



Schweizerische Eidgenossenschaft
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Federal Department of the Environment,
Transport, Energy and Communications DETEC

Swiss Federal Office of Energy SFOE
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Attitudes towards radioactive waste in Switzerland

Report



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September 2008

Fieldwork dates: 11th to 30th of July 2008

Table of contents

INTRODUCTION	3
1. ATTITUDES TOWARDS NUCLEAR ENERGY	5
1.1. Support for nuclear energy production	5
1.2. Nuclear energy vs. radioactive waste solutions	9
1.3. Advantages of nuclear power.....	12
<i>1.3.1. Diversifying energy sources.....</i>	<i>13</i>
<i>1.3.2. Emitting less greenhouse gases</i>	<i>15</i>
<i>1.3.3. Reducing the dependency on oil.....</i>	<i>17</i>
1.4. Risk perceptions of nuclear energy	20
2. ATTITUDES AND EXPECTATIONS REGARDING RADIOACTIVE WASTE MANAGEMENT.....	24
2.1. Solutions for the management of high-level radioactive waste.....	24
2.2. Attitudes and expectations concerning deep underground disposal.....	35
<i>2.2.1. Risk perception of a deep underground disposal site</i>	<i>35</i>
<i>2.2.2. Involvement in decision-making processes</i>	<i>39</i>
3. AWARENESS AND KNOWLEDGE OF THE ISSUE OF RADIOACTIVE WASTE ..	44
3.1. Subjective level of information regarding radioactive waste	44
3.2. Objective knowledge of radioactive waste	47
3.3. Methods of managing radioactive waste	52
4. SOURCES OF INFORMATION	56
CONCLUSION	61

INTRODUCTION

Energy is one of the most challenging issues currently facing the world. Increasing concerns about climate change, Europe's dependence of foreign energy sources and increasing energy prices have led to an urgent need for energy policies based on the principles of sustainability, efficiency and diversity.

In achieving the goals of reducing both greenhouse gas emissions and dependence on foreign energy suppliers, nuclear energy seems to offer an alternative to other types of energy.

Nuclear energy is the second most important source of energy in Switzerland. The country has five nuclear power plants, generating around 40% of its electricity.

This survey has been initiated by the Swiss Federal Office of Energy in order to explore the attitudes of Swiss citizens towards nuclear energy, and radioactive waste in particular. It was conducted among 1026 Swiss citizens between 11 and 30 July 2008 by TNS opinion and Isopublic.

The Swiss survey on citizens' attitudes towards radioactive waste follows up on a broader Eurobarometer survey that was conducted for the Directorate-General for Energy and Transport of the European Commission among 26.746 EU citizens in the 27 Member States of the European Union between 18 February and 22 March 2008. The same questionnaires were used in this survey and in the Eurobarometer survey, with a few exceptions¹. This report presents the Swiss results in the broader EU context.

A technical note on the manner in which interviews were conducted is appended as an annex to this report. This note indicates the interview methods and the confidence intervals².

The study covers the following topics:

- ✓ Citizens' **attitudes** towards nuclear energy and radioactive waste in particular
- ✓ Their wish for **involvement in decision-making** about managing radioactive waste
- ✓ How **informed** citizens feel about radioactive waste
- ✓ Their **objective knowledge** of radioactive waste and ways of managing it
- ✓ Trusted **sources of information** about radioactive waste

The Swiss results of the survey are the main focus of this report. The analysis will, in addition, contain comparisons with the EU average and –where applicable – each of the 27 member states of the European Union. Swiss results are, besides that, put in relation to results of EU member states that do have operational nuclear power plants³.

¹ QB4.4 and QB4.5 were added in the questionnaire used in Switzerland. Question QB11 of the Eurobarometer survey, concerning the role of the European Union in managing radioactive waste, was not asked in Switzerland.

² The results tables are included in the annex. It should be noted that the total of the percentages in the tables of this report may exceed 100% when the respondent has the possibility to give multiple answers to a question.

³ The countries with such power plants are: Belgium, Bulgaria, the Czech Republic, Finland, France, Germany, Hungary, Lithuania, the Netherlands, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom

To gain a deeper insight in public opinion regarding radioactive waste, the following key variables have been used while analysing the different questions:

- ✓ Respondents' **support for nuclear energy production:** QB2 Are you totally in favour, fairly in favour, fairly opposed or totally opposed to energy production by nuclear power stations?
- ✓ Their **self-perceived level of information about radioactive waste:** QB1 How well informed do you think you are about radioactive waste? Very well informed, fairly well informed, not very well informed or not at all informed

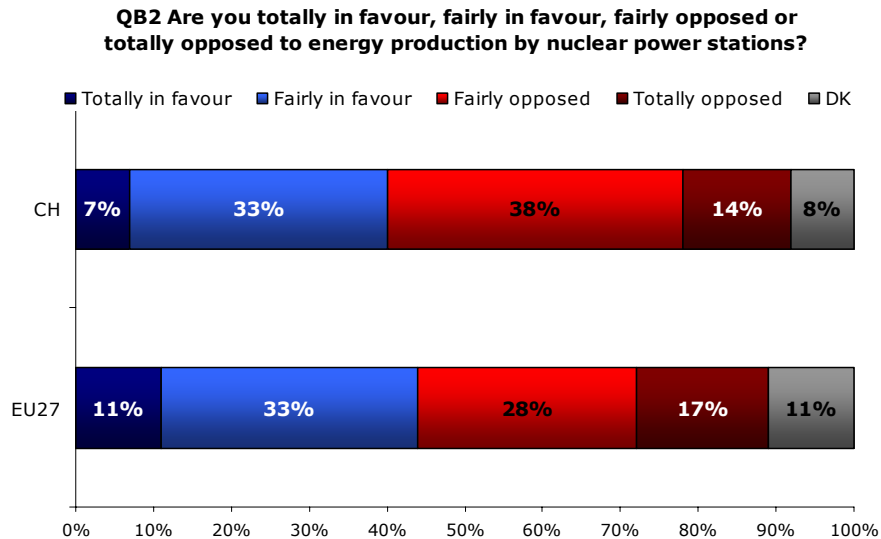
1. ATTITUDES TOWARDS NUCLEAR ENERGY

1.1. Support for nuclear energy production

Citizens' attitudes to nuclear energy production are predominantly sceptical in Switzerland. However, only a small majority (52%) of Swiss respondents confirm that they are opposed to this type of energy production, while up to four in ten say that they are in favour of it.

It is clear that on average **Swiss citizens primarily have rather "moderate" opinions about nuclear energy:** only relatively low proportions position themselves at the extreme ends of the scale. Those who are "fairly opposed" to nuclear energy represent the largest segment of the poll (38%) and a slightly lower proportion (33%) confirm that they are "fairly in favour" of it.

The opposition to nuclear energy production is more widespread in Switzerland than in the European Union (EU27) as a whole (52% vs. 45%). The results show that public opinion in the EU27 is strongly divided when it concerns nuclear energy production: Nearly identical shares of EU citizens express support for nuclear energy (44%) and opposition to it (45%). There has, however, been a significant increase in the support for nuclear energy over the last years in the European Union⁴. This trend needs to be understood in the context of climate change becoming a high priority in the world. Nuclear power's important role in reducing CO2 emissions compared with other sources of energy has inevitably affected public opinion.



⁴ *Radioactive Waste*. Special Eurobarometer 227. Wave 63.2 (Fieldwork: February-March 2005)
Attitudes towards radioactive waste. Special Eurobarometer 297. Wave 69.1 (Fieldwork: February-March 2008)

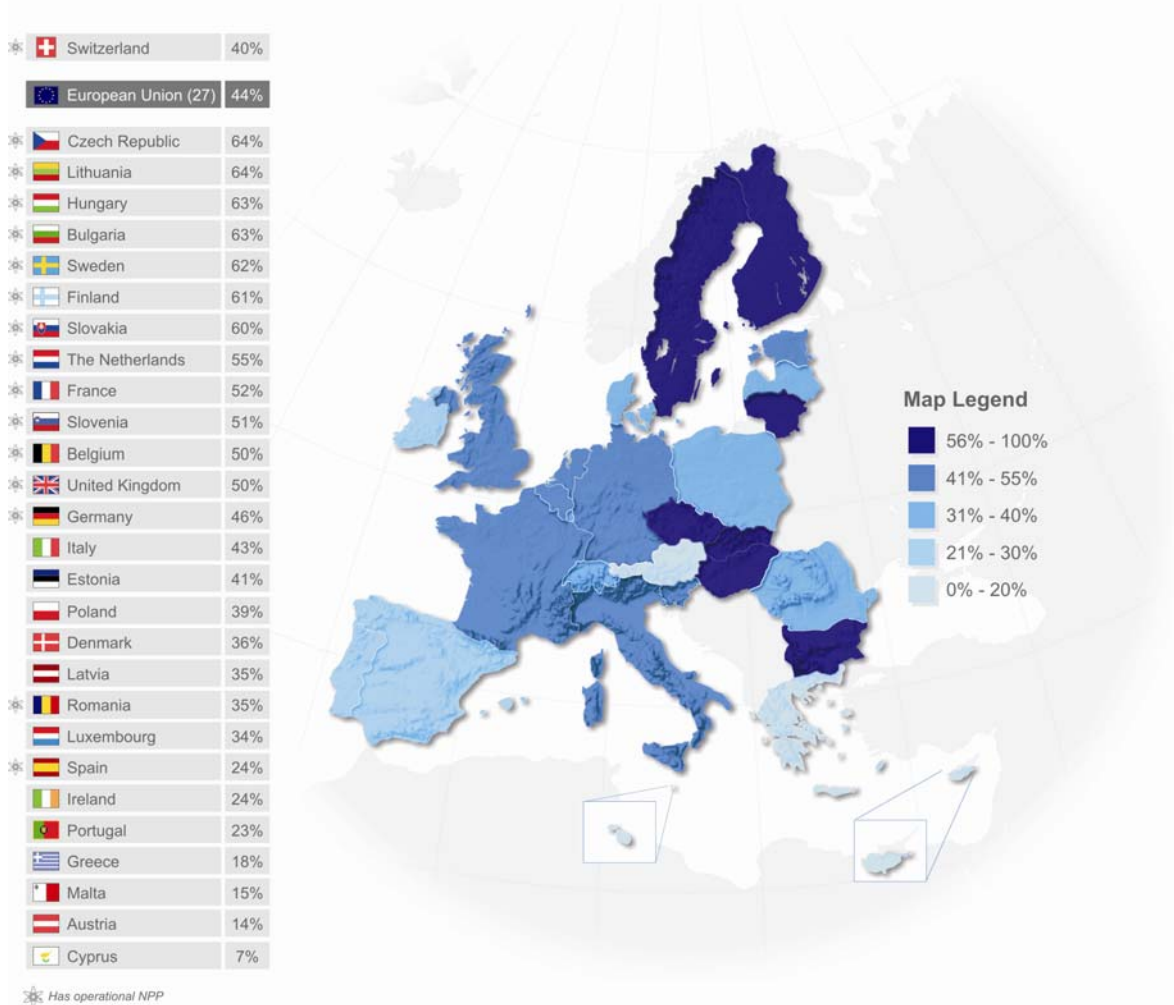
Turning to the full set of countries surveyed, we see that respondents' level of support for nuclear energy varies strongly from country to country. **It stands out, however, that citizens in countries that have operational nuclear power plants are considerably more likely to support nuclear energy than citizens in other countries.** The strongest support is therefore found in the Czech Republic and Lithuania but also in Hungary, Bulgaria, Sweden, Finland and Slovakia six in ten respondents or more are in favour of energy production by nuclear power stations.

The results, moreover, show that **the situation in Switzerland – a country having nuclear power plants - forms an exception to this pattern.** With "only" 40% of Swiss citizens expressing their support for nuclear energy production, the country places itself below the EU average and mainly amongst countries that do not have nuclear power plants in operation, like Italy, Estonia, Poland and Denmark.

The lowest support for nuclear energy is clearly found in countries that have no nuclear power plants. Austria, Cyprus and Greece, with around eight in ten respondents confirming that they are opposed to this type of energy, are at the bottom of the list of countries.

Question: QB2. Are you totally in favour, fairly in favour, fairly opposed or totally opposed to energy production by nuclear power stations?

Answers: Total “in favour”



Socio-demographic analysis

Swiss citizens' attitudes towards nuclear energy production appear to be strongly connected to their socio-demographic backgrounds.

We see, first of all, a clear difference between genders: opinions seem to be strongly divided among men, while opponents of nuclear energy are clearly in majority among women. Men are therefore significantly more likely to be in favour of this type of energy than women.







Secondly, support levels for nuclear energy rise along with respondents' age. Opposition to it is lowest among respondents aged 55 years and over but, however, equally strong among the other age groups.

Thirdly, a respondent's political view strongly influences his or her attitude towards nuclear energy. Those who position themselves on the right side of the political scale are significantly more in favour of this type of energy than those who see themselves as politically oriented towards the left.

Fourthly, support for nuclear energy production appears to be much more widespread in rural areas than in large towns in Switzerland. We, moreover, see that levels of support are higher in the German-speaking areas of the country than in the French and Italian-speaking parts. It is noteworthy that the country's nuclear power plants are all located in its German-speaking parts – something that most probably influences citizens' attitudes towards nuclear energy positively.

Finally, respondents who consider themselves well informed about the issue of radioactive waste are considerably more positive about nuclear energy production than those who feel poorly informed.

QB2 Are you totally in favour, fairly in favour, fairly opposed or totally opposed to energy production by nuclear power stations?

	Totally in favour	Fairly in favour	Fairly opposed	Totally opposed	DK	Total "In favour"	Total "Opposed"
CH	7%	33%	38%	14%	8%	40%	52%
 Sex							
Male	11%	38%	34%	13%	4%	49%	47%
Female	4%	28%	42%	15%	11%	32%	57%
 Age							
15-24	3%	29%	47%	9%	12%	32%	56%
25-39	5%	32%	43%	11%	9%	37%	54%
40-54	6%	35%	39%	16%	4%	41%	55%
55 +	10%	33%	31%	18%	8%	43%	49%
 Left-Right scale							
Left	3%	19%	46%	28%	4%	22%	74%
Centre	11%	45%	31%	10%	3%	56%	41%
Right	16%	44%	25%	10%	5%	60%	35%
 Subjective urbanisation							
Rural village	8%	39%	33%	12%	8%	47%	45%
Small/ mid size town	8%	28%	41%	14%	9%	36%	55%
Large town	2%	27%	45%	21%	5%	29%	66%
 Region							
Suisse Romand	4%	32%	34%	19%	11%	36%	53%
Alps/ Prealps/ German speaking part	6%	33%	38%	16%	7%	39%	54%
West Middle land German speaking part	12%	33%	38%	13%	4%	45%	51%
East Middle land German speaking part	5%	36%	44%	8%	7%	41%	52%
Italian speaking part	16%	17%	34%	20%	13%	33%	54%
 Level of information							
Informed	12%	37%	32%	17%	2%	49%	49%
Not informed	3%	31%	43%	12%	11%	34%	55%

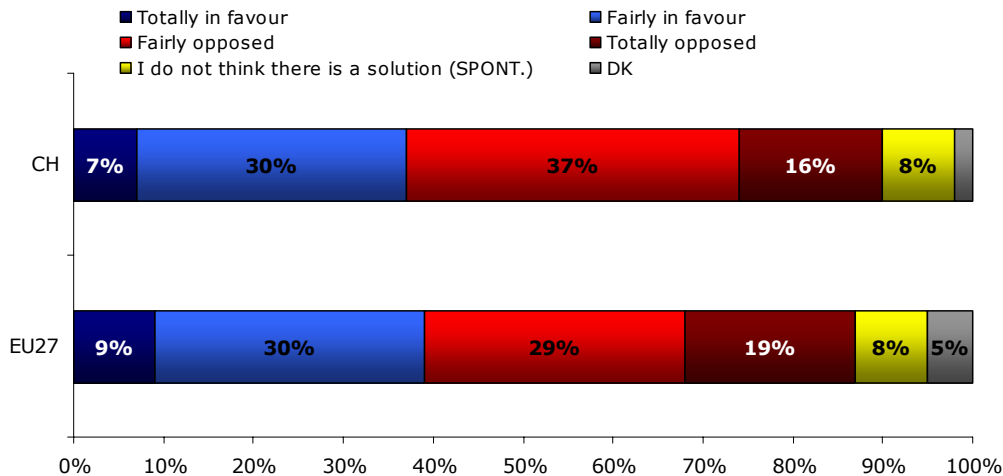
1.2. Nuclear energy vs. radioactive waste solutions

The safety aspects of managing radioactive waste are clearly of crucial importance for citizens' attitudes towards nuclear energy. A substantial share of Swiss respondents *that are opposed to* nuclear energy production, confirm that they would change their opinion about nuclear energy if there was a permanent and safe solution for the management of radioactive waste (37%)⁵. A majority of those respondents (53%) would however remain opposed to this type of energy and another 8% spontaneously say that they do not think that there is any solution.

The Swiss results are broadly in line with those recorded in the European Union. It seems, however, that Swiss opponents of nuclear energy are slightly more likely than their counterparts at EU level to *remain against* this type of energy, irrespective of the safety measures developed for radioactive waste.

QB3 And if there was a permanent and safe solution for the management of radioactive waste, would you then be [...] in favour or [...] opposed to energy production by nuclear power stations?

Base: Those who are opposed to nuclear energy production



Like in Switzerland, the situation in most countries is that the largest segment of the poll would remain opposed to nuclear energy, irrespective of whether solutions for the safe management of radioactive waste were found⁶. This tendency is most visible in Austria and also in Greece, Bulgaria, Portugal and Germany.

Conversely, over half of Dutch, Belgian, Lithuanian, British, French, Slovenian and Finnish opponents of nuclear power would change their view regarding nuclear energy production if a safe solution to managing radioactive waste would be found. These respondents – not surprisingly – all come from countries that have nuclear power plants.

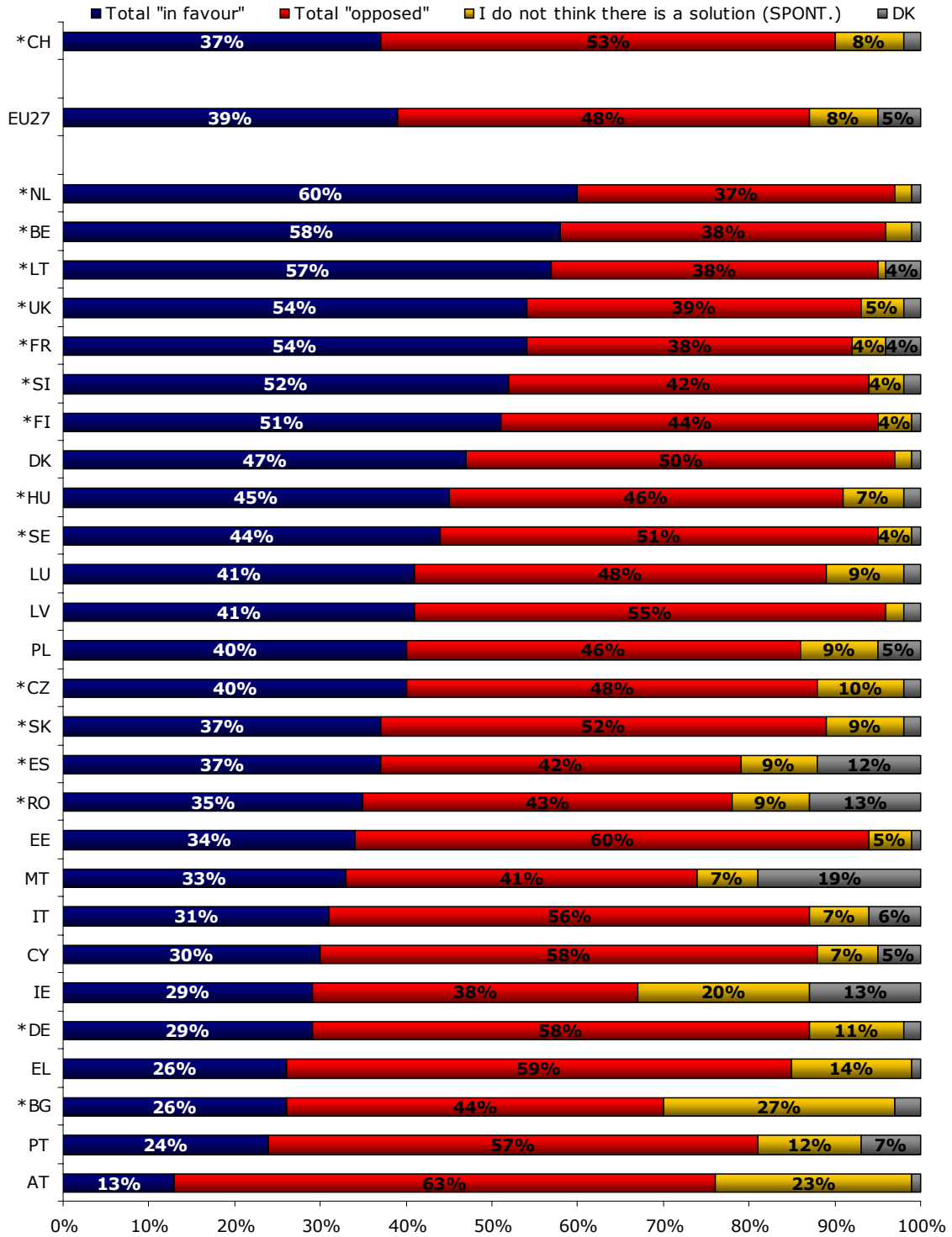
In Bulgaria, more than a quarter of respondents spontaneously say that they do not think that there is a safe and permanent solution for radioactive waste management. In Austria, just under a quarter feel this way and in Ireland a fifth of respondents share this view.

⁵ QB3 And if there was a permanent and safe solution for the management of radioactive waste, would you then be totally in favour, fairly in favour, fairly opposed or totally opposed to energy production by nuclear power stations?

⁶ This includes those who spontaneously confirmed that they do not think that there is a solution

QB3 And if there was a permanent and safe solution for the management of radioactive waste, would you then be [...] in favour or [...] opposed to energy production by nuclear power stations?

Base: Those that are opposed to nuclear energy production



*Country with operational NPP('s)




Socio-demographic analysis

Among Swiss respondents that are opposed to nuclear energy, we see that people with the longest education are the *least* inclined to change their attitude to nuclear power, if there were a permanent and safe solution for managing nuclear waste.

We moreover see that inhabitants of large towns are much more likely than people in rural areas to remain opposed to nuclear energy, irrespective of whether there was a solution for managing the waste.

It moreover appears that the safety aspects of managing radioactive waste play a more important role for people who feel that authorities should decide on radioactive waste management issues at local level. Those who are opposed to nuclear power *and* wish to be *personally involved* in decision-making at local level are the least likely to change their attitude to nuclear energy, even if there were a safe solution for managing radioactive waste.

QB3 And if there was a permanent and safe solution for the management of radioactive waste, would you then be totally in favour, fairly in favour, fairly opposed or totally opposed to energy production by nuclear power stations?
Base: Those who are opposed to nuclear energy production

	Total "In favour"	Total "Opposed"	I do not think there is a solution (SPONT.)	DK
CH	37%	53%	8%	2%
 Sex				
Male	33%	57%	8%	2%
Female	40%	49%	9%	2%
 Education (End of)				
15-	44%	52%	4%	-
16-19	41%	51%	7%	1%
20+	34%	54%	10%	2%
Still Studying	37%	55%	7%	1%
 Subjective urbanisation				
Rural village	37%	49%	11%	3%
Small/ mid size town	50%	44%	5%	1%
Large town	20%	70%	8%	2%
Level of involvement if disposal site built near one's home				
Personal participation	36%	55%	8%	1%
NGO's	38%	49%	13%	-
Responsible authorities	52%	40%	2%	6%

1.3. Advantages of nuclear power

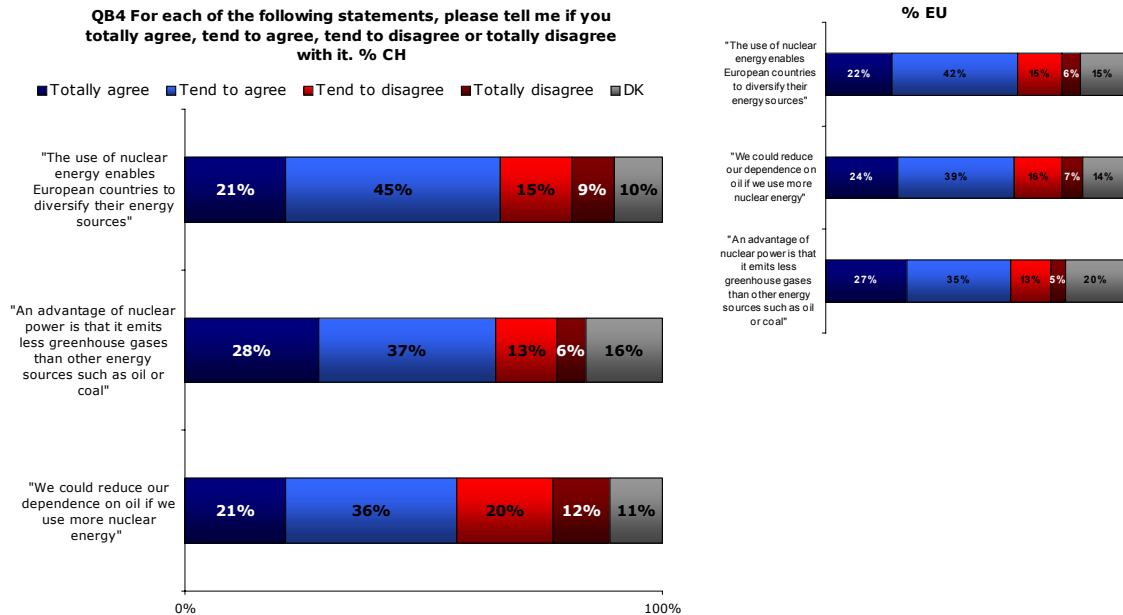
To measure Swiss public opinion of some advantages of using nuclear power, respondents were given a few statements concerning greenhouse gases, dependency on oil and diversity of energy sources⁷.

The results show that the vast majority of the Swiss public think that nuclear power allows European countries to diversify their energy sources (66%), that it is advantageous because it emits less greenhouse gases than, for instance, oil and coal (65%) and decreases their dependency on oil (57%).

Public opinion in Switzerland appears to be relatively similar to attitudes existing among EU citizens when it concerns these beneficial aspects of nuclear energy. Thinking that nuclear energy would reduce their dependency on oil, however, is less common in Switzerland than in the European Union as a whole (the Swiss figure of 57% is 6 percentage points below the EU average).

Another difference between Swiss findings and results at EU level is that the shares of "don't know" replies are lower in Switzerland than in the EU poll. It therefore seems that Swiss respondents generally are somewhat more opinionated when it regards the topics that the statements cover.

Like in the European Union as a whole, a relatively high proportion of Swiss respondents do however confirm that they *do not know* whether it is an advantage that nuclear energy emits less greenhouse gases than other energy sources. Some respondents might feel that a more thorough knowledge about different energy sources and their effects on the environment would be required in order to answer this question.



⁷ QB4 For each of the following statements, please tell me if you totally agree, tend to agree, tend to disagree or totally disagree with it. 1) The use of nuclear energy enables European countries to diversify their energy sources, 2) We could reduce our dependence on oil if we use more nuclear energy, 3) An advantage of nuclear power is that it emits less greenhouse gases than other energy sources such as oil or coal

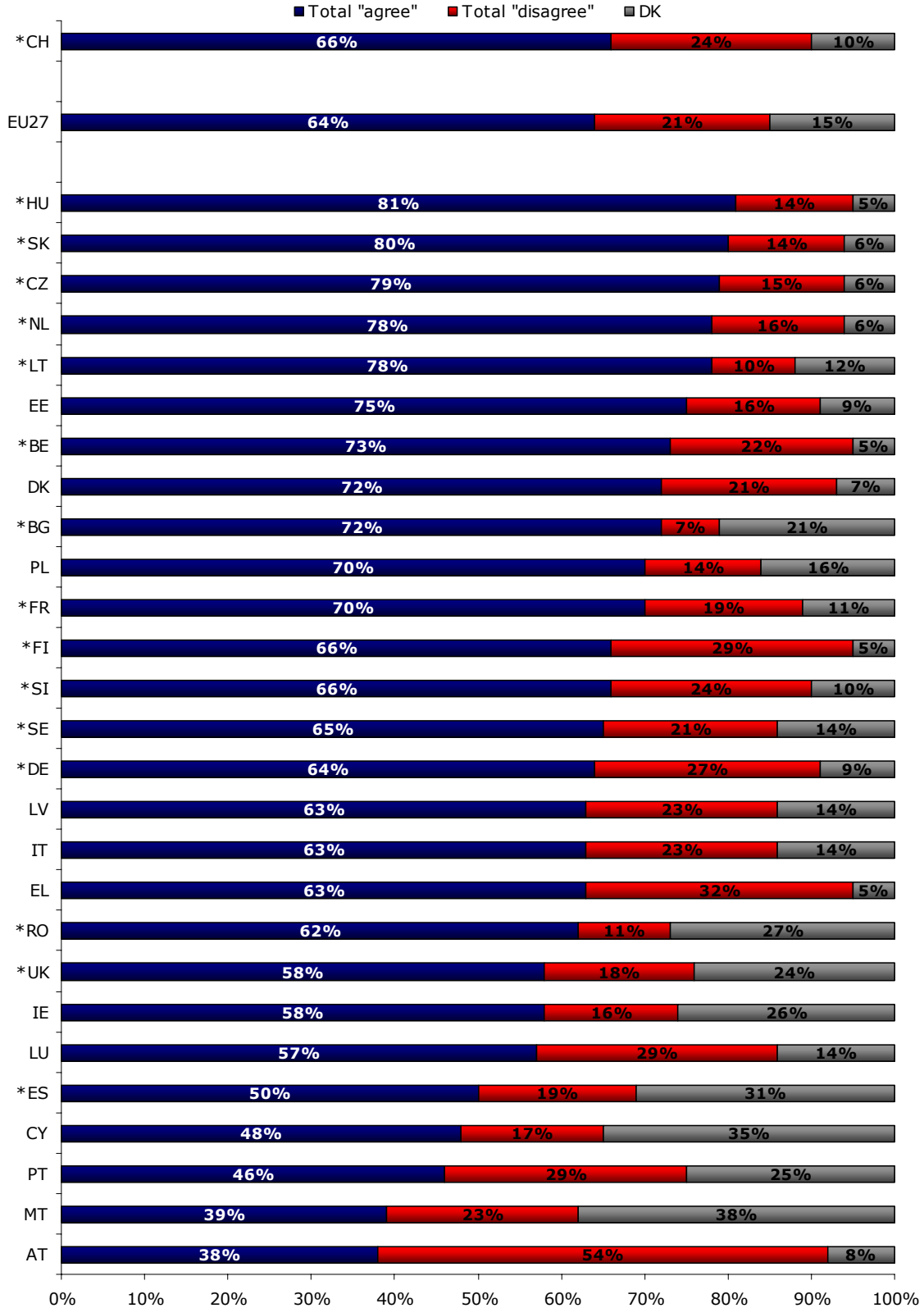
1.3.1. Diversifying energy sources

Nearly two thirds of Swiss respondents (66%) believe that using nuclear energy diversifies the spectrum of energy sources, while nearly a quarter (24%) disagrees and one in ten purports to have no opinion on this matter. This is perfectly in line with findings for the overall EU poll and above all corresponds very well with results from other countries that have operational nuclear power plants. The tendency is clear in this respect: citizens in those countries are considerably more likely to agree that nuclear energy contributes to diversification of energy sources than citizens in other countries.

In terms of agreement with this statement, Switzerland clearly positions itself under countries that top the list (Hungary, Slovakia, Czech Republic, Lithuania and the Netherlands) but also well above those that are the least likely to agree that nuclear power enables European countries to diversify their energy sources (Austria and Malta).

QB4.1 For each of the following statements, please tell me if you totally agree, tend to agree, tend to disagree or totally disagree with it.

-The use of nuclear energy enables European countries to diversify their energy sources



*Country with operational NPP('s)

1.3.2. Emitting less greenhouse gases

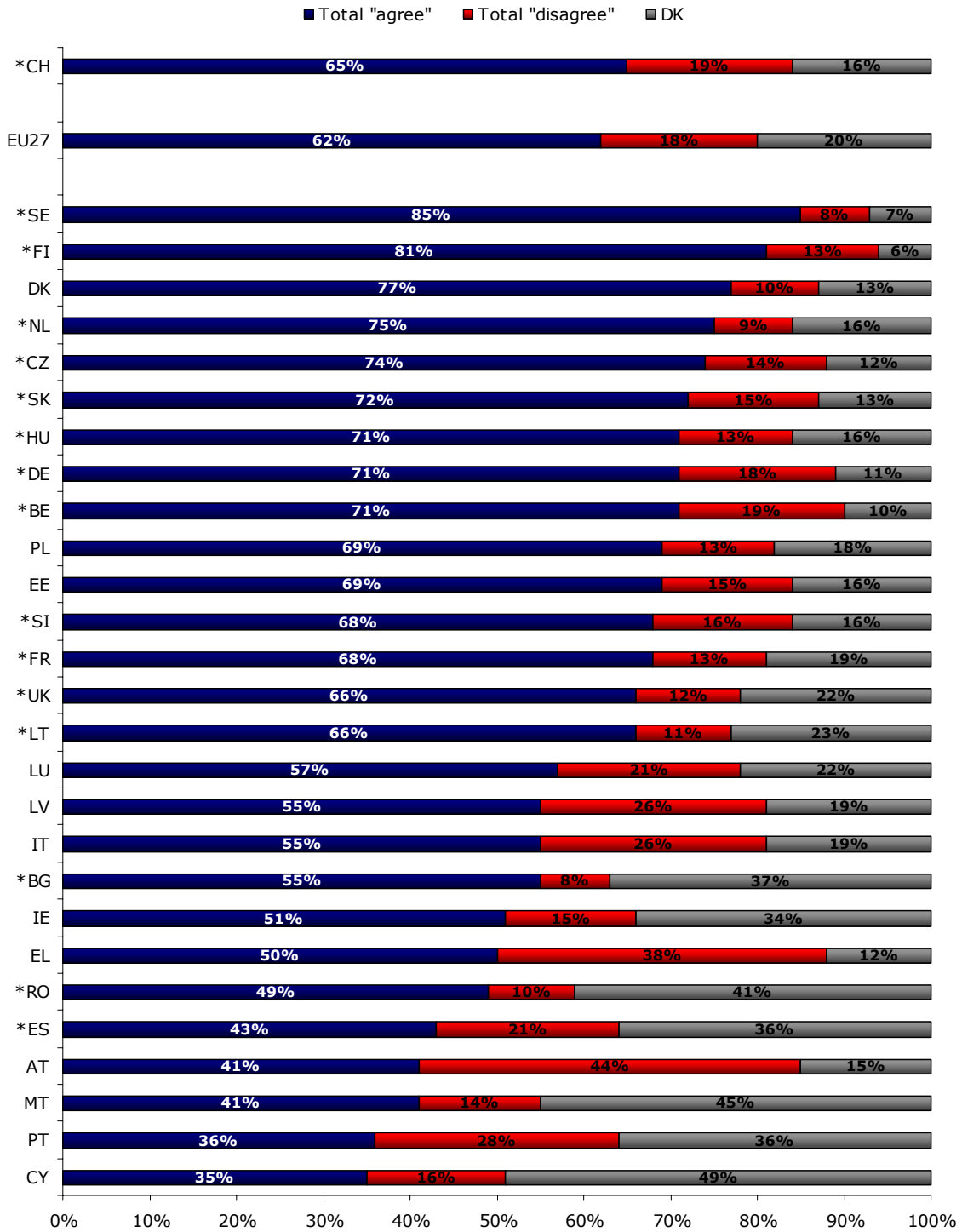
Just under two thirds of Swiss respondents (65%) think that the fact that nuclear power emits less greenhouse gases than, for instance, oil and coal is an advantage. Nearly a fifth (19%), conversely, disagrees with this and 16% say that they do not know. Very similar results were recorded in the European Union as a whole.

As was the case for the previous statement, this idea gains wide support in countries that have nuclear power plants in operation. The Swiss level of agreement is rather moderate compared with other countries that have nuclear power plants.

Respondents in the Nordic EU countries – Sweden, Finland and Denmark – are most likely to think that the fact that nuclear power emits less greenhouse gases than, for instance, oil and coal is an advantage. More "critical" voices were heard in Austria, where the largest share of the poll disagrees (44%) and Greece, where nearly four in ten (38%) say that they disagree with this idea.

QB4.3 [...] please tell me if you totally agree, tend to agree, tend to disagree or totally disagree with [the following statement].

-An advantage of nuclear power is that it emits less greenhouse gases than other energy sources such as oil or coal.



*Country with operational NPP('s)

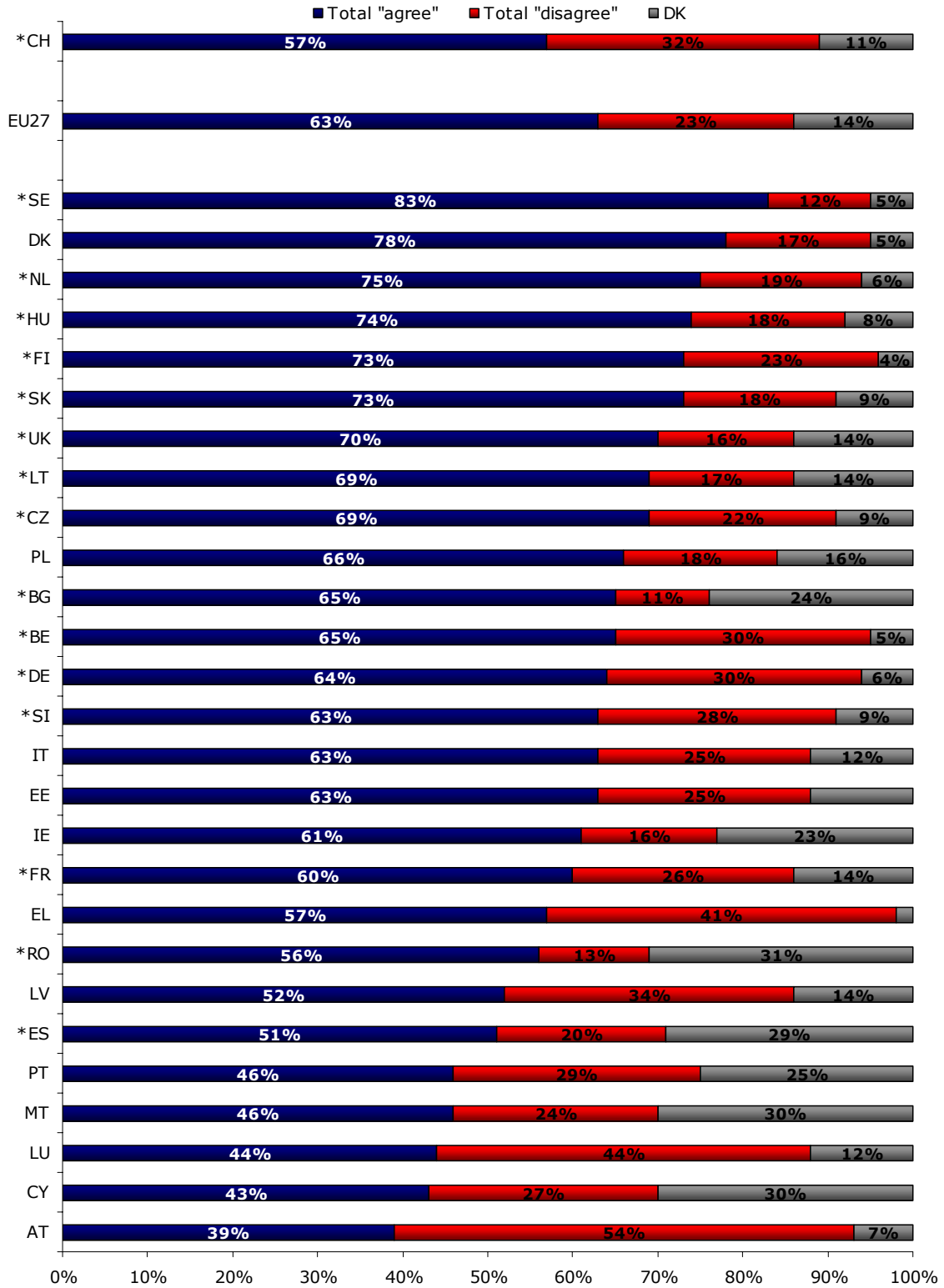
1.3.3. Reducing the dependency on oil

The majority of Swiss respondents believe that nuclear energy would help reduce the country's dependency on oil (57%). However, nearly a third of the sample (32%) does not agree with this and around one in ten (11%) do not give their opinion regarding this statement.

The statement gains stronger support in the European Union as a whole than in Switzerland. This is interesting, since there seems to be a correlation between countries' situation as far as nuclear power is concerned and citizens' opinion of nuclear energy in relation to dependency on oil. In fact, there are no other countries with operational nuclear power plants where *disagreement* with this is more widespread than in Switzerland.

QB4.2 For each of the following statements, please tell me if you totally agree, tend to agree, tend to disagree or totally disagree with it.

-We could reduce our dependence on oil if we use more nuclear energy



*Country with operational NPP(s)

Socio-demographic analysis

Public opinion concerning those three statements is clearly influenced by certain socio-demographic features of the respondents group.

We see that Swiss men tend to be significantly more likely than women to agree with any of the statements, while women are more likely to disagree or to not have any opinion.

Younger respondents are less likely to agree with the three statements than their older counterparts.

It seems that the longer educated are generally more opinionated when it concerns these statements than respondents with a shorter education. The former group tends to both *agree* and *disagree* more than the latter. As we will see in chapter 3.1, the self-perceived level of information about radioactive waste is clearly lower among respondents with a shorter education than among those who spent longer time in education. This also affects their more general attitudes towards nuclear energy and its advantages.

Respondents' political views influence their opinion considerably: Those who position themselves on the right side of the political scale are much more likely to agree with all these statements, than those who consider themselves to be on the left side of this scale.

Living in rural areas or in smaller towns seems to lead to stronger agreement with the different statements than living in large towns.

Respondents who support nuclear energy are, not very surprisingly, much more likely than those who are opposed to it to agree with the statements. Also, their self-perceived level of information, as far as nuclear waste related issues is concerned, appears to be crucial for their opinion: those who feel less informed about such issues more frequently have no opinion.

QB4 For each of the following statements, please tell me if you totally agree, tend to agree, tend to disagree or totally disagree with it.

	"The use of nuclear energy enables European countries to diversify their energy sources"			"An advantage of nuclear power is that it emits less greenhouse gases than other energy sources such as oil or coal"			"We could reduce our dependence on oil if we use more nuclear energy"		
	Total "Agree"	Total "Disagree"	DK	Total "Agree"	Total "Disagree"	DK	Total "Agree"	Total "Disagree"	DK
CH	66%	24%	10%	65%	19%	16%	57%	32%	11%
Sex									
Male	73%	22%	5%	73%	19%	8%	61%	34%	5%
Female	60%	25%	15%	57%	20%	23%	52%	31%	17%
Age									
15-24	61%	23%	16%	57%	23%	20%	53%	34%	13%
25-39	65%	23%	12%	60%	20%	20%	58%	31%	11%
40-54	69%	27%	4%	68%	18%	14%	60%	35%	5%
55 +	67%	22%	11%	69%	18%	13%	55%	31%	14%
Education (End of)									
15-	60%	18%	22%	47%	9%	44%	61%	28%	11%
16-19	69%	19%	12%	65%	16%	19%	59%	28%	13%
20+	66%	28%	6%	70%	21%	9%	57%	35%	8%
Still Studying	62%	24%	14%	56%	28%	16%	54%	35%	11%
Left-Right scale									
Left	59%	30%	11%	64%	22%	14%	51%	40%	9%
Centre	74%	19%	7%	66%	19%	15%	63%	27%	10%
Right	72%	23%	5%	70%	20%	10%	60%	31%	9%
Subjective urbanisation									
Rural village	70%	22%	8%	70%	16%	14%	59%	30%	11%
Small/ mid size town	70%	21%	9%	65%	19%	16%	64%	27%	9%
Large town	51%	32%	17%	52%	28%	20%	42%	45%	13%
Level of information									
Informed	70%	26%	4%	75%	19%	6%	62%	31%	7%
Not informed	63%	22%	15%	57%	20%	23%	53%	33%	14%
Support for nuclear energy production									
In favour	88%	7%	5%	79%	10%	11%	77%	17%	6%
Opposed	51%	38%	11%	54%	28%	18%	43%	46%	11%

1.4. Risk perceptions of nuclear energy

To get an idea of Swiss public's risk perceptions of nuclear energy, respondents were asked whether the risk of an accident or terrorist attack represents a disadvantage of using nuclear energy⁸.

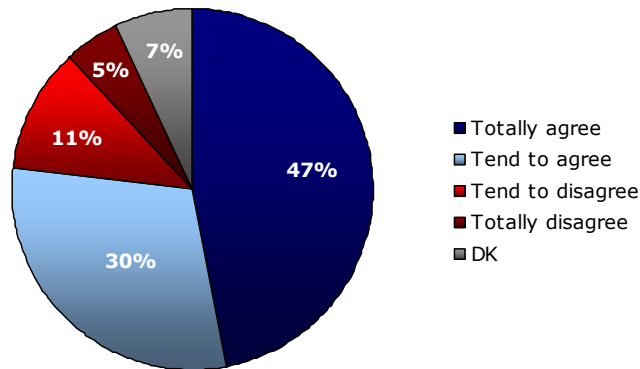
A wide majority of Swiss citizens on average (77%) see this as a disadvantage of using this type of energy. The largest share of respondents confirms that they *totally* agree with this (47%).

More interesting is, that 16% of the poll *disagrees* with this. This indicates that there is a substantial share of the Swiss population that do not fear nuclear accidents or terrorist attacks on nuclear power stations to happen. It, more precisely, seems that these events are not identified as possible risks to this particular group of respondents.

Furthermore, another 7% of the poll do not give their opinion regarding this issue.

QB4.4 [...] please tell me if you totally agree, tend to agree, tend to disagree or totally disagree with it. %CH

A disadvantage of using nuclear energy is the risk of of accident or terrorist attack and the severe consequences that could follow



⁸ QB4.4 For each of the following statements, please tell me if you totally agree, tend to agree, tend to disagree or totally disagree with it. - A disadvantage of using nuclear energy is the risk of of accident or terrorist attack and the severe consequences that could follow

Socio-demographic analysis

From a socio-demographic point of view, we see that respondents aged 40-54 years, people positioning themselves on the left side of the political scale and those who are opposed to nuclear energy production are more inclined to agree that the risk of accidents or terrorist attacks represent a disadvantage of using nuclear energy.

It is also interesting to see which groups are most likely to disagree with this: this is the case particularly among young people, those who politically lean to the right and those who are in favour of nuclear energy production.

QB4.4 For each of the following statements, please tell me if you totally agree, tend to agree, tend to disagree or totally disagree with it.

A disadvantage of using nuclear energy is the risk of of accident or terrorist attack and the severe consequences that could follow

	Total "Agree"	Total "Disagree"	DK
CH	77%	16%	7%
Age			
15-24	69%	21%	10%
25-39	77%	18%	5%
40-54	81%	14%	5%
55 +	76%	16%	8%
Left-Right scale			
Left	87%	9%	4%
Centre	73%	21%	6%
Right	72%	23%	5%
Support for nuclear energy production			
In favour	74%	21%	5%
Opposed	80%	14%	6%



After having touched upon respondents' risk perception of nuclear energy usage, we now turn to an issue related to that: Are respondents prepared to live near to a nuclear power plant?⁹

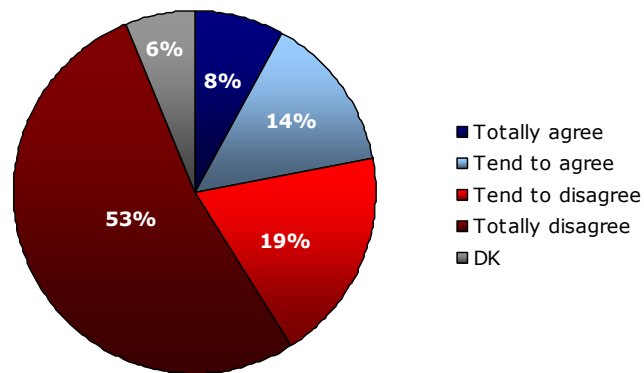
Not surprisingly, just over seven in ten respondents (72%) confirm that they could *not* imagine living near a nuclear power plant. And their opinions seem rather firm: more than half of Swiss respondents confirm that they *totally* disagree with it.

The interesting result, however, rather lies in the proportion of citizens that *could* imagine living at such a location: more than a fifth (22%) of the poll say that this is the case. It could well be that that this part of the population is already familiar with living near a nuclear power plant.

6%, moreover, do not have an opinion.

QB4.5 [...] please tell me if you totally agree, tend to agree, tend to disagree or totally disagree with it.

I can easily imagine myself living near a nuclear power plant



⁹ QB4.5 For each of the following statements, please tell me if you totally agree, tend to agree, tend to disagree or totally disagree with it. - I can easily imagine myself living near a nuclear power plant









Socio-demographic analysis

Some interesting patterns occur at socio-demographic level. More prepared to live near a nuclear power plant are respondents who are:

- men
- aged 40 years and older
- leaning to the political right (or centre)
- in a managerial position or retired
- living in rural areas
- living in either of the German-speaking parts of the country (where the Swiss nuclear power plants are currently located)
- well-informed about radioactive waste
- in favour of nuclear energy

QB4.5 For each of the following statements, please tell me if you totally agree, tend to agree, tend to disagree or totally disagree with it.

I can easily imagine myself living near a nuclear power plant

	Total "Agree"	Total "Disagree"	DK
CH	22%	72%	6%
 Sex			
Male	31%	64%	5%
Female	15%	78%	7%
 Age			
15-24	15%	75%	10%
25-39	21%	72%	7%
40-54	25%	70%	5%
55 +	25%	70%	5%
 Left-Right scale			
Left	18%	76%	6%
Centre	28%	68%	4%
Right	29%	66%	5%
 Respondent occupation scale			
Self- employed	23%	74%	3%
Managers	28%	72%	-
Other white collars	24%	70%	6%
Manual workers	22%	67%	11%
House persons	18%	78%	4%
Unemployed	10%	86%	4%
Retired	31%	63%	6%
Students	12%	80%	8%
 Subjective urbanisation			
Rural village	27%	63%	10%
Small/ mid size town	21%	76%	3%
Large town	14%	84%	2%
 Régions - Region			
Suisse Romand	9%	80%	11%
Alps/ Prealps/ German speaking part	21%	72%	7%
West Middle land German speaking part	29%	67%	4%
East Middle land German speaking part	31%	67%	2%
Italian speaking part	16%	74%	10%
 Level of information			
Informed	31%	63%	6%
Not informed	16%	78%	6%
 Support for nuclear energy production			
In favour	41%	52%	7%
Opposed	10%	86%	4%

2. ATTITUDES AND EXPECTATIONS REGARDING RADIOACTIVE WASTE MANAGEMENT

In the following paragraphs we will focus on Swiss citizens' general attitudes to possible solutions for the management of high-level radioactive waste, and their attitudes towards radioactive waste in their immediate vicinity, i.e. in the hypothetical situation that an underground disposal site would be constructed where they live.

2.1. Solutions for the management of high-level radioactive waste

When it concerns the timing of finding a solution for dealing with high-level radioactive waste, Swiss public opinion is very straightforward¹⁰. On average, **virtually all (97%) Swiss citizens see an urgent need to finding a solution to the problem now, rather than leaving it unsolved for later generations.** Levels of agreement in Switzerland are four percentage points above the EU average of 93%.

A wide majority of Swiss respondents (77%), however, believe that there is no safe solution to the problem of managing high-level radioactive waste¹¹. This idea seems slightly more widespread in Switzerland (+5 percentage points) than in the European Union as a whole, which should be seen in the context of the lower support for nuclear energy production in this country.

Like in the European Union as a whole, a relative majority (46%) of Swiss public sees deep underground disposal as the most appropriate solution for long-term management of high-level radioactive waste¹². Over a third (34%) is however opposed to this idea and up to a fifth of the population (20%) answers that they do not know whether this is the best solution.

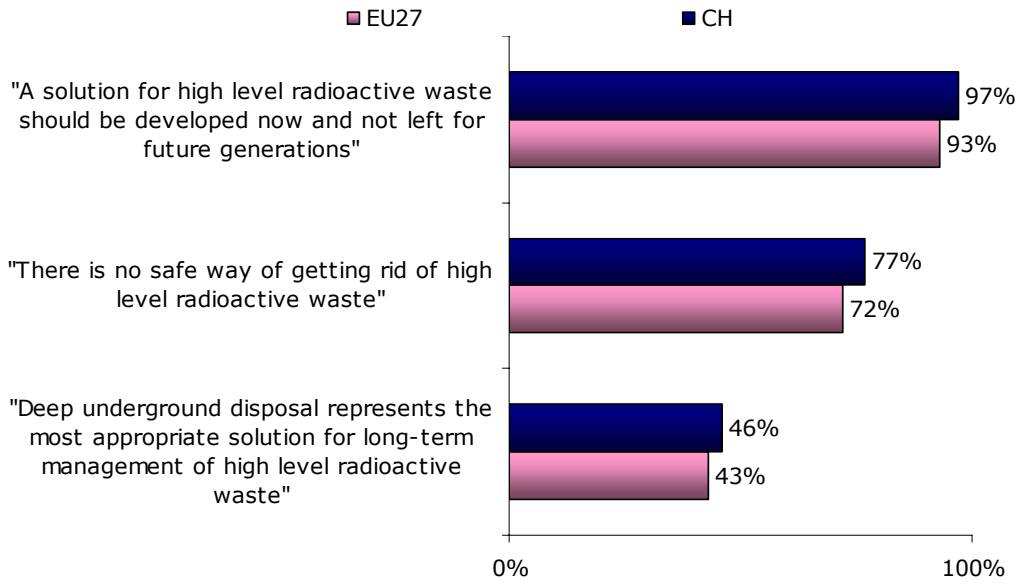
These results reveal that the climate of opinion in Switzerland regarding the management of high-level radioactive waste, is in line with attitudes existing in the European Union as a whole. It can, however, be observed that Swiss public is slightly more inclined to agree that there is an urgent need to find a solution for high-level radioactive waste, that there is no safe way of getting rid of it and that deep underground disposal is the most appropriate solution for managing this type of waste in the long run.

¹⁰ QB7 For each of the following statements, please tell me to what extent you agree or disagree. 1) A solution for high level radioactive waste should be developed now and not left for future generations

¹¹ QB7 For each of the following statements, please tell me to what extent you agree or disagree. 2) There is no safe way of getting rid of high level radioactive waste

¹² QB7 For each of the following statements, please tell me to what extent you agree or disagree. 3) Deep underground disposal represents the most appropriate solution for long-term management of high level radioactive waste

**QB7 For each of the following statements, please tell me to what extent you agree or disagree.
-Total "Agree"**



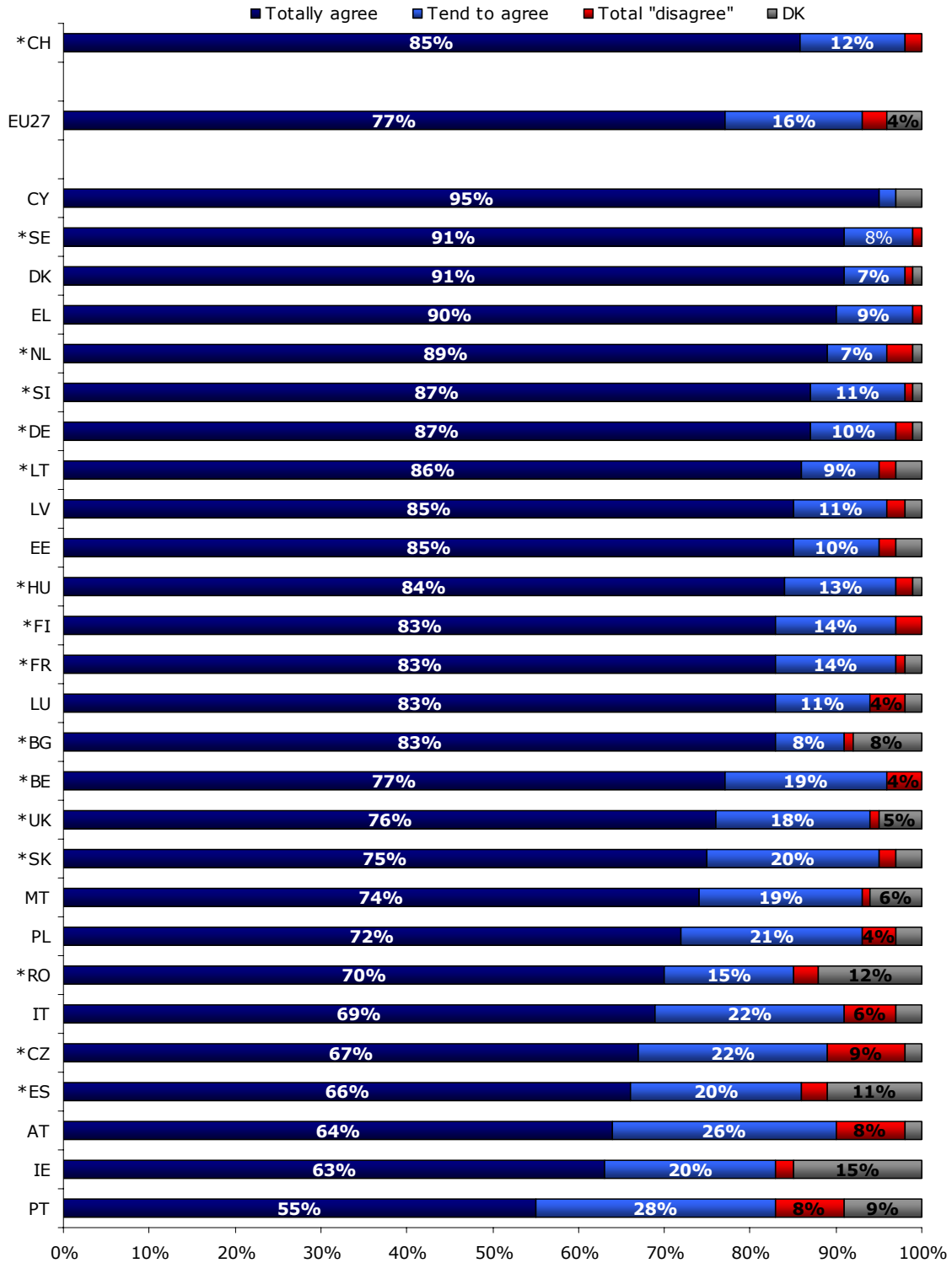
Widespread wish for urgent solutions for high-level radioactive waste

The Swiss public strongly believes that a solution for the problem of high-level radioactive waste should be developed urgently, rather than leaving it for future generations. 85% confirm that they *totally* agree and another 12% *tend* to agree. Only a very marginal proportion of respondents disagree with this (2%).

Overall, public opinion about the timing of dealing with high-level radioactive waste tends to be relatively homogenous: absolute majorities in all countries polled agree *totally* that finding a solution for high-level radioactive waste should not be left for future generations, but should be developed now. The presence of nuclear power plants in a country seems to have no remarkable effect on citizens' opinion in this respect.

In terms of *total* agreement, the Swiss results are clearly above the EU average (85% vs. 77%) but also well below the countries that top the list: Cyprus, Sweden, Denmark and Greece.

QB7.1 For each of the following statements, please tell me to what extent you agree or disagree.
-A solution for high level radioactive waste should be developed now and not left for future generations





*Country with operational NPP(s)

Socio-demographic analysis

Swiss respondents with a relatively long educational background, who live in rural areas or feel well informed about nuclear waste are more likely than those who spent shorter periods in education, live in large towns or feel poorly informed about the subject to feel that a solution for high-level radioactive waste should be developed now – instead of leaving it for later generations.

QB7.1 For each of the following statements, please tell me to what extent you agree or disagree.

A solution for radioactive waste should be developed now and not left for future generations

	Totally agree	Tend to agree	Tend to disagree	Totally disagree	DK	Total "Agree"	Total "Disagree"
CH	85%	12%	2%	-	1%	97%	2%
 Education (End of)							
15-	74%	20%	3%	-	3%	94%	3%
16-19	82%	14%	1%	1%	2%	96%	2%
20+	91%	7%	1%	-	1%	98%	1%
Still Studying	82%	13%	3%	-	2%	95%	3%
 Subjective urbanisation							
Rural village	88%	10%	1%	-	1%	98%	1%
Small/ mid size town	83%	14%	1%	1%	1%	97%	2%
Large town	81%	12%	4%	1%	2%	93%	5%
Level of information							
Informed	89%	9%	1%	-	1%	98%	1%
Not informed	82%	13%	2%	1%	2%	95%	3%

No safe way of getting rid of radioactive waste

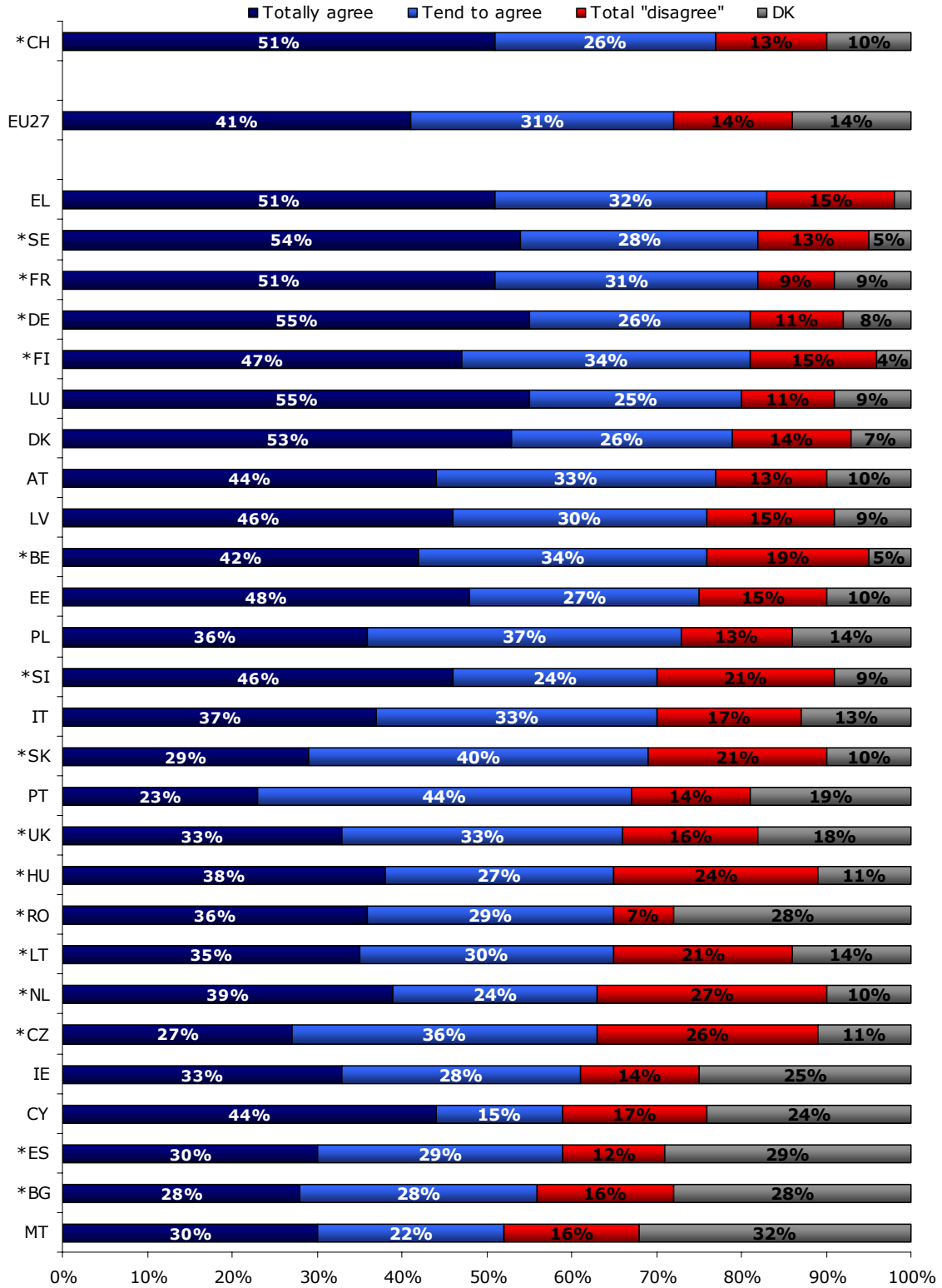
Around half of Swiss citizens on average (51%) *totally* agree that there is no safe way of getting rid of high-level radioactive waste, while just over a quarter (26%) *tend to* agree. Only 13% disagree and 10% does not know nor has any opinion about it.

Ranked among other countries, Switzerland is in the top-ten of countries with the strongest belief that there is no solution for high-level radioactive waste. Greece, Sweden, France, Germany and Finland top this list with around eight in ten respondents who (*totally* or *tend to*) agree that there is no safe way of getting rid of high-level radioactive waste.

Although this is the majority opinion in all the countries polled, there is a set of countries where the belief in a safe way of getting rid of high-level radioactive waste gains relatively strong support: the Netherlands, Czech Republic, Hungary, Slovenia, Slovakia, Lithuania and Belgium. All these countries have nuclear power plants in operation.

QB7.2 For each of the following statements, please tell me to what extent you agree or disagree.

-There is no safe way of getting rid of high level radioactive waste



*Country with operational NPP('s)

Socio-demographic analysis

Respondents' level of agreement with the statement that there is no safe way of getting rid of high-level radioactive waste rises up to the age of 55.

"Do not know" rates strongly determine the results by educational groupings. Respondents with the longest periods in education are therefore more likely to both agree *and* disagree that there is no safe way of getting rid of high-level radioactive waste, than those with the shortest periods in education.





Those who feel informed about radioactive waste are furthermore more likely to think that there is a way to get rid of high-level radioactive waste, i.e. disagreeing with the statement, than respondents who feel poorly informed about this topic. Both groups do however agree to the same extent.

Moreover, there is a link between respondents' support for nuclear energy and their opinion about the safety of getting rid of high-level radioactive waste. Those who are opposed to nuclear energy production appear to be more convinced that there is no way to get rid of such waste, while those who are in favour of nuclear power are more likely to hold the opposite viewpoint.

The survey results also reveal that respondents' political orientations, overall, do not necessarily influence their views on this matter.

QB7.2 For each of the following statements, please tell me to what extent you agree or disagree.

There is no safe way of getting rid of high level radioactive waste

	Totally agree	Tend to agree	Tend to disagree	Totally disagree	DK	Total "Agree"	Total "Disagree"
CH	51%	26%	10%	3%	10%	77%	13%
 Sex							
Male	49%	27%	12%	4%	8%	76%	16%
Female	53%	25%	8%	2%	12%	78%	10%
 Age							
15-24	38%	34%	13%	2%	13%	72%	15%
25-39	51%	24%	11%	2%	12%	75%	13%
40-54	59%	23%	8%	3%	7%	82%	11%
55 +	50%	26%	9%	5%	10%	76%	14%
 Education (End of)							
15-	55%	20%	3%	6%	16%	75%	9%
16-19	52%	24%	8%	3%	13%	76%	11%
20+	53%	26%	11%	3%	7%	79%	14%
Still Studying	40%	32%	13%	3%	12%	72%	16%
 Left-Right scale							
Left	59%	20%	9%	2%	10%	79%	11%
Centre	48%	29%	13%	4%	6%	77%	17%
Right	53%	26%	11%	5%	5%	79%	16%
Level of information							
Informed	52%	24%	13%	5%	6%	76%	18%
Not informed	51%	27%	7%	2%	13%	78%	9%
Support for nuclear energy production							
In favour	40%	30%	15%	6%	9%	70%	21%
Opposed	61%	23%	6%	2%	8%	84%	8%

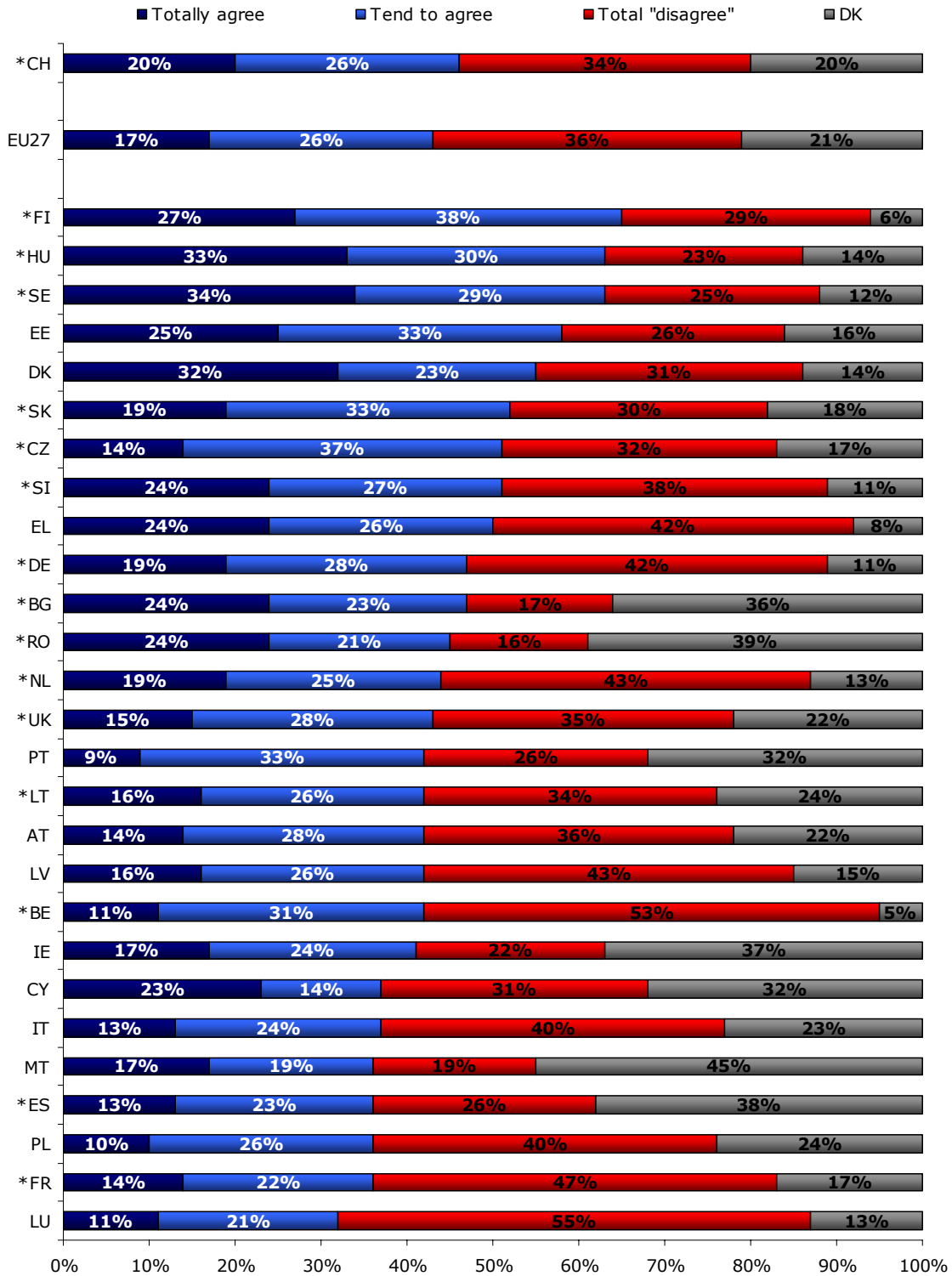
Deep underground disposal of high-level radioactive waste

Public opinion seems rather divided in Switzerland when it concerns deep underground disposal of high-level radioactive waste. The relative majority, however, *tends* to agree (20%) or *totally* agrees (26%) that deep underground disposal is the appropriate way to manage high-level radioactive waste. In total, around a third of citizens disagree with this, i.e. 16% *totally* disagree with this and 18% *tend to* disagree. A fifth, which represents a substantial proportion of the poll, gives no answer. This is probably thanks to the rather technical nature of this statement.

Turning to the full sample of countries, we see that respondents from countries with operational nuclear power plants are generally more likely to think that deep underground disposal is the most appropriate solution for long-term management of high-level radioactive waste than those from other countries. In terms of agreement, Swiss figures broadly correspond with EU averages and the country is ranked among other countries that have operational nuclear power plants.

QB7.3 For each of the following statements, please tell me to what extent you agree or disagree.

-Deep underground disposal represents the most appropriate solution for long-term management of high level radioactive waste



*Country with operational NPP('s)

Socio-demographic analysis








Respondents' level of agreement with the statement that deep underground disposal is the most appropriate solution for long-term management of high-level radioactive waste rises with their age and level of education. Moreover, men and respondents on the right of the political spectrum appear to be more convinced about this than women and those on the political left.

People who feel well informed about radioactive waste and those supporting nuclear power are significantly more likely to think that deep underground disposal is the most appropriate solution for high-level radioactive waste than people opposed to nuclear power and those seeing themselves as poorly informed about these issues.

Respondents from the German-speaking parts of Switzerland are most likely to think that deep underground disposal is the most appropriate solution for managing high-level radioactive waste.

QB7.3 For each of the following statements, please tell me to what extent you agree or disagree.

Deep underground disposal represents the most appropriate solution for long-term management of high level radioactive waste

	Totally agree	Tend to agree	Tend to disagree	Totally disagree	DK	Total "Agree"	Total "Disagree"
CH	20%	26%	18%	16%	20%	46%	34%
 Sex							
Male	25%	30%	16%	14%	15%	55%	30%
Female	16%	22%	20%	17%	25%	38%	37%
 Age							
15-24	13%	25%	23%	16%	23%	38%	39%
25-39	17%	22%	17%	21%	23%	39%	38%
40-54	22%	28%	21%	14%	15%	50%	35%
55 +	25%	28%	15%	12%	20%	53%	27%
 Education (End of)							
15-	12%	35%	5%	14%	34%	47%	19%
16-19	20%	26%	17%	15%	22%	46%	32%
20+	25%	25%	19%	16%	15%	50%	35%
Still Studying	10%	26%	22%	16%	26%	36%	38%
 Left-Right scale							
Left	16%	25%	22%	18%	19%	41%	40%
Centre	20%	29%	17%	11%	23%	49%	28%
Right	31%	24%	16%	15%	14%	55%	31%
 Region							
Suisse Romand	18%	19%	13%	24%	26%	37%	37%
Alps/ Prealps/ German speaking part	22%	27%	22%	9%	20%	49%	31%
West Middle land German speaking part	21%	27%	20%	13%	19%	48%	33%
East Middle land German speaking part	22%	31%	19%	16%	12%	53%	35%
Italian speaking part	14%	18%	11%	17%	40%	32%	28%
 Level of information							
Informed	29%	29%	18%	14%	10%	58%	32%
Not informed	15%	24%	18%	16%	27%	39%	34%
 Support for nuclear energy production							
In favour	30%	31%	16%	8%	15%	61%	24%
Opposed	14%	23%	21%	21%	21%	37%	42%

2.2. Attitudes and expectations concerning deep underground disposal

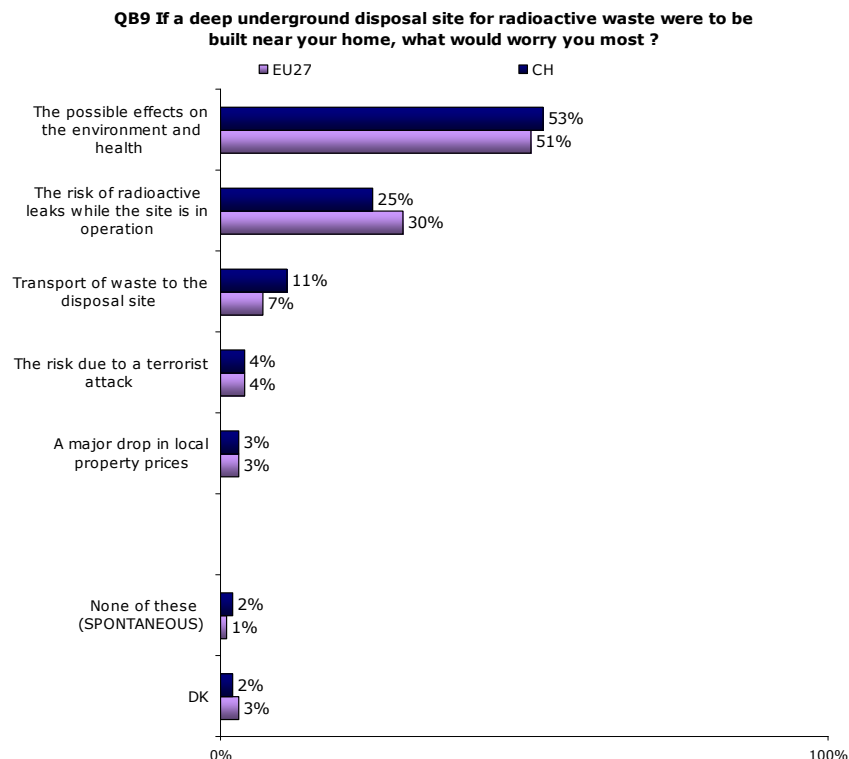
The Swiss public's general attitudes towards radioactive waste management are well reflected in their opinions about radioactive waste if it would affect them in their immediate vicinity. Their feeling that solutions for managing radioactive waste should be developed urgently and that there are no solutions for this issue, correspond to the risks that they attribute to having a disposal site constructed nearby to their homes. These attitudes are, moreover, also clearly reflected in the "pro-active" attitude that citizens have towards personal participation in the decision-making processes, if such a site were to be built where they live.

2.2.1. Risk perception of a deep underground disposal site

The respondents were asked which things would worry them most in the hypothetical situation that a disposal site for radioactive waste was built in the area where they live. Like in the European Union as a whole, there are primarily two things that worry the Swiss public: the possible effects on the environment and health (53%) and the risk of radioactive leaks (25%). On the whole, nearly eight in ten respondents (78%) confirmed that one of these two issues would worry them the most.

Meanwhile, around one in ten respondents say that they would be worried about the transport of radioactive waste to the disposal site (11%) and relatively low proportions of respondents express their worries about the risks due to a terrorist attack (4%) or a drop in property prices (3%).

Compared to attitudes that exist in the European Union, the Swiss public is slightly less worried about radioactive leaks and somewhat more worried about the transport of waste to the disposal site. It is however important to bear in mind that Swiss citizens broadly hold the same opinions as EU citizens on average.



The potential effects on the environment and health of a disposal site for radioactive waste are considered to be the most worrying aspect of having such a site near one's home in all the countries polled. Also regarding the second issue it seems that public opinion appears to be rather homogenous: the risk of radioactive leaks ranks second as the most worrying aspect of radioactive waste disposal in all EU countries – except Sweden.

QB9 If a deep underground disposal site for radioactive waste were to be built near your home, what would worry you most ?

	The possible effects on the environment and health	The risk of radioactive leaks while the site is in operation	Transport of waste to the disposal site	The risk due to a terrorist attack	A major drop in local property prices	None of these (SPONT.)	DK
CH	53%	25%	11%	4%	3%	2%	2%

EU27	51%	30%	7%	4%	3%	1%	3%
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BE	50%	33%	7%	5%	4%	1%	0%
BG	51%	30%	6%	2%	1%	1%	9%
CZ	50%	34%	7%	4%	2%	1%	1%
DK	42%	30%	13%	6%	8%	1%	0%
DE	56%	25%	9%	4%	3%	2%	1%
EE	60%	25%	7%	2%	2%	1%	3%
EL	61%	29%	6%	2%	1%	1%	0%
ES	52%	26%	3%	4%	2%	3%	7%
FR	50%	34%	8%	3%	3%	1%	1%
IE	42%	33%	10%	5%	2%	1%	7%
IT	49%	33%	6%	6%	2%	2%	1%
CY	70%	24%	0%	1%	1%	1%	1%
LV	60%	27%	5%	3%	0%	1%	2%
LT	75%	15%	4%	2%	1%	1%	2%
LU	54%	27%	8%	3%	3%	3%	2%
HU	55%	28%	8%	2%	3%	2%	1%
MT	62%	19%	7%	3%	4%	2%	3%
NL	45%	26%	16%	3%	7%	1%	1%
AT	55%	25%	8%	7%	2%	2%	1%
PL	51%	35%	4%	3%	1%	1%	4%
PT	45%	31%	6%	5%	1%	4%	8%
RO	59%	21%	6%	2%	2%	1%	9%
SI	59%	31%	3%	2%	2%	1%	1%
SK	46%	40%	5%	2%	3%	2%	2%
FI	57%	18%	13%	3%	6%	2%	1%
SE	41%	24%	25%	3%	5%	1%	1%
UK	41%	34%	9%	5%	6%	1%	3%

Country with operational NPP('s) **XX** Top-three highest score per item

XX: Highest score per country

Socio-demographic analysis

When analysing the results by socio-demographic variables, women tend to be more concerned about the effects that a disposal site for radioactive waste could have on the environment and on health than men, while the latter group would be slightly more worried than the former about the risks of radioactive leaks and the negative effects that such a disposal site could have on local property prices.

Respondents with a longer education are more likely to express their concern for the possible effects on the environment and health than those who spent shorter periods in education. The transport of waste to the disposal site, however, seems to be of greater concern to people with a shorter education than to those who studied longer.








People who see themselves as politically oriented towards the left furthermore seem to find the possible effects that a disposal site for radioactive waste would have on the environment and health of greater concern than those on the right side of the political spectrum. The latter group of respondents however expresses more concern for the risk of radioactive leaks than the former.

Respondents living in large towns are considerably more worried about the possible effects that a disposal site for radioactive waste would have on the environment and health than those living in rural areas. Radioactive leaks, conversely, more often worry people in rural areas than those in urban ones.

People who feel informed about these issues and those who support nuclear energy production, are more worried about the risk of radioactive leaks and the transport to a disposal place than the ill-informed and the opponents of this type of energy.

The categories of ill-informed respondents and those being opposed to nuclear energy are, conversely, more inclined to worry about the environment and health in the event of a disposal site for radioactive waste being built in their area, than people who are well informed about these issues or support nuclear energy production. It seems that increasing the level of information concerning radioactive waste among citizens could diminish their worries about the effects of radioactive waste on the environment and health.

Q89 If a deep underground disposal site for radioactive waste were to be built near your home, what would worry you most ?

	The possible effects on the environment and health	The risk of radioactive leaks while the site is in operation	Transport of waste to the disposal site	The risk due to a terrorist attack	A major drop in local property prices	DK
CH	53%	25%	11%	4%	3%	2%
 Sex						
Male	46%	27%	12%	5%	5%	2%
Female	59%	23%	10%	2%	1%	3%
 Education (End of)						
15-	44%	22%	14%	10%	2%	5%
16-19	49%	27%	14%	3%	2%	2%
20+	54%	24%	10%	4%	4%	3%
Still Studying	65%	22%	5%	3%	3%	2%
 Left-Right scale						
Left	61%	20%	11%	3%	2%	2%
Centre	44%	27%	12%	7%	7%	-
Right	47%	30%	12%	2%	3%	2%
 Subjective urbanisation						
Rural village	44%	30%	14%	4%	3%	2%
Small/ mid size town	58%	24%	6%	3%	4%	3%
Large town	65%	14%	11%	4%	2%	3%
 Régions - Region						
Suisse Romand	52%	27%	12%	3%	2%	3%
Alps/ Prealps/ German speaking part	51%	27%	14%	3%	2%	2%
West Middle land German speaking part	60%	17%	10%	7%	3%	-
East Middle land German speaking part	49%	28%	8%	2%	5%	4%
Italian speaking part	58%	25%	6%	2%	3%	4%
 Level of information						
Informed	46%	27%	13%	4%	4%	2%
Not informed	58%	24%	9%	4%	2%	2%
 Support for nuclear energy production						
In favour	42%	27%	17%	4%	5%	1%
Opposed	62%	23%	7%	3%	2%	2%

2.2.2. Involvement in decision-making processes

In order to measure to what extent Swiss citizens would like to be personally involved in decisions concerning radioactive waste at local level, respondents were asked about their preferred level of decision-making in the event of an underground disposal site for radioactive waste being built near their home¹³.

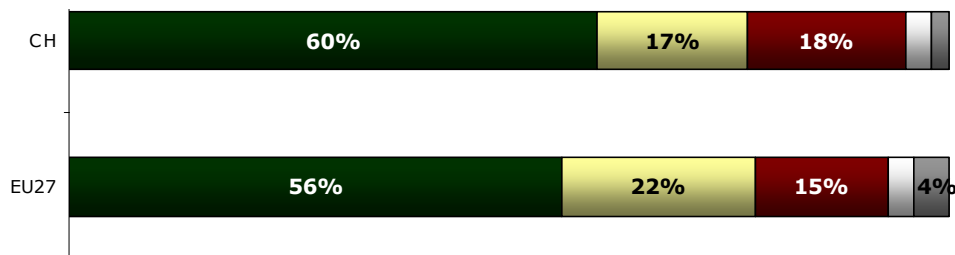
Swiss citizens **clearly want to be directly consulted and would like to participate in the decision-making process**, should this hypothetical situation take place – six in ten respondents confirm that they would want to be personally involved. 18%, furthermore, confirm that they would prefer local non-governmental organisations to be involved in the decision-making process and a similar proportion (17%) feels that they would rather let responsible authorities decide on this matter.

Swiss citizens on average broadly have the same preferences as their fellow citizens in the European Union, when it concerns their involvement in decision-making processes. However, Swiss respondents are slightly more inclined than respondents at EU level to feel that they would want to participate in the decision-making *themselves*. This should be seen in the context of the Swiss political culture of direct participation of citizens in decision-making.

They are also somewhat *more* inclined than EU citizens to say that responsible authorities should decide on this matter and *less* inclined to want non-governmental organisations to be involved in the process.

QB10 Thinking about the hypothetical construction of an underground disposal site for radioactive waste near your home, with which of the following do you agree the most?

- You would like to be directly consulted and to participate in the decision making process
- You would like local non-governmental organisations to be consulted and to participate in the decision making process
- You would leave the responsible authorities to decide on this matter
- None of these (SPONT.)
- DK



¹³ QB10 Thinking about the hypothetical construction of an underground disposal site for radioactive waste near your home, with which of the following do you agree the most? 1) You would like to be directly consulted and to participate in the decision making process, 2) You would like local non-governmental organisations to be consulted and to participate in the decision making process, 3) You would leave the responsible authorities to decide on this matter, 4) None of these (SPONTANEOUS), 5) DK

Like in Switzerland, there is a wide consensus throughout the other countries polled, that respondents **would like to be directly consulted and would want to participate in the decision-making process** if an underground disposal site for radioactive waste were constructed near their home. It is the majority opinion (represented either by absolute or relative majorities) in virtually all the countries surveyed, Lithuania being the only exception. The Swiss figure (60% desiring direct consultation) is among the seven highest in the set of countries polled.

The idea that **responsible authorities** should be left to decide, in the event of a disposal site for radioactive waste being built in the respondents' locality, is supported by Lithuanian, Czech and Slovak respondents in particular. With 18% of respondents having this preference, Switzerland appears to have a very moderate score compared with the other countries polled.

The idea that **local non-governmental organisations** should be consulted gain considerably lower support in Switzerland (17%) than in the EU as a whole and the Swiss result ranks among the ten lowest results recorded.

QB10 Thinking about the hypothetical construction of an underground disposal site for radioactive waste near your home, with which of the following do you agree the most?

	You would like to be directly consulted and to participate in the decision making process	You would leave the responsible authorities to decide on this matter	You would like local non-governmental organisations to be consulted and to participate in the decision making process	None of these (SPONT.)	DK
CH	60%	18%	17%	3%	2%

EU27	56%	15%	22%	3%	4%
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BE	52%	22%	23%	3%	0%
BG	53%	19%	11%	5%	12%
CZ	39%	31%	24%	4%	2%
DK	50%	23%	26%	0%	1%
DE	68%	14%	16%	1%	1%
EE	52%	23%	18%	3%	4%
EL	50%	12%	34%	4%	0%
ES	55%	12%	19%	6%	8%
FR	51%	17%	29%	0%	3%
IE	55%	10%	18%	2%	15%
IT	49%	15%	25%	7%	4%
CY	65%	13%	17%	4%	1%
LV	48%	29%	16%	4%	3%
LT	30%	35%	22%	7%	6%
LU	65%	14%	17%	3%	1%
HU	50%	22%	22%	4%	2%
MT	64%	15%	14%	3%	4%
NL	57%	10%	30%	2%	1%
AT	64%	8%	19%	6%	3%
PL	58%	19%	17%	1%	5%
PT	40%	22%	18%	10%	10%
RO	57%	14%	10%	8%	11%
SI	46%	25%	23%	5%	1%
SK	44%	30%	20%	4%	2%
FI	48%	21%	29%	1%	1%
SE	45%	21%	32%	1%	1%
UK	66%	8%	21%	2%	3%

Country with operational NPP('s)

XX

Top-three highest score per item

XX: Highest score per country

Socio-demographic analysis

The following socio-demographic tendencies can be distinguished:

In the event of a disposal site for radioactive waste being built near their homes, Swiss respondents in the oldest age group (55 years and older) are particularly likely to want responsible authorities to take care of the decision-making processes.

The likelihood that a respondent would want to personally participate in the decision-making process increases with their educational level. The idea that decision-making should be dealt with solely by the responsible authorities, meanwhile, gains the strongest support among respondents with shorter types of education.

Among the occupational groups, managers appear to be most in favour of personal involvement in the decision-making process.






It moreover appears that a larger proportion of respondents in rural areas than in large towns prefer to leave decision-making concerning radioactive waste disposal in their immediate vicinity to responsible authorities. In larger towns, on the contrary, a higher frequency of respondents would prefer involvement by a non-governmental organisation.

Respondents in the German-speaking parts of the country are considerably more likely to want to be personally involved in the decision-making process than respondents in other parts of the country. The fact that all the nuclear power plants in Switzerland are located in the country's German-speaking areas might explain these respondents' "pro-activeness": they are in any case not unfamiliar with living near to sites where nuclear power is generated. The opinions in the French-speaking part of Switzerland are clearly much more divided than those in its German-speaking counterpart.

Those who are opposed to nuclear energy production more frequently wish to participate personally in decision-making processes concerning radioactive waste disposal than those who support this type of energy. The supporters would, on the contrary, be more inclined to leave this task to the responsible authorities.

In addition, the results show that there is no clear correlation between respondents' subjective level of information about radioactive waste and their level of involvement in decision making processes. The desire to participate personally in decision-making is, however, slightly more widespread among respondents that consider themselves to be informed about the subject than among those who are not.

QB10 Thinking about the hypothetical construction of an underground disposal site for radioactive waste near your home, with which of the following do you agree the most?

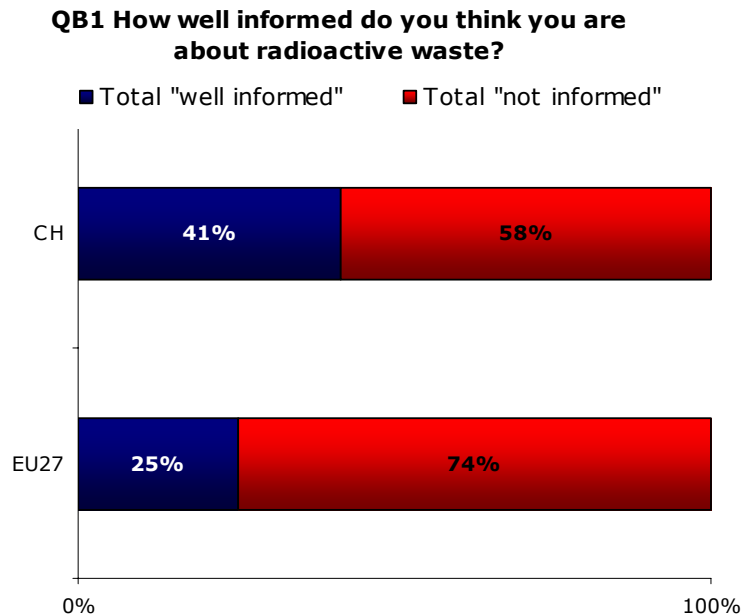
	You would like to be directly consulted and to participate in the decision making process	You would leave the responsible authorities to decide on this matter	You would like local non-governmental organisations to be consulted and to participate in the decision making process	None of these (SPONT.)	DK
CH	60%	18%	17%	3%	2%
 Age					
15-24	63%	19%	16%	1%	1%
25-39	61%	15%	18%	4%	2%
40-54	65%	13%	17%	4%	1%
55 +	53%	25%	16%	3%	3%
 Education (End of)					
15-	47%	28%	22%	-	3%
16-19	56%	23%	17%	2%	2%
20+	64%	14%	16%	4%	2%
Still Studying	67%	15%	14%	2%	2%
 Left-Right scale					
Left	60%	10%	26%	3%	1%
Centre	67%	18%	14%	1%	-
Right	64%	22%	11%	2%	1%
 Respondent occupation scale					
Self- employed	60%	10%	25%	3%	2%
Managers	76%	7%	16%	1%	-
Other white collars	59%	19%	17%	4%	1%
Manual workers	60%	19%	17%	3%	1%
House persons	59%	22%	8%	5%	6%
Unemployed	61%	24%	15%	-	-
Retired	46%	28%	20%	2%	4%
Students	67%	15%	14%	2%	2%
 Subjective urbanisation					
Rural village	59%	21%	14%	3%	3%
Small/ mid size town	59%	16%	19%	4%	2%
Large town	61%	14%	22%	2%	1%
Régions - Region					
Suisse Romand	37%	30%	25%	6%	2%
Alps/ Prealps/ German speaking part	70%	16%	12%	1%	1%
West Middle land German speaking part	64%	13%	20%	2%	1%
East Middle land German speaking part	69%	14%	10%	3%	4%
Italian speaking part	52%	22%	24%	-	2%
Level of information					
Informed	62%	17%	17%	3%	1%
Not informed	58%	19%	17%	3%	3%
Support for nuclear energy production					
In favour	56%	26%	15%	2%	1%
Opposed	67%	10%	19%	3%	1%

3. AWARENESS AND KNOWLEDGE OF THE ISSUE OF RADIOACTIVE WASTE

3.1. Subjective level of information regarding radioactive waste

When examining how well informed Swiss citizens feel about radioactive waste, the results reveal that a majority of nearly six in ten citizens (58%) do not feel informed about this topic, while 41% confirm that they feel well informed.

This means that the **general public in Switzerland clearly feels better informed about radioactive waste than the general public in the European Union¹⁴**. The share of ill-informed people is 16 percentage points higher in the European Union than in Switzerland, and reaches nearly three quarters of the EU poll.



The information level lies considerably higher in Switzerland than in most European Union member states. Only Swedes, Finns and Slovenians feel better informed about radioactive waste than people in Switzerland. Sweden is, however, the only country in the EU27 where the majority of respondents (52%) feel well informed about radioactive waste.

One could expect citizens in countries with nuclear power plants to be more familiar with – and thus better informed about – topics relating to nuclear energy like nuclear waste. The level of information of citizens, however, does not seem to be influenced by whether there is an operational nuclear power plant in their country or not.

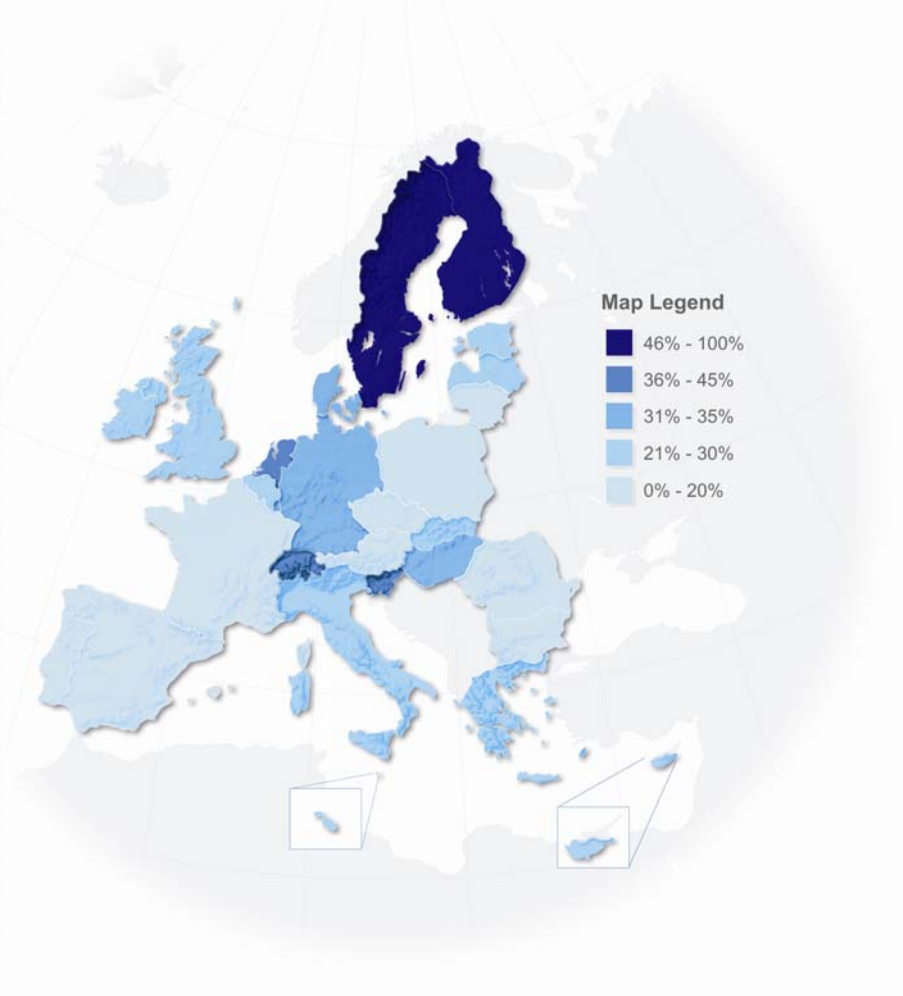
¹⁴ QB1 How well informed do you think you are about radioactive waste? Very well informed, Fairly well informed, Not very well informed or Not at all informed

Question: QB1 How well informed do you think you are about radioactive waste?

Réponses: Total “well-informed”

	Switzerland	41%
	European Union (27)	25%
	Sweden	52%
	Finland	46%
	Slovenia	44%
	The Netherlands	36%
	Germany	34%
	Luxembourg	34%
	Denmark	33%
	Hungary	31%
	Estonia	30%
	United Kingdom	26%
	Malta	26%
	Greece	24%
	Slovakia	24%
	Belgium	23%
	Latvia	23%
	Ireland	21%
	Italy	21%
	Cyprus	21%
	France	20%
	Portugal	19%
	Czech Republic	19%
	Poland	19%
	Lithuania	18%
	Spain	17%
	Austria	16%
	Romania	16%
	Bulgaria	15%

 Has operational NPP



Socio-demographic analysis




Citizens' self-perceived level of information is strongly connected to certain socio-demographic characteristics, such as gender, age, education and their general attitude towards nuclear energy.

Those who generally feel most informed about nuclear waste are men, respondents over the age of 40 and those who finished their education aged 20 or later. Women, respondents aged younger than 40 and those who ended their education before they turned 20 feel considerably less well informed.

The differences in terms of educational length are most pronounced: while over half of those with the longest periods in education consider themselves to be informed about radioactive waste, only 22% of those who ended their education aged 15 or earlier feel informed.

Those who are opposed to nuclear energy are furthermore much less likely to feel informed about nuclear waste (39%) than those who are in favour of it (50%).

QB1 How well informed do you think you are about radioactive waste?

	Very well informed	Fairly well informed	Not very well informed	Not at all informed	DK	Total "well-informed"	Total "not informed"
CH	6%	35%	42%	16%	1%	41%	58%
 Sex							
Male	9%	42%	37%	11%	1%	51%	48%
Female	4%	28%	47%	20%	1%	32%	67%
 Age							
15-24	5%	20%	54%	18%	3%	25%	72%
25-39	5%	28%	47%	19%	1%	33%	66%
40-54	7%	41%	41%	10%	1%	48%	51%
55 +	7%	40%	35%	17%	1%	47%	52%
 Education (End of)							
15-	7%	15%	46%	30%	2%	22%	76%
16-19	3%	32%	46%	19%	-	35%	65%
20+	9%	43%	36%	11%	1%	52%	47%
Still studying	7%	20%	56%	15%	2%	27%	71%
Support for nuclear energy production							
In favour	8%	42%	39%	10%	1%	50%	49%
Opposed	6%	33%	45%	15%	1%	39%	60%

3.2. Objective knowledge of radioactive waste

To measure citizens' knowledge about radioactive waste, respondents were asked to say whether a set of statements regarding nuclear waste are true or false¹⁵. This gives us an indication of what they correctly *know* is true and what they incorrectly *believe* is true.

Looking at these aspects of radioactive waste that Swiss citizens on average *know are true*, we see that around eight in ten are aware that there are several categories of radioactive waste (80%) and that some scientific research centres produce radioactive waste (78%). Moreover, nearly three-quarters (74%) know that some hospitals produce low-level radioactive waste and six out of ten (61%) know that there are non-nuclear industries that produce low-level radioactive waste.

When it concerns the statement regarding the quantity of radioactive waste in relation to quantities of other types of waste, the Swiss poll is strongly divided. While 34% *knows* that radioactive waste is not produced in similar quantities to other waste, 33% incorrectly *think* that this is true and 33% say that they do not know.

Turning to the statements that citizens incorrectly believe are true, we see that a relative majority of the poll (45%) thinks that high level radioactive waste is produced only in nuclear reactors, while around one in three (34%) knows that this is not true. 21% say that they do not know.

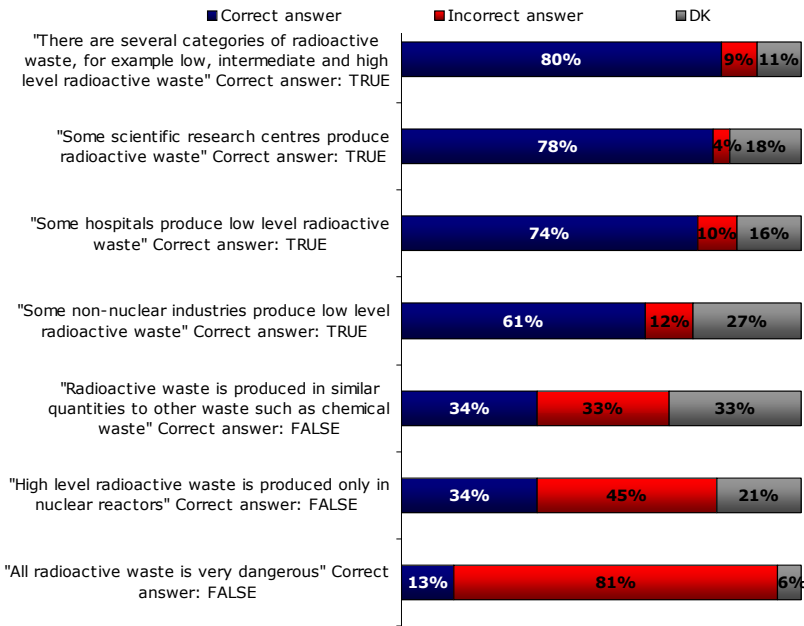
Only relatively few respondents, moreover, actually know that nuclear waste is not always very dangerous (13%). **Swiss citizens clearly believe that all radioactive waste is very dangerous** – around eight out of ten respondents (81%) incorrectly think that this is the case. The relatively low share of respondents answering that they do not know (6%) shows that respondents are more opinionated about this statement than about others. It therefore emphasises even further that in the minds of people all nuclear waste is very dangerous.

The awareness of the fact that there are several categories of radioactive waste and that some hospitals and scientific research centres produce low-level radioactive waste is significantly higher in Switzerland than in the European Union as a whole. Knowledge of the topics covered by the other statements remains at similar levels in Switzerland as in the EU.

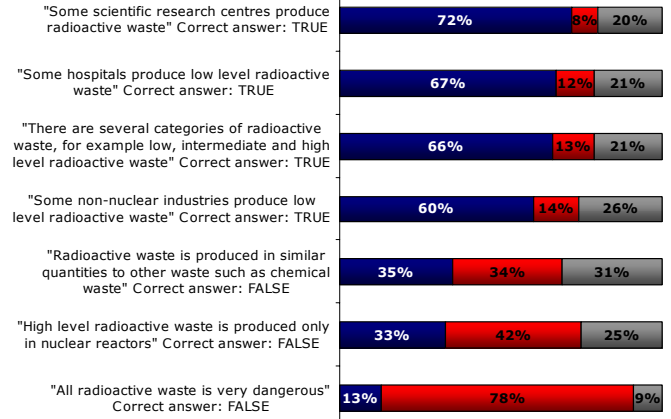
It seems that the fact that Swiss respondents feel better informed about radioactive waste than the average EU citizen is at least partially based on their objective knowledge of the topic.

¹⁵ QB5 For each of the following statements, please tell me whether you think it is true or false. 1) There are several categories of radioactive waste, for example low, intermediate and high level radioactive waste, 2) Some hospitals produce low-level radioactive waste, 3) Some non-nuclear industries produce low-level radioactive waste, 4) Some scientific research centres produce radioactive waste, 5) High level radioactive waste is produced only in nuclear reactors, 6) Radioactive waste is produced in similar quantities to other waste such as chemical waste, 7) All radioactive waste is very dangerous

QB5 For each of the following statements, please tell me whether you think it is true or false. % CH
-Share of correct / incorrect answers per statement



% EU



Total share of correct and incorrect answers

When taking the country scores for the different statements together, we see that *the average of correct answers* reaches 53% in Switzerland, which is four percentage points above the EU average, while 28% of answers are considered incorrect and 19% belong to the category "don't know" replies.

Comparing all the countries polled, it appears that the variation in the proportion of correct answers is strong. **It should be emphasised that the countries that dominate the top of the list when it concerns correct answers are countries that have nuclear power plants in operation.**

Among the countries that have nuclear power plants in operation, Switzerland positions itself at a relatively moderate level – under those that top the list in terms of correct answers (Sweden, Belgium and the Netherlands) and well above those that are the least knowledgeable in this respect (Bulgaria and Romania).

QB5 Share of correct / incorrect answers

	Average of correct answers	Average of incorrect answers	DK
CH	53%	28%	19%
EU27	49%	29%	22%
SE	63%	24%	13%
BE	62%	29%	9%
NL	60%	22%	18%
SI	58%	27%	15%
FI	58%	28%	14%
DK	57%	26%	17%
FR	57%	26%	17%
CZ	56%	31%	13%
HU	56%	29%	15%
DE	55%	32%	13%
LU	54%	27%	19%
UK	54%	22%	24%
EL	52%	38%	10%
SK	52%	34%	14%
LV	49%	33%	18%
EE	47%	30%	23%
PL	45%	32%	23%
AT	44%	31%	25%
IT	42%	32%	26%
IE	40%	24%	36%
ES	39%	27%	34%
LT	37%	32%	31%
PT	37%	32%	31%
CY	36%	27%	37%
RO	34%	25%	41%
MT	32%	23%	45%
BG	28%	26%	46%
Country with operational NPP('s)			

Socio-demographic analysis

The socio-demographic variables that influence respondents' knowledge about radioactive waste related issues – as referred to in the statements that have been dealt with in the previous paragraphs - are:

Gender: Men more frequently give correct answers than women. Women, on the other hand, do not give more incorrect answers, but are more inclined to have no opinion.

Age: The highest frequencies of correct answers occur among respondents aged 25 to 54.




Education: The share of correct answers increases as the length of education increases. This is clearly reflected in the distribution of "don't know" replies among the different educational groups: the share of people answering that they do not know is considerably higher among respondents with shorter periods in education than among those who spent longer periods in education.

Level of information about radioactive waste: Respondents who feel well informed about nuclear waste also seem more knowledgeable about radioactive waste – at least in terms of correct answers given to this question. The group that feels poorly informed about the topic is significantly more likely to give a "don't know" reply than the group of well informed respondents.

Political orientation: Correct answers to the different statements are slightly more frequent among respondents who position themselves at the left end of the political scale, while people who lean to the right more frequently give incorrect answers.

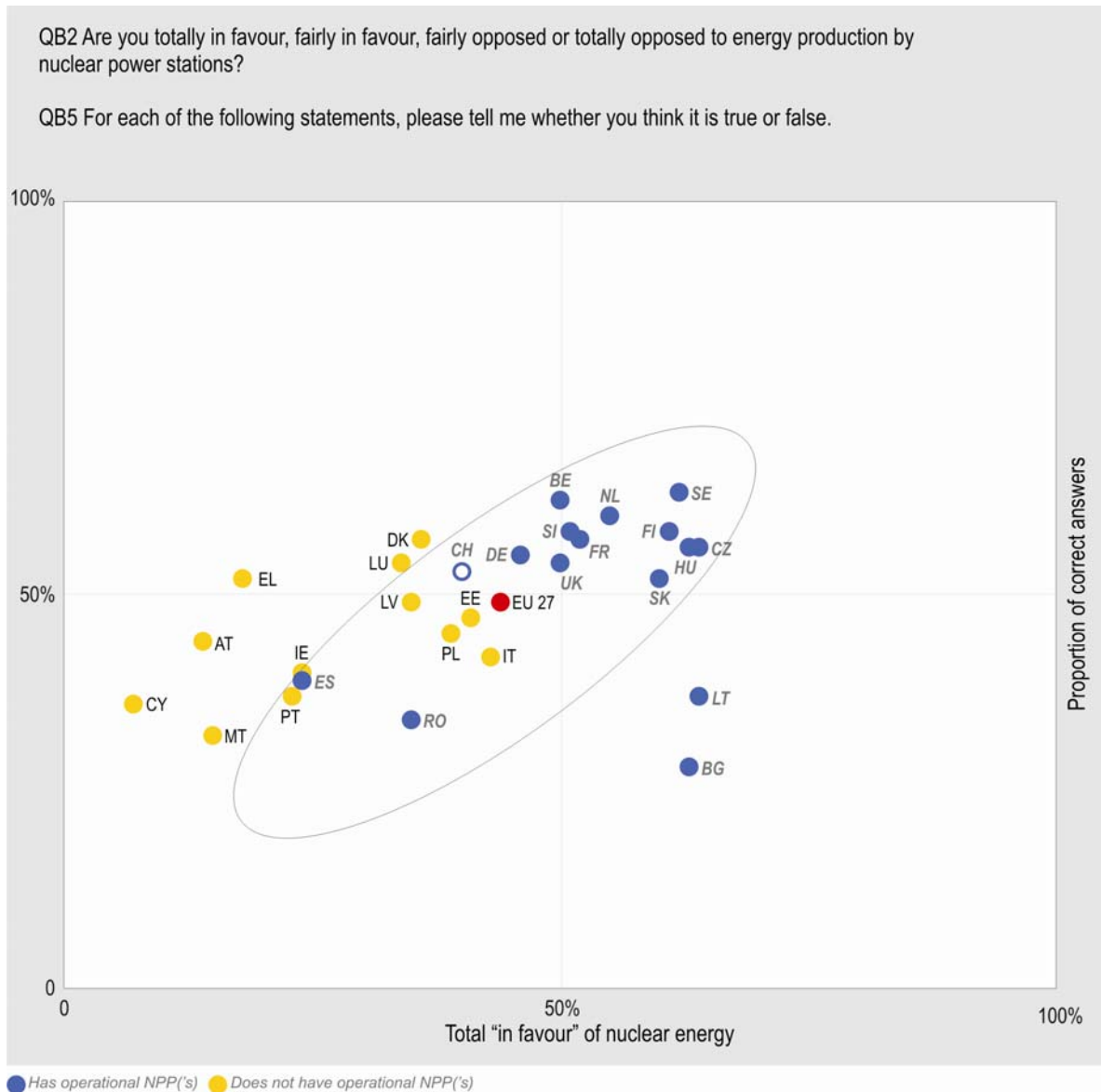
QB5 For each of the following statements, please tell me whether you think it is true or false.

Average for all statements

	Average of correct answers	Average of incorrect answers	DK
CH	53%	28%	19%
 Sex			
Male	58%	28%	14%
Female	49%	27%	24%
 Education (End of)			
15-	41%	31%	28%
16-19	51%	28%	21%
20+	57%	27%	16%
Still Studying	55%	26%	19%
 Left-Right scale			
Left	58%	25%	17%
Centre	55%	28%	17%
Right	54%	30%	16%
Level of information			
Informed	59%	27%	14%
Not informed	49%	28%	23%

Finally, those who are more knowledgeable about radioactive waste tend to be more in favour of nuclear energy. That there is a positive correlation between respondents’ objective knowledge about the topic and their attitude towards this type of energy is illustrated in the graph below.

Swiss results differ somewhat from this pattern: they reveal an above average knowledge about radioactive waste combined with support levels being under EU the average.



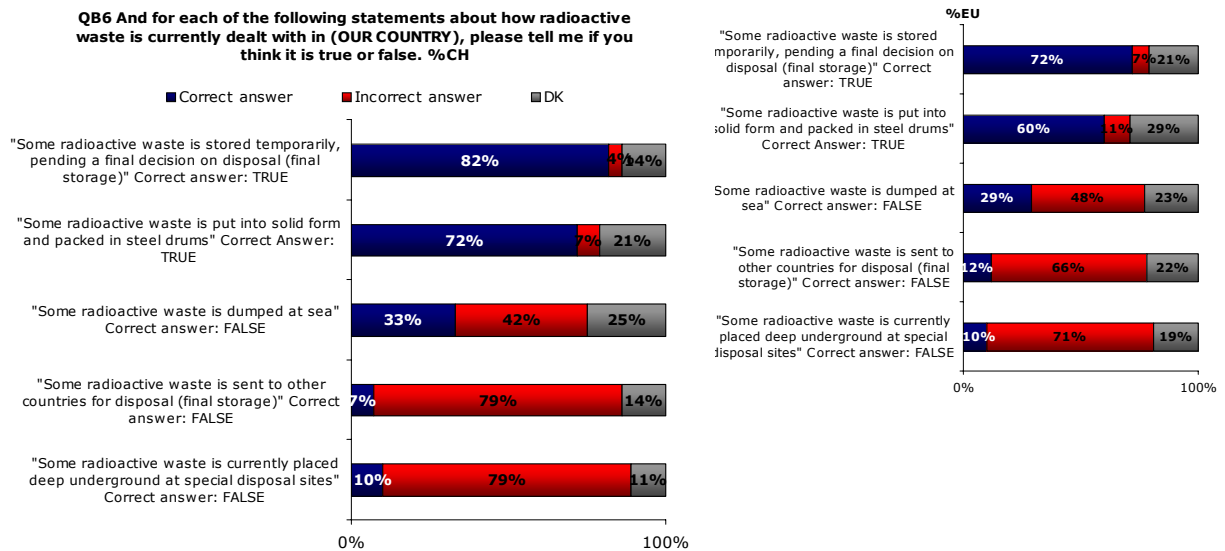
3.3. Methods of managing radioactive waste

Swiss citizens' knowledge levels of the different ways of managing radioactive waste vary greatly¹⁶. Vast majorities of respondents are for instance aware that some radioactive waste is stored temporarily, pending a final decision on final storage (82% correctly said that this is true) and that some radioactive waste is put into solid form and packed into steel drums (72%).

The largest share of the poll (42%), however, *believes* that some radioactive waste is dumped at sea, while only a third knows that this is not the case. A substantial share of the poll does not know whether the sea is used for this purpose (25%).

Other misconceptions that Swiss citizens widely believe in are that some radioactive waste is currently placed deep underground at special disposal sites or sent for disposal to other countries. Nearly eight out of ten respondents believe that these two things are true (79% for both statements)

Like EU citizens on average, Swiss respondents are most likely to know the correct answers of the statements that are *true*. The Swiss public tends to be even more inclined than the EU public to know that some radioactive waste is temporarily stored and that some of it is put into solid form and packed in steel drums. When it concerns some of the *false* statements, the frequency of *incorrect* answers, however, also lies above the EU average in Switzerland, with the exception of the statement concerning dumping radioactive waste at sea..



¹⁶ QB6 And for each of the following statements about how radioactive waste is currently dealt with in (OUR COUNTRY), please tell me if you think it is true or false. 1) Some radioactive waste is currently placed deep underground at special disposal sites, 2) Some radioactive waste is put into solid form and packed in steel drums, 3) Some radioactive waste is sent to other countries for disposal (final storage), 4) Some radioactive waste is stored temporarily, pending a final decision on disposal (final storage), 5) Some radioactive waste is dumped at sea

Total share of correct and incorrect answers

Overall, **Swiss citizens' actual knowledge about ways to manage radioactive waste appears to be rather limited.** While 41% of the total set of answers turn out to be defined as correct, 42% are incorrect and 17% are "don't know" replies. Swiss respondents are thus slightly more knowledgeable than EU citizens on average (41% vs. 36% of correct answers).

The top ten of "knowledgeable" countries when it concerns radioactive waste management is dominated by nine countries with nuclear power plants – including Switzerland. Finland tops the list with just over half of answers being correct.

It is noteworthy that the highest scores of *both* correct and incorrect answers are recorded in countries *with* nuclear power plants. Citizens in these countries are more familiar with the topic in general and more likely to give an answer (either correct or incorrect) but do not necessarily feel better informed (see 3.1 for more information) than citizens in countries without nuclear power plants.

QB6 Share of correct / incorrect answers

	Average of correct answers	Average of incorrect answers	DK
CH	41%	42%	17%

EU27	36%	41%	23%
-------------	------------	------------	------------

FI	51%	39%	10%
SI	48%	36%	16%
DE	48%	41%	11%
SE	47%	43%	10%
DK	45%	41%	14%
NL	44%	41%	15%
BE	44%	49%	7%
CZ	41%	40%	19%
FR	40%	44%	16%
LV	38%	37%	25%
AT	38%	38%	24%
HU	38%	43%	19%
EL	36%	50%	14%
LT	36%	31%	33%
LU	36%	42%	22%
SK	36%	44%	20%
EE	34%	38%	28%
UK	34%	45%	21%
IT	32%	40%	28%
PL	31%	42%	27%
PT	29%	37%	34%
IE	29%	38%	33%
ES	27%	38%	35%
BG	24%	26%	50%
MT	22%	19%	59%
RO	21%	23%	56%
CY	20%	30%	50%

Countries with operational NPP('s)

Socio-demographic analysis

Differences in socio-demographic characteristics mainly occur for respondents' correct answers. The proportions of incorrect answers remain more or less similar throughout the different socio-demographic categories. The shares of "don't know" replies, however, vary strongly. The highest numbers of correct answers (and thus relatively low proportions of "don't know" replies) are found among:

- Men
- Respondents in the age group 40-54 years (who are most likely to have given *any* answers – correct or incorrect)
- Those who finished their education at the age of 20 or later
- Those who feel well-informed about radioactive waste.
- Respondents who are in favour of nuclear energy production
- Inhabitants of the country's German-speaking parts

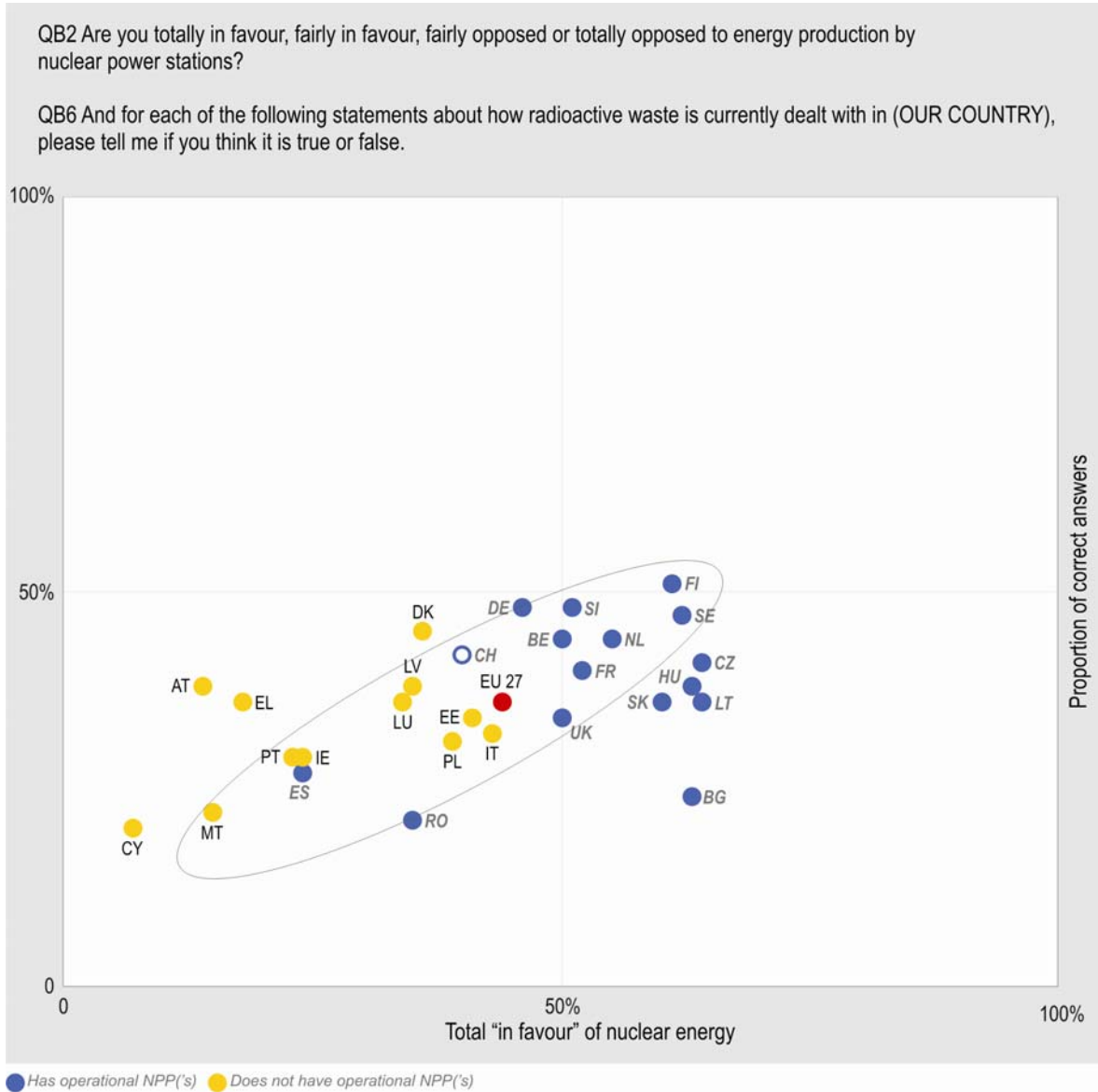
QB6 And for each of the following statements about how radioactive waste is currently dealt with in (OUR COUNTRY), please tell me if you think it is true or false.

Average for all statements

	Average of correct answers	Average of incorrect answers	DK
CH	41%	42%	17%
Sex			
Male	45%	43%	12%
Female	37%	42%	21%
Age			
15-24	39%	39%	22%
25-39	40%	42%	18%
40-54	43%	45%	12%
55 +	41%	42%	17%
Education (End of)			
15-	35%	42%	23%
16-19	38%	42%	20%
20+	44%	43%	13%
Still Studying	41%	41%	18%
Level of information			
Informed	46%	43%	11%
Not informed	37%	42%	21%
Support for nuclear energy production			
In favour	45%	42%	13%
Opposed	40%	43%	17%
Régions - Region			
Suisse Romand	35%	42%	23%
Alps/ Prealps/ German speaking part	42%	42%	16%
West Middle land German speaking part	46%	42%	12%
East Middle land German speaking part	44%	43%	13%
Italian speaking part	26%	39%	35%

The following graph shows that a positive correlation exists between respondents' objective knowledge about radioactive waste management and their attitude towards nuclear energy: those who are more knowledgeable about the topic also tend to be more in favour of this type of energy.

This is also true for Switzerland, but to a lesser extent than for other countries that have nuclear power plants.

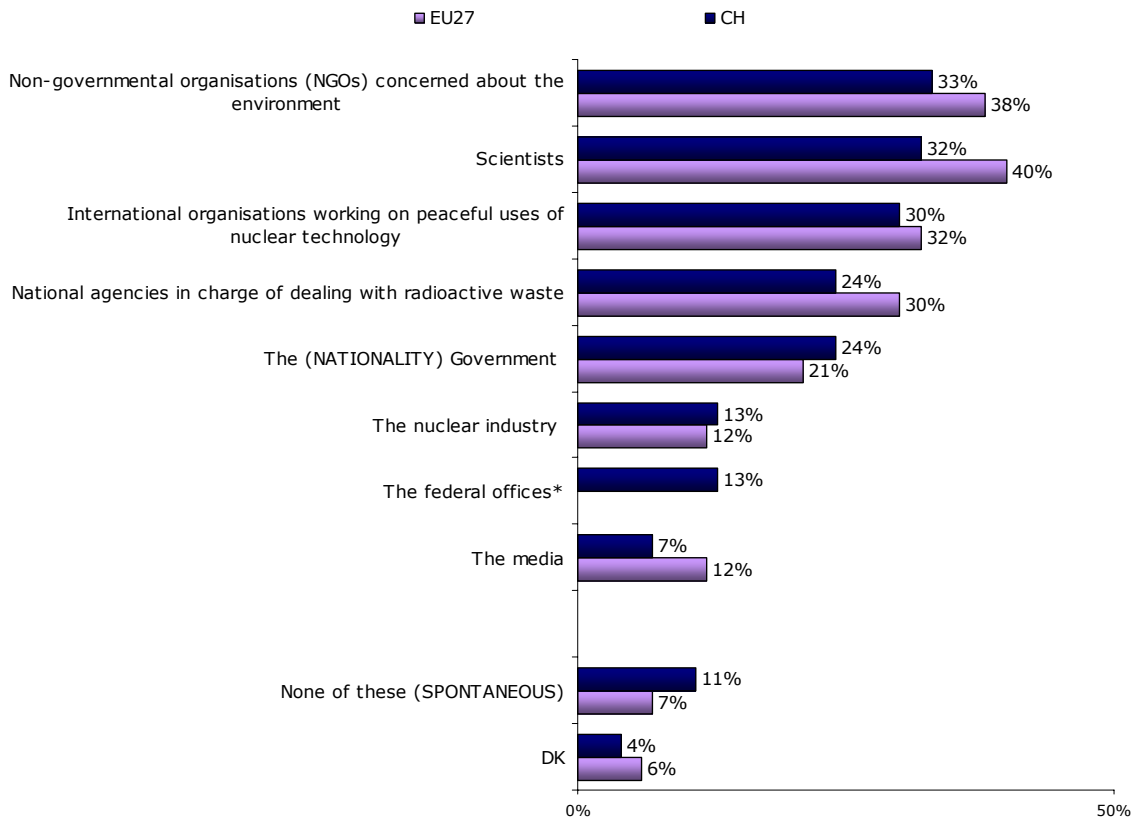


4. SOURCES OF INFORMATION

Information about the way radioactive waste is managed is most trusted when it comes from independent sources¹⁷. Swiss citizens trust non-governmental environmental organisations (33%) and scientists (32%) the most, closely followed by international organisations working on peaceful uses of nuclear technology (30%). Around a quarter of the poll furthermore confirms that they would trust information from the national agency in charge of dealing with radioactive waste or their national governments (24% for both sources). Moreover, 13% trust the federal offices or the country’s nuclear industry as sources of information in this respect. Swiss citizens have the least trust in the information that is distributed by the media (7% trust information from this source).

Swiss respondents broadly trust the same sources of information as citizens in the European Union. However, EU citizens rank scientists above non-governmental organisations, while Swiss figures reveal a reverse order.

QB8 Which of the following, if any, would you trust to give you information about the way radioactive waste is managed in (OUR COUNTRY)? (MULTIPLE ANSWERS POSSIBLE)



*Only asked in CH

¹⁷ QB8 Which of the following, if any, 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, 2) The (NATIONALITY) Government, 3) Non-governmental organisations (NGOs) concerned about the environment, 4) Scientists, 5) The media, 6) The EU, 7) The nuclear industry, 8) International organisations working on peaceful uses of nuclear technology

One in three Swiss respondents trust **non-governmental organisations** when it concerns information about radioactive waste management – and it is therefore the most trusted source of information about this topic in Switzerland. The highest trust levels can be found among Swedish, Slovakian, French and Danish respondents.

Scientists are seen as the most trustworthy source of information about radioactive waste management in the European Union and they rank second in Switzerland. The Greeks, Estonians, Danes and Cypriots are particularly likely to trust information from scientists.

Information about radioactive waste from **international organisations working on peaceful uses of nuclear technology** has relatively strong trust in countries that have operational nuclear power plants. The Dutch, Danes and Swedes trust information from this source the most within the European Union. In Switzerland, this source is among the three most trustworthy ones when it comes to information about radioactive waste.

The Swedes are clearly the most inclined in the European Union to trust their **national agency in charge of dealing with radioactive waste** to give them information about ways of dealing with radioactive waste. Overall, information from these agencies gains most trust in countries that have operational nuclear power plants: all the countries where this trust level is above average have operational nuclear power plants, except for Denmark and Austria. Trust in this source of information is however clearly below the EU average in Switzerland (-6 percentage points) – also a country with operational nuclear power plants.

In Switzerland, **the national government** gains slightly more trust as a source of information about radioactive waste than in the European Union as a whole (24% vs. 21%). Of all the countries surveyed, Dutch, Swedish and Portuguese respondents are most likely to trust their national governments in this respect.

The Swiss' level of trust in the **nuclear industry** as a source of information concerning radioactive waste is virtually the same as within the European Union as a whole. Information given by this industry is mainly trusted by respondents in countries that have operational nuclear power plants.

Romanians, Bulgarians and Slovaks are the most inclined in the countries polled to trust the **media** to give them information about ways to manage radioactive waste. In the United Kingdom, Switzerland and Sweden the lowest proportions of citizens trust information from this source.

It moreover appears that over one in ten British, German, Swiss, Slovenian and Luxembourg respondents would not trust information about radioactive waste distributed by any of the above sources.

Q88 Which of the following, if any, would you trust to give you information about the way radioactive waste is managed in (OUR COUNTRY)? (MULTIPLE ANSWERS POSSIBLE)

	Non-governmental organisations (NGOs) concerned about the environment	Scientists	International organisations working on peaceful uses of nuclear technology	National agencies in charge of dealing with radioactive waste	The (NATIONALITY) Government	The nuclear industry	The federal offices	The media	The EU	None of these (SPONT.)	DK
CH	33%	32%	30%	24%	24%	13%	13%	7%	-	11%	4%
EU27	38%	40%	32%	30%	21%	12%	-	12%	17%	7%	6%
BE	38%	51%	38%	32%	28%	16%	-	17%	28%	5%	0%
BG	23%	36%	35%	27%	13%	13%	-	24%	16%	5%	11%
CZ	44%	46%	41%	46%	20%	20%	-	16%	22%	3%	2%
DK	51%	60%	53%	51%	34%	12%	-	11%	21%	3%	1%
DE	38%	38%	35%	41%	16%	7%	-	9%	13%	12%	3%
EE	23%	66%	41%	25%	23%	16%	-	12%	16%	3%	5%
EL	41%	68%	36%	26%	19%	7%	-	17%	16%	4%	0%
ES	29%	38%	18%	11%	26%	6%	-	21%	18%	6%	11%
FR	51%	53%	38%	29%	12%	15%	-	10%	15%	4%	2%
IE	32%	43%	30%	24%	25%	12%	-	17%	19%	6%	9%
IT	39%	24%	26%	29%	26%	13%	-	9%	20%	4%	8%
CY	44%	56%	35%	23%	30%	6%	-	21%	39%	1%	1%
LV	30%	43%	25%	23%	14%	6%	-	18%	10%	6%	2%
LT	22%	43%	37%	25%	13%	16%	-	14%	16%	5%	5%
LU	48%	30%	28%	22%	23%	12%	-	11%	16%	11%	3%
HU	48%	53%	42%	35%	11%	9%	-	9%	20%	7%	2%
MT	31%	33%	17%	18%	34%	5%	-	9%	27%	2%	6%
NL	40%	51%	54%	38%	40%	13%	-	9%	27%	6%	2%
AT	50%	41%	30%	36%	29%	7%	-	21%	14%	9%	4%
PL	34%	43%	33%	23%	12%	10%	-	9%	20%	7%	5%
PT	30%	30%	20%	17%	38%	12%	-	19%	18%	5%	9%
RO	37%	29%	29%	44%	31%	20%	-	26%	21%	3%	14%
SI	45%	38%	34%	27%	7%	7%	-	14%	13%	11%	1%
SK	51%	44%	47%	44%	23%	31%	-	23%	22%	3%	2%
FI	25%	46%	40%	41%	18%	18%	-	18%	10%	6%	2%
SE	53%	51%	52%	58%	38%	21%	-	8%	16%	4%	1%
UK	33%	32%	24%	19%	16%	16%	-	6%	8%	13%	7%

Country with operational NPP('s)

XX

Top-three highest score per item

XX: Highest score per country

Socio-demographic analysis

In socio-demographic terms, it appears that:

Men are slightly more likely than women to trust information about ways of handling radioactive waste when it comes from national agencies in charge of dealing with radioactive waste, their national government and the federal offices.

Young respondents (aged 15-24) more frequently trust scientists than those that represent older age groups. Information from national agencies in charge of dealing with radioactive waste is trusted more by those aged 55 years or older than by younger respondents. The federal offices are least trusted by 15-24 year-olds.








Those whose education ended at age 20 or later have more trust in information given by scientists, international organisations working on peaceful uses of nuclear waste, the national agencies in charge of dealing with radioactive waste and the federal offices than respondents who finished school earlier.

Information by non-governmental organisations is trusted more by respondents who consider themselves politically oriented towards the left than by those on the right of the political spectrum. The nuclear industry and national agencies in charge of dealing with radioactive waste gain more trust as sources of information among respondents who position themselves to the right of the political spectrum than among those politically to the left.

Trust in information distributed by national agencies in charge of dealing with radioactive waste, the national government, the nuclear industry and the federal offices is more widespread among respondents who are in favour of nuclear energy than among those who are opposed to nuclear energy. However, the opponents of this type of energy are more likely to trust information by non-governmental organisations.

Respondents who feel informed about radioactive waste more frequently trust information from national agencies in charge of dealing with radioactive waste, international organisations working on peaceful uses of nuclear technology, the federal offices and the nuclear industry than those who feel poorly informed.

QB8 Which of the following, if any, would you trust to give you information about the way radioactive waste is managed in (OUR COUNTRY)? (MULTIPLE ANSWERS POSSIBLE)

	Non-governmental organisations (NGOs) concerned about the environment	Scientists	International organisations working on peaceful uses of nuclear technology	National agencies in charge of dealing with radioactive waste	The (NATIONALITY) Government	The federal offices	The nuclear industry	The media	None of these (SPONT.)	DK
CH	33%	32%	30%	24%	24%	13%	13%	7%	11%	4%
 Sex										
Male	32%	33%	31%	28%	28%	16%	12%	7%	10%	4%
Female	35%	31%	28%	21%	21%	10%	15%	6%	11%	5%
 Age										
15-24	34%	37%	30%	19%	26%	9%	16%	7%	10%	4%
25-39	34%	34%	30%	17%	24%	14%	12%	7%	10%	3%
40-54	36%	33%	32%	27%	23%	12%	13%	7%	12%	4%
55 +	31%	27%	27%	30%	25%	14%	13%	6%	10%	5%
 Education (End of)										
15-	38%	31%	26%	25%	38%	5%	7%	14%	8%	5%
16-19	33%	27%	28%	24%	24%	13%	18%	6%	9%	5%
20+	35%	35%	33%	29%	22%	15%	10%	5%	11%	4%
Still Studying	31%	34%	28%	10%	25%	9%	12%	10%	13%	4%
 Left-Right scale										
Left	54%	39%	36%	24%	23%	13%	10%	7%	8%	0%
Centre	30%	36%	33%	24%	35%	12%	13%	7%	8%	2%
Right	23%	36%	32%	33%	20%	15%	22%	7%	8%	5%
 Subjective urbanisation										
Rural village	31%	30%	29%	31%	24%	14%	16%	8%	10%	5%
Small/ mid size town	34%	34%	26%	22%	19%	16%	14%	7%	14%	4%
Large town	40%	34%	37%	12%	31%	6%	6%	3%	8%	2%
 Level of information										
Informed	33%	32%	33%	33%	25%	15%	16%	7%	7%	3%
Not informed	34%	32%	28%	18%	23%	11%	12%	6%	13%	5%
 Support for nuclear energy production										
In favour	25%	34%	33%	36%	28%	19%	18%	7%	6%	3%
Opposed	42%	32%	30%	16%	20%	9%	11%	6%	13%	4%

CONCLUSION

This study examines Swiss citizens' attitudes and their knowledge levels regarding radioactive waste and the ways of (safely) managing it. The study most notably shows that **their attitudes towards nuclear energy production are rather sceptical and that they feel poorly informed about radioactive waste.**

It appears that **the safety aspect of managing radioactive waste is crucial for opponents of nuclear energy.** 37% of these respondents would change their opinion about nuclear energy if there was a permanent and safe solution for managing radioactive waste. The majority of opponents would however remain opposed to this type of energy or think that there is no solution for managing radioactive waste.

Swiss citizens, however, widely recognise some of the beneficial effects of nuclear energy; the vast majority agrees that nuclear power usage is advantageous because it allows European countries to diversify their energy sources (66%), it emits less greenhouse gases than, for instance, oil and coal (65%) and it leads to a decreased dependence on oil (57%).

There is, moreover, an overwhelming consensus, that a solution for managing high-level radioactive waste should be found now, rather than leaving it for future generations. Deep underground disposal is seen as the most appropriate solution for long-term management of high level radioactive waste by 46% of Swiss respondents. **A wide majority however believes that there is no safe way of getting rid of high level radioactive waste (77%).**

Next to the advantages of nuclear power, **Swiss citizens also recognise some of the risks related to the waste that this type of energy produces.** There are primarily two things that worry them: the possible effects on the environment and on health and the risk of radioactive leaks. The risk that accidents or terrorist attacks on nuclear power stations could take place is, moreover, clearly seen as a *disadvantage* of nuclear energy (by 77%). Over seven in ten citizens (72%) could not imagine living near a nuclear power plant.

The majority of citizens, moreover, have a "pro-active" attitude when it concerns decision-making in the field of radioactive waste. In the event of a disposal site for radioactive waste being constructed in their immediate locality, Swiss citizens **clearly want to be directly informed and given an opportunity to be involved in the decision-making process.**

When it concerns citizens' actual knowledge about radioactive waste, it turns out that there are misconceptions that become strong beliefs among citizens; **they, most importantly, clearly have the belief that all radioactive waste is very dangerous.** Their knowledge about ways to manage radioactive waste, overall, appears to be rather limited.

Furthermore, information about the way radioactive waste is managed is most trusted when it comes from independent sources, like environmental non-governmental organisations and scientist.

When looking at the results in the context of other European countries, the Swiss poll is broadly in line with opinions of the average EU citizen.

This study however reveals that opposition to nuclear energy is stronger in Switzerland than within the European Union as a whole (52% vs. 45%). Swiss citizens do, however, **feel much better informed about radioactive waste and appear to be more knowledgeable about the topic** than their fellow citizens at the EU level.

Among the countries *that have nuclear power plants*, Switzerland generally takes a rather moderate position – both when it concerns their general attitudes towards radioactive waste (management) and their knowledge levels.

From a socio-demographic point of view, we see that the highest self-perceived information levels and the highest knowledge levels can be found among men, those with a longer education and those who support nuclear energy. It can also be observed that inhabitants of rural areas or the German speaking parts of Switzerland appear to be particularly positive in their opinions regarding radioactive waste.