survey allowed only one option to be selected from the list.

- Q.6 *If a deep underground disposal site for radioactive waste were to be built near your home, what would concern you most?*
- *transporting waste to the disposal site (TRANSPORT)*
  - *the risk of radioactive leaks while the site is in operation (SHORT TERM)*
  - *the possible effects on the environment and health over the next hundreds or thousands of years (LONG TERM)*
  - *a major drop in local property prices (PROPERTY)*
  - *other*
  - *don't know (D K)*

The results show that the main concerns are divided between the more immediate safety issues (i.e. radioactive leaks while the site is in operation, 39%) and the much longer term issues concerning possible impacts on the environment and health over potentially hundreds and thousands of years (38%). In the following table, the figures for 'other' have been excluded since they only totalled 1%.

TABLE VI.1 Concerns about a nearby deep underground disposal site

Country	TRANSPORT	SHORT TERM	LONG TERM	PROPERTY	D K
B	9.3	41.7	36.6	2.8	9.0
DK	12.4	28.3	49.8	5.3	3.4
D-W	11.9	34.7	39.4	5.4	8.0
D-total	11.4	34.0	39.9	5.1	8.7
D-E	9.9	31.5	41.6	3.7	11.6
GR	7.3	35.0	50.7	1.2	5.3
E	8.3	39.6	37.3	1.5	12.2
F	12.8	43.7	34.9	2.3	5.5
IRL	11.0	42.2	26.7	3.3	16.9
I	9.2	38.8	42.1	1.5	7.3
L	11.9	42.6	37.3	3.3	3.5
NL	14.0	34.6	35.7	7.1	7.1
A	15.8	30.6	43.0	2.2	6.0
P	8.9	39.8	28.2	1.9	18.6
FIN	18.6	18.2	46.7	5.4	9.8
S	25.1	20.7	44.7	6.3	2.9
UK	10.0	46.7	31.2	5.4	5.7
<b>EU 15</b>	<b>11.1</b>	<b>38.6</b>	<b>37.9</b>	<b>3.5</b>	<b>7.8</b>

A drop in property values is seen by only a small number of Europeans as the principal concern (3.5%), the most concerned being the Dutch at 7%.

Although only an average of 11% of EU citizens are concerned most about the risks associated with the transporting of waste to the site, Finns (19%) and Swedes (25%) consider these risks are more important than those linked to operation of the site. Again, people in Finland, but also in Sweden, have been more exposed to public debate on the issue of siting of such disposal facilities, their respective national waste management programmes being more advanced than those in other EU countries.

**CHAPTER VII**

**KNOWLEDGE ABOUT CURRENT DISPOSAL PROGRAMMES FOR  
LOW-LEVEL RADIOACTIVE WASTE**

This chapter looks at respondents' knowledge regarding how the least hazardous radioactive waste is managed in their own country.

Although a similar question was asked in the 1998 survey, then more than one management option could be selected and therefore a direct comparison with the present survey, in which only a single choice was permitted, is not possible.

Nonetheless, it is worth comparing the ranking of beliefs in the 1998 and 2001 surveys.

Table VII.1 Public beliefs regarding the disposal methods used for low-level radioactive waste

Ranking	1998	2001
1	Temporary storage	Don't know
2	Buried deep underground	Buried deep underground
3	Sent to other countries	Temporary storage
4	Dumped at sea	Sent to other countries
5	Don't know	Dumped at sea
6	Buried in shallow sites	Buried in shallow sites

Although currently only practised in five countries (France, Spain, Sweden, Finland and the UK), the burial of low-level waste in specially engineered shallow disposal sites is at present the most common management method for this type of waste in the EU, by volume of waste treated. Nonetheless, from the table above, this option is ranked by the public in sixth and last place. However, there needs to be a note of caution in the interpretation of these results - see discussion following Table VII.2.

Q.7 *However, most radioactive waste is much less hazardous. After treatment, this radioactive waste is in solid form and can be packed into standard steel drums. What do you think is done with these drums in (OUR COUNTRY)? (ONE ANSWER ONLY)*

- *They are dumped into the sea. (AT SEA)*
- *They are buried deep underground at special disposal sites (DEEP)*
- *They are buried at special disposal sites, but not deep underground (SHALLOW)*
- *They are sent to other countries for disposal (ABROAD)*
- *They are stored temporarily, pending a final decision on disposal (PENDING)*
- *They are dealt with in another way*
- *Don't know (D K)*

In the table that follows, the 'another way' option is not included as it totalled only 1.5% of the results.

TABLE VII.2 Perceptions regarding management of low-level radioactive waste packed in drums

Country	SEA	DEEP	SHALLOW	ABROAD	PENDING	D K
<b>B</b>	11.8	20.4	10.1	11.0	21.5	22.2
<b>DK</b>	2.2	13.9	11.1	29.5	29.4	13.2
<b>D-W</b>	2.6	22.8	8.3	14.2	37.0	14.1
<b>D-total</b>	2.7	22.5	8.0	14.6	36.4	14.8
<b>D-E</b>	2.8	21.2	6.7	16.2	34.5	17.6
<b>GR</b>	18.0	17.8	12.5	5.1	12.9	31.0
<b>E</b>	17.5	20.8	7.7	3.7	7.6	42.3
<b>F</b>	9.1	30.4	16.4	7.4	19.1	16.0
<b>IRL</b>	15.4	9.6	7.9	11.9	9.2	42.3
<b>I</b>	10.1	14.6	4.9	12.6	14.4	42.1
<b>L</b>	2.1	6.2	2.5	55.8	12.0	17.3
<b>NL</b>	9.9	10.2	13.6	18.2	26.2	19.7
<b>A</b>	7.5	13.5	8.4	19.2	21.8	26.7
<b>P</b>	8.9	12.1	6.9	9.7	9.8	49.7
<b>FIN</b>	1.6	28.5	9.5	11.9	35.8	11.6
<b>S</b>	1.5	36.5	9.4	7.1	36.4	8.5
<b>UK</b>	16.9	29.4	11.4	4.3	11.9	23.8
<b>EU 15</b>	<b>9.9</b>	<b>22.3</b>	<b>9.8</b>	<b>10.2</b>	<b>20.6</b>	<b>25.7</b>

In 2001, more than one person in four (26%) across the EU admits to not knowing what happens to this kind of waste (17% in 1998). In some European countries, this 'don't know' factor is much higher than the average, with Spain, Ireland and Italy (all at 42%) being prominent, though the highest figure is in Portugal where virtually half the population (49.7%) gave this answer when polled.

Some 10% of the EU population still believe that such waste is disposed of by dumping at sea, even though such a method has not been practised anywhere in the world for over two decades. However, this is considerably lower than the figure of 26% recorded in the 1998 survey (though it was then only one of several choices, with multiple selections possible).

In the case of the 1998 exercise, it is possible that there was a certain confusion in the minds of the public between sea disposal of solid low-level waste and discharges of radioactive effluents into the sea (which is a current though strictly controlled practice). This could explain why such a large percentage chose the sea disposal option. In order to avoid this confusion, the 2001 survey tried to be more precise by specifically asking about the management of solid waste in steel drums. The lower figure for the sea disposal option in the later survey could be attributable to this greater precision in the question.

Furthermore, only in France, Spain, Sweden, Finland and the UK is the response 'shallow sites' the correct one. In all other countries, with the possible exception of Luxembourg, interim storage is practised. For example, this is the case in Belgium and the Netherlands where no national disposal facility exists despite the fact that both countries operate nuclear power plants. There is currently a similar practice in Germany, though large quantities of low-level waste have been disposed of in this country in the past (but in deep rather than shallow facilities). In the other countries, i.e. all those with no nuclear power programme, this waste is also placed in interim

storage, though quantities are much smaller than for countries with nuclear power plants. Luxembourg routinely sends its very small quantities of waste to neighbouring countries for processing.

With the above in mind, and ignoring the 'don't know' responses, the most popular choices in the case of Belgium, Germany, Luxembourg, the Netherlands and Austria do in fact correspond to the correct answers in these countries. The most 'off the mark' replies seem to be in the five countries actually practising shallow disposal. Spain is particularly noticeable since only 8% know the correct answer, with some 42% replying 'don't know'. However, results in the UK and France are not much better, where many more people think that deep rather than shallow disposal is practised. In the case of Sweden and Finland there is similar confusion, but here it is more excusable since low-level waste in these countries is not disposed of in surface facilities but in rock caverns at a depth of some tens of metres (though this is still officially classified as near-surface disposal). Also, these countries show the lowest percentages of 'don't knows' in the survey.

## **CHAPTER VIII**

### **CONCERN ABOUT RADIOACTIVE WASTE MANAGEMENT**

This chapter analyses the concerns of respondents about the management of radioactive waste in their home country, in other Member States of the EU and, finally, in the Central and Eastern European Countries (CEECs) wishing to join the EU.

- Q.8 (a) *Would you say you are very worried, fairly worried, not very worried or not at all worried about the way radioactive waste is managed in (OUR COUNTRY)?*  
 (b) *and in the other European Union countries?*  
 (c) *and in the Central and Eastern European countries which would like to join the European Union?*

The average figures for those who consider themselves 'very worried' at the manner in which radioactive waste is managed in their own country is 29% across the EU. However, this average masks a wide range of results ranging from Sweden (11%) through Austria (33%) to Greece (65%).

TABLE VIII.1 Concern about radioactive waste management at the national level, 2001

Country	Very worried	Fairly worried	Not very worried	Not at all worried	Average	Don't know
<b>B</b>	19.8	36.2	31.5	7.7	2.71	4.8
<b>DK</b>	12.2	27.5	47.0	8.0	2.46	5.4
<b>D-W</b>	21.5	41.9	30.2	2.6	2.86	3.8
<b>D-total</b>	21.5	41.6	29.8	3.0	2.85	4.2
<b>D-E</b>	21.3	40.7	28.0	4.4	2.84	5.5
<b>GR</b>	64.5	24.1	6.1	1.8	3.57	3.5
<b>E</b>	32.7	40.9	14.1	4.7	3.10	7.6
<b>F</b>	31.3	43.2	17.3	5.8	3.02	2.4
<b>IRL</b>	29.4	34.7	18.7	5.9	2.99	11.3
<b>I</b>	40.5	41.8	8.7	1.1	3.32	8.0
<b>L</b>	15.2	26.7	36.9	11.4	2.51	9.7
<b>NL</b>	12.8	32.8	43.1	6.9	2.54	4.4
<b>A</b>	32.9	23.6	25.1	8.0	2.91	10.4
<b>P</b>	35.2	45.6	6.7	3.8	3.23	8.8
<b>FIN</b>	14.8	31.9	42.2	8.6	2.54	2.6
<b>S</b>	11.0	29.1	48.8	10.8	2.41	0.3
<b>UK</b>	27.5	39.2	24.0	4.1	2.95	5.3
<b>EU 15</b>	<b>29.1</b>	<b>39.5</b>	<b>21.9</b>	<b>4.2</b>	<b>2.99</b>	<b>5.3</b>

Looking at the trend over the past three years, Europeans appear to have become slightly less worried about the way radioactive waste is handled in their own countries. In 1998, 41% of EU respondents said they were 'very worried'. By 2001, however, this figure had fallen by nearly one third. Member States demonstrating significant falls include Denmark (46% to 12%), Ireland (50% to 29%) and Greece (85% to 66%). These countries, especially the latter two, have very small quantities of radioactive waste to manage. However, since the 1998 survey, there has been an increase from 35 to 40% in the 'fairly worried' category, with a similar rise in the 'not very worried' group.

Using the same method developed in the 1998 survey, 'very worried' scores 4 points, 'fairly worried' scores 3 points, 'not very worried' 2 points and 'not at all worried' 1 point

('don't know' = 0 points). The arithmetic midpoint is therefore 2.5, with the average in the 1998 survey producing a figure of 3.17 while the 2001 survey shows a decrease to 2.99.

However, when EU citizens are asked how worried they feel about the way radioactive waste is handled in other EU countries, a smaller reduction in overall concern relative to the figures in 1998 is observed.

TABLE VIII.2 Concern about radioactive waste management in other EU countries, 2001

Country	Very worried	Fairly worried	Not very worried	Not at all worried	Average	Don't know
<b>B</b>	19.2	38.9	26.4	7.3	2.76	8.1
<b>DK</b>	23.4	40.9	26.9	3.4	2.89	5.4
<b>D-W</b>	30.4	42.5	17.5	1.8	3.10	7.8
<b>D-total</b>	29.7	41.1	18.3	2.0	3.08	8.8
<b>D-E</b>	27.0	35.9	21.6	2.9	2.99	12.5
<b>GR</b>	56.5	29.9	6.5	2.8	3.46	4.3
<b>E</b>	27.1	39.3	18.3	7.0	2.94	8.4
<b>F</b>	37.3	36.5	15.5	4.6	3.13	6.1
<b>IRL</b>	35.2	35.2	12.8	3.0	3.19	13.8
<b>I</b>	34.2	42.0	10.6	1.4	3.24	11.8
<b>L</b>	19.9	47.1	21.7	4.2	2.89	7.1
<b>NL</b>	26.1	42.7	20.9	2.5	3.00	7.8
<b>A</b>	43.1	27.7	14.3	3.9	3.24	11.0
<b>P</b>	23.9	48.1	11.2	5.9	3.01	10.9
<b>FIN</b>	23.9	40.3	27.3	3.3	2.89	5.2
<b>S</b>	23.8	43.7	27.7	2.3	2.91	2.5
<b>UK</b>	27.7	34.1	21.7	7.5	2.90	9.0
<b>EU 15</b>	<b>31.2</b>	<b>38.9</b>	<b>17.3</b>	<b>4.0</b>	<b>3.06</b>	<b>8.5</b>

In 1998, 36% of EU respondents professed to be 'very worried' about radioactive waste management in other countries of the Union. By 2001, this had decreased to 31%. The average has also decreased, but only from 3.11 to 3.06.

However, the predominant concern for respondents remains the management of radioactive waste in the CEECs wishing to join the European Union. Here the numbers not only show that concern is higher than in the other two cases but also that there has been an increase since the 1998 survey, with the most concerned category now attracting 49% of citizens relative to 47% in 1998, the average having increased from 3.25 to 3.32.

TABLE VIII.3 Concern about radioactive waste management in the Central and Eastern European countries wishing to join the European Union, 2001

Country	Very worried	Fairly worried	Not very worried	Not at all worried	Average	Don't know
<b>B</b>	35.3	33.9	15.2	6.3	3.08	9.3
<b>DK</b>	66.7	25.3	4.3	0.6	3.63	3.0
<b>D-W</b>	58.0	24.0	9.2	2.4	3.47	6.3
<b>D-total</b>	55.4	24.7	9.9	2.5	3.44	7.5
<b>D-E</b>	45.7	27.4	12.3	2.8	3.32	11.8
<b>GR</b>	57.9	26.9	6.9	3.3	3.47	5.0
<b>E</b>	30.0	35.3	17.8	7.9	2.96	9.0
<b>F</b>	57.6	26.4	7.8	3.7	3.44	4.4
<b>IRL</b>	40.1	29.0	11.5	3.4	3.26	15.9
<b>I</b>	50.0	27.7	8.0	2.2	3.43	12.1
<b>L</b>	54.8	26.6	7.8	3.2	3.44	7.6
<b>NL</b>	50.6	30.3	8.9	2.0	3.41	8.2
<b>A</b>	62.3	20.7	5.6	1.7	3.59	9.7
<b>P</b>	27.1	43.0	11.3	6.7	3.03	11.9
<b>FIN</b>	51.1	33.4	9.5	1.5	3.41	4.6
<b>S</b>	62.6	29.4	5.9	0.8	3.56	1.2
<b>UK</b>	38.5	29.8	15.7	6.8	3.10	9.2
<b>EU 15</b>	<b>48.5</b>	<b>28.6</b>	<b>10.8</b>	<b>4.0</b>	<b>3.32</b>	<b>8.2</b>

It is perhaps worth noting that the Portuguese (27.1%) and Spanish (30%) figures for 'very worried' are substantially lower than all other countries, especially when compared with figures of more than 60% for Denmark, Sweden and Austria. However, this is compensated, to a certain extent, by the higher numbers of 'fairly worried' respondents. Also, it should be remembered that both these countries are amongst the most distant geographically from the CEECs.

## **CHAPTER IX**

### **EUROPEANS' VIEWS ON BROADER NUCLEAR ISSUES**

This final chapter looks at five different issues such as media fairness, openness within the nuclear industry, the question of greenhouse gas emissions and intergenerational responsibilities for dealing with nuclear waste. It also looks at the very important issue of acceptability of nuclear power in general. In the following tables, the averages are calculated by assuming 'strongly agree' scores 4 points, 'tend to agree' scores 3 points, 'tend to disagree' 2 points, 'strongly disagree' 1 point and 'don't know' 0 points. The midpoint is therefore 2.5

Q.9(a) *For the following statement, please tell me if you strongly agree, tend to agree, tend to disagree, or strongly disagree:*  
- *the media are fair in their reporting of radioactive waste issues.*

Looking at the overall European figures, there is an almost perfect split in opinion, with 41.6% either 'strongly agreeing' or 'tending to agree', while 41.3% either 'strongly disagree' or 'tend to disagree' with the statement.

TABLE IX.1 The media are fair in reporting on radioactive waste

Country	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree	Average	Don't know
<b>B</b>	6.3	37.0	27.9	8.6	2.51	20.2
<b>DK</b>	12.1	49.5	21.1	10.1	2.69	7.3
<b>D-W</b>	5.4	39.1	30.7	12.1	2.43	12.7
<b>D-total</b>	6.1	38.8	30.7	11.4	2.46	13.0
<b>D-E</b>	8.9	37.4	30.4	8.7	2.54	14.5
<b>GR</b>	10.1	26.1	23.3	24.9	2.25	15.5
<b>E</b>	8.4	26.8	27.8	8.7	2.49	28.2
<b>F</b>	10.3	31.4	29.4	17.3	2.39	11.6
<b>IRL</b>	14.7	44.7	12.1	3.2	2.95	25.3
<b>I</b>	3.2	23.6	39.9	13.1	2.21	20.2
<b>L</b>	8.5	37.4	36.4	8.5	2.51	9.3
<b>NL</b>	11.0	37.0	20.5	15.6	2.52	15.9
<b>A</b>	11.8	31.0	31.5	13.2	2.47	12.5
<b>P</b>	2.7	32.2	28.0	10.3	2.37	26.8
<b>FIN</b>	7.9	42.4	29.8	9.7	2.56	10.2
<b>S</b>	14.2	41.3	26.1	13.1	2.60	5.4
<b>UK</b>	7.6	42.7	21.6	7.8	2.63	20.4
<b>EU 15</b>	<b>7.5</b>	<b>34.1</b>	<b>29.1</b>	<b>12.2</b>	<b>2.45</b>	<b>17.2</b>

However, within this average 50/50 split, there exists a wide variation of opinions in the different countries on this issue.

In Ireland, for example, not only is there the highest percentage of people strongly in agreement (14.7%) but also the second highest tending to agree (44.7%).

Similarly, in Denmark, the belief that there exists a fair press on these issues is held by 62% of Danes polled.

This compares with a more circumspect view taken in Greece where a total of nearly half the population (48%) either 'disagree strongly' or 'tend to disagree' with the

proposition. The French are also sceptical about media fairness in this area, with 47% disagreeing with the statement.

Spanish and Portuguese respondents are less certain of the fairness in the reporting by their media and both had more than 25% of 'don't knows'.

*Q.9(b) For the following statement, please tell me if you strongly agree, tend to agree, tend to disagree, or strongly disagree:  
- the nuclear industry is open in providing information about radioactive waste.*

With less than one in five Europeans (18.9%) either 'strongly agreeing' or 'tending to agree' with this proposition, it is clear that despite the efforts of the nuclear industry in this field in recent years it still has a long way to go to convince the European citizen of its openness in providing information.

TABLE IX.2 The nuclear industry is open in providing information

Country	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree	Average	Don't know
<b>B</b>	3.0	16.4	39.9	21.1	2.02	19.7
<b>DK</b>	2.6	18.6	36.2	36.6	1.86	5.9
<b>D-W</b>	2.7	12.4	36.7	35.6	1.80	12.7
<b>D-total</b>	2.8	12.2	37.6	33.8	1.81	13.6
<b>D-E</b>	3.0	11.5	41.3	26.8	1.89	17.4
<b>GR</b>	4.4	15.7	24.0	33.3	1.89	22.9
<b>E</b>	5.7	11.9	31.8	20.8	2.04	29.7
<b>F</b>	7.3	16.5	32.9	34.3	1.96	9.0
<b>IRL</b>	2.8	15.4	27.3	30.6	1.87	23.9
<b>I</b>	1.5	8.6	42.3	32.0	1.76	15.6
<b>L</b>	4.8	18.8	38.7	25.9	2.03	11.9
<b>NL</b>	6.3	22.9	27.2	25.7	2.12	17.9
<b>A</b>	5.7	10.8	34.9	37.0	1.83	11.6
<b>P</b>	3.1	17.0	33.4	19.3	2.05	27.2
<b>FIN</b>	4.7	24.9	39.7	20.2	2.16	10.4
<b>S</b>	10.9	29.0	22.6	24.2	2.31	13.2
<b>UK</b>	2.3	19.9	39.0	22.3	2.03	16.5
<b>EU 15</b>	<b>4.0</b>	<b>14.9</b>	<b>35.8</b>	<b>29.1</b>	<b>1.93</b>	<b>16.2</b>

If the 'don't knows' are not considered, then the net figures show an even stronger lack of confidence in the openness of the nuclear industry. For example, 74% of all Greeks who expressed a view disagreed to a greater or lesser extent with the statement. In Spain, the figure reaches 75%, and in Ireland 76% did not believe the industry was open in providing information. Note that of these countries, only Spain has a nuclear power programme.

Again, high percentages of 'don't knows' were recorded in Portugal and Spain.

The two countries in which perhaps the greatest efforts have been made by the industry towards openness, Sweden and Finland, show the highest level of agreement with the statement. However, even in these countries respondents in this category are in the minority.

Q.9(c) For the following statement, please tell me if you strongly agree, tend to agree, tend to disagree, or strongly disagree:  
- an advantage of nuclear power is that it produces less greenhouse gas emissions than other energy sources.

TABLE IX.3 Nuclear power produces less greenhouse gas emissions than other energy sources

Country	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree	Average	Don't know
<b>B</b>	7.8	30.7	13.7	3.0	2.79	44.8
<b>DK</b>	42.3	24.2	8.9	4.5	3.30	20.0
<b>D-W</b>	15.3	31.9	15.4	6.8	2.80	30.6
<b>D-total</b>	15.3	32.5	14.9	6.3	2.82	31.0
<b>D-E</b>	15.2	34.8	12.9	4.5	2.90	32.5
<b>GR</b>	10.3	21.1	15.7	7.7	2.62	45.2
<b>E</b>	6.3	18.6	14.1	6.0	2.56	54.9
<b>F</b>	12.0	32.9	14.1	7.7	2.74	33.2
<b>IRL</b>	4.7	25.0	12.6	6.9	2.56	50.8
<b>I</b>	6.9	26.3	16.3	4.5	2.66	46.0
<b>L</b>	14.1	38.2	18.5	7.6	2.75	21.6
<b>NL</b>	30.4	26.4	7.8	6.5	3.14	28.9
<b>A</b>	12.6	24.0	18.2	15.6	2.48	29.6
<b>P</b>	3.8	21.5	18.6	8.1	2.41	48.1
<b>FIN</b>	29.0	37.8	12.1	4.1	3.10	17.0
<b>S</b>	47.3	23.7	21.3	4.1	3.19	3.6
<b>UK</b>	8.3	29.0	15.3	5.9	2.68	41.5
<b>EU 15</b>	<b>12.5</b>	<b>28.1</b>	<b>14.9</b>	<b>6.3</b>	<b>2.76</b>	<b>38.2</b>

The crucial result here is that well over one in three of all Europeans (38.2%) do not have an opinion and selected 'don't know'. The average figure in the case of women respondents is even higher, at an average of 45.1%.

However, this average figure for 'don't knows' hides a huge spread, from 55% in Spain down to 3.6% in Sweden (though most countries fall into the >20% range).

Those who agree most strongly with the statement are the Swedes at 47.3% and Danes at 42.3% - some ten times higher than the Portuguese at 3.8%.

It should be recognised that there was a slight ambiguity in the question that might have led to confusion, since there are also other energy sources producing low or zero emissions. However, the results can probably still be considered an indication of whether or not people appreciate that emissions in the case of nuclear power are very low.

Q.9(d) For the following statement, please tell me if you strongly agree, tend to agree, tend to disagree, or strongly disagree:

- if all the waste is managed safely, nuclear power should remain an option for electricity production in the European Union.

TABLE IX.4 If all the waste is managed safely, nuclear power should remain an option for electricity production in the European Union

Country	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree	Average	Don't know
<b>B</b>	13.1	46.9	11.1	5.9	2.87	23.1
<b>DK</b>	29.5	24.7	13.4	25.3	2.63	7.1
<b>D-W</b>	12.7	33.3	21.7	14.0	2.55	18.3
<b>D-total</b>	12.5	35.1	20.7	13.1	2.58	18.6
<b>D-E</b>	11.9	42.1	16.7	9.6	2.70	19.7
<b>GR</b>	19.0	29.4	13.9	8.1	2.84	29.6
<b>E</b>	9.0	22.6	17.9	10.0	2.52	40.6
<b>F</b>	15.8	43.4	13.6	8.7	2.81	18.6
<b>IRL</b>	7.2	30.3	14.8	10.7	2.54	37.0
<b>I</b>	13.7	40.8	11.4	6.6	2.85	27.5
<b>L</b>	14.9	40.5	18.8	12.9	2.66	12.9
<b>NL</b>	30.8	29.4	10.0	14.6	2.90	15.2
<b>A</b>	8.0	16.6	23.2	38.6	1.93	13.6
<b>P</b>	5.7	32.5	12.4	7.6	2.62	41.8
<b>FIN</b>	26.5	38.5	14.7	9.5	2.92	10.8
<b>S</b>	47.3	26.3	9.9	8.0	3.23	8.5
<b>UK</b>	14.0	38.6	13.0	7.9	2.80	26.5
<b>EU 15</b>	<b>14.9</b>	<b>35.6</b>	<b>15.1</b>	<b>10.4</b>	<b>2.72</b>	<b>24.0</b>

The overall European replies on this important issue show that more than half (51%) of the EU population believe nuclear power should remain an option if all the waste can be managed safely. If the substantial number of 'don't knows', which average 24%, are not considered, then there is a 2 to 1 majority agreeing with the statement over the EU as a whole.

However, this result should also be viewed in the light of the replies to question 5, which demonstrate that some 46% of the EU population believe that the reason why no disposal of high-level waste has yet taken place is because there is no safe way to do it. Therefore, the public appears to be laying down a challenge to the waste management sector to demonstrate in a convincing manner that all waste can indeed be managed safely.

Again if the 'don't know' replies are ignored, then in all countries except one there is a majority in agreement with the statement. The exception is Austria where there remains a very strong anti-nuclear feeling. In fact, here the views tend to be diametrically opposite to those in the rest of Europe with a greater than 2 to 1 majority disagreeing with the statement. In this country there is currently an intense debate over safety rather than waste issues owing to the proximity of the Temelin nuclear power plant in neighbouring Czech Republic. It is therefore likely that at least part of the explanation for these Austrian figures can be attributed to this 'Temelin effect'. The percentage of Austrians strongly disagreeing is 38.6%, which compares with a pan-

European average of 10.6%, with nine of the fifteen countries polled producing single-digit results.

Again, at above 40%, 'don't knows' in both Spain and Portugal are much higher than the EU average of 24%. On the other hand, figures as low as 7 and 8% are observed for 'don't knows' in Denmark and Sweden.

Sweden shows by far the strongest support, with some three people out of every four that were polled agreeing with the statement. Indeed, almost 2 out of 4 agree strongly. However, there were several other countries in which there is also an outright majority of those polled in agreement with the statement, even despite the sometimes sizeable number of 'don't knows'. These countries are Belgium, Denmark, France, Italy, Luxembourg, Netherlands, Finland and UK.

There is also evidence for a curious polarisation of the more extreme views on this issue in both Denmark and, to a lesser extent, the Netherlands. Here, the supporters of the 'strongly agree' or 'strongly disagree' views outnumber those in the 'tend to agree/disagree' camps.

Another very important consideration is that this survey was conducted only a matter of weeks after the events of September 11<sup>th</sup>, 2001. From the responses there is no evidence of a large-scale rejection of nuclear power for reasons of security (i.e. in relation to possible terrorist attacks on nuclear power plants). Nonetheless, it should be emphasised that the question of security was not specifically raised in the survey.

The demographic results for this important question are shown in Table IX.5. For most variables, there is little significant variation. The two trends that do stand out concern gender and the variation in number of 'don't knows' with several variables. Firstly, male respondents are more in agreement with the statement than female respondents. Secondly, the number of 'don't knows' is heavily correlated with gender, income bracket, media use and education level (as well as certain professional groups). These effects may be at least partly related to the somewhat technical nature of the issue.

*EUROPEANS AND RADIOACTIVE WASTE  
INRA (EUROPE) ECO*

Table IX.5 If all the waste is managed safely, nuclear power should remain an option for electricity production in the European Union (socio-demographic analysis)

<b>Variables</b>	<b>Total in group</b>	<b>Strongly agree</b>	<b>Tend to agree</b>	<b>Tend to disagree</b>	<b>Strongly disagree</b>	<b>Average</b>	<b>Don't know</b>
<b>Gender</b>							
Male	7689	17.6	37.5	15.2	10.5	2.77	19.1
Female	8234	12.4	33.7	15.0	10.3	2.68	28.7
<b>Age</b>							
15-24	2518	12.3	36.6	16.7	8.4	2.71	25.9
25-39	4583	14.0	36.8	16.9	11.8	2.67	20.5
40-54	3670	15.6	36.2	15.7	11.4	2.71	21.1
55+	5152	16.5	33.5	12.3	9.4	2.80	28.4
<b>Education level</b>							
<=15	4620	12.6	30.8	12.5	9.1	2.72	35.1
16-19	6489	14.7	37.3	16.5	9.9	2.72	21.5
20+	3278	19.3	38.0	15.1	13.1	2.74	14.4
Still studying	1535	13.6	37.2	17.1	10.2	2.69	21.9
<b>Urban or rural</b>							
Rural / village	4556	13.7	34.0	16.0	10.8	2.68	25.5
Small town	6678	15.7	36.1	14.7	9.8	2.76	23.8
Large town	4597	15.0	36.2	15.0	10.9	2.72	22.9
Don't know	92	13.2	42.4	8.6	5.2	2.92	30.6
<b>Income level</b>							
++	2775	18.9	39.0	15.7	11.4	2.77	15.0
+	2594	14.3	38.6	17.4	11.1	2.69	18.6
-	2648	16.1	37.0	14.3	10.8	2.75	21.8
--	2518	14.2	32.1	14.5	9.4	2.73	29.7
D K / Refusal	5388	12.9	33.2	14.4	9.7	2.70	29.8
<b>Media Use</b>							
+++ Heavy	6096	18.3	36.6	16.2	11.0	2.76	17.9
++ Medium	5205	14.7	37.7	14.9	10.5	2.73	22.2
-- Light	3645	10.8	32.3	13.6	9.7	2.67	33.6
--- Very light	880	9.8	29.3	15.3	9.1	2.63	36.5
<b>Profession</b>							
Self-employed		15.3	40.0	15.5	8.6	2.78	20.6
Managers	1381	21.2	36.0	14.5	15.9	2.71	12.4
Employees/other	1309	14.7	36.9	16.2	10.7	2.71	21.6
White collar	1808						
Manual workers		14.2	37.8	16.3	10.4	2.71	21.3
House-persons	3518	11.4	32.2	14.2	9.5	2.68	32.6
Unemployed	2059	12.8	34.5	16.9	11.0	2.65	24.8
Retired	833	16.4	32.2	12.7	9.3	2.79	29.4
Students	3480	13.6	37.2	17.1	10.2	2.69	21.9
	1535						
<b>EU 15</b>	<b>15923</b>	<b>14.9</b>	<b>35.6</b>	<b>15.1</b>	<b>10.4</b>	<b>2.72</b>	<b>24.0</b>

Q.9(e) For the following statement, please tell me if you strongly agree, tend to agree, tend to disagree, or strongly disagree:

- the generation using nuclear power should be responsible for dealing with its waste, and not leave it for future generations to manage.

TABLE IX.6 The generation using nuclear power should be responsible for dealing with its waste

Country	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree	Average	Don't know
<b>B</b>	45.1	36.3	4.5	1.9	3.42	12.2
<b>DK</b>	76.8	13.3	3.9	2.5	3.70	3.5
<b>D-W</b>	53.5	27.9	8.0	1.9	3.46	8.7
<b>D-total</b>	51.5	29.3	7.7	2.1	3.44	9.5
<b>D-E</b>	44.0	34.4	6.4	2.9	3.36	12.3
<b>GR</b>	61.3	19.7	3.5	1.1	3.65	14.4
<b>E</b>	35.5	31.0	5.2	1.4	3.38	26.9
<b>F</b>	51.8	34.2	4.2	1.2	3.49	8.6
<b>IRL</b>	43.6	29.2	2.5	0.7	3.52	24.1
<b>I</b>	43.9	35.4	3.3	1.6	3.44	15.8
<b>L</b>	51.2	37.7	4.2	1.7	3.46	5.1
<b>NL</b>	68.4	14.6	5.3	3.5	3.61	8.1
<b>A</b>	50.7	25.4	6.1	5.6	3.38	12.3
<b>P</b>	15.6	42.4	6.4	2.4	3.07	33.3
<b>FIN</b>	70.6	20.6	1.7	0.9	3.72	6.2
<b>S</b>	67.0	18.4	5.6	4.8	3.54	4.2
<b>UK</b>	53.6	27.9	3.0	2.3	3.53	13.2
<b>EU 15</b>	<b>49.7</b>	<b>29.9</b>	<b>4.9</b>	<b>2.0</b>	<b>3.47</b>	<b>13.5</b>

This subject brought a strong agreement from those polled, with 80% agreeing with the proposition – in fact, 50% of those polled ‘agree strongly’. In four countries (Denmark, the Netherlands, Finland and Sweden), more than two-thirds of those polled ‘strongly agree’ with the proposition.

At the other end of the scale, only 16% of the respondents in Portugal ‘strongly agree’, although this was balanced by the fact that 42.4% tended to agree.

And once again, Portugal and Spain have the largest number of ‘don’t knows’ at 33 and 27% compared with figures of 3.5% from Denmark and 4.2% from Sweden. The EU 15 average of ‘don’t knows’ is 13.5%.

In the 1998 survey, the question of responsibility was also raised. However, in this instance, there were three options – ‘this generation’ (selected by 54%), ‘future generations’ (by 6.1%) and ‘both’ (by 35%).

ANNEX I

STANDARD EUROBAROMETER 56.2  
TECHNICAL SPECIFICATIONS

*Between October 13 and November 19 2001, the European Opinion Research Group, a consortium of Market and Public Opinion Research agencies, made out of INRA (EUROPE) and GfK Worldwide, carried out wave 56.2 of the standard Eurobarometer, on request of the EUROPEAN COMMISSION, Directorate-General Press and Communication, Opinion Polls.*

The Standard EUROBAROMETER 56.2 covers the population of the respective nationalities of the European Union Member States, aged 15 years and over, resident in each of the Member States. The basic sample design applied in all Member States is a multi-stage, random (probability) one. In each EU country, a number of sampling points was drawn with probability proportional to population size (for a total coverage of the country) and to population density.

For doing so, the points were drawn systematically from each of the "administrative regional units", after stratification by individual unit and type of area. They thus represent the whole territory of the Member States according to the EUROSTAT NUTS 2 (or equivalent) and according to the distribution of the resident population of the respective EU-nationalities in terms of metropolitan, urban and rural areas. In each of the selected sampling points, a starting address was drawn, at random. Further addresses were selected as every N<sup>th</sup> address by standard random route procedures, from the initial address. In each household, the respondent was drawn, at random. All interviews were face-to-face in people's home and in the appropriate national language.

<u>COUNTRIES</u>	<u>INSTITUTES</u>	<u>N° INTERVIEWS</u>	<u>FIELDWORK DATES</u>	<u>POPULATION 15+ (x 000)</u>
Belgium	INRA BELGIUM	1007	19/10 – 14/11	8,326
Denmark	GfK DANMARK	1000	17/10 – 16/11	4,338
Germany(East)	INRA DEUTSCHLAND	1006	17/10 – 07/11	13,028
Germany(West)	INRA DEUTSCHLAND	1001	17/10 – 06/11	55,782
Greece	MARKET ANALYSIS	1002	17/10 – 16/11	8,793
Spain	INRA ESPAÑA	1000	18/10 – 14/11	33,024
France	CSA-TMO	1005	13/10 – 16/11	46,945
Ireland	LANSDOWNE Market Research	1001	18/10 – 15/11	2,980
Italy	INRA Demoskopoea	999	18/10 – 12/11	49,017
Luxembourg	ILRes	604	15/10 – 16/11	364
The Netherlands	INTOMART	999	17/10 – 16/11	12,705
Austria	SPECTRA	999	18/10 – 15/11	6,668
Portugal	METRIS	1001	16/10 – 14/11	8,217
Finland	MDC MARKETING RESEARCH	1003	15/10 – 16/11	4,165
Sweden	GfK SVERIGE	1000	15/10 – 16/11	7,183
Great Britain	MARTIN HAMBLIN LTD	1000	28/10 – 19/11	46,077
Northern Ireland	ULSTER MARKETING SURVEYS	312	22/10 – 06/11	1,273
<b>TOTAL NUMBER OF INTERVIEWS</b>		<b>16029</b>		

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. For all EU member-countries a national weighting procedure, using marginal and intercellular weighting, was carried out based on this Universe description. As such in all countries, minimum gender, age, region NUTS 2 were introduced in the iteration procedure. For international weighting (i.e. EU averages), INRA (EUROPE) applies the official population figures as provided by EUROSTAT in the Regional Statistics Yearbook (data for 1997). The total population figures for input in this post-weighting procedure are listed above.

The results of the Eurobarometer studies are reported in the form of tables, datafiles and analyses. Per question a table of results is given with the full question text in English, French and German. The results are expressed as a percentage of the total. The results of the Eurobarometer surveys are analysed and made available through the Directorate-General Press and Communication, Opinion Polls of the European Commission, rue de la Loi 200, B-1049 Brussels. The results are published on the Internet server of the European Commission: <http://europa.eu.int/comm/dg10/epo>. All Eurobarometer datafiles are stored at the Zentral Archiv (Universität Köln, Bachemer Strasse, 40, D-50869 Köln-Lindenthal), available through the CESSDA Database

## EUROPEANS AND RADIOACTIVE WASTE INRA (EUROPE) ECO

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<http://www.nsd.uib.no/cessda/europe.html>. They are at the disposal of all institutes members of the European Consortium for Political Research (Essex), of the Inter-University Consortium for Political and Social Research (Michigan) and of all those interested in social science research.

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:

Observed percentages	10% or 90%	20% or 80%	30% or 70%	40% or 60%	50%
Confidence limits	± 1.9%	± 2.5%	± 2.7%	± 3.0%	± 3.1%

**EUROPEANS AND RADIOACTIVE WASTE  
INRA (EUROPE) ECO**

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**STANDARD EUROBAROMETER 56.2  
CO-OPERATING AGENCIES AND RESEARCH EXECUTIVES**

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ANNEX II: QUESTIONNAIRE IN ENGLISH

YOUR SURVEY NUMBER

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+---+---+---+---+---+
|   |   |   |   |   |
+---+---+---+---+---+
    
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COUNTRY CODE

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+---+---+
|   |   |
+---+---+
    
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OUR SURVEY NUMBER

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+---+---+---+---+
|   |   |   |   |
+---+---+---+---+
    
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INTERVIEW NUMBER

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+---+---+---+---+---+
|   |   |   |   |   |
+---+---+---+---+---+
    
```

LET'S TALK ABOUT ANOTHER TOPIC : RADIOACTIVE WASTE

Q.1. How well informed do you think you are about radioactive waste? (SHOW CARD - READ OUT - ONE ANSWER ONLY)

- Very well informed..... 5 1
- Fairly well informed..... 2
- Not very well informed..... 3
- Not at all well informed..... 4
- DK..... 5

EB50.0 - Q.47 - TREND

Q.2. a) Which, if any, of the following would you trust to give you information about the way radioactive waste is managed in (OUR COUNTRY)? (SHOW CARD - MULTIPLE ANSWERS POSSIBLE)  
b) Which, if any, of the following would you trust to give you information about the way radioactive waste is managed in the other European Union countries? (SHOW SAME CARD - MULTIPLE ANSWERS POSSIBLE)

READ OUT	a) IN (OUR COUNTRY)	b) IN THE OTHER EU COUNTRIES
1. National agencies in charge of dealing with radioactive waste (M)	6 1,	7 1,
2. The (NATIONALITY) government	2,	2,
3. Non-governmental organisations (NGOs) concerned about the environment (M)	3,	3,
4. Independent scientists	4,	4,
5. The media	5,	5,
6. The European Union (M)	6,	6,
7. The nuclear industry (M)	7,	7,
8. International organisations working on peaceful uses of nuclear technology (N)	8,	8,
None (SPONTANEOUS)	9,	9,
DK	10,	10,

EB50.0 - Q.62 - TREND MODIFIED

# EUROPEANS AND RADIOACTIVE WASTE INRA (EUROPE) ECO

Q.3. For each of the following statements, please tell me if you think it is true or false.

READ OUT	TRUE	FALSE	DK
1. Nuclear power stations produce radioactive waste (M)	8 1	2	3
2. Hospitals produce radioactive waste	9 1	2	3
3. The oil industry produces radioactive waste (N)	10 1	2	3
4. There are several categories of radioactive waste (M)	11 1	2	3
5. All radioactive waste is very dangerous (M)	12 1	2	3
6. Radioactive waste is produced in smaller quantities than other hazardous waste (N)	13 1	2	3

EB50.0 - Q.50 - TREND MODIFIED

Q.4. From an economic and environmental point of view, building an underground disposal site for the most hazardous category of radioactive waste, such as that from spent nuclear fuel, is a complex project. In your opinion, where should such sites be built? (SHOW CARD - READ OUT - ONE ANSWER ONLY)

In each European Union country that produces this category of radioactive waste (M).....	14 1
In only a few European Union countries with access shared amongst co-operating countries (M).....	2
DK.....	3

EB50.0 - Q.55 - TREND MODIFIED

Q.5. No European country has yet disposed of the most hazardous category of radioactive waste. Do you think that this shows...? (SHOW CARD - READ OUT - ONE ANSWER ONLY)

that there is no safe way to dispose of this waste (M).....	15 1
that all the possibilities and all the risks are being carefully assessed before a final decision is taken (M).....	2
how politically unpopular it is to take decisions about disposing of any hazardous waste (M).....	3
DK.....	4

EB50.0 - Q.58 - TREND MODIFIED

Q.6. If a deep underground disposal site for such radioactive waste were to be built near your home, what would concern you most? (SHOW CARD - READ OUT - ONE ANSWER ONLY)

Transporting waste to the disposal site (M).....	16 1
The risk of radioactive leaks while the site is in operation (M).....	2
The possible effects on the environment and health over the next hundreds or thousands of years (M).....	3
A major drop in local property prices (M).....	4
DK.....	5

EB50.0 - Q.61 - TREND MODIFIED

Q.7. However, Most radioactive waste is much less hazardous. After treatment, this radioactive waste is in solid form and can be packed into standard steel drums. What do you think is done with these drums in (OUR COUNTRY)? (SHOW CARD - READ OUT - ONE ANSWER ONLY)

They are dumped into the sea.....	17 1
They are buried deep underground at special disposal sites.....	2
They are buried at special disposal sites, but not deep underground.....	3
They are sent to other countries for disposal.....	4
They are stored temporarily, pending a final decision on disposal.....	5
They are dealt with in another way.....	6
DK.....	7

EB56.2 - NEW

# EUROPEANS AND RADIOACTIVE WASTE INRA (EUROPE) ECO

- Q.8. a) Would you say you are very worried, fairly worried, not very worried or not at all worried about the way radioactive waste is managed in (OUR COUNTRY)? (SHOW CARD WITH SCALE)  
 b) And in the other European Union countries? (SHOW SAME CARD)  
 c) And in the Central and Eastern European countries which would like to join the European Union? (SHOW SAME CARD)

READ OUT	VERY WORRIED	FAIRLY WORRIED	NOT VERY WORRIED	NOT AT ALL WORRIED	DK
a) In (OUR COUNTRY)	18 1	2	3	4	5
b) In the other European Union countries	19 1	2	3	4	5
c) In the Central and Eastern European countries	20 1	2	3	4	5

## EB50.0 - Q.51 - TREND MODIFIED

- Q.9. For each of the following statements, please tell me if you strongly agree, tend to agree, tend to disagree or strongly disagree. (SHOW CARD WITH SCALE)

READ OUT	STRONGLY AGREE	TEND TO AGREE	TEND TO DISAGREE	STRONGLY DISAGREE	DK
1. The media are fair in their reporting of radioactive waste issues	21 1	2	3	4	5
2. The nuclear industry is open in providing information about radioactive waste	22 1	2	3	4	5
3. An advantage of nuclear power is that it produces less greenhouse gas emissions than other energy sources	23 1	2	3	4	5
4. If all the waste is managed safely, nuclear power should remain an option for electricity production in the European Union	24 1	2	3	4	5
5. The generation using nuclear power should be responsible for dealing with its waste, and not leave it for future generations to manage	25 1	2	3	4	5

## EB56.2 - NEW

ANNEX III: QUESTIONNAIRE IN FRENCH

VOTRE NUMERO D'ETUDE

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CODE PAYS

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NOTRE NUMERO D'ETUDE

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NUMERO DE L'INTERVIEW

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MAINTENANT, PASSONS A UN AUTRE SUJET : LES DECHETS RADIOACTIFS

Q.1. Dans quelle mesure vous sentez-vous bien informé à propos des déchets radioactifs ? (MONTRER CARTE - LIRE - UNE SEULE REPONSE)

- Très bien informé..... 5 1
- Assez bien informé..... 2
- Pas très bien informé..... 3
- Pas bien informé du tout..... 4
- NSP..... 5

EB50.0 - Q.47 - TREND

Q.2. a) Auxquelles des sources suivantes, s'il y en a, feriez-vous confiance pour vous donner de l'information sur la façon dont les déchets radioactifs sont gérés en (NOTRE PAYS) ? (MONTRER CARTE - PLUSIEURS REPONSES POSSIBLES)  
b) Et auxquelles des sources suivantes, s'il y en a, feriez-vous confiance pour vous donner de l'informations sur la façon dont les déchets radioactifs sont gérés dans les autres pays de l'Union européenne ? (MONTRER MEME CARTE - PLUSIEURS REPONSES POSSIBLES)

LIRE	a) EN (NOTRE PAYS)		b) DANS LES AUTRES PAYS DE L'UE	
1. Des agences nationales en charge des déchets radioactifs (M)	6	1,	7	1,
2. Le gouvernement (NATIONALITE)	2,		2,	
3. Les organisations non gouvernementales (ONG) pour la protection de l'environnement (M)	3,		3,	
4. Des scientifiques indépendants	4,		4,	
5. Les médias	5,		5,	
6. L'Union européenne (M)	6,		6,	
7. L'industrie nucléaire (M)	7,		7,	
8. Des organisations internationales travaillant sur les utilisations pacifiques de la technologie nucléaire (N)	8,		8,	
Aucune (SPONTANE)	9,		9,	
NSP	10,		10,	

EB50.0 - Q.62 - TREND MODIFIE

# EUROPEANS AND RADIOACTIVE WASTE INRA (EUROPE) ECO

Q.3. Pour chacune des affirmations suivantes, pouvez-vous me dire si vous pensez qu'elle est vraie ou fausse.

LIRE	VRAIE	FAUSSE	NSP
1. Les centrales nucléaires produisent des déchets radioactifs (M)	8 1	2	3
2. Les hôpitaux produisent des déchets radioactifs	9 1	2	3
3. L'industrie pétrolière produit des déchets radioactifs (N)	10 1	2	3
4. Il existe plusieurs catégories différentes de déchets radioactifs (M)	11 1	2	3
5. Tous les déchets radioactifs sont très dangereux (M)	12 1	2	3
6. Les déchets radioactifs sont produits en plus petites quantités que d'autres déchets dangereux (N)	13 1	2	3

## EB50.0 - Q.50 - TREND MODIFIE

Q.4. D'un point de vue économique et écologique, la construction d'un site souterrain pour la catégorie la plus dangereuse de déchets radioactifs, comme ceux qui sortent des réacteurs, est un projet complexe. Selon vous où devrait-on construire de tels sites? (MONTRER CARTE - LIRE - UNE SEULE REPONSE)

Dans chaque pays qui produit cette catégorie de déchets radioactifs (M).....	14 1
Dans seulement quelques pays de l'Union européenne, avec un accès pour les pays de l'Union européenne qui y ont coopéré (M).....	2
NSP.....	3

## EB50.0 - Q.55 - TREND MODIFIE

Q.5. Jusqu'à présent aucun pays européen n'a éliminé la catégorie la plus dangereuse de déchets radioactifs. Pensez-vous que cela montre ... ? (MONTRER CARTE - LIRE - UNE SEULE REPONSE)

qu'il n'existe pas de moyen sûr d'éliminer ces déchets (M).....	15 1
que toutes les possibilités et tous les risques sont encore à l'étude avant qu'une décision finale ne soit prise (M).....	2
combien il est politiquement impopulaire de prendre des décisions sur l'élimination des déchets dangereux (M).....	3
NSP.....	4

## EB50.0 - Q.58 - TREND MODIFIE

Q.6. Si un site souterrain pour la décharge de tels déchets radioactifs était construit près de chez vous, qu'est-ce qui vous inquiéterait le plus ? (MONTRER CARTE - LIRE - UNE SEULE REPONSE)

Le transport des déchets vers le site de décharge (M).....	16 1
Les risques de fuites radioactives pendant que le site est en activité (M)....	2
Les impacts possibles sur l'environnement et sur la santé dans les centaines ou milliers d'années à venir (M).....	3
Une chute importante des prix de l'immobilier près de chez vous (M).....	4
NSP.....	5

## EB50.0 - Q.61 - TREND MODIFIE

Q.7. Cependant, la plupart des déchets radioactifs sont beaucoup moins dangereux. Après traitement, ces déchets radioactifs sont sous forme solide et peuvent être mis dans des fûts ordinaires en acier. Selon vous, que fait-on de ces fûts en (NOTRE PAYS) ? (MONTRER CARTE - LIRE - UNE SEULE REPONSE)

Ils sont largués en mer.....	17 1
Ils sont enterrés très profondément dans des sites spéciaux de décharge.....	2
Ils sont enterrés peu profondément dans des sites spéciaux de décharge.....	3
Ils sont envoyés dans d'autres pays où ils sont éliminés.....	4
Ils sont stockés temporairement en attendant une décision finale sur la manière dont ils seront éliminés.....	5
Ils sont pris en charge d'une autre façon.....	6
NSP.....	7

## EB56.2 - NOUVEAU

## EUROPEANS AND RADIOACTIVE WASTE INRA (EUROPE) ECO

- Q.8. a) Diriez-vous que vous êtes très inquiet, assez inquiet, assez peu inquiet ou pas du tout inquiet au sujet de la façon dont les déchets radioactifs sont gérés en (NOTRE PAYS) ? (MONTRER CARTE AVEC ECHELLE)  
 b) Et dans les autres pays de l'Union européenne? (MONTRER MEME CARTE)  
 c) Et dans les pays d'Europe Centrale et de l'Est qui souhaitent faire partie de l'Union européenne ? (MONTRER MEME CARTE)

LIRE	TRES INQUIET	ASSEZ INQUIET	ASSEZ PAU INQUIET	PAS DU TOUT INQUIET	NSP	
a) En (NOTRE PAYS)	18	1	2	3	4	5
b) Dans les autres pays de l'Union européenne	19	1	2	3	4	5
c) Dans les pays d'Europe Centrale et de l'Est	20	1	2	3	4	5

### EB50.0 - Q.51 - TREND MODIFIE

- Q.9. Pour chacune des propositions suivantes, pourriez-vous me dire si vous êtes tout à fait d'accord, d'accord, pas d'accord ou pas du tout d'accord. (MONTRER CARTE AVEC ECHELLE )

LIRE	TOUT A FAIT D'ACCORD	D'ACCORD	PAS D'ACCORD	PAS DU TOUT D'ACCORD	NSP	
1. Les médias couvrent les questions portant sur les déchets radioactifs de façon objective	21	1	2	3	4	5
2. L'industrie nucléaire est transparente en fournissant de l'information sur les déchets radioactifs	22	1	2	3	4	5
3. Un avantage de l'énergie nucléaire est qu'elle produit moins de gaz à effet de serre que les autres sources d'énergie	23	1	2	3	4	5
4. Si les déchets sont gérés de manière sûre, l'énergie nucléaire devrait rester une option pour la production d'électricité dans l'Union européenne	24	1	2	3	4	5
5. Les générations qui utilisent l'énergie nucléaire, devraient être responsables de la prise en charge du traitement des déchets, et ne pas la laisser aux générations futures	25	1	2	3	4	5

### EB56.2 - NOUVEAU