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*Science and Society*

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European Commission

## **EUROBAROMETER**

# **Energy: Issues, Options and Technologies Science and Society**

a report produced by

The European Opinion  
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for

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Research

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# Introduction

The survey analysed in this report was conducted in the fifteen Member States between 23 February and 4 April 2002 as part of Eurobarometer 57.0, at the request of the European Commission's Directorate-General for Research, and was organised by the Public Opinion Analysis Unit of the Press and Communication Service.

The report analyses the attitudes of the citizens of the European Union to energy and energy technology issues. It is divided into several chapters covering the following issues:

- general perceptions of energy in the European Union
- the structure of and trends in energy use
- sources of information on energy
- perceptions of energy in the future
- priorities in the energy sector
- individual behaviour and energy policies

The questions reproduced in this report were put to a representative sample of the national population aged 15 and over in each Member State. In total, 16,032 people were questioned, i.e. an average of approximately 1000 persons per Member State, except in Germany (2000, composed of 1000 in the new *Länder* and 1000 in the old *Länder*), the United Kingdom (1300, composed of 1000 in Great Britain and 300 in Northern Ireland) and Luxembourg (600). The figures given for the European Union as a whole are a weighted average of the national figures. For each Member State, the weighting used is the ratio of the national population aged 15 and over to the corresponding Community population.

The technical specifications annexed give details of the methodology, such as survey dates, selection of the sample, population covered, weighting, confidence limits, etc. Some of the terms used in these technical specifications should perhaps be explained: marginal weighting is weighting based on a single variable, such as age **or** sex, while cross-weighting is based on cross-referencing two variables, such as age **and** sex. The NUTS regions are a classification of the regions of the European Union based on a three-level hierarchical structure. Eurobarometer is weighted on the basis of the NUTS 2 regions.

It should also be noted that the percentages shown in the graphs in the report and in the tables annexed to the report may add up to more than 100% in cases where questions may have more than one answer. Similarly, some totals may be approximate to, but not exactly, 100% (e.g. 99% or 101%), due to rounding of figures.

The following abbreviations are used for the Member States:

B	Belgium
DK	Denmark
WD	old <i>Länder</i>
D	Germany
OD	new <i>Länder</i>
GR	Greece
E	Spain
F	France
IRL	Ireland
I	Italy
L	Luxembourg
NL	Netherlands
A	Austria
P	Portugal
FIN	Finland
S	Sweden
UK	United Kingdom

The distinction between the old and new German *Länder*, introduced when East Germany was first included in the countries covered by Eurobarometer in autumn 1990, has been retained in spite of Germany's re-unification, because it reflects an often clear division of opinion between the two territories.

The abbreviation used for the European Union as a whole is 'EU 15'. The abbreviation 'DKn' stands for 'Don't know'.

Finally, it should be noted that the order in which the questions are analysed in this report does not necessarily correspond to the order in which they were asked. In the analyses, it was decided to follow a logical sequence, subject by subject.

# **SUMMARIES**



# Summary of main findings

## Public opinion survey on energy: issues, options and technologies

### Science and society

The report on 'Energy: Issues, Options and Technologies' has been produced on the basis of Eurobarometer 57.0, for which about 16,000 citizens of the European Union (aged 15 and over) were interviewed. **The report was commissioned by the Directorate-General for Research – Unit J1: Strategic and policy aspects of energy research.**

This survey has been carried out under the auspices of the 'Science and Society' activity of the Directorate-General for Research. The aim was to obtain a clearer picture of public opinion on energy-related issues, including their scientific, technological aspects and prospects for the future: hence the number of questions concerning perceptions of the future.

The report was managed and organised by the European Commission's Directorate-General for Press and Communication (Public Opinion Sector). For the production of Eurobarometer 57.0, **interviews were held in the fifteen Member States between 23 February and 4 April 2002** (see technical specifications).

The findings of this study are presented under the following four main headings:

### 1. Energy in the European Union: general perceptions

- ▶ Overall, the citizens of the European Union (EU) have a rather vague idea of the overall structure of energy consumption and underestimate in particular the amount of energy used for transport. People in some northern European countries have ideas about the structure of energy use which are a little closer to reality; this is true of Denmark and the Netherlands.
- ▶ Nearly nine out of ten respondents consider global warming and climate change to be serious problems requiring immediate action.
- ▶ The general perception of the utilisation of the different energy sources in the European Union comes fairly close to the actual situation, but the lack of information on the specific situation in each country is patently obvious.
- ▶ Level of education and social background play a decisive role in influencing awareness of, and response to, environmental issues.

## Increasing energy consumption acknowledged by EU citizens:

Almost nine out of ten EU citizens (86%) think, correctly, that energy use is increasing in their own country. They also believe energy use to be increasing in the European Union as a whole (79%).

The idea of taking low cost measures to save energy is accepted by 80% of respondents. Almost all (85%) recognise that transport is dependent on the use of petroleum-based fuels.

## EU citizens' knowledge of the structure of energy use in their own country <sup>(1)</sup>

On average, the answers given by respondents as regards the extent to which different energy sources are used more or less correspond to the actual situation, except in the case of nuclear energy, which 32% of those polled consider to be 'much' used, when in fact it accounts for only 10% <sup>(2)</sup> of the total. Within each Member State, there are practically no variations in these perceptions due to level of education or social status of those questioned.

## Attitudes to electricity consumption in the home

About two-thirds of respondents (61%) consider it important to know how much electricity is used in their homes. 68% of those questioned feel they know roughly how much electricity was used in their homes (in the last year).

## EU citizens want to see immediate action in response to global warming and climate change

Nearly nine out of ten respondents (88%) consider global warming and climate change to be serious problems requiring immediate action. 75% of respondents are of the opinion that fossil fuels (coal, oil, gas, etc.) contribute significantly to climate change. However, almost half of respondents (47%) consider that nuclear energy contributes significantly to climate change (27% being of the opposite opinion). Nearly three-quarters of those questioned (74%) consider transport to be largely responsible for climate change.

## 2. Information

- ▶ Europeans would most of all like to have information on concrete issues (energy-saving) and on alternative forms of energy.
- ▶ 85% of those questioned admit that they are not aware of EU energy-related research and development.

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(1) The comparison made here is between respondents' opinions and the actual situation as described in the statistics provided by the Directorate-General for Energy and Transport; cf.

[http://europa.eu.int/comm/energy\\_transport/etif/list\\_of\\_tables.jhtml#ENERGY](http://europa.eu.int/comm/energy_transport/etif/list_of_tables.jhtml#ENERGY)

(2) This difference is partly due to the relative weight in the average considered here of the answers given by French citizens.

### **Most sought-after information:**

The most frequent answers to the question (with multiple answers possible) ‘Which of the following would you like to know more about?’ are, firstly, those of a practical nature: how to save energy at home (53%), followed by the more complex issue of how to use new energy sources at home (42%). Next, in descending order, come the alternatives to using petrol or diesel (39%), safety of nuclear power stations (36%), advances in the field of new forms of energy (27%), EU activities in energy-related research and development (23%) and, lastly, how to save energy at work (13%).

### **EU energy-related research and development activities:**

In the European Union as a whole, 85% of those questioned admit to not being aware of EU energy-related research and development activities. The only areas about which they claim to know something (or, more likely, in which they are interested) are renewable energy sources (9%) and cleaner means of transport (7%). There is scarcely any variation in these percentages between the Member States, with the notable exception of the Netherlands.

The main sources of information on energy issues and related technologies are television (80%), newspapers (47%) and radio (27%). The Internet was cited by only 10% of those interviewed.

## **3. Perceptions of the future**

- ▶ The European Union’s dependence on energy imports is perceived as being a real problem, to which Europeans wish to see answers found by means both of research into new energy sources and of energy-saving policies.
- ▶ Protection of the environment and keeping prices low for consumers are the top priorities for EU citizens as far as energy policy is concerned.
- ▶ Renewable sources of energy are perceived by a majority of those polled as being the least expensive, the best for the environment, and to a lesser extent, the most efficient.
- ▶ The view which Europeans have of energy options 20 and 50 years from now is clearly influenced by their expressed (preferences for renewable energy sources, although the majority of those questioned consider that it will still be necessary to use a variety of energy sources.
- ▶ Analysis of the European public’s attitudes to producing energy from nuclear fusion clearly reveals that this issue, despite the explanation given in the introduction to one of the questions, is still difficult for the public to grasp, although a very big majority of the public in the Community (59% as opposed to 6%) believes that ‘much more research’ is needed to confirm its potential.
- ▶ As regards safety, there is a huge demand for action on nuclear power stations. Next come food safety, safety at work and the safety of industrial sites. Paradoxically, the public is demanding more public policy action on nuclear power (which, so far, has cost fewest lives and caused least harm to

people and material damage generally) whilst calling for little action to deal with road accidents (which cause more damage).

► As far as energy-related research is concerned, EU citizens expect to see significant consequences for environmental protection and want more action with regard to renewable energy sources and cleaner means of transport.

### **Government priorities in respect of energy:**

Those questioned were asked to choose from three priorities for their national government in respect of energy (two answers were possible). The most frequent choice was protection of the environment and public health (72%), with low prices for consumers in second place (62%), and uninterrupted energy supplies last (30%).

There is, however, considerable variation across the European Union in the answers given.

### **Future sources of energy:**

Europeans were asked to say which energy sources would be best in fifty years time on the basis of three criteria: price, efficiency, and protection of the environment.

**Price:** those questioned believe it will be renewable energy sources. The level of education tends to increase the percentages for renewable energy sources and nuclear fusion.

**Efficiency:** (greatest amount of useful energy): EU citizens are less certain, but opt again, albeit to a lesser degree, for renewable energy sources (27%). This time, nuclear fusion is in second place (22%), followed by natural gas (20%), hydroelectric power (17%) and nuclear fission (17%).

**Protection of the environment:** the vast majority of respondents opt for new renewable energy sources (solar etc.: 67%) or traditional renewable energy sources (hydroelectric, etc.: 38%), natural gas coming in third position (10%).

### **Moving towards a mix of energy sources?**

A very big majority of those questioned think that, in twenty years time, EU energy needs will be satisfied by 'a mix of different energy sources' (81%) rather than by 'one single energy source' (5%).

### **The three top safety priorities requiring more action by EU governments:**

With very few exceptions, nuclear safety is the predominant concern in Europe. Conversely, road accidents are, relatively speaking, considered to be the least important issue, with a score of 19% for the European Union as a whole.

## Energy-related research:

With regard to energy-related research, those questioned want to see the European Union do more in two areas: renewable energy sources (69%) and cleaner means of transport (51%). These are followed by nuclear fusion (21%), with conventional energy sources lagging far behind.

New energy sources and clean means of transport are chosen most often in Sweden, the Netherlands and Denmark, but there is a very broad consensus on them throughout Europe.

The main reason for continuing nuclear research is increased power station safety (48%), followed by improved waste disposal (43%).

## 4. Behaviour and policies

- ▶ A majority of EU citizens consider that it is the behaviour of industry which could have the greatest impact on energy saving. EU citizens also want to see stricter regulations and checks for industry.
- ▶ As regards energy-saving measures, the public gives preference to measures which do not impose obligations on individuals, but a quarter of those questioned would accept stricter regulations for cars or the insulation of buildings.
- ▶ Out of eight specific things they could do to save energy, respondents have done an average of two, although the average is markedly higher in the northern Member States.
- ▶ What individuals do to save energy varies from country to country and according to social or cultural background. Only a minority of Europeans say that they do nothing to save energy, but most of the things Europeans do to save energy are designed to curb consumption in the home (heating, lighting, insulation). About two-thirds of Europeans say they would like to do more in future, again focusing more on domestic uses than on transport.
- ▶ The survey thus reveals, or confirms, the emergence of a market for 'green' energy amongst consumers, especially in northern Europe, as just over a third of those interviewed would agree to pay more for renewable energy. The same proportion of respondents say they pay attention, when buying new equipment or appliances, to the amount of energy they use.
- ▶ A majority of Europeans wish to be consulted on plans or construction projects in the energy sector, in particular where 'local' plans are concerned.

# Synthèse des Principaux Résultats

## Enquête d'opinion publique sur: énergie: questions en débat, options et technologies

### Science et société

Réalisé sur la base de l'Eurobaromètre N° 57.0 impliquant des interviews auprès d'environ 16.000 citoyens (de 15 ans et plus) de l'Union européenne, **le Rapport portant sur «Energie: questions en débat, options et technologies» a été commandité par la Direction Générale «Recherche», Unité J1: «Aspects stratégiques et politiques de la recherche énergie».**

Cette enquête s'inscrit dans la démarche «science et société» de la direction générale de la recherche. L'objectif était de mieux connaître l'état de l'opinion publique sur les questions touchant à l'énergie, y compris dans ses dimensions scientifiques, technologies et «prospectives», d'où la fréquence des questions relatives à la perception de l'avenir.

Le rapport ci-joint a été géré et organisé par la Direction Générale Presse et Communication (secteur Opinion Publique) de la Commission européenne. Pour la réalisation de l'Eurobaromètre 57.0, **les interviews se sont déroulées dans les quinze Etats membres entre le 23 février et le 4 avril 2002** (voir les spécifications techniques de l'étude).

Les résultats de cette étude sont articulés autour des quatre principaux axes d'enquête suivants:

### 1. L'énergie dans l'Union européenne: perceptions générales

- ▶ Dans l'ensemble, les citoyens de l'Union Européenne (UE) ont une vision assez approximative de la structure globale de la dépense énergétique et sous-estiment en particulier la dépense relative aux transports. Certains pays du nord de l'Europe ont une vision un peu plus conforme à la réalité de la structure des dépenses d'énergie: c'est le cas du Danemark et des Pays-Bas.
- ▶ Pour près de neuf répondants sur dix, le réchauffement de la planète et les changements climatiques sont de sérieux problèmes face auxquels il faut agir immédiatement.
- ▶ La perception générale de l'utilisation des différentes sources d'énergie dans l'UE est assez proche du réel mais le manque d'information sur les situations concrètes de chaque pays est patent.
- ▶ Le niveau d'études, comme le niveau social, interviennent de façon déterminante dans la prise en compte de la problématique environnementale.

## Une croissance de la consommation d'énergie reconnue par les citoyens de l'UE:

Près de neuf citoyens de l'Union européenne sur dix (86%) estiment à juste titre que la consommation d'énergie est «en croissance» dans leur propre pays. On estime aussi (79% des réponses) que la consommation d'énergie va croissant au sein de l'Union européenne.

L'idée de réaliser pour un faible coût des économies d'énergie convainc 80 % des répondants. Quant à la dépendance du secteur des transports envers l'utilisation de carburant à base de pétrole, elle est quasi-unanimement reconnue: 85 %.

## Une représentation correcte de la structure de la consommation d'énergie de leur propre pays par les citoyens de l'Union européenne (1):

En considérant les réponses moyennes des répondants, les ordres de grandeur d'utilisation réelle des différentes sources d'énergie sont à peu près respectées. Un décalage avec le réel intervient en revanche pour l'énergie nucléaire: 32 % des personnes sondées estiment que cette source est «beaucoup» utilisée quand elle ne représente en fait que 10 % (2). Au sein des différents pays, les perceptions ne varient pratiquement pas, quel que soit le niveau d'études ou le statut social des personnes interrogées.

## Les attitudes à l'égard de la consommation d'électricité domestique.

Pour deux tiers environ des répondants (61 %) «il est important de savoir combien mon foyer consomme d'électricité». 68% des personnes interrogées ont le sentiment de savoir à peu près «combien d'électricité a été dépensée par le foyer (l'année passée)».

## Une demande d'action rapide exigée par les citoyens de l'UE face au réchauffement de la planète et aux changements climatiques:

Pour près de neuf répondants sur dix (88%), le réchauffement de la planète et les changements climatiques sont de sérieux problèmes face auxquels il faut agir immédiatement. Pour 75% des répondants, l'utilisation de combustibles fossiles (charbon, pétrole, gaz, etc.) contribue d'ailleurs de façon significative aux dérèglements climatiques. Pourtant, pour près d'un répondant sur deux (47%), l'énergie nucléaire contribue de façon significative aux changements climatiques (27% sont d'un avis opposé). Pour près des trois quarts des personnes interrogées (74%), les transports sont largement responsables des modifications climatiques.

## 2. L'information

► Les Européens souhaitent avant tout des informations sur des questions concrètes (les économies d'énergie) et sur les énergies alternatives.

(1) Sont comparées ici les opinions des répondants à la réalité décrite dans les statistiques fournies par la Direction Générale Energie et Transports cf: [http://europa.eu.int/comm/energy\\_transport/etif/list\\_of\\_tables.html#ENERGY](http://europa.eu.int/comm/energy_transport/etif/list_of_tables.html#ENERGY)

(2) Ce décalage tient pour partie au poids des réponses des Français dans la moyenne qui sont considérées ici.

- ▶ 85% des personnes interrogées admettent ne pas «être au courant des activités de recherche et de développement de l'Union européenne dans le domaine de l'énergie».

### **Les sujets d'information les plus mobilisateurs:**

A la question (à choix multiples) «Sur lesquels des sujets suivants voudriez-vous en savoir plus?», les préférences vont d'abord vers une question pratique: les possibilités d'économies d'énergie à la maison (53 % des choix), puis vers un enjeu plus complexe, l'usage d'énergies nouvelles, là encore dans le cadre domestique (42 %). Viennent ensuite «les alternatives à l'utilisation d'essence ou de diesel» (39 %), puis «la sûreté des installations nucléaires» (36 %), «les avancées dans le domaine des énergies nouvelles» (27 %), «les activités de l'UE en matière de recherche dans le secteur de l'énergie» (23 %) et en dernier lieu, «les moyens d'économiser l'énergie dans le cadre du travail» (13 %).

### **Les activités de recherche et de développement de l'UE dans le domaine de l'énergie:**

Dans l'ensemble de l'Union européenne, 85% des personnes interrogées admettent ne pas «être au courant des activités de recherche et de développement de l'Union européenne dans le domaine de l'énergie». Les seuls domaines de recherche pour lesquels les personnes interrogées déclarent un certain degré de connaissance (ou plus vraisemblablement d'intérêt) sont «les énergies renouvelables» (9 %) et «les moyens de transports plus propres» (7%). Ces pourcentages ne varient guère au sein des différents pays membres à l'exception notable des Pays-Bas.

**Les principales sources d'information sur les questions et les technologies dans le domaine de l'énergie** sont en premier lieu la télévision (80 %) puis les journaux (47 %) et en troisième lieu «la radio» (27 %). L'information recueillie par internet ne concerne que 10 % des personnes sondées.

## **3. Les perceptions de l'avenir**

- ▶ La dépendance énergétique de l'Union européenne est perçue comme un réel problème auquel le public européen souhaite répondre à la fois par une recherche de nouvelles sources d'énergie et par des politiques d'économie d'énergie.
- ▶ La protection de l'environnement et le maintien de bas prix pour les consommateurs sont les premières priorités des citoyens de l'UE en matière de politiques de l'énergie.
- ▶ Les énergies renouvelables sont perçues par une majorité de personnes sondées comme les plus avantageuses, les plus respectueuses de l'environnement, et dans une moindre mesure, les plus efficaces.
- ▶ La vision qu'ont les Européens des options énergétiques futures à 20 ans et à 50 ans est clairement influencée par des préférences spontanées en faveur des énergies renouvelables, même si la majorité des personnes interrogées estime cependant qu'il faudra continuer à recourir à différentes sources d'énergie.



► L'analyse des attitudes du public Européen à l'égard des possibilités de l'énergie produite par la fusion nucléaire fait clairement apparaître que cet enjeu, malgré l'explication fournie dans l'intitulé d'une des questions demeure difficilement compréhensible pour un public non averti, même si une très large majorité du public communautaire (59 % contre 6 %) est convaincue que «beaucoup plus de recherche» serait nécessaire pour confirmer le potentiel de l'énergie de fusion.

► En matière de sécurité, il y a une très forte demande concernant les centrales nucléaires. La sécurité alimentaire, la sécurité au travail et enfin celle des sites industriels viennent ensuite. On retrouve là le paradoxe selon lequel le public réclame plus de politiques publiques actives pour le nucléaire (qui jusqu'ici, est le moins coûteux en vies et en dégâts humains et matériels à la collectivité) et en réclame peu pour les accidents de la route (qui occasionnent le plus de dommages).

► En matière de recherche dans le domaine de l'énergie, les citoyens de l'Union s'attendent à des retombées importantes en termes de protection de l'environnement et demandent que des efforts soient développés dans le secteur des énergies renouvelables et des transports moins polluants.

### **Les priorités des gouvernements dans le domaine de l'énergie:**

Trois priorités gouvernementales en matière d'énergie étaient offertes au choix des personnes interrogées (deux réponses étant possibles): la réponse la plus fréquente concerne la protection de l'environnement et de la santé publique (72 %), puis «les bas prix pour les consommateurs» (62 %) et enfin les approvisionnements ininterrompus en énergie» (30 %).

Cette structure de réponses est cependant assez variable à travers l'Union européenne.

### **Les futures sources d'énergie:**

On a demandé aux Européens de juger quelles pourraient être, à échéance de cinquante ans, les meilleures sources d'énergie selon trois critères successifs: celui du prix, celui de l'efficacité et enfin celui de la protection de l'environnement.

Critère «prix»: les énergies dites renouvelables emportent la conviction des personnes interrogées Le facteur culturel tend à accroître les pourcentages de choix en faveur des énergies renouvelables et de la fusion nucléaire.

Critère «efficacité» (maximum d'énergie utile): les citoyens de l'Union sont plus hésitants mais ils choisissent à nouveau, quoique dans une moindre proportion, les énergies renouvelables (27 %). Cette fois, la fusion nucléaire vient au second rang (22 %), suivie du gaz naturel (20 %), de l'énergie hydroélectrique (17 %) et de la fission nucléaire (17 %).

Critère «protection de l'environnement»: les répondants choisissent dans leur très grande majorité les énergies renouvelables nouvelles (solaire etc.: 67 %) ou classiques (hydroélectrique, etc.: 38 %), le gaz naturel venant en troisième position avec 10 % de choix.

## Vers une combinaison de sources d'énergies?

Une très large majorité des personnes sondées prévoit que dans vingt ans les besoins en énergie de l'Union seront satisfaits par «une combinaison de sources d'énergies différentes» (81 %) plutôt que «par une seule source d'énergie» (5 %).

Les trois priorités en matière de sécurité pour lesquelles les gouvernements de l'Union européenne devraient être les plus actifs:

La sécurité dans le domaine nucléaire domine tout en Europe à de très rares exceptions près. A l'inverse, l'enjeu des accidents de la route est, relativement, considéré comme le moins important: 19 % dans l'ensemble de l'Union.

### La recherche dans le domaine de l'énergie:

En matière de recherche en énergie, les personnes interrogées souhaitent que les efforts de l'Union européenne se développent dans deux domaines: celui des énergies renouvelables (69 %) et celui des modes de transports moins polluants (51 %). Viennent ensuite la recherche dans le domaine de la fusion nucléaire (21 %). La recherche dans le domaine des énergies classiques vient loin derrière.

Les recherches dans le domaine des énergies nouvelles et des transports non polluants même s'ils sont plus souvent choisis en Suède, aux Pays-Bas et au Danemark suscitent un très large consensus en Europe.

La principale justification d'une poursuite des recherches dans le domaine de l'énergie nucléaire réside dans l'effort pour accroître la sécurité des centrales (48 %), puis dans l'élimination des déchets (43 %).

## 4. Les comportements, les politiques

- ▶ Pour une majorité de citoyens communautaires, ce sont les comportements des «industriels» qui pourraient avoir le plus d'impact en matière d'économies d'énergie. Une réglementation et des contrôles plus stricts de l'industrie sont souhaités.
- ▶ Parmi les mesures destinées à économiser l'énergie, le public soutient d'abord les actions qui n'imposent pas d'obligations aux particuliers mais un quart accepterait des réglementations plus strictes pour l'automobile ou l'isolation des bâtiments.
- ▶ Parmi huit actions concrètes destinées à économiser l'énergie, les répondants déclarent en avoir accompli deux en moyenne, cette moyenne étant nettement plus élevée dans les pays du nord de l'Europe.
- ▶ L'action des individus en matière d'économies d'énergie est contrastée selon les pays et les groupes sociaux ou culturels. Une minorité d'Européens déclare «ne rien faire pour économiser l'énergie» mais l'essentiel des actions d'économies déclarées porte sur la maîtrise de la consommation

au foyer (chauffage, éclairage, isolation). La volonté de faire plus à l'avenir concerne environ deux tiers des Européens mais elle privilégie davantage les consommations domestiques que le transport.

► L'enquête révèle donc ou confirme l'émergence d'un marché de consommateurs d'énergie «verte» surtout en Europe du Nord, dans la mesure où un peu plus du tiers des personnes interrogées accepteraient de payer plus cher une énergie «renouvelable». La même proportion déclare faire attention, lors d'un acte d'achat d'un appareil, à la quantité d'énergie dépensée par l'appareil en question.

► Une majorité d'Européens souhaitent être consultés à propos des projets ou réalisations dans le domaine de l'énergie, notamment lorsqu'il s'agit de projets «locaux».

# Zusammenfassung der wichtigsten Ergebnisse

## Meinungsumfrage Energie: Themen, Optionen, Technologien

### Wissenschaft und Gesellschaft

Auf der Grundlage des Eurobarometers Nr. 57.0 mit einer Befragung von etwa 16.000 Bürgern (ab 15 Jahren) der Europäischen Union wurde der Bericht „**Energie: Themen, Optionen, Technologien**“ von der Generaldirektion „Forschung“, Referat J1: „Strategische und politische Aspekte der Energieforschung“ in Auftrag gegeben.

Die Befragung ist Teil des Konzepts „Wissenschaft und Gesellschaft“ der GD Forschung. Ziel ist es, genauere Informationen über die öffentliche Meinung zu Energiefragen zu erhalten, einschließlich ihrer wissenschaftlichen, technologischen und „prospektiven“ Dimensionen — daher die Häufigkeit von Fragen zur Zukunftswahrnehmung.

Der Bericht wurde von der Generaldirektion Presse und Kommunikation der Europäischen Kommission (Bereich Meinungsumfragen) verwaltet und organisiert. Für das Eurobarometer Nr. 57.0 wurde die Befragung in den fünfzehn Mitgliedstaaten zwischen dem 23. Februar und dem 4. April 2002 durchgeführt (vgl. technische Angaben zur Studie).

Die Ergebnisse dieser Studie betreffen die folgenden vier Hauptbereiche der Umfrage:

#### 1. Die Energie in der Europäischen Union: Allgemeine Ansichten

- ▶ Insgesamt haben die Bürger der Europäischen Union (EU) eine recht ungenaue Vorstellung von der Gesamtstruktur des Energieverbrauchs und unterschätzen insbesondere den Energieverbrauch im Verkehr. In einigen nordeuropäischen Ländern, nämlich in Dänemark und in den Niederlanden, haben die Bürger ein etwas realistischeres Bild vom Energieverbrauch.
- ▶ Für nahezu neun von zehn Befragten sind Erderwärmung und Klimaänderung ernste Probleme, die sofortiges Handeln verlangen.
- ▶ Die allgemeine Wahrnehmung der Nutzung der verschiedenen Energiequellen in der EU ist recht realitätsnah, aber der Mangel an Informationen über die konkrete Lage in den einzelnen Ländern ist offenkundig.
- ▶ Bildungsstand und soziale Schicht bestimmen die Wahrnehmung der Umweltproblematik entscheidend.

## Die Bürger der EU sind sich des steigenden Energieverbrauchs bewusst:

Fast neun von zehn Bürgern der Europäischen Union (86%) glauben zu Recht, dass der Energieverbrauch in ihrem Land „steigt“. 79% der Befragten glauben außerdem, dass der Energieverbrauch in der Europäischen Union steigt.

Die Idee kostengünstiger Energieeinsparungen überzeugt 80 % der Befragten. Die Abhängigkeit des Verkehrs vom Erdöl als wichtigstem Treibstoff wird fast einhellig anerkannt, nämlich von 85 %.

## Korrekte Einschätzung der Struktur des Energieverbrauchs im eigenen Land durch die Bürger der Europäischen Union (1):

Im Durchschnitt wird von den Befragten die Nutzung der verschiedenen Energieträger annähernd korrekt eingeschätzt. Eine Diskrepanz gegenüber der Realität ist jedoch bei der Kernenergie zu beobachten: 32 % der Befragten glauben, dass diese Energiequelle „stark“ genutzt wird, während sie in Wirklichkeit nur 10 % (2) ausmacht. Innerhalb der einzelnen Länder gibt es praktisch keine Abweichungen in den Einschätzungen, unabhängig von Bildungsstand und sozialer Schicht der Befragten.

## Einstellungen zum Elektrizitätsverbrauch in den Privathaushalten.

Für etwa zwei Drittel der Befragten (61 %) ist es „wichtig zu wissen, wie viel Strom in meinem Haushalt verbraucht wird“. 68% der Befragten gaben an, ungefähr zu wissen, „wie viel Strom (im vergangenen Jahr) zu Hause verbraucht wurde“.

## Forderung der EU-Bürger nach raschem Handeln im Hinblick auf Erderwärmung und Klimaänderung:

Für fast neun von zehn Befragten (88%) sind Erderwärmung und Klimaänderung ernste Probleme, die umgehendes Handeln verlangen. 75% der Befragten sind der Auffassung, dass der Einsatz fossiler Brennstoffe (Kohle, Erdöl, Gas usw.) erheblich zu den Klimastörungen beiträgt. Fast einer von zwei Befragten (47%) glaubt jedoch, dass die Kernenergie wesentlich zur Klimaänderung beiträgt (27% sind anderer Auffassung). Etwa drei Viertel der Befragten (74%) machen vor allem den Verkehr für die Klimaänderung verantwortlich.

## 2. Zugang zu Informationen

► Die Europäer wünschen vor allem Informationen zu konkreten Fragen (Energieeinsparungen) und zu den alternativen Energien.

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(1) Verglichen werden hier die Antworten der Befragten mit den Statistiken der Generaldirektion Energie und Verkehr, abrufbar unter folgender Adresse: [http://europa.eu.int/comm/energy\\_transport/etif/list\\_of\\_tables.html#ENERGY](http://europa.eu.int/comm/energy_transport/etif/list_of_tables.html#ENERGY)  
(2) Diese Diskrepanz ist zum Teil auf die hier berücksichtigten Antworten der französischen Bürger zurückzuführen.

- ▶ 85% der Befragten erklärten, nicht „über Forschung und Entwicklung der Europäischen Union im Bereich Energie auf dem Laufenden zu sein“.

### Die am meisten gefragten Informationen:

Die Antworten auf die Frage (Mehrfachnennung möglich) „Zu welchem der folgenden Themen würden Sie gerne mehr wissen?“ zeigen vor allem praktischen Informationsbedarf: Möglichkeiten der Energieeinsparung zu Hause (53 % der Antworten), aber auch Interesse an komplexeren Sachverhalten, dem Einsatz erneuerbarer Energien, und zwar auch zu Hause (42 %). Darauf folgen „Alternativen zu Benzin und Diesel“ (39 %), „Sicherheit kerntechnischer Anlagen“ (36 %), „Fort-schritte bei den neuen Energien“ (27 %), „Forschungstätigkeiten der EU im Energiebereich“ (23 %) und schließlich „Möglichkeiten der Energieeinsparung am Arbeitsplatz“ (13 %).

### Forschungs- und Entwicklungstätigkeiten der EU im Energiebereich:

In der ganzen Europäischen Union geben 85% der Befragten zu, nicht «über Forschung und Entwicklung der Europäischen Union im Bereich Energie auf dem Laufenden zu sein». Die beiden einzigen Forschungsbereiche, für die von den Befragten gewisse Kenntnisse (oder vielmehr Interesse) angegeben werden, sind «die erneuerbaren Energien» (9 %) und «umweltfreundlichere Verkehrsmittel» (7%). Diese Prozentzahlen schwanken in den einzelnen Ländern kaum - mit Ausnahme der Niederlande.

Die wichtigsten Informationsquellen für Fragen und Technologien im Energiebereich sind vor allem das Fernsehen (80 %), dann die Zeitungen (47 %) und an dritter Stelle «das Radio» (27 %). Informationen aus dem Internet werden nur von 10 % der Befragten genannt.

## 3. Zukunftswahrnehmungen

- ▶ Die Energieabhängigkeit der Europäischen Union wird als echtes Problem wahrgenommen, zu dem die europäische Öffentlichkeit Lösungen durch die Forschung im Bereich neuer Energiequellen und durch Energiesparkonzepte erwartet.
- ▶ Der Umweltschutz und die Erhaltung niedriger Verbraucherpreise haben für die EU-Bürger in der Energiepolitik Priorität.
- ▶ Die erneuerbaren Energien werden von der Mehrheit der Befragten als die günstigste, umweltfreundlichste und – wenn auch in geringerem Maße – effizienteste Option betrachtet.
- ▶ Die Vorstellung der Europäer von den energiepolitischen Optionen in 20 und in 50 Jahren wird deutlich beeinflusst durch eine spontane Bevorzugung der erneuerbaren Energien, wobei allerdings die meisten Befragten glauben, dass auch weiterhin andere Energiequellen genutzt werden müssen.
- ▶ Bei der Einstellung der europäischen Öffentlichkeit zu den Möglichkeiten der Energieerzeugung durch Kernfusion zeigt sich, dass diese Problematik trotz der Erläuterungen im Titel einer der Fragen

für das Laienpublikum schwer verständlich bleibt, allerdings ist eine breite Mehrheit der Öffentlichkeit in der Gemeinschaft (59 % gegenüber 6 %) davon überzeugt, dass „noch viel mehr Forschung“ notwendig wäre, um Gewissheit über die Möglichkeiten der Fusionsenergie zu gewinnen.

► Die Sicherheit der Kernkraftwerke ist ein sehr wichtiges Anliegen. Erst dann folgen Lebensmittelsicherheit, Sicherheit am Arbeitsplatz und schließlich die Sicherheit industrieller Anlagen. Hier lässt sich paradoxerweise feststellen, dass die Öffentlichkeit mehr aktive Maßnahmen im Bereich der Kerntechnik fordert (die bisher am wenigsten Menschenleben gefordert und am wenigsten Personen- und Sachschäden verursacht hat), und weit weniger hinsichtlich der Unfälle im Straßenverkehr (die am meisten Schäden verursachen).

► Von der Energieforschung erwarten die Bürger der Union wichtige Ergebnisse für den Umweltschutz und fordern verstärkte Anstrengungen im Bereich der erneuerbaren Energien und der umweltfreundlicheren Verkehrsmittel.

### **Prioritäten der Regierungen im Energiebereich:**

Den Befragten wurden drei Prioritäten für Maßnahmen der Regierungen im Energiebereich vorgeschlagen (zwei Antworten waren möglich): am häufigsten wurden Maßnahmen für den Umweltschutz und für die öffentliche Gesundheit gefordert (72 %), dann „niedrige Verbraucherpreise“ (62 %) und schließlich „eine sichere Energieversorgung“ (30 %).

Die Struktur der Antworten ist bei dieser Frage in den einzelnen Ländern der Europäischen Union sehr unterschiedlich.

### **Die Energiequellen der Zukunft:**

Die Europäer sollten sich anhand von drei Kriterien (Preis, Wirkungsgrad und Umweltschutz) dazu äußern, welches in 50 Jahren die besten Energiequellen sein werden.

Kriterium „Preis“: die erneuerbaren Energien schneiden hier bei den Befragten am besten ab. Kulturelle Faktoren beeinflussen eine Entscheidung zugunsten der erneuerbaren Energien und der Kernfusion.

Kriterium „Wirkungsgrad“ (maximal nutzbare Energie): die europäischen Bürger sind hier unsicherer, entscheiden sich aber dennoch wiederum für die erneuerbaren Energien, wenn auch in geringerer Zahl (27 %). Die Kernfusion steht auf Platz 2 (22 %), danach folgen Erdgas (20 %), Wasserkraft (17 %) und Kernspaltung (17%).

Kriterium „Umweltschutz“: die Befragten wählen hier mit großer Mehrheit die neuen (Solarenergie, usw.: 67 %) oder die traditionellen erneuerbaren Energien (Wasserkraft, usw.: 38 %), Erdgas steht mit 10 % an dritter Stelle.

## **In die Zukunft mit einer Kombination von Energieträgern?**

Eine sehr große Mehrheit der Befragten rechnet damit, dass der Energiebedarf der Union in zwanzig Jahren durch «eine Kombination von verschiedenen Energiequellen» gedeckt wird (81 %) und nicht durch „eine einzige Energiequelle“ (5%).

## **Die drei wichtigsten Prioritäten im Bereich der Sicherheit, bei denen die Regierungen in der Union am aktivsten handeln sollten:**

Mit sehr wenigen Ausnahmen dominiert in ganz Europa die Forderung nach Sicherheit bei der Kerntechnik. Im Vergleich dazu wird die Problematik der Verkehrsunfälle als weniger wichtig beurteilt: 19 % in der gesamten Union.

## **Forschung im Energiebereich:**

Im Bereich der Energieforschung sollten sich nach Auffassung der Befragten die Anstrengungen in der Europäischen Union auf zwei Bereiche konzentrieren: erneuerbare Energien (69 %) und umweltfreundliche Verkehrsmittel (51 %). Erst anschließend wird Forschung im Bereich der Kernfusion genannt (21 %). Die Forschung im Bereich der traditionellen Energieträger wird als weit weniger wichtig eingeschätzt.

Zur Bedeutung der Forschung im Bereich der neuen Energien und der umweltfreundlichen Verkehrsmittel, auch wenn sie in Schweden, den Niederlanden und in Dänemark höher eingeschätzt wird, herrscht in Europa ein breiter Konsens.

Der wichtigste Grund für die Fortsetzung der Forschung im Bereich der Kernenergie liegt in der Verbesserung der Sicherheit der Kernkraftwerke (48 %), und in der Entsorgung der Abfälle (43 %).

## **4. Verhaltensmuster und politische Konzepte**

- ▶ Für die Mehrheit der Bürger in der Gemeinschaft könnte das Verhalten der Industrie den stärksten Einfluss im Bereich der Energieeinsparungen haben. Strengere Vorschriften und Kontrollen im Bereich der Industrie werden gewünscht.
- ▶ Bei den Initiativen zum Energiesparen unterstützt die Öffentlichkeit vor allem Maßnahmen, die dem einzelnen Bürger keine besonderen Verpflichtungen auferlegen, aber ein Viertel der Befragten würde strengere Vorschriften für Kraftfahrzeuge oder die Wärmedämmung von Gebäuden akzeptieren.
- ▶ Die Befragten geben an, dass sie von acht konkreten Maßnahmen zum Energiesparen im Durchschnitt zwei durchgeführt haben — dieser Durchschnitt liegt jedoch in den nordeuropäischen Ländern wesentlich höher.
- ▶ Die Maßnahmen des Einzelnen beim Energiesparen sind je nach Ländern, sozialer Schicht und Bildungsstand sehr unterschiedlich. Eine Minderheit der Europäer gibt an, „nichts zu tun, um Energie zu sparen“, aber die meisten angegebenen Maßnahmen zum Energiesparen betreffen den Energie-





verbrauch im eigenen Haus (Heizung, Beleuchtung, Wärmedämmung). Zwei Drittel der Europäer sind bereit, in Zukunft mehr zu tun, aber dies bezieht sich mehr auf den Energieverbrauch zu Hause als auf den Verkehr.

► Die Umfrage zeigt oder bestätigt das Entstehen eines Marktes für Verbraucher „grüner“ Energie vor allem in Nordeuropa, wo etwas mehr als ein Drittel der Befragten bereit wäre, für „erneuerbare“ Energien mehr zu bezahlen. Der gleiche Anteil gibt an, beim Kauf eines Gerätes auf den Energieverbrauch zu achten.

► Die meisten Europäer würden es begrüßen, bei Plänen oder Projekten im Energiebereich konsultiert zu werden, vor allem bei „lokalen“ Projekten.



# Resumen de los principales resultados

## Encuesta de opinión pública sobre energía: temas, opciones y tecnologías

### Ciencia y sociedad

La Unidad J1 «Aspectos estratégicos y políticos de la investigación sobre energía» de la Dirección General de Investigación ha financiado el informe sobre «Energía: Temas, Opciones y Tecnologías», basado en el Eurobarómetro nº 57.0 tras haber entrevistado a alrededor de 16.000 ciudadanos (de 15 años y más) de la Unión Europea.

Esta encuesta forma parte de la acción «Ciencia y Sociedad» de la Dirección General de Investigación. El objetivo era conocer mejor la opinión pública sobre los temas relacionados con la energía, sin olvidar sus dimensiones científicas, tecnologías y de «prospectiva», lo que explica la frecuencia de preguntas sobre la idea del futuro.

La Dirección General de Prensa y Comunicación (sector Opinión Pública) de la Comisión Europea ha gestionado y organizado el informe adjunto. Para la realización del Eurobarómetro 57.0 se hicieron entrevistas en los quince Estados miembros entre el 23 de febrero y el 4 de abril de 2002 (véanse las especificaciones técnicas del estudio).

Los resultados de este estudio se articulan en torno a los cuatro temas principales de encuesta siguientes:

#### 1. La energía en la Unión Europea: impresiones generales

- ▶ En general, los ciudadanos de la Unión Europea (UE) tienen una visión bastante vaga de la estructura global del gasto energético y subestiman sobre todo el gasto asociado a los transportes. Algunos países del norte de Europa tienen una visión un poco más ajustada a la realidad de la estructura de los gastos de energía, como es el caso de Dinamarca y los Países Bajos.
- ▶ Para unos nueve encuestados de cada diez, el recalentamiento del planeta y los cambios climáticos son problemas graves frente a los que hay que actuar inmediatamente.
- ▶ La impresión general sobre la utilización de las distintas fuentes de energía en la UE se acerca bastante a la realidad, pero es patente la falta de información sobre la situación concreta de cada país.
- ▶ El nivel de estudios y el nivel social influyen de manera determinante en la consideración de la problemática medioambiental.

## **Un crecimiento del consumo de energía reconocido por los ciudadanos de la UE:**

Casi nueve ciudadanos de la Unión Europea de cada diez (el 86%) consideran con razón que el consumo de energía está «aumentando» en su propio país. Se cree también (el 79% de las respuestas) que el consumo de energía tiende a aumentar en la Unión Europea.

La idea de conseguir a bajo coste un ahorro de energía convence a un 80% de los encuestados. En cuanto a la dependencia del sector de los transportes del uso de combustibles derivado de hidrocarburos, se reconoce casi por unanimidad: un 85 %.

## **Los ciudadanos de la Unión Europea se hacen una idea correcta de la estructura del consumo de energía de su propio país (1):**

Al considerar las respuestas medias de los encuestados, se reflejan más o menos las diferentes magnitudes de uso real de las distintas fuentes de energía. En cambio, aparece un desfase respecto a la realidad en lo que se refiere a la energía nuclear: un 32% de las personas encuestadas cree que esta fuente es «muy» utilizada, aunque sólo representa en realidad un 10% (2). En los distintos países, las impresiones no varían prácticamente, con independencia del nivel de estudios o la clase social de las personas encuestadas.

## **Las actitudes frente al consumo doméstico de electricidad:**

Para casi dos tercios de los encuestados (el 61 %) es importante saber cuánta electricidad consumen sus hogares. Un 68% de las personas encuestadas tienen la impresión de saber aproximadamente cuánta electricidad gastó su hogar (el año pasado).

## **Los ciudadanos de la UE exigen medidas rápidas frente al calentamiento del planeta y los cambios climáticos:**

Para casi nueve encuestados de cada diez (el 88%), el calentamiento del planeta y los cambios climáticos son problemas graves frente a los cuales hay que actuar inmediatamente. Para un 75% de los encuestados, la utilización de combustibles fósiles (carbón, petróleo, gas, etc.) contribuye además de manera significativa a las alteraciones climáticas. Con todo, para aproximadamente un encuestado de cada dos (el 47%), la energía nuclear contribuye de manera significativa a los cambios climáticos (el 27% opina lo contrario). Para casi tres cuartas partes, los transportes son responsables en gran medida de los cambios del clima.

## **2. Información**

► Los Europeos desean sobre todo información sobre cuestiones concretas (el ahorro de energía) y sobre las energías alternativas.

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(1) Se comparan aquí las opiniones de los encuestados con la realidad descrita en las estadísticas proporcionadas por la Dirección General de Energía y Transportes. Véase: [http://europa.eu.int/comm/energy\\_transport/etif/list\\_of\\_tables.html#ENERGY](http://europa.eu.int/comm/energy_transport/etif/list_of_tables.html#ENERGY)  
(2) Este desfase se debe en parte al peso en la media de las respuestas de los franceses aquí consideradas.

► El 85% de las personas encuestadas admiten no estar informadas de las actividades de investigación y desarrollo de la Unión Europea en el ámbito de la energía.

### **Los temas de información que más interesan:**

A la pregunta (de elección múltiple) «¿sobre cuáles de los temas siguientes le gustaría saber más?», se prefiere en primer lugar un tema práctico: las posibilidades de ahorro de energía en casa" (el 53% de las respuestas), seguida de un asunto más complejo, el uso de las nuevas energías, también en el hogar (el 42 %). Vienen a continuación las alternativas a la utilización de gasolina o diesel (el 39 %), la seguridad de las instalaciones nucleares (el 36 %), los avances en el ámbito de las nuevas energías (el 27 %), las actividades de la UE en materia de investigación en el sector energético (el 23 %) y, en último lugar, los medios de ahorrar energía en el trabajo (el 13 %).

### **Las actividades de investigación y desarrollo de la UE en el ámbito de la energía:**

En el conjunto de la Unión Europea, un 85% de las personas encuestadas admiten no estar al corriente de las actividades de investigación y desarrollo de la Unión Europea en el ámbito de la energía. Los únicos ámbitos de investigación en los cuales las personas encuestadas declaran un cierto grado de conocimiento (o más probablemente de interés) son las energías renovables (el 9 %) y los medios de transportes más limpios (el 7%). Estos porcentajes varían apenas en los distintos países miembros con la notable excepción de los Países Bajos.

Las principales fuentes de información sobre los temas y las tecnologías en el ámbito de la energía son, en primer lugar, la televisión (el 80 %), seguida por la prensa (el 47 %) y la radio (el 27 %). La información recabada de Internet sólo se menciona en las respuestas de un 10% de las personas encuestadas.

## **3. La idea del futuro**

► La dependencia energética de la Unión Europea se ve como un verdadero problema al que los europeos desean hacer frente tanto mediante la búsqueda de nuevas fuentes de energía como mediante unas políticas de ahorro de energía.

► La protección del medio ambiente y el mantenimiento de bajos precios para los consumidores son las principales prioridades de los ciudadanos de la UE en lo que respecta a las políticas energéticas.

► La mayoría de personas encuestadas considera las energías renovables las más ventajosas, las más respetuosas con el medio ambiente y, en menor medida, las más eficaces.

► La visión que tienen los Europeos de las opciones energéticas dentro de 20 y 50 años resulta influida claramente por las preferencias espontáneas en favor de las energías renovables, aunque la mayoría de las personas encuestadas considera que habrá que seguir recurriendo a distintas fuentes de energía.



► El análisis de las actitudes de la población europea frente a las posibilidades de la energía generada por fusión nuclear revela claramente que este asunto, a pesar de la explicación proporcionada en el encabezamiento de una de las preguntas, sigue siendo difícil de comprender para un público no informado, aun si una mayoría muy amplia de la población comunitaria (un 59% frente a un 6 %) está convencida de que haría falta investigar mucho más para confirmar el potencial de la energía de fusión.

► En cuanto a la seguridad, la exigencia es grande en lo que se refiere a las centrales nucleares. Vienen a continuación la seguridad alimentaria, la seguridad en el trabajo y, por último, la seguridad de los centros industriales. Se da la paradoja de que la población reclama más políticas públicas activas en el sector de la energía nuclear (que hasta ahora resulta la menos costosa a la colectividad en vidas y daños humanos y materiales) y muy pocas en relación con los accidentes de tráfico (que provocan más daños).

► En materia de investigación en el ámbito de la energía, los ciudadanos de la Unión esperan beneficios importantes desde el punto de vista de la protección del medio ambiente y piden mayores esfuerzos en el sector de las energías renovables y los transportes menos contaminantes.

### **Las prioridades de los gobiernos en el ámbito de la energía:**

Las personas encuestadas podían elegir entre tres prioridades gubernamentales sobre energía (con dos respuestas posibles): la respuesta más frecuente se refiere a la protección del medio ambiente y la salud pública (el 72 %), seguida de precios bajos para los consumidores (el 62 %) y de un abastecimiento ininterrumpido de energía (el 30 %).

No obstante, la distribución de las respuestas es bastante variable en la Unión Europea.

### **Las futuras fuentes de energía:**

Se solicitó a los europeos que opinaran sobre cuáles podrían ser, en un plazo de cincuenta años, las mejores fuentes de energía según tres criterios sucesivos: los precios, la eficacia y la protección del medio ambiente.

Criterio de precios: las energías llamadas renovables convencen a las personas encuestadas. El factor cultural tiende a aumentar los porcentajes de inclinación en favor de las energías renovables y la fusión nuclear.

Criterio de eficacia (máximo de energía útil): los ciudadanos de la Unión se muestran más indecisos, aunque optan de nuevo, aunque en menor proporción, por las energías renovables (el 27 %). Esta vez, la fusión nuclear viene en segundo lugar (el 22 %), seguida del gas natural (el 20 %), la energía hidroeléctrica (el 17 %) y la fisión nuclear (el 17%).

Criterio de protección del medio ambiente: una enorme mayoría de encuestados prefiere las energías renovables nuevas (solar y otras: el 67 %) o convencionales (hidroeléctrica y otras: el 38 %); el gas natural viene en tercera posición con un 10% de respuestas.

## ¿Hacia una combinación de fuentes de energía?

Una inmensa mayoría de las personas encuestadas prevé que en veinte años las necesidades de energía de la Unión se cubrirán con una combinación de distintas fuentes de energía (el 81 %) en vez de por una sola (el 5%).

## Las tres prioridades de seguridad respecto a las cuales los Gobiernos de la Unión Europea deberían ser más activos:

La seguridad nuclear predomina en Europa con muy pocas excepciones. Por el contrario, los accidentes de tráfico se consideran relativamente menos importantes: un 19% en toda la Unión.

## La investigación en el ámbito de la energía:

En cuanto a la investigación sobre energía, las personas encuestadas desean que los esfuerzos de la Unión Europea se orienten a dos ámbitos: el de las energías renovables (el 69 %) y el de los medios de transportes menos contaminantes (el 51 %), seguidos de la investigación sobre la fusión nuclear (el 21 %). La investigación sobre las energías convencionales viene muy por detrás.

La investigación en el ámbito de las nuevas energías y transportes no contaminantes suscitan un muy amplio consenso en Europa, aunque se prefieran más a menudo en Suecia, los Países Bajos y Dinamarca.

La principal justificación de una continuación de la investigación en el ámbito de la energía nuclear radica en el esfuerzo por aumentar la seguridad de las centrales (el 48 %) y, menos, en la eliminación de los residuos (el 43 %).

## 4. Comportamientos y políticas

- ▶ Para la mayoría de los ciudadanos comunitarios, son los comportamientos de los «industriales» los que podrían tener un mayor impacto en el ahorro de energía. Se desean una regulación y controles más estrictos de la industria.
- ▶ Entre las medidas dirigidas a ahorrar energía, la población apoya en primer lugar las que no imponen obligaciones a los particulares, aunque una cuarta parte aceptaría normativas más estrictas sobre los automóviles o el aislamiento de los edificios.
- ▶ De ocho acciones concretas dirigidas a ahorrar la energía, los encuestados declaran haber realizado dos por término medio, con una media claramente más alta en los países del norte de Europa.
- ▶ La actuación de los individuos en lo que se refiere al ahorro de energía es diversa según los países y los grupos sociales o culturales. Una minoría de europeos declara que no hace nada para ahorrar energía, pero lo fundamental de las medidas declaradas de ahorro se refiere al control del consumo en el hogar (calefacción, alumbrado y aislamiento). Alrededor de dos tercios de los europeos manifiestan



una voluntad de hacer más en el futuro, aunque se privilegia el consumo doméstico frente al transporte.

► Así pues, la encuesta revela o confirma la aparición de un mercado de consumidores de energía «verde», sobre todo en la Europa del norte, en la medida en que algo más del tercio de las personas encuestadas aceptarían pagar más cara una energía «renovable». El mismo porcentaje declara prestar atención, al comprar un aparato, a la cantidad de energía que gasta éste.

► La mayoría de los europeos desea ser consultada sobre proyectos o realizaciones en el ámbito de la energía, especialmente cuando se trate de proyectos «locales».



# Sintesi dei principali risultati

## Sondaggio dell'opinione pubblica sugli energia: temi, opzioni e tecnologie

### Scienza e società

Il rapporto «Energia: temi, opzioni e tecnologie» è stata finanziata dalla direzione generale «Ricerca», Unità J1: «Energia — Aspetti strategici e politici della ricerca». Tale rapporto è stato realizzato sulla base di Eurobarometro n. 57.0, attraverso un sondaggio di circa 16 000 cittadini dell'Unione europea, di età superiore ai 15 anni.

Questa indagine, parte dell'iniziativa «Scienza e società» della direzione generale della Ricerca, si poneva come obiettivo una migliore conoscenza delle opinioni dei cittadini in materia di energia, compresi gli aspetti scientifici e tecnologici, e le prospettive future, donde il notevole numero di domande sulla percezione del futuro.

La relazione allegata alla presente sintesi è stata gestita e organizzata dalla direzione generale Stampa e comunicazione (settore Opinione pubblica) della Commissione europea. Per la realizzazione di Eurobarometro 57.0, i sondaggi si sono svolti nei quindici Stati membri tra il 23 febbraio e il 4 aprile 2002 (cfr. le specifiche tecniche dello studio).

I risultati di questo studio sono presentati in funzione dei quattro principali filoni di indagine seguenti:

### 1. L'energia nell'Unione europea: percezioni generali

- ▶ Nell'insieme, i cittadini dell'Unione europea (UE) hanno una visione piuttosto approssimativa della struttura globale della spesa energetica e sottovalutano in particolare la spesa relativa ai trasporti. Alcuni paesi del Nord Europa, come la Danimarca e i Paesi Bassi, hanno una visione un po' più conforme alla realtà della struttura della spesa energetica.
- ▶ Per quasi nove intervistati su dieci, il riscaldamento del pianeta e i cambiamenti climatici sono dei problemi seri, che richiedono interventi immediati.
- ▶ La percezione generale dell'uso delle varie fonti di energia nell'UE è abbastanza prossima alla realtà, ma è palese la mancanza di informazioni sulla situazione concreta di ogni paese.
- ▶ Il livello d'istruzione e quello sociale influenzano in modo determinante le sensibilità verso le problematiche ambientali.



## Una crescita del consumo di energia riconosciuta dai cittadini dell'UE

Quasi nove cittadini dell'Unione europea su dieci (86%) ritengono giustamente che il consumo di energia sia «in crescita» nel loro paese e pensano anche (79% degli intervistati) che il consumo di energia stia aumentando nell'Unione europea.

L'idea di realizzare a costi contenuti un risparmio d'energia convince l'80% degli intervistati che, quasi all'unanimità (85%), riconoscono la dipendenza del settore dei trasporti dai carburanti a base di petrolio.

## I cittadini dell'Unione europea hanno una percezione corretta della struttura del consumo di energia del loro paese <sup>(1)</sup>

Considerando le risposte medie degli intervistati, l'ordine di grandezza dell'uso effettivo delle varie fonti d'energia è prossimo alla realtà, tranne nel caso dell'energia nucleare: il 32% degli intervistati ritiene che questa fonte sia «molto» utilizzata mentre in realtà rappresenta soltanto il 10% <sup>(2)</sup>. Nei vari paesi, le percezioni sono molto simili, indipendentemente dal livello di istruzione o dal livello sociale delle persone intervistate.

## Gli atteggiamenti in relazione al consumo domestico di elettricità

Per due terzi circa degli intervistati (61%) «è importante conoscere il proprio consumo di elettricità» e il 68% ritiene di sapere all'incirca «quanta elettricità ha consumato (l'anno scorso)».

## I cittadini dell'Unione europea chiedono interventi rapidi per far fronte al riscaldamento del pianeta e ai cambiamenti climatici

Per quasi nove intervistati su dieci (88%), il riscaldamento del pianeta e i cambiamenti climatici sono problemi seri che richiedono interventi immediati. Il 75% degli intervistati considera che l'uso di combustibili fossili (carbone, petrolio, gas, ecc.) contribuisca significativamente alle perturbazioni climatiche. Tuttavia, per circa una persona intervistata su due (47%), l'energia nucleare contribuisce in modo significativo ai cambiamenti climatici (il 27% è di parere opposto). Per quasi tre quarti delle persone intervistate (74%), i trasporti sono in gran parte responsabili dei cambiamenti climatici.

## 2. L'informazione

- ▶ Gli Europei desiderano soprattutto informazioni su questioni concrete (risparmio energetico) e sulle energie alternative.
- ▶ L'85% delle persone intervistate ammette di non «essere informate sulle attività di ricerca e di sviluppo dell'Unione europea nel settore dell'energia».

(1) Sono comparate qui le opinioni degli intervistati sulla realtà descritta nelle statistiche fornite dalla direzione generale Energia e Trasporti. Cfr.: [http://europa.eu.int/comm/energy\\_transport/etif/list\\_of\\_tables.html#ENERGY](http://europa.eu.int/comm/energy_transport/etif/list_of_tables.html#ENERGY)

(2) Questa differenza è in parte dovuta alle risposte dei francesi qui considerate.

## **Gli argomenti che suscitano maggiore interesse**

Alla domanda (a scelte multiple) «Su quali dei seguenti argomenti vorreste saperne di più?», le preferenze vanno primariamente verso una questione pratica: le possibilità di risparmio energetico domestico (53% degli intervistati), quindi verso un tema più complesso, l'uso di energie nuove, sempre in ambito domestico (42%). In seguito, in ordine decrescente, vengono «le alternative all'uso di benzina o gasolio» (39%), quindi «la sicurezza degli impianti nucleari» (36%), «i progressi nel settore delle energie nuove» (27%), «le attività di ricerca dell'UE nel settore energetico» (23%) e infine, «le misure per risparmiare energia nel ambiente lavorativo» (13%).

## **Le attività di ricerca e sviluppo dell'UE nel settore dell'energia**

In tutta l'Unione europea, l'85% delle persone intervistate ammette di non «essere al corrente delle attività di ricerca e di sviluppo dell'Unione europea nel settore dell'energia». I soli settori di ricerca per i quali gli intervistati dichiarano un certo grado di conoscenza (o più probabilmente di interesse) sono «le energie rinnovabili» (9%) e «i mezzi di trasporto più puliti» (7%). Queste percentuali praticamente non variano nei vari Stati membri, con l'eccezione dei Paesi Bassi.

**Le principali fonti di informazione sulle questioni e le tecnologie nel settore dell'energia sono in primo luogo la televisione (80%) quindi i giornali (47%) e in terzo luogo «la radio» (27%). Soltanto il 10% degli intervistati ha ottenuto informazioni via Internet.**

## **3. Le percezioni del futuro**

- ▶ Secondo gli Europei, la dipendenza energetica dell'Unione europea è percepita come un problema effettivo da risolvere tramite la ricerca di nuove fonti di energia e politiche di risparmio energetico.
- ▶ La protezione dell'ambiente e il mantenimento di prezzi bassi per i consumatori sono le grandi priorità dei cittadini dell'UE in materia di politiche energetiche.
- ▶ Le energie rinnovabili sono percepite dalla maggioranza delle persone intervistate come le più vantaggiose, le più rispettose dell'ambiente, e in misura minore, le più efficaci.
- ▶ La visione che hanno gli Europei delle opzioni energetiche future a 20 e a 50 anni è chiaramente influenzata da preferenze spontanee a favore delle energie rinnovabili, anche se per la maggioranza delle persone intervistate si dovrà continuare a ricorrere a fonti energetiche differenziate.
- ▶ Dall'analisi degli atteggiamenti dei cittadini europei circa le possibilità dell'energia prodotta dalla fusione nucleare risulta chiaramente che questa opzione, nonostante le spiegazioni fornite nel titolo di una delle domande resta difficilmente comprensibile per un pubblico non informato, anche se un'ampia maggioranza dei cittadini comunitari (59% contro 6%) è convinta che sarebbe necessaria «molta più ricerca» per confermare il potenziale dell'energia di fusione.
- ▶ In materia di sicurezza, vengono al primo posto le preoccupazioni per le centrali nucleari, seguite dalla sicurezza alimentare, la sicurezza sul lavoro e infine quella degli impianti industriali.

Paradossalmente il pubblico chiede più iniziative politiche pubbliche per il nucleare (che finora è il meno costoso in termini di vite e di danni umani e materiali alla collettività) che per gli incidenti stradali (che causano i danni maggiori).

► In materia di ricerca nel settore dell'energia, i cittadini dell'Unione si aspettano ricadute importanti in termini di protezione dell'ambiente e chiedono interventi più incisivi a favore delle energie rinnovabili e dei trasporti meno inquinanti.

### **Le priorità dei governi nel settore dell'energia.**

Gli intervistati potevano scegliere tre priorità governative in materia di energia (con due risposte possibili): la risposta più frequente è la protezione dell'ambiente e della salute pubblica (72%), seguita da «prezzi bassi per i consumatori» (62%) e «un approvvigionamento ininterrotto di energia» (30%).

Questa struttura di risposte è tuttavia piuttosto variabile nell'Unione europea.

### **Le fonti di energia nel futuro.**

È stato chiesto agli Europei di giudicare quali potrebbero essere, tra cinquanta anni, le migliori fonti d'energia secondo tre criteri nel seguente ordine: prezzo, efficacia e protezione dell'ambiente.

Criterio «prezzo»: le energie dette rinnovabili sono quelle che riscuotono più favore presso le persone intervistate. Il fattore culturale tende ad aumentare le percentuali di scelta a favore delle energie rinnovabili e della fusione nucleare.

Criterio «efficacia» (massimo di energia utile): i cittadini dell'Unione sono più titubanti ma scelgono nuovamente, sebbene in proporzione minore, le energie rinnovabili (27%). Questa volta, la fusione nucleare è in seconda posizione (22%), seguita dal gas naturale (20%), dall'energia idroelettrica (17%) e dalla fissione nucleare (17%).

Criterio «protezione dell'ambiente»: gli intervistati scelgono a grande maggioranza le energie rinnovabili nuove (solare, ecc.: 67%) o tradizionali (idroelettrica, ecc.: 38%) seguite, in terza posizione (10%), dal gas naturale.

### **Verso una combinazione di fonti energetiche?**

La grande maggioranza delle persone intervistate prevede che tra vent'anni il fabbisogno energetico dell'Unione sarà soddisfatto da «una combinazione di diverse fonti energetiche» (81%) anziché da «un'unica fonte di energia» (5%).

## **Le tre priorità in materia di sicurezza per le quali i governi dell'Unione europea dovrebbero essere più attivi**

Con pochissime eccezioni la sicurezza nel settore nucleare predomina in Europa. Al contrario, il problema degli incidenti stradali è relativamente considerato meno importante: il 19% degli intervistati a livello UE.

### **La ricerca nel settore dell'energia**

In materia di ricerca energetica, le persone intervistate auspicano che gli sforzi dell'Unione europea si sviluppino in due settori: energie rinnovabili (69%) e sistemi di trasporto meno inquinanti (51%). Segue la ricerca nel settore della fusione nucleare (21%) e, con netto distacco, la ricerca nel settore delle energie tradizionali.

Le ricerche nel settore delle nuove energie e dei trasporti non inquinanti anche se menzionate più spesso in Svezia, Paesi Bassi e Danimarca, suscitano un ampio consenso in Europa.

La principale giustificazione di una prosecuzione delle ricerche nel settore dell'energia nucleare è lo sforzo per aumentare la sicurezza delle centrali (48%), seguito dallo smaltimento dei residui (43%).

## **4. I comportamenti, le politiche**

- ▶ Per la maggioranza dei cittadini comunitari, sono i comportamenti degli «industriali» che potrebbero avere il maggiore impatto in materia di risparmio energetico. Sono auspicati una regolamentazione e controlli più rigorosi dell'industria.
- ▶ Fra le misure volte al risparmio energetico, il pubblico sostiene innanzitutto gli interventi che non impongono obblighi ai privati, ma un quarto accetterebbe norme più severe per l'automobile o l'isolamento degli edifici.
- ▶ Fra otto azioni concrete per risparmiare energia, gli intervistati dichiarano di averne in media compiute due; questa media è nettamente più elevata nei paesi del Nord Europa.
- ▶ L'azione individuale in materia di risparmio energetico varia a seconda dei paesi e della categoria sociale o culturale. Una minoranza di Europei dichiara di «non far nulla per risparmiare energia», ma l'essenziale delle azioni di risparmio dichiarate riguarda il controllo del consumo domestico (riscaldamento, illuminazione, isolamento). Due terzi degli Europei dichiarano di voler fare di più in futuro, soprattutto nei consumi domestici piuttosto che nei trasporti.
- ▶ L'indagine rivela quindi o conferma l'emergenza di un mercato di consumatori di energia «verde» soprattutto nel Nord Europa, nella misura in cui poco più di un terzo delle persone intervistate accetterebbe di pagare più cara un'energia «rinnovabile». La stessa percentuale dichiara di fare attenzione, in occasione dell'acquisto di un apparecchio, al suo consumo di energia.

- Una maggioranza di Europei desidera essere consultata a proposito di progetti o realizzazioni nel settore dell'energia, in particolare nel caso di progetti «locali».



# Samenvatting van de belangrijkste bevindingen

## Publieksenquete over: energie: thema's, opties en technologieën

### Wetenschap en samenleving

Met als uitgangspunt Eurobarometer nr. 57.0 waarvoor er interviews werden afgenomen bij ongeveer 16.000 Europese burgers van 15 jaar en ouder, werd het verslag „Energie: Thema's, opties en technologieën” opgesteld in opdracht van het Directoraat-generaal Onderzoek, Eenheid J1: „Strategische en beleidsaspecten van het energieonderzoek”.

Deze enquête valt binnen het kader van de actie „wetenschap en samenleving” van directoraat-generaal Onderzoek. De doelstelling was om beter te weten te komen hoe het grote publiek dacht over vraagstukken met betrekking tot energie, met inbegrip van de wetenschappelijke, technologische en toekomstgerichte aspecten, om welke reden verklaard kan worden waarom er zoveel vragen in werden opgenomen die op toekomstverwachtingen betrekking hebben.

Het hierbij gevoegde verslag werd beheerd en opgesteld door het Directoraat-generaal Pers en communicatie (Eenheid Opiniepeilingen) van de Europese Commissie. Voor Eurobarometer 57.0 vonden de in de 15 lidstaten afgenomen interviews plaats tussen 23 februari en 4 april 2002 (zie de technische specificaties van deze studie).

De resultaten van deze studie zijn toegespitst op vier in de enquête gehanteerde hoofdthema's:

### 1. Energie in de Europese Unie: algemene waarnemingen

- ▶ Over het geheel genomen hebben de burgers van de Europese Unie nogal vage ideeën over de globale structuur van het energieverbruik en onderschatten zij met name de uitgaven voor vervoer. In sommige Noord-Europese landen blijkt een visie te bestaan die wat meer overeenkomt met de reële structuur van de uitgaven voor energie: dit zien we met name in Denemarken en Nederland.
- ▶ Voor bijna negen op tien respondenten vormen de opwarming van de aarde en de klimaatverandering serieuze problemen waarop onmiddellijk moet worden gereageerd.
- ▶ De manier waarop in het algemeen het gebruik van de verschillende energiebronnen in de EU wordt waargenomen ligt vrij dicht bij de werkelijkheid doch er is duidelijk een gebrek aan informatie over de concrete situatie in ieder land afzonderlijk.
- ▶ Het opleidingsniveau, evenals de sociale klasse, spelen een belangrijke rol bij het accentueren van de milieuproblematiek.

## **De burgers van de EU erkennen dat het energieverbruik toeneemt:**

Bijna negen op de tien burgers in de EU (86%) zijn terecht van oordeel dat het energieverbruik in eigen land toeneemt. Zij zijn ook van oordeel (79% van de antwoorden) dat het energieverbruik in de Europese Unie stijgt.

80% van de respondenten is gewonnen voor het idee om tegen geringe kosten energiebesparingen door te voeren. Verder is men vrijwel unaniem van oordeel dat de vervoerssector sterk afhankelijk is van het gebruik van brandstof op basis van aardolie (85%).

## **De burgers van de EU hebben een correct beeld van de structuur van het energieverbruik in eigen land (1):**

Wanneer de gemiddelde antwoorden van de respondenten in beschouwing worden genomen kan men tot de slotsom komen dat de omvang van het reële verbruik van de verschillende energiebronnen min of meer op de juiste wijze wordt ingeschat. Een discrepantie met de werkelijkheid valt op in het geval van de kernenergie: 32% van de ondervraagde personen is van oordeel dat deze bron „veel” wordt gebruikt terwijl kernenergie in feite slechts 10% vertegenwoordigt (2). In de verschillende landen lopen de waarnemingen nauwelijks uiteen, ongeacht het opleidingsniveau of de sociale klasse van de ondervraagde personen.

## **De houding ten opzichte van het elektriciteitsverbruik door huishoudens.**

Voor ongeveer twee derde van de respondenten (61%) „is het belangrijk te weten hoeveel zij thuis aan elektriciteit verbruiken”. 68% van de ondervraagde personen heeft het idee dat zij min of meer weten „hoeveel elektriciteit (het afgelopen jaar) bij hen thuis is verbruikt”.

## **Wat de opwarming van de aarde en de klimaatverandering betreft eisen de burgers van de EU snel maatregelen:**

Voor bijna negen op de tien respondenten (88%), zijn de opwarming van de aarde en de klimaatverandering ernstige problemen waarop onmiddellijk moet worden gereageerd. Voor 75% van de respondenten draagt het gebruik van fossiele brandstoffen (steenkool, aardolie, gas, enz.) overigens in belangrijke mate bij aan de klimaatverstoringen. Voor bijna de helft van de respondenten (47%), draagt kernenergie in belangrijke mate bij aan de klimaatverandering (27% denkt daarentegen het tegenovergestelde). Voor bijna driekwart van de ondervraagde personen (74%), is het vervoer in belangrijke mate verantwoordelijk voor de klimaatverandering.

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(1) Hier worden de meningen van de respondenten vergeleken met de werkelijkheid zoals die is terug te vinden in de statistieken van het Directoraat-generaal Energie en vervoer, zie:

[http://europa.eu.int/comm/energy\\_transport/etif/list\\_of\\_tables.html#ENERGY](http://europa.eu.int/comm/energy_transport/etif/list_of_tables.html#ENERGY)

(2) Deze discrepantie houdt gedeeltelijk verband met het gewicht van de in Frankrijk gegeven antwoorden.

## 2. Voorlichting

- ▶ De Europeanen wensen vooral te worden geïnformeerd over concrete vraagstukken (energiebesparing) en over alternatieve energie.
- ▶ 85% van de ondervraagde personen erkent dat zij niet „op de hoogte zijn van de activiteiten op het gebied van onderzoek en ontwikkeling van de Europese Unie op energiegebied”.

### De onderwerpen waarover men het vaakst meer zou willen weten:

Op de (multiple choice-)vraag „Over welke van de volgende onderwerpen zou u meer willen weten?” gaan de antwoorden in het meeste geval naar een praktisch onderwerp: de mogelijkheden om thuis energie te besparen (53% van de respondenten); vervolgens komt er een meer complexe aangelegenheid ter sprake, namelijk het gebruik van nieuwe vormen van energie, eveneens in het kader van het huishouden (42%). Daarna komen „alternatieven voor het gebruik van benzine of dieselbrandstof” (39%) , „de veiligheid van kerninstallaties” (36%) , „de vorderingen op het gebied van de nieuwe energiebronnen” (27%), „de activiteiten van de EU op het gebied van onderzoek in de energiesector” (23%) en tenslotte „de middelen om in het kader van het werk energie te besparen” (13%).

### De activiteiten inzake onderzoek en ontwikkeling in de EU op energiegebied:

In de Europese Unie in haar geheel geeft 85% van de bevroegde personen toe „niet op de hoogte te zijn van de activiteiten inzake onderzoek en ontwikkeling in de Europese Unie op energiegebied”. De enige onderzoeksgebieden ten aanzien waarvan de ondervraagde personen verklaren enige kennis (of waarschijnlijker enige belangstelling) te hebben zijn: „duurzame energie” (9%) en „schonere vervoermiddelen” (7%). Deze percentages vertonen binnen de verschillende lidstaten nauwelijks verschillen, met uitzondering van met name Nederland.

**De voornaamste bronnen van informatie over de vraagstukken en de technologie op energiegebied** zijn in eerste instantie de televisie (80%), vervolgens de kranten (47%) en op de derde plaats de radio (27%). Informatie via internet wordt slechts door 10% van de ondervraagde personen genoemd.

## 3. De manier waarop de toekomst gezien wordt

- ▶ De afhankelijkheid op energiegebied van de Europese Unie wordt gezien als een reëel probleem waarop het Europese publiek zowel met een onderzoek naar nieuwe energiebronnen als met een energiebesparingsbeleid zou willen reageren.
- ▶ De bescherming van het milieu en handhaving van lage prijzen voor de consument zijn de eerste prioriteiten van de burgers van de EU ten aanzien van het energiebeleid.
- ▶ Duurzame energie wordt door de meeste ondervraagde personen gezien als het meest voordelig, waarbij het milieu het meest wordt ontzien, en in mindere mate als het meest efficiënt.



- ▶ De ideeën die de Europeanen hebben van de toekomstige energiekeuze over 20 en 50 jaar wordt duidelijk beïnvloed door een spontane voorkeur voor duurzame energie, zelfs al is de meerderheid van de ondervraagde personen van oordeel dat men verschillende energiebronnen zal moeten blijven gebruiken.
- ▶ Een analyse van de houding van het Europese publiek ten aanzien van de mogelijkheden om energie te produceren via kernfusie brengt duidelijk aan het licht dat deze optie, ondanks de toelichting die gegeven wordt boven één van de vragen, voor een niet ter zake kundig publiek moeilijk is te begrijpen, zelfs al is een heel grote meerderheid van het publiek in de Gemeenschap (59% tegen 6%) ervan overtuigd dat er „veel meer onderzoek” nodig zal zijn om het potentieel van kernenergie aantoonbaar te maken.
- ▶ Op het gebied van de veiligheid denkt men in de allereerste plaats aan de kerncentrales, gevolgd door de veiligheid van de voedselvoorziening, de veiligheid op het werk en tenslotte die met betrekking tot industriële installaties. Hier zien we de paradox dat het publiek een actiever overheidsbeleid vraagt ten aanzien van kernenergie (die tot nu toe de minste slachtoffers heeft geëist en zowel in menselijk als materieel opzicht aan de gemeenschap de minste schade heeft berokkend) en slechts weinig actief overheidsbeleid vraagt met betrekking tot verkeersongelukken (die de meeste schade veroorzaken).
- ▶ Wat het onderzoek op energiegebied betreft verwachten de burgers van de Unie belangrijke gevolgen voor de bescherming van het milieu en vragen dan ook dat er in de sector van de duurzame energie en van die vormen van vervoer waarbij het milieu wordt gespaard, de nodige inspanningen worden gedaan.

### **De prioriteiten van de regeringen op energiegebied:**

De ondervraagde personen mochten kiezen uit drie prioriteiten van de regeringen op energiegebied (er waren twee antwoorden mogelijk): het vaakst gegeven antwoord had betrekking op de milieubescherming en de volksgezondheid (72%), vervolgens kwam het antwoord „lage prijzen voor de consument” (62%) en tenslotte de „ononderbroken bevoorrading met energie” (30%).

Deze antwoordpercentages variëren nogal binnen de Europese Unie.

### **Toekomstige energiebronnen:**

De Europeanen is gevraagd een mening te geven over de vraag wat over vijftig jaar de beste energiebronnen zouden zijn met inachtneming van drie criteria: prijs, efficiency en milieubescherming.

Criterium „prijs”: de zogenaamde duurzame energie wint het bij de ondervraagde personen. Onder invloed van culturele factoren wordt er vaker gekozen voor duurzame energie en kernfusie.

Criterium „efficiency” (maximum aan nuttige energie): de burgers van de Unie vertonen hier meer aarzeling doch kiezen opnieuw, zij het in mindere mate, voor duurzame energie (27%). Ditmaal komt

kernfusie op de tweede plaats (22%), gevolgd door aardgas (20%), met waterkracht opgewekte energie (17%) en kernsplitsing (17%).

Criterium „milieubescherming”: de respondenten kiezen in verreweg de meeste gevallen nieuwe vormen van duurzame energie (zonne-energie, enz.: 67%) of de klassieke varianten daarop (opwekking via waterkrachtcentrales, enz.: 38%), terwijl aardgas de derde positie inneemt en door 10% van de respondenten wordt genoemd.

## **Naar een combinatie van verschillende energiebronnen?**

Een zeer grote meerderheid van de ondervraagde personen verwacht dat binnen twintig jaar de energiebehoeften van de Unie gedekt zullen worden door „een combinatie van verschillende energiebronnen” (81%) en niet zozeer „door één enkele energiebron” (5%).

## **De drie prioritaire gebieden inzake veiligheid waarvoor de regeringen van de Europese Unie zich meer actief zouden moeten inspannen:**

Op enkele zeldzame uitzonderingen na overheerst in Europa de bezorgdheid om de veiligheid op nucleair gebied. Daarentegen wordt het thema van de verkeersongevallen relatief gezien als het minst belangrijk beschouwd: 19% in de Unie in haar geheel.

## **Onderzoek op energiegebied:**

Wat het onderzoek op energiegebied betreft zouden de ondervraagde personen willen zien dat de inspanningen van de Europese Unie op twee gebieden worden toegespitst: dat van de duurzame energie (69%) en dat van de minst vervuilende wijzen van vervoer (51%). Daarna komt het onderzoek op het gebied van de kernfusie (21%). Onderzoek naar de klassieke vormen van energie blijft daarbij ver achter.

Het onderzoek naar nieuwe vormen van energie en niet vervuilend vervoer zijn weliswaar vaker gekozen in Zweden, in Nederland en in Denemarken maar worden in alle landen van Europa veelvuldig genoemd.

Als voornaamste rechtvaardiging voor voortzetting van het onderzoek op het gebied van de kern-energie wordt een streven naar een grote veiligheid van de centrales gegeven (48%), en de verwijdering van het afval (43%).

## **4. Gedrag en beleid**

► Voor de meerderheid van de burgers in de Gemeenschap hebben de gedragingen van de industriëlen de grootste invloed op het gebied van de energiebesparingen. Een striktere reglementering en controle op de industrie zijn wenselijk.

- ▶ Van de maatregelen op het gebied van de energiebesparing steunt het grote publiek die welke geen verplichtingen opleggen aan particulieren, doch een kwart van de ondervraagden zou striktere regels aanvaarden voor de auto of de isolatie van gebouwen.
- ▶ De respondenten verklaren dat zij gemiddeld twee van de acht concrete maatregelen om energie te besparen hebben doorgevoerd, waarbij dit gemiddelde duidelijk hoger ligt in de landen van Noord-Europa.
- ▶ De maatregelen van de individuen op het gebied van de energiebesparing vertonen al naar gelang van het land en de sociale of culturele groepen waartoe zij behoren grote verschillen. Een minderheid van de Europeanen verklaart „niets te doen om energie te besparen” maar in die gevallen waarin wel besparingsmaatregelen worden genomen hebben deze betrekking op het energieverbruik thuis (verwarming, verlichting, isolatie). Twee derde van de Europeanen is bereid om in de toekomst meer te doen doch daarbij staat meer het huishoudelijk verbruik op de voorgrond dan het verbruik bij het vervoer.
- ▶ Het onderzoek toont dus aan of bevestigt dat er een markt voor consumenten van „groene” energie aan het opkomen is, met name in Noord-Europa, en wel in die mate dat iets meer dan een derde van de ondervraagde personen bereid zou zijn om meer te betalen voor „hernieuwbare energie”. Een even groot percentage van de ondervraagden verklaarde bij aankoop van een apparaat te letten op de hoeveelheid energie die dat apparaat verbruikt.
- ▶ Een meerderheid van de Europeanen zou graag willen worden geraadpleegd met betrekking tot projecten of maatregelen op energiegebied, met name wanneer het om projecten op plaatselijk niveau gaat.

# **ANALYSIS OF THE RESULTS**

# 1. Energy in the European Union: general perceptions

## 1.1. Energy use: structure and trends

TABLE 1

► Question 6a)

Energy in the form of electricity, oil, coal, etc. is needed for many purposes. Which two of the following do you think use the most energy? (SHOW CARD — READ OUT — MAX. 2 ANSWERS)

COUNTRY	Household appliances and lighting at home	Heating and cooling homes and offices	Lighting streets and other public places	Transport (planes, trains, lorries, cars, etc.)	Factories	Other (SPONTANEOUS)	DKn
<b>B</b>	15	21	28	56	61	0	2
<b>DK</b>	23	26	17	62	58	1	1
<b>WD</b>	17	35	15	57	59	0	2
<b>D TOTAL</b>	18	34	16	56	59	0	2
<b>OD</b>	20	31	19	53	58	0	3
<b>GR</b>	25	28	15	46	69	0	2
<b>E</b>	19	26	23	50	61	1	3
<b>F</b>	15	21	22	64	64	1	2
<b>IRL</b>	27	23	17	51	56	4	4
<b>I</b>	25	43	18	41	57	1	1
<b>L</b>	17	20	25	55	66	0	2
<b>NL</b>	19	27	15	64	61	1	1
<b>A</b>	19	29	19	60	55	1	2
<b>P</b>	24	22	29	32	55	1	3
<b>FIN</b>	12	41	11	49	76	0	1
<b>S</b>	14	36	9	62	73	0	1
<b>UK TOTAL</b>	28	27	17	55	52	0	4
<b>EU15</b>	20	30	19	54	59	1	2

Those interviewed were asked to choose from a list of five areas the two in which they thought most energy was used. Most answers concern three areas which do not, in fact, swallow up most energy: domestic appliances, heating of homes and offices, lighting together accounting for 69% of all

answers. Energy use by factories (59%) is overestimated, whilst energy use by transport (54%) is underestimated.

In some countries in northern Europe, perceptions are a little more accurate when it comes to the structure of energy use: this is true, for example, of Denmark and the Netherlands, where 64% and 62% of respondents respectively cite transport. The answers given in France are about the same (64%). By contrast, the share of energy use attributable to transport is underestimated in Greece (46%), Italy (41%) and Portugal (32%).

To a certain extent, perceptions vary according to respondents' socio-cultural level, the perception of the significance of transport tending to increase slightly with the level of education: 49% of those who completed their education at the age of 15 cite transport, compared with 59% of those who continued their studies beyond the age of 20. Income has a similar influence on the answers, as the perception of transport's significance rises from 50% to 63% as income increases.

**It may be concluded that, generally, Europeans have a rather vague idea of the structure of energy use and that, in particular, the remarkable growth in the transport sector has probably not been perceived at its true level.**

**TABLE 2**

► **Question 6b)**

**For each of the following statements, please tell me if this is the case or not**

1. Overall energy use is increasing in (OUR COUNTRY)
2. Overall energy use is increasing in the European Union
3. We could save, simply and cheaply, much of the energy we use in our homes and offices
4. Transport in all its forms is almost completely dependent on oil, petrol or diesel

COUNTRY	1			2			3			4		
	Yes, it is the case	No, it is not the case	DKn	Yes, it is the case	No, it is not the case	DKn	Yes, it is the case	No, it is not the case	DKn	Yes, it is the case	No, it is not the case	DKn
<b>B</b>	84	4	12	81	4	15	72	14	14	81	9	10
<b>DK</b>	82	15	3	87	5	9	85	10	5	92	7	1
<b>WD</b>	77	14	10	74	8	17	76	11	13	86	6	9
<b>D TOTAL</b>	76	14	10	74	8	18	75	11	14	86	6	9
<b>OD</b>	74	15	10	71	9	20	71	12	17	84	6	11
<b>GR</b>	86	5	9	74	4	22	72	11	17	90	5	6
<b>E</b>	91	2	8	84	2	14	84	4	12	87	3	10
<b>F</b>	86	6	9	78	5	17	80	12	8	85	7	9
<b>IRL</b>	92	2	7	82	2	17	84	5	11	92	2	7
<b>I</b>	87	2	11	78	2	20	81	7	13	81	6	13
<b>L</b>	88	6	7	88	4	8	83	12	5	90	4	5
<b>NL</b>	92	5	3	92	2	6	87	8	5	52	45	3
<b>A</b>	83	7	9	85	5	11	73	12	15	85	7	8
<b>P</b>	90	3	7	74	4	22	69	10	21	87	3	9
<b>FIN</b>	94	4	2	93	2	5	76	19	5	93	4	2
<b>S</b>	95	3	3	90	2	8	82	13	5	91	6	2
<b>UK TOTAL</b>	91	3	7	80	3	17	87	5	8	91	4	5
<b>EU15</b>	86	6	8	79	4	16	80	9	11	85	7	8

These four statements, the veracity of which is quite easy to see, cause Europeans little difficulty. First of all, they consider, by very big majorities, that energy use is increasing in their own country (86%). However, in Denmark and Germany, a slightly higher proportion than elsewhere (15% and 14%) do not agree with this statement, perhaps because of the greater visibility of energy-saving policies in those two countries. Overall, Europeans also consider that energy use is increasing in the European Union (but 16% of those interviewed are don't knows). Lastly, 80% of respondents believe that it is possible to save energy cheaply. But this statement is considered false by 19% of Finns, and it is also accepted less by those on the right of the political spectrum (it is considered true by 83% on the left, compared with 76% on the right).

There is almost unanimous recognition of the transport sector's dependence on the use of oil-based fuels: 85%.

**TABLE 3**

► **Question 7**

**To what extent is each of the following used to produce energy in (OUR COUNTRY)?  
(SHOW CARD WITH SCALE)**

1. *Little*
2. *Medium*
3. *Much*
4. *Nil (SPONTANEOUS)*
5. *DKn*

COUNTRY	Coal					Oil					Gas				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
<b>B</b>	64	22	6	3	5	13	31	52	0	5	2	30	63	0	5
<b>DK</b>	38	30	29	0	3	6	25	68	0	1	13	43	41	1	2
<b>WD</b>	39	38	17	2	5	4	26	66	0	4	8	35	52	0	5
<b>D TOTAL</b>	37	38	19	2	5	5	27	64	0	4	8	35	52	0	5
<b>OD</b>	29	39	26	1	6	7	31	57	0	5	7	35	52	0	6
<b>GR</b>	30	24	12	5	28	2	8	89	0	2	48	28	10	7	7
<b>E</b>	64	17	4	4	12	4	26	65	0	5	5	41	49	0	5
<b>F</b>	65	21	4	7	4	6	18	73	1	3	5	37	54	1	3
<b>IRL</b>	25	37	29	2	8	5	27	59	2	8	11	42	39	1	8
<b>I</b>	7	16	56	7	14	81	11	2	0	6	59	30	5	0	6
<b>L</b>	62	11	4	14	10	12	26	51	5	6	6	34	53	2	5
<b>NL</b>	48	16	10	17	9	13	30	48	4	5	5	11	79	1	4
<b>A</b>	41	38	11	2	8	9	28	54	2	7	13	36	40	2	9
<b>P</b>	55	18	7	6	15	20	18	47	6	9	11	23	56	3	7
<b>FIN</b>	49	37	6	2	6	4	29	64	0	3	40	44	10	0	6
<b>S</b>	79	13	2	3	3	10	36	51	0	2	64	28	3	1	4
<b>UK TOTAL</b>	43	33	14	1	9	10	29	52	0	9	5	22	66	0	7
<b>EU15</b>	43	26	18	4	9	18	23	53	1	5	18	32	45	1	5



COUNTRY	Nuclear energy					Hydroelectric energy					Other renewable sources, such as wood, wind, solar energy, etc.				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
<b>B</b>	13	32	42	1	12	46	30	10	2	12	65	21	4	2	8
<b>DK</b>	39	4	2	49	5	60	10	4	21	5	45	41	12	1	1
<b>WD</b>	12	40	37	1	10	64	22	6	1	8	70	17	4	2	7
<b>D TOTAL</b>	13	40	35	1	11	63	22	7	1	8	69	19	4	2	7
<b>OD</b>	18	40	30	0	12	59	25	8	1	7	66	23	4	1	7
<b>GR</b>	26	6	2	36	30	27	20	19	9	24	42	31	10	6	11
<b>E</b>	29	29	16	1	26	17	35	34	1	13	61	17	5	3	14
<b>F</b>	4	26	64	1	5	20	41	27	2	11	64	18	5	8	5
<b>IRL</b>	20	12	6	37	26	25	28	16	6	26	59	14	4	6	18
<b>I</b>	7	17	35	19	22	21	28	35	3	13	3	11	60	12	14
<b>L</b>	27	16	20	20	17	33	28	22	3	15	61	21	6	2	10
<b>NL</b>	35	28	21	8	7	35	24	21	13	7	39	34	23	1	4
<b>A</b>	27	16	6	37	14	9	30	53	1	8	46	34	10	1	9
<b>P</b>	23	8	5	30	34	18	21	45	2	14	48	22	10	2	18
<b>FIN</b>	11	45	38	0	6	38	41	16	0	5	74	19	4	0	4
<b>S</b>	5	31	62	0	2	11	31	57	0	1	78	16	3	0	3
<b>UK TOTAL</b>	23	33	20	1	23	40	22	11	3	24	66	13	3	4	14
<b>EU15</b>	16	28	32	8	16	34	28	22	3	13	53	18	14	5	10

How do nationals of each Member State of the European Union perceive the structure of energy use in their own country? (1)

It should be noted first of all that on average the answers given by Europeans tally more or less with the actual situation as regards the use of the various energy sources. The answer ‘much’ is given most frequently by far in the case of oil (65%), which is in fact the main source of energy in the European Union, then for gas (53%), which is indeed in second place, and lastly for coal (11%), which does rank third as regards energy use. However, perceptions are at odds with reality in the case of nuclear energy: 28% of Europeans consider that this energy source is ‘much’ used, whereas in reality it accounts for only 10% (2) of overall energy consumption.

It is also interesting to analyse the answers on a country-by-country basis and by energy source:

- The results vary somewhat as far as use of coal is concerned. In some countries which are traditionally big users of coal, such as Denmark and Germany (3), over a quarter of respondents say coal is ‘much’ used in their country. But the answers are further from the mark in other cases. In Greece, for instance, 12% of respondents give the answer ‘much’, whereas coal is actually in second place.

(1) The comparison made here is between respondents’ opinions and the actual situation as described in the statistics provided by the Directorate-General for Energy and Transport, cf: [http://europa.eu.int/comm/energy\\_transport/etif/list\\_of\\_tables.html#ENERGY](http://europa.eu.int/comm/energy_transport/etif/list_of_tables.html#ENERGY)

(2) This difference is partly due to the relative weight in the average considered here of the answers given by French citizens. If the non-weighted data is analysed according to the weight of the various countries, the average for nuclear energy is not as high (24%) but still indicates an overestimation of the importance of nuclear energy.

(3) In former East Germany at least.

- In the case of oil, people in the majority of EU Member States consider themselves to be highly dependent, as most of them give the answer ‘much’ in most cases. However, in two countries where oil use is lower than the European average, France and Finland, the results were very much above average: 73% of respondents in France and 64% in Finland give the answer ‘much’.
- The fact that gas is used intensively as a source of energy is in fact recognised in countries which are big users of gas, such as the United Kingdom (66% answered ‘much’) and especially the Netherlands (79%).
- With regard to nuclear energy, it should be noted first that in countries which have chosen not to use this energy source, with the exception of Denmark, only a minority of respondents (often about a third) give the correct answer (i.e. ‘nil’, though admittedly this answer was not explicitly listed by the interviewer). Conversely, in countries where nuclear energy plays an important part in energy production, a fairly sizeable proportion of the public is aware of that fact. This is true, for instance, of France (where 64% give the answer ‘much’) and Sweden (62%), and to a lesser extent of Belgium (42%) and Finland (38%).
- Perception of the use of hydroelectric energy is good in some producer countries such as France (where 27% answered ‘much’), Italy (21%) and, in particular, Austria (53%) and Sweden (57%).
- Lastly, Europeans tend overall to overestimate the actual use of renewable energy sources, in particular in the Netherlands (where 23% give the answer ‘much’).

**The lack of information on the actual situations prevailing is therefore quite clear, and it is interesting to note that, in the various Member States, there are practically no variations in perceptions according to the level of education or social status of those questioned. Also, with regard to nuclear energy, there appears to be some confusion in the minds of Europeans between energy use and electricity consumption.**

**TABLE 4**

**► Question 8**

**For each of the following statements about ELECTRICITY, please tell me if you think it is the case or not (READ OUT)**

1. *More than half of the electricity used in the European Union comes from coal*
2. *More than one quarter of the electricity used in the European Union comes from nuclear power stations*
3. *More than one quarter of the electricity produced in the European Union comes from renewable sources of energy, such as hydroelectric energy (dams), wind, or solar power*
4. *Compared to 5 years ago, gas has become more important as a means of producing electricity in the European Union*
5. *It is important for me to know approximately how much electricity in kilowatt hours is used in my home per year*
6. *I know roughly how much was paid in total for electricity in my home over the last year*

COUNTRY	1			2			3		
	Yes, it is the case	No, it is not the case	DKn	Yes, it is the case	No, it is not the case	DKn	Yes, it is the case	No, it is not the case	DKn
<b>B</b>	15	60	25	70	10	20	25	53	22
<b>DK</b>	46	39	16	56	31	14	29	61	10
<b>WD</b>	26	48	26	66	12	22	18	59	23
<b>D TOTAL</b>	28	46	27	65	12	23	20	57	23
<b>OD</b>	33	39	28	59	14	27	26	48	26
<b>GR</b>	32	16	52	38	12	51	44	16	41
<b>E</b>	15	46	39	37	17	46	33	31	36
<b>F</b>	9	72	19	76	11	13	41	41	18
<b>IRL</b>	31	26	43	40	16	44	32	28	40
<b>I</b>	10	53	38	39	22	40	32	33	35
<b>L</b>	20	55	25	73	11	16	32	51	17
<b>NL</b>	26	55	19	52	29	19	32	54	14
<b>A</b>	21	48	31	62	15	24	54	25	21
<b>P</b>	16	45	39	32	22	46	57	13	31
<b>FIN</b>	36	48	17	79	11	11	30	55	15
<b>S</b>	45	42	13	81	11	8	24	66	10
<b>UK TOTAL</b>	29	34	37	48	16	35	24	42	34
<b>EU15</b>	21	49	31	55	16	29	30	43	27

► Question 8

**For each of the following statements about ELECTRICITY, please tell me if you think it is the case or not (READ OUT)**

1. *More than half of the electricity used in the European Union comes from coal*
2. *More than one quarter of the electricity used in the European Union comes from nuclear power stations*
3. *More than one quarter of the electricity produced in the European Union comes from renewable sources of energy, such as hydroelectric energy (dams), wind, or solar power*
4. *Compared to 5 years ago, gas has become more important as a means of producing electricity in the European Union*
5. *It is important for me to know approximately how much electricity in kilowatt hours is used in my home per year*
6. *I know roughly how much was paid in total for electricity in my home over the last year*

COUNTRY	4			5			6		
	Yes, it is the case	No, it is not the case	DKn	Yes, it is the case	No, it is not the case	DKn	Yes, it is the case	No, it is not the case	DKn
<b>B</b>	67	10	23	67	25	8	63	27	10
<b>DK</b>	63	20	18	71	27	2	76	20	3
<b>WD</b>	65	12	22	71	19	10	72	19	9
<b>D TOTAL</b>	66	12	22	73	18	10	72	18	10
<b>OD</b>	68	10	23	78	13	9	74	15	11
<b>GR</b>	67	5	28	77	12	10	71	19	10
<b>E</b>	52	11	37	55	27	18	60	23	17
<b>F</b>	64	15	20	65	28	8	73	20	7
<b>IRL</b>	61	7	32	39	41	20	50	31	18
<b>I</b>	40	20	40	61	26	13	64	20	16
<b>L</b>	70	10	21	61	29	11	53	36	11
<b>NL</b>	57	21	23	58	37	5	59	35	6
<b>A</b>	52	14	34	62	24	15	69	16	15
<b>P</b>	69	6	25	55	31	14	58	30	12
<b>FIN</b>	60	23	17	58	35	7	73	23	5
<b>S</b>	52	24	24	63	34	4	73	24	4
<b>UK TOTAL</b>	52	12	36	43	42	14	69	20	11
<b>EU15</b>	57	14	29	61	28	11	68	21	11

Table 4 shows the answers given to a set of questions, the first four of which relate to statements concerning facts and last two to behaviour concerning the use of electricity in the home.

A majority of Europeans (49%) consider the statement 'More than half of the electricity used in the European Union comes from coal' to be false (although about a third of respondents are don't knows).

In two countries, Sweden and Denmark, the percentage of people who consider this statement to be true is higher than the EU average, at 46% and 45% respectively, compared with an average of 21%. However, the correct answer is most frequently given by those who have continued their education beyond the age of 20 (55% of whom answer 'no').

However, 55% of respondents rightly consider that more than one quarter of electricity produced in Europe comes from nuclear power stations (but the percentage of don't knows is high here, too, at 29%). The answer 'no' to this statement was most often given in 'non-nuclear' countries such as Denmark (where 31% answered 'no', compared with an average of 16%) and the Netherlands (29%).

43% of those questioned consider the third statement, i.e. that more than a quarter of the electricity produced in Europe comes from renewable energy sources, to be false (don't knows accounting for 27%). Those educated beyond the age of 20 have a more accurate perception of the actual situation (53% of them answering 'no'). But in some hydropower-producing countries, the answer 'yes' is more frequent, e.g. in France (41%) and, especially, Austria (54%).

The last statement, concerning the increase in the use of natural gas in Europe is considered true by 57% of the European public, without any very marked variation between Member States (apart from the fact that the percentage of don't knows was higher in Great Britain and Austria).

For each of these questions relating to 'factual situations', the percentage of don't knows was markedly (generally about 10%) higher for women than for men. This lack of knowledge on the part of women is not due to any cultural difference, as it is evident regardless of level of education.

The last two statements concern attitudes to electricity consumption in the home. About two-thirds of Europeans (61%) agree that 'it is important for me to know how much electricity is used in my home'. This proportion hardly varies, except in the case of Northern Ireland, where only 39% of respondents answered 'yes', and Great Britain (43%).

This was supplemented by a second statement designed to gauge whether those questioned feel they know approximately how much was paid for electricity used in the home. Again, two-thirds of respondents (68%) answered 'yes'.

**All in all, therefore, it appears that Europeans attach importance to knowing how much electricity they use at home and feel that they have a good idea of how much they pay for it.**

**TABLE 5**

► **Question 9**

**For each of the following, please tell me if it is the case, or not (READ OUT)**

1. *Global warming and climate change are serious issues which need immediate action*
2. *The use of fossil fuels (coal, oil, gas, etc.) contributes significantly to global warming and climate change*
3. *Nuclear power contributes significantly to global warming and climate change*
4. *Transport is largely responsible for global warming and climate change*
5. *The use of fossil fuels adversely affects air quality*
6. *The use of natural gas contributes to environmental problems, but less than oil*

COUNTRY	1			2			3		
	Yes, it is the case	No, it is not the case	DKn	Yes, it is the case	No, it is not the case	DKn	Yes, it is the case	No, it is not the case	DKn
<b>B</b>	85	7	8	66	16	18	48	27	25
<b>DK</b>	83	11	6	79	9	12	24	58	18
<b>WD</b>	89	4	8	73	11	16	40	35	26
<b>D TOTAL</b>	88	4	8	73	10	17	39	35	26
<b>OD</b>	85	4	11	71	9	20	36	35	29
<b>GR</b>	91	2	7	85	3	11	79	6	16
<b>E</b>	89	2	9	74	6	20	64	9	27
<b>F</b>	89	8	3	73	15	12	57	26	17
<b>IRL</b>	87	3	10	79	4	17	61	11	28
<b>I</b>	92	3	5	79	6	15	42	22	36
<b>L</b>	91	3	6	80	9	11	57	27	16
<b>NL</b>	88	8	5	79	10	11	35	46	20
<b>A</b>	83	6	11	74	10	16	41	32	27
<b>P</b>	84	4	13	64	8	28	59	10	31
<b>FIN</b>	89	7	4	83	8	10	28	54	18
<b>S</b>	86	8	6	85	7	9	20	67	13
<b>UK TOTAL</b>	88	6	6	76	9	16	45	27	28
<b>EU15</b>	88	5	7	75	9	16	47	27	26

► Question 9

**For each of the following, please tell me if it is the case, or not (READ OUT)**

1. Global warming and climate change are serious issues which need immediate action
2. The use of fossil fuels (coal, oil, gas, etc.) contributes significantly to global warming and climate change
3. Nuclear power contributes significantly to global warming and climate change
4. Transport is largely responsible for global warming and climate change
5. The use of fossil fuels adversely affects air quality
6. The use of natural gas contributes to environmental problems, but less than oil

COUNTRY	4			5			6		
	Yes, it is the case	No, it is not the case	DKn	Yes, it is the case	No, it is not the case	DKn	Yes, it is the case	No, it is not the case	DKn
<b>B</b>	72	13	15	72	11	17	61	22	17
<b>DK</b>	79	12	9	88	4	8	74	14	12
<b>WD</b>	73	14	13	77	10	14	59	15	26
<b>D TOTAL</b>	73	14	14	76	10	14	57	16	27
<b>OD</b>	72	11	17	74	11	15	49	17	34
<b>GR</b>	84	8	9	86	4	10	78	6	16
<b>E</b>	78	6	16	70	5	25	68	6	26
<b>F</b>	75	15	10	71	13	16	70	12	18
<b>IRL</b>	62	17	21	76	3	21	65	10	25
<b>I</b>	75	13	12	77	7	16	68	11	22
<b>L</b>	67	23	10	87	5	9	79	8	13
<b>NL</b>	56	32	13	84	8	8	73	13	14
<b>A</b>	78	10	12	75	9	16	65	11	24
<b>P</b>	70	13	17	69	6	26	69	9	22
<b>FIN</b>	60	29	11	82	8	10	74	10	16
<b>S</b>	81	11	8	86	5	9	79	7	13
<b>UK TOTAL</b>	73	13	15	76	7	18	61	12	27
<b>EU15</b>	74	14	13	76	8	16	65	12	23

A series of six questions was asked concerning the environmental impact of using various forms of energy:

In the first place, Europeans agree by a wide margin that global warming and climate change are serious issues: 88% of them take this view. It is widely accepted that fossil fuels are responsible for this phenomenon: 75% of Europeans consider that fossil fuels contribute significantly to global warming. This opinion is shared by people in both northern and southern Europe, although the number of don't knows varies markedly (e.g. 28% in Portugal, and 23% amongst those who finished their education at an early age).

Fewer respondents agree with the idea that nuclear energy contributes to global warming: 47% of them agree, compared with 27% who disagree (1). In this case, answers differ greatly between Member States: in northern Europe, the true answer, i.e. 'no', is more frequent (58% in Denmark, 54% in Finland, 67% in Sweden, 46% in the Netherlands). The same is true of those who have continued their education for a long period (40%). Young people, however, are no better informed than their elders, as 51% of those in the 15-24 age give the answer 'yes'.

Almost three-quarters of Europeans (74%) agree that transport contributes to global warming; about the same proportion (75%) consider that the use of fossil fuels adversely affects air quality. Just under two-thirds of respondents (65%) consider that the use of natural gas contributes to environmental problems less than oil. The proportion of don't knows on this rather technical point is higher (23%), and 'yes' is a more frequent answer in some countries in northern Europe (Sweden 79%, Finland 74%, Denmark 74%, Netherlands 73%) and in Greece (78%).

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(1) It should be pointed out here that in the 1996 Eurobarometer on energy (European Opinion and Energy Matters, 1997, Eurobarometer 46.0), members of the public were asked to indicate from a list of eleven causes (including nuclear energy) those which they thought contributed to the greenhouse effect. Whilst 27% of the respondents cited 'nuclear energy', this 'cause' came only eighth, a long way behind 'increase in car traffic' (55%) and 'the destruction of forests' (50%).



## 2. Information of the public

TABLE 6

► Question 12

**Which of the following would you like to know more about? (SHOW CARD — READ OUT — MULTIPLE ANSWERS POSSIBLE)**

1. *How to save energy at home*
2. *How to save energy at work*
3. *How to use renewable energy sources such as solar power or wind at home*
4. *What the alternatives are to petrol and diesel in vehicles*
5. *The safety of nuclear power stations and radioactive waste*
6. *The prospects for new energy options, such as fuel cells, hydrogen, nuclear fusion, etc*
7. *European Union activities in energy-related research and development*
8. *Nothing, I am interested, but do not really wish to be informed about specific topics (SPONTANEOUS)*
9. *Nothing, I am not interested and do not wish to be informed (SPONTANEOUS)*
10. *Other (SPONTANEOUS)*
11. *DKn*

COUNTRY	1	2	3	4	5	6	7	8	9	10	11
<b>B</b>	60	12	39	40	36	27	23	6	7	0	3
<b>DK</b>	46	23	49	50	35	42	28	5	4	1	2
<b>WD</b>	50	12	40	36	32	32	26	10	5	0	3
<b>D TOTAL</b>	49	12	39	36	31	32	26	10	6	0	3
<b>OD</b>	47	13	36	35	28	30	25	8	7	1	3
<b>GR</b>	66	16	45	36	37	17	23	4	1	0	2
<b>E</b>	60	13	44	29	26	14	15	4	9	0	5
<b>F</b>	44	12	41	39	49	24	28	6	8	0	1
<b>IRL</b>	51	17	34	30	33	18	16	5	11	0	4
<b>I</b>	63	14	48	44	34	21	23	3	2	0	2
<b>L</b>	58	21	55	51	55	35	38	2	4	1	2
<b>NL</b>	44	15	40	39	33	41	27	11	7	1	1
<b>A</b>	46	14	40	36	33	25	27	8	5	1	3
<b>P</b>	51	13	34	29	25	17	16	4	5	1	7
<b>FIN</b>	35	18	39	43	42	38	29	5	4	1	4
<b>S</b>	46	20	48	48	49	56	39	2	3	1	2
<b>UK TOTAL</b>	55	13	40	41	39	29	15	4	9	1	4
<b>EU15</b>	53	13	42	39	36	27	23	6	6	0	3

What are the main subjects Europeans wish to be informed about? Respondents were able to choose more than one of the seven possible answers to this question.

For the European Union as a whole, the main preferences were for the practical issue of how to save energy at home (53%), and then a more complex issue, the use of new forms of energy, though again in the home (42%). These were followed by alternatives to petrol and diesel (39%), safety of nuclear power installations (36%), the prospects for new energy options (27%), EU activities in energy-related research and development (23%) and, lastly, how to save energy at work (13%).

**Energy, and in particular aspects of energy affecting them personally, is thus a subject on which Europeans appear to want to be better informed.**

Answer profiles for this question vary from one Member State to another and according to socio-demographic and political factors, as follows:

- Information concerning savings at home is more of interest in some countries in southern Europe (Greece, Spain, Italy). Women are also keener to receive this type of information (56%, compared with 49% of men).
- Information on how to use new forms of energy at home, alternatives to using petrol in vehicles, prospects for new energy options and EU activities in energy-related research is of greater interest to nationals of Denmark, Luxembourg and Sweden. It is also of more interest to people who have continued their education to a higher level. Moreover, those to the left of the political spectrum tend to be more interested in using new forms of energy at home (47% of those in positions 1 and 2 on the political scale, compared with 40% of those in positions 9 and 10).
- There is particular interest in information concerning the safety of nuclear installations in countries which have many such installations: France (49%, compared with an average of 36%) and Sweden (49%). Here again, the desire for information is more common amongst those who have continued their education to a higher level (43%). In the European Union as a whole, this issue is of no more interest to women than it is to men, except in Finland, where 46% of women state an interest in this subject, compared with 37% of men, and Sweden, where the figure is 53% for women and 45% for men.

TABLE 7

## ► Question 13

**Are you aware of European Union energy-related research and development, or not? (IF YES) In which of the following areas? (SHOW CARD – READ OUT – MULTIPLE ANSWERS POSSIBLE)**

1. No, I am not aware
2. Yes, coal
3. Yes, oil
4. Yes, gas
5. Yes, renewable energy sources, such as solar power, wind
6. Yes, nuclear fission (the splitting of heavy atoms)
7. Yes, nuclear fusion (the merging of light atoms)
8. Yes, cleaner means of transport such as electric cars
9. Yes, other (SPONTANEOUS)

COUNTRY	1	2	3	4	5	6	7	8	9
<b>B</b>	85	1	2	5	11	3	3	7	0
<b>DK</b>	96	1	1	1	3	1	1	2	0
<b>WD</b>	82	4	6	7	10	3	2	5	1
<b>D TOTAL</b>	82	5	6	7	10	3	2	5	1
<b>OD</b>	82	5	7	7	9	3	2	5	1
<b>GR</b>	85	3	8	7	6	1	1	4	0
<b>E</b>	89	2	3	3	7	1	1	4	0
<b>F</b>	81	2	4	4	9	3	3	10	1
<b>IRL</b>	88	4	2	3	8	2	1	3	0
<b>I</b>	85	1	2	3	6	1	2	9	1
<b>L</b>	82	4	4	8	12	3	3	8	0
<b>NL</b>	63	5	6	9	29	8	13	19	1
<b>A</b>	81	3	4	5	9	2	2	5	3
<b>P</b>	85	1	3	6	8	1	2	4	1
<b>FIN</b>	85	1	2	4	11	4	4	7	1
<b>S</b>	95	1	1	1	3	1	1	3	0
<b>UK TOTAL</b>	92	2	2	1	5	2	3	3	1
<b>EU15</b>	85	2	4	4	9	2	3	7	1

In the European Union as a whole, 85% of those questioned said they were not aware of EU energy-related research and development activities, this figure being higher for women than for men (88% compared with 81%). The only fields of research of which Europeans say they have some knowledge (or, more probably, in which they have an interest) are renewable energy sources (9%) and cleaner means of transport (7%). These percentages vary very little from country to country, with the notable exception of the Netherlands, where only 63% of respondents say they are not aware of such

EU research activities, and 29% claim to have some knowledge of the renewable energy sector, 19% of cleaner means of transport and 13% of nuclear fusion (compared with an average of 3%).

The percentages vary according to socio-demographic status, and interest in the three fields of research most commonly cited (renewable energy sources, cleaner means of transport and nuclear fusion) is greater amongst people educated beyond the age of 20 and amongst managerial-grade employees.

**Table 8**

► *Question 14*

**What are your main information sources on energy issues and related technologies?  
(SHOW CARD – READ OUT – MULTIPLE ANSWERS POSSIBLE)**

1. *Television*
2. *Radio*
3. *Internet*
4. *Newspapers and general magazines*
5. *Science and technology magazines*
6. *Electricity, gas and other energy companies*
7. *Energy agencies or local authorities*
8. *Other (SPONTANEOUS)*
9. *None (SPONTANEOUS)*
10. *DKn*

<b>COUNTRY</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>B</b>	78	33	11	37	11	16	4	2	6	4
<b>DK</b>	84	38	20	56	13	18	8	1	2	2
<b>WD</b>	80	30	11	61	8	14	9	3	5	3
<b>D TOTAL</b>	81	31	10	60	8	13	9	3	5	3
<b>OD</b>	83	35	9	56	10	11	10	2	5	2
<b>GR</b>	76	18	5	28	8	3	3	2	10	6
<b>E</b>	72	25	8	27	5	3	1	3	13	5
<b>F</b>	81	33	7	36	14	9	4	2	7	3
<b>IRL</b>	69	33	8	44	5	5	3	2	10	6
<b>I</b>	83	14	11	42	12	4	2	1	6	2
<b>L</b>	77	45	17	57	20	12	7	3	5	1
<b>NL</b>	82	26	18	57	12	24	20	2	4	1
<b>A</b>	76	41	15	49	12	12	6	2	7	2
<b>P</b>	87	15	7	25	7	4	2	4	8	2
<b>FIN</b>	84	27	13	70	12	16	5	4	1	1
<b>S</b>	83	39	17	74	18	14	17	1	1	1
<b>UK TOTAL</b>	79	26	12	56	5	16	6	2	6	2
<b>EU15</b>	80	27	10	47	9	11	6	2	6	3

Questioned about their main sources of information on energy technology (several answers being possible), Europeans put television first (80%), followed by newspapers (47%) and radio (27%). Only 10% of Europeans cited the Internet, though the corresponding figures were 20% in Denmark and 18% in the Netherlands. Likewise, people in younger age groups, and especially those 'still in education' (18% and 22% respectively) make more frequent use of the Internet as a source of information. Lastly, as is always the case, respondents with a higher level of education (age of completing studies over 20) more frequently express a preference for newspapers (57% compared with an average of 47%).

**The traditional media (TV, newspapers) are still the main sources of information on energy (and on other subjects, as indicated by other Eurobarometers). The Internet is still little used, except by younger people.**

## 3. Perceptions of the future

### 3.1. EU energy dependency

TABLE 9

► Question 10

**50% of the energy used in the European Union comes from outside the European Union. This dependency is expected to increase in the future. With which of the following statements, if any, do you agree? (SHOW CARD — READ OUT — MULTIPLE ANSWERS POSSIBLE)**

1. *It is an urgent issue*
2. *Energy imports (of coal, oil, gas, uranium, etc.) from outside the European Union should be reduced*
3. *More energy sources should be developed within the European Union*
4. *More should be done to encourage energy saving in the European Union*
5. *There are issues which are more urgent*
6. *None of these (SPONTANEOUS)*
7. *DKn*

COUNTRY	1	2	3	4	5	6	7
<b>B</b>	38	25	57	50	13	1	7
<b>DK</b>	24	23	58	65	20	1	5
<b>WD</b>	44	27	59	57	10	2	3
<b>D TOTAL</b>	41	27	58	57	10	1	4
<b>OD</b>	32	27	54	55	10	1	7
<b>GR</b>	31	20	51	37	8	1	14
<b>E</b>	33	21	40	34	14	1	12
<b>F</b>	40	23	49	49	15	2	5
<b>IRL</b>	29	21	42	43	12	1	14
<b>I</b>	35	24	57	49	9	1	6
<b>L</b>	39	25	57	55	15	1	6
<b>NL</b>	27	26	60	64	11	1	6
<b>A</b>	40	31	40	53	6	3	7
<b>P</b>	42	16	34	34	11	1	12
<b>FIN</b>	30	27	66	59	10	1	6
<b>S</b>	49	47	72	73	12	0	3
<b>UK TOTAL</b>	34	26	45	54	15	1	11
<b>EU15</b>	37	25	52	51	12	1	7

Europe's growing energy dependency was the subject of a question in the introduction to which interviewees were given the facts (50% imports now, a higher proportion in future):

- on average, over a third of Europeans (37%) agree that energy dependency is an urgent issue;
- about a quarter consider that we should reduce energy imports;
- more or less the same proportion of people say that more energy sources should be developed in the European Union (52%) and that energy-saving should be encouraged (51%).

The proportion of people who feel the situation to be urgent is fairly even throughout Europe, but, interestingly, support for the ideas of developing more energy sources in the European Union and encouraging energy-saving varies quite a lot from country to country, with, in particular, some countries in southern Europe — Greece, Spain and Italy, along with Finland — tending to favour the idea of development, whereas other countries, more often than not in northern Europe, prefer the idea of energy-saving (Denmark, the Netherlands, Austria and the UK).

## 3.2. The future of nuclear fusion

TABLE 10

► Question 11

**Nuclear energy is currently produced by fission or the splitting of heavy atoms. Another option being developed is nuclear fusion, which involves the merging of light atoms. Do you think that power stations using nuclear fusion ...?**

1. *would be safe against major nuclear accidents*
2. *would produce as much long-term nuclear waste as today's nuclear power stations do*
3. *would contribute significantly to global warming*
4. *would use abundant fuel resources*
5. *need much more research and development to confirm their potential*

COUNTRY	1			2			3			4			5		
	Yes	No	DKn	Yes	No	DKn	Yes	No	DKn	Yes	No	DKn	Yes	No	DKn
<b>B</b>	17	49	34	36	20	44	38	21	42	33	17	50	56	8	36
<b>DK</b>	20	23	57	23	21	57	16	38	46	18	32	50	71	3	26
<b>WD</b>	20	42	38	37	21	42	27	29	44	31	21	48	63	9	28
<b>D TOTAL</b>	20	42	39	36	21	43	27	28	44	32	20	48	63	9	29
<b>OD</b>	20	42	39	33	21	46	27	26	46	37	18	45	59	8	34
<b>GR</b>	15	47	37	46	14	40	62	6	32	47	8	45	64	4	32
<b>E</b>	17	26	57	25	13	63	34	9	57	29	8	63	46	3	51
<b>F</b>	20	44	36	42	19	40	40	20	40	35	15	50	59	7	34
<b>IRL</b>	15	45	41	33	14	52	44	11	45	35	10	55	61	4	35
<b>I</b>	20	27	53	33	13	54	31	14	55	19	11	70	58	4	38
<b>L</b>	20	49	31	45	17	38	44	23	33	42	16	42	69	6	25
<b>NL</b>	23	40	37	31	28	41	29	37	34	38	27	35	70	8	22
<b>A</b>	15	54	31	44	19	38	32	27	42	35	21	43	62	8	30
<b>P</b>	18	14	69	19	9	72	32	6	63	23	7	71	36	3	61
<b>FIN</b>	33	33	34	32	29	39	18	48	34	23	38	40	72	5	24
<b>S</b>	29	28	43	18	37	45	14	47	39	22	29	49	70	5	26
<b>UK TOTAL</b>	20	29	51	25	18	56	29	22	49	27	16	57	62	5	34
<b>EU15</b>	20	35	45	33	18	49	32	21	47	29	16	54	59	6	35

A set of three questions concerning the characteristics of energy produced from nuclear fusion were put to interviewees:

- They were asked firstly whether producing energy this way would be safe against major nuclear accidents. Europeans have serious doubts on this score, 45% of the answers being don't know and just over a third (35%) of respondents saying 'no'. It should be mentioned that the proportion of negative answers and don't knows was as high in some countries where the average level of education is as high, e.g. in Denmark, where don't knows accounted for 57% of the total, as in countries in southern Europe where the average level of education is not as high (57% don't knows in Spain, for



instance). The only Member State where there is a significantly more positive answer is Finland (33%), a country known for having a ‘technology optimism’ level which is often above that of the rest of the European Union. It can also be seen that, in the European Union as a whole, those who have higher educational qualifications are scarcely any more optimistic than the average: 24% of them answering ‘yes’ (compared with an average of 20%), 40% answering ‘no’ (average: 35%) and 36% answering ‘don’t know’ (average: 45%).

- The second question concerned the amount of nuclear waste power stations using nuclear fusion would produce. Almost half of Europeans (49%) say they do not know, about a third (33%) think that such power stations will produce as much waste as today’s nuclear power stations do, and 18% think they will not. This pessimism is very evenly spread throughout Europe, as affirmative answers (i.e. there would as much waste produced) outnumbered negative answers in all Member States. In two countries, however, the percentages of those answering ‘no’ were higher, i.e. in Finland (29%) and the Netherlands (28%). Amongst Europeans who have studied beyond the age of 20, the proportion of positive answers is slightly higher (25%).
- The third question concerned the possible contribution of this new type of energy to global warming. Don’t knows account for about the same proportion (47%) and again pessimistic answers outnumber optimistic answers, about a third of respondents (32%) agreeing that this future form of energy will contribute significantly to global warming, compared with 21% who think it will not. In the Netherlands, Denmark, Sweden and Finland, a higher proportion of respondents (37%, 38%, 47% and 48% respectively) consider that this form of energy will not contribute to global warming.
- Europeans are above all poorly informed as to whether power stations using nuclear fusion would use abundant fuel resources, as 54% of them were unable to give an answer, 29% of them optimistically answered ‘yes’ and 16% answered ‘no’. However, some countries which we have described above as being relatively well disposed to such projects are a little more pessimistic in this case: in Finland, for instance, 38% of those questioned answered ‘no’.
- Lastly, a very big majority of Europeans (59% compared with 6%) believe that much more research is needed to confirm the potential of energy from nuclear fusion.

The answers to these four questions show women to be more uncertain than men, as the don’t know rate is about 10% higher for women than for men.

**Analysis of Europeans’ attitudes to the prospect of producing energy from nuclear fusion clearly shows that this issue, despite the explanation given in the introduction to Question 11 remains difficult for an uninformed public to grasp.** Analysis of attitudes shows that when faced with something unfamiliar, individuals tend, in the absence of adequate knowledge, to assess it by association with something related with which they are more familiar. In this case, the negative assessments with regard to energy from nuclear fusion are without any doubt influenced by the general attitude to nuclear energy in Europe, which is still relatively negative. (1)

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(1) In 1986, 7% of those questioned considered that nuclear power stations represented ‘an unacceptable risk’; in 1996, that proportion has risen to 42% (Cf. European Opinion and Energy Matters, 1997, Eurobarometer 46.o, p. 34)

### 3.3. Priorities in respect of energy

Table 11

► Question 16

In respect of energy, what do you think the two first priorities for the (NATIONALITY) government should be? (SHOW CARD — READ OUT — MAX. 2 ANSWERS)

COUNTRY	Low prices for consumers	Ensuring uninterrupted supplies of oil, gas, electricity	Protection of the environment and public health and safety associated with energy supply	Other (SPONTANEOUS)	DKn
<b>B</b>	80	16	70	1	2
<b>DK</b>	43	55	70	0	2
<b>WD</b>	55	41	65	2	4
<b>D TOTAL</b>	59	40	64	1	4
<b>OD</b>	72	36	60	1	2
<b>GR</b>	77	16	82	0	1
<b>E</b>	64	37	60	1	6
<b>F</b>	70	16	76	1	2
<b>IRL</b>	61	33	67	1	6
<b>I</b>	65	15	83	1	2
<b>L</b>	53	24	71	1	2
<b>NL</b>	26	60	78	2	5
<b>A</b>	47	46	64	2	3
<b>P</b>	69	20	58	1	4
<b>FIN</b>	38	63	74	1	2
<b>S</b>	60	29	88	1	1
<b>UK TOTAL</b>	61	33	76	1	3
<b>EU15</b>	62	30	72	1	3

Interviewees were asked to choose between three government priorities in respect of energy (two answers being possible). The most frequent answer is protection of the environment and public health (72%), followed by low prices for consumers (62%) and, lastly, uninterrupted energy supplies (30%).

These proportions varied somewhat within the European Union:

- In some countries, both in northern and in southern Europe, higher priority is given to low prices. This is true of Belgium (80%), Greece (77%) and France (70%).
- In other countries, e.g. Finland (63%), the Netherlands (60%) and Denmark (55%), there is greater concern about uninterrupted supplies.

– In Italy and Sweden, more priority is given than in other countries to protecting the environment and health (83% and 88% respectively).

Preferences here were also linked to the social and cultural background of individuals. For instance, keeping prices low was chosen by 67% of those who did not continue in education beyond the age of 15 and by the same proportion (67%) from households with the lowest incomes (compared with 53% of those from higher-income households). Conversely, those who continued their education beyond the age of 20 more frequently choose protection of the environment (81%, compared with an average of 71%).

**TABLE 12**

► **Question 17. a)**

**Let's think forward about fifty years, to 2050. Which of the following energy resources do you think will be least expensive? (SHOW CARD — MAX. 2 ANSWERS)**

1. *Solid fuels (coal, peat, etc.)*
2. *Oil*
3. *Natural gas*
4. *Nuclear fission*
5. *Nuclear fusion*
6. *Hydroelectric power (dams, etc.)*
7. *Other renewable sources of energy (solar power, wind, biomass, etc.)*
8. *None of these (SPONTANEOUS)*
9. *DKn*

<b>COUNTRY</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>B</b>	15	6	26	7	9	25	44	1	15
<b>DK</b>	8	8	19	15	23	25	59	0	4
<b>WD</b>	12	8	20	15	16	24	37	3	15
<b>D TOTAL</b>	12	7	19	14	16	26	38	3	15
<b>OD</b>	12	7	15	11	19	31	41	1	14
<b>GR</b>	5	12	47	4	4	22	34	1	17
<b>E</b>	11	5	16	2	4	15	39	2	26
<b>F</b>	13	8	22	15	17	22	39	2	13
<b>IRL</b>	14	5	21	6	6	18	35	2	22
<b>I</b>	15	7	27	5	9	24	40	2	15
<b>L</b>	9	9	21	12	14	18	49	1	13
<b>NL</b>	6	5	15	12	25	34	57	1	10
<b>A</b>	15	7	11	13	13	35	41	3	17
<b>P</b>	3	5	28	2	3	24	21	2	33
<b>FIN</b>	7	6	18	18	29	14	45	0	10
<b>S</b>	9	4	23	14	28	37	59	0	5
<b>UK TOTAL</b>	9	4	16	10	16	26	42	1	17
<b>EU15</b>	11	7	21	10	14	24	40	2	16

► Question 17. b)

**And which do you think will provide the greatest amount of useful energy? (SHOW SAME CARD — MAX. 2 ANSWERS)**

1. Solid fuels (coal, peat, etc.)
2. Oil
3. Natural gas
4. Nuclear fission
5. Nuclear fusion
6. Hydroelectric power (dams, etc.)
7. Other renewable sources of energy (solar power, wind, biomass , etc.)
8. None of these (SPONTANEOUS)
9. DKn

<b>COUNTRY</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>B</b>	3	6	28	9	15	24	42	0	15
<b>DK</b>	7	19	26	17	27	9	40	0	6
<b>WD</b>	6	17	23	23	23	13	26	2	16
<b>D TOTAL</b>	6	17	22	22	24	13	27	2	16
<b>OD</b>	6	16	19	17	27	15	30	1	16
<b>GR</b>	3	16	40	6	6	19	27	1	23
<b>E</b>	2	14	17	6	12	16	25	0	29
<b>F</b>	3	11	18	22	29	19	27	2	16
<b>IRL</b>	8	12	21	9	11	13	23	1	27
<b>I</b>	4	25	22	17	23	14	18	0	20
<b>L</b>	4	6	16	17	23	17	37	2	17
<b>NL</b>	4	9	21	18	37	18	41	0	11
<b>A</b>	5	12	14	16	15	35	35	1	22
<b>P</b>	2	5	22	3	5	25	18	1	37
<b>FIN</b>	5	6	10	20	32	11	33	1	13
<b>S</b>	7	12	16	22	36	29	37	0	8
<b>UK TOTAL</b>	5	6	15	15	22	18	29	1	21
<b>EU15</b>	4	14	20	17	22	17	27	1	19

► Question 17. c)

And which do you think will be the best for the environment? (SHOW SAME CARD – MAX. 2 ANSWERS)

1. Solid fuels (coal, peat, etc.)
2. Oil
3. Natural gas
4. Nuclear fission
5. Nuclear fusion
6. Hydroelectric power (dams, etc.)
7. Other renewable sources of energy (solar power, wind, biomass, etc.)
8. None of these (SPONTANEOUS)
9. DKn

COUNTRY	1	2	3	4	5	6	7	8	9
<b>B</b>	3	0	15	1	4	42	71	1	9
<b>DK</b>	1	1	8	4	8	46	79	0	3
<b>WD</b>	4	2	7	2	5	50	71	2	9
<b>D TOTAL</b>	4	2	7	3	6	50	71	2	9
<b>OD</b>	2	1	4	3	8	49	71	1	11
<b>GR</b>	1	2	35	1	1	33	53	1	15
<b>E</b>	2	1	6	1	2	20	70	3	15
<b>F</b>	5	2	10	5	5	32	64	3	13
<b>IRL</b>	3	3	10	2	2	24	54	2	23
<b>I</b>	4	1	16	2	4	39	69	1	11
<b>L</b>	3	2	10	2	5	35	73	2	10
<b>NL</b>	1	1	5	2	11	55	84	0	3
<b>A</b>	3	2	8	2	3	57	71	1	11
<b>P</b>	1	1	20	1	1	28	39	1	30
<b>FIN</b>	3	1	8	5	11	22	69	0	7
<b>S</b>	3	0	15	6	18	47	73	0	5
<b>UK TOTAL</b>	2	2	7	3	6	32	63	1	14
<b>EU15</b>	3	2	10	3	5	38	67	2	12

Europeans were asked to say which energy sources would be the best in fifty years time on the basis of three different criteria: price, efficiency, and protection of the environment.

- With regard to price, European clearly have faith in renewable energy sources, as 40% of them consider that solar power, wind power and biomass will in the long run be the cheapest forms of energy, and 24% of them choose hydroelectric power. Another 21% choose natural gas, and nuclear fusion is the choice of 14% of those interviewed.

Perceptions vary fairly markedly from country to country: Denmark, the Netherlands and Sweden place most faith in recently developed renewable energy sources (solar etc.). Some countries which are themselves producers of hydroelectric power, have more faith in those technologies (Sweden, 37%, Austria 35%), and in Greece, Italy and Portugal the top choice is natural gas. Nuclear fusion is a more frequent choice in countries where the average level of education is high, e.g. Finland (29%) Sweden (28%), the Netherlands (25%) and Denmark (23%).

Cultural factors also tend to influence the percentages in favour of renewable energy sources (48% amongst those who have continued their education beyond the age of 20, compared with an average of 37%) and nuclear fusion (20%, compared with an average of 10%). However, there is scarcely any difference between the answers given by men and women, apart from the fact that 20% of women are don't knows, compared with 12% of men.

- When asked to say which energy resources will provide the greatest amount of useful energy, Europeans are less certain (don't knows accounting for 19% of answers) but they again, albeit a smaller proportion of them (27%), opt for renewable energy sources. This time, nuclear fusion comes second (22%), followed by natural gas (20%), hydroelectric energy (17%) and nuclear fission (17%). The factors we have described as affecting choices with regard to the price criterion play a more or less similar role here.
- When it comes to protection of the environment, the vast majority of Europeans choose new (solar etc.) (67%) or conventional (hydroelectric) (38%) renewable energy sources; natural gas comes third, with 10%.

Europeans thus give high priority to renewable energy sources (conventional and new). In order to gain a clearer picture of the level and breakdown of these preferences, the response profiles for renewable energy sources have been summarised in Table 13. More than two-thirds of Europeans (68%) are positively inclined towards renewable energy sources on the basis of at least one criterion (the most frequently cited obviously being their environmental qualities). A breakdown of this overall figure shows the most frequent response profile (26%) to be positive on the basis of all three criteria, i.e. price, efficiency and environmental protection. The next most frequent response profile is one of reservations as regards efficiency (21%) but positive views as regards the other criteria and, lastly, one which is positive only as regards the environmental criterion (21%).

**TABLE 13**

Summary of perceptions of the benefits of renewable energy sources:

Renewable forms of energy (old or new) are best with regard to ...			
... price	... efficiency	... the environment	% of respondents
yes	yes	yes	26%
yes	no	yes	21%
no	no	yes	21%
Other answers			32%
TOTAL			100%

It is worth noting that the frequency of the most positive profile and the profile which is negative only with regard to price increases with the respondents' level of education: amongst those who have continued their education beyond the age of 20, they account respectively for 31% (average 26%) and 25% (average 21%) of responses.

However, these preference models do not bear much relationship to political leanings: the most positive profile fits 29% of those in boxes 1 and 2 on the political scale (i.e. the furthest 'left') and 25% of those in boxes 9 and 10 (i.e. the furthest 'right').

Preference for renewable energy sources is particularly marked in certain countries: in Austria, the entirely positive profile fits 38% of those questioned, in the Netherlands 39%, and in Sweden 50%.

**Overall, the perception Europeans have of energy options in 20 and in 50 years from now is clearly influenced by their own instinctive preferences for renewable energy sources, although the majority of those questioned consider that it will still be necessary to use different types of energy.**

TABLE 14

## ► Question 19. a)

In 20 years from now, do you think that all our energy needs will be satisfied by...?  
(SHOW CARD – READ OUT – ONE ANSWER ONLY)

<i>COUNTRY</i>	One single energy source	A mix of different energy sources	DKn
<i>B</i>	5	79	16
<i>DK</i>	1	97	2
<i>WD</i>	3	83	15
<i>D TOTAL</i>	3	82	15
<i>OD</i>	5	78	17
<i>GR</i>	5	77	18
<i>E</i>	6	74	21
<i>F</i>	6	81	14
<i>IRL</i>	7	67	26
<i>I</i>	6	76	18
<i>L</i>	5	83	12
<i>NL</i>	1	94	4
<i>A</i>	7	83	11
<i>P</i>	7	66	27
<i>FIN</i>	3	93	4
<i>S</i>	2	95	3
<i>UK TOTAL</i>	6	85	10
<i>EU15</i>	5	81	14



► Question 19. b)

Which of the following would it be? (SHOW CARD — READ OUT — ONE ANSWER ONLY)

COUNTRY	Renewable energy sources (wind, solar, hydroelectric, etc.)	Natural gas	Oil	Solid fuels (coal, peat, etc.)	Nuclear fission	Nuclear fusion	Other source (SPONTANEOUS)	DKn
<i>B</i>	54	14	2	5	0	5	3	18
<i>DK</i>	38	30	6	0	17	9	0	0
<i>WD</i>	36	26	0	6	9	10	14	0
<i>D TOTAL</i>	37	21	1	5	11	15	10	1
<i>OD</i>	40	11	3	3	14	25	2	3
<i>GR</i>	20	56	10	0	4	4	0	5
<i>E</i>	60	12	9	0	2	9	2	7
<i>F</i>	29	29	2	3	8	24	2	5
<i>IRL</i>	50	24	2	4	3	10	0	8
<i>I</i>	47	20	16	2	5	5	0	5
<i>L</i>	25	25	3	3	21	8	0	15
<i>NL</i>	38	21	7	0	7	28	0	0
<i>A</i>	40	16	8	0	11	17	3	6
<i>P</i>	52	36	4	0	0	4	2	2
<i>FIN</i>	41	13	0	11	19	17	0	0
<i>S</i>	43	0	8	0	7	34	0	8
<i>UK TOTAL</i>	47	25	2	2	6	14	0	4
<i>EU15</i>	43	23	6	2	6	13	2	5

A very big majority of Europeans anticipate that in 20 years from now the European Union's energy needs will be met by 'a mix of different energy sources' (81%) rather than by 'one single energy source' (5%). This perception of the future is shared by 94% of the Dutch, 95% of Swedes and 97% of Danes. Although this perception predominates everywhere, the percentage of don't knows is appreciably higher in Spain (20%), Ireland (26%) and Portugal (27%).

The small minority of people who think that one single energy source will meet future needs (5%) were asked to specify what source it would be: the biggest number of respondents say it will be a renewable energy source (46%), about a quarter (23%) say natural gas, and 13% say nuclear fusion.

### 3.4. Priorities as regards safety

TABLE 15

► Question 18

From the following list, which do you think should be the three top priorities governments in the European Union should take more action about? (SHOW CARD — READ OUT — MAX. 3 ANSWERS)

1. Health and safety at work
2. The safety of chemical plants and the transport of chemical substances
3. The safety of nuclear power stations
4. The management and disposal of radioactive waste
5. Food safety
6. The safety of oil refineries
7. The safety of oil and gas transport (tankers, pipelines, etc.)
8. Road accidents
9. Other (SPONTANEOUS)
10. DKn

COUNTRY	1	2	3	4	5	6	7	8	9	10
<b>B</b>	37	33	41	40	67	4	15	35	1	2
<b>DK</b>	40	38	40	51	60	2	24	19	1	1
<b>WD</b>	32	37	64	51	49	5	21	9	1	3
<b>D TOTAL</b>	32	36	62	51	49	5	20	9	1	3
<b>OD</b>	33	35	56	50	50	5	20	11	1	3
<b>GR</b>	63	30	46	34	62	7	7	16	0	4
<b>E</b>	66	19	35	35	56	4	12	27	2	4
<b>F</b>	40	44	51	46	52	5	16	22	1	1
<b>IRL</b>	39	36	54	44	32	8	12	23	2	5
<b>I</b>	57	29	44	43	59	5	13	17	1	2
<b>L</b>	47	36	55	34	53	3	12	19	0	3
<b>NL</b>	31	50	50	51	49	4	15	22	1	2
<b>A</b>	42	31	58	42	53	6	11	16	1	4
<b>P</b>	57	29	21	26	55	8	14	27	1	6
<b>FIN</b>	29	34	60	59	52	7	19	13	1	3
<b>S</b>	30	42	59	65	39	3	27	18	0	1
<b>UK TOTAL</b>	34	37	53	55	46	5	15	26	1	3
<b>EU15</b>	43	35	50	47	52	5	16	19	1	3

Although the question does not explicitly refer to it, safety is what is implied here, and the problem is to choose from amongst the different priorities the three which EU governments should take more action about. Table 15 clearly shows that nuclear safety dominates everything else in Europe, with very few

exceptions: the scores being 50% for nuclear installations and 47% for radioactive waste, making a total of 96%. In southern Member States, in particular Portugal, this priority is a little less pronounced. By contrast, road accidents are, relatively speaking, considered to be the least important, accounting for 19% of answers in the European Union as a whole.

Once again, the public paradoxically wants governments to become more active in dealing with something which, so far, has cost less lives and caused less harm to people and property generally (nuclear power) whilst calling for little action to deal with the issue that causes greatest damage (road accidents). Studies of risk perception have regularly demonstrated that risks which individuals (wrongly or rightly) feel able to control are more readily accepted than those which place them in a situation of dependence. Thus, car-driving (for which the 'objective' risk is high) is felt to be fairly low-risk, whereas flying ('statistically' very safe) often makes people afraid. The same applies to the perception of nuclear energy. It should be added that a risk is considered to exist not only on the basis of past experience but also on the basis of the presumed effects if the risk were to translate into reality in the future: the nuclear risk, which is 'in theory' very low, is considered worrying because of the tragic consequences if something were actually to go wrong.

Food safety (52%) ranks second amongst the concerns of Europeans, followed by safety at work (43%) and three closely related areas: chemical plants and the transport of dangerous substances (35%), oil transport (16%) and oil refineries (5%). Between them, these three categories, all of which evidently bring to mind the risk of spectacular accidents, thus have a score of 56%.

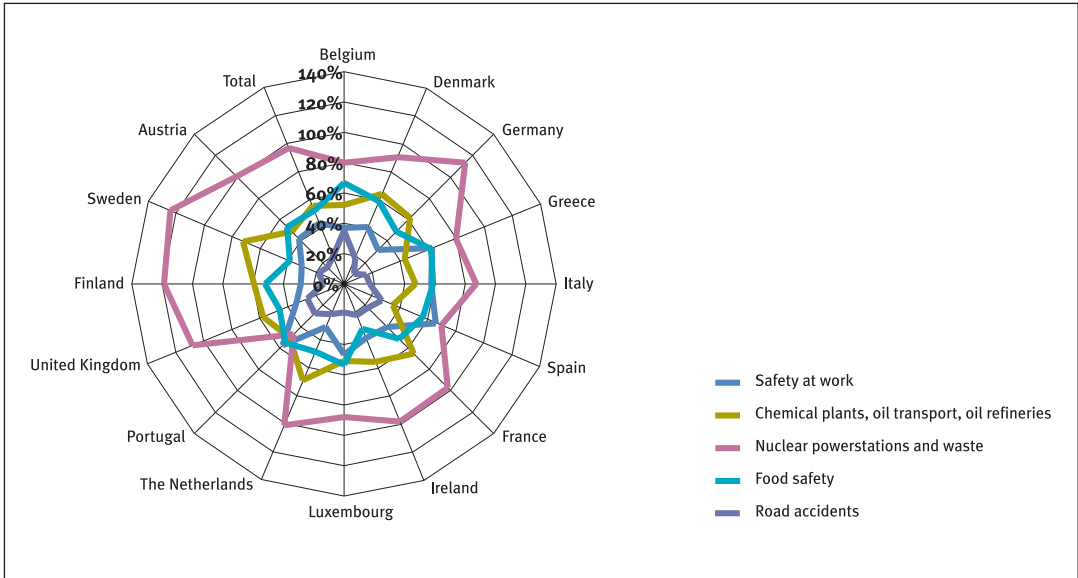
To make it easier to analyse the results for this question, a number of graphs have been drawn, showing the percentages of responses per country, and combining certain categories so as to aid legibility:

- nuclear power station safety has thus been combined with radioactive waste sites,
- chemical plants have been combined with oil refineries and oil transport,
- the three other categories (safety at work, food safety and road accidents) have been left unchanged.

The first graph shows the percentages for these five categories by Member State.

**GRAPH 1:**

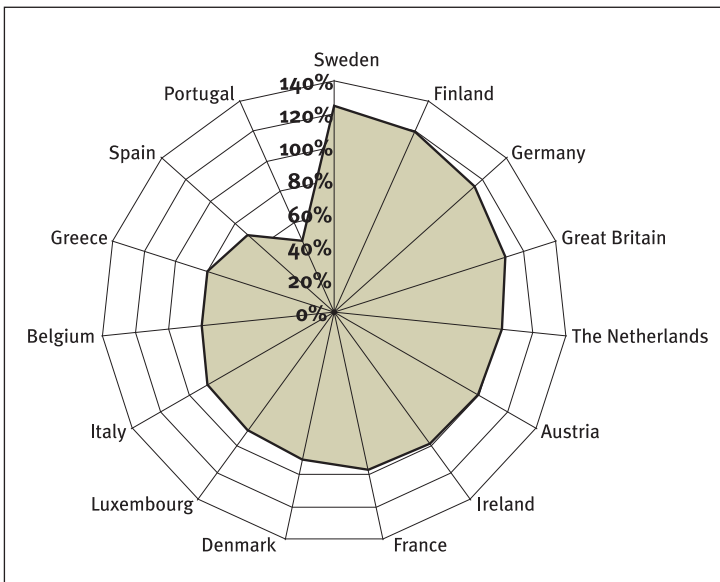
**Percentages for the priorities grouped into five categories, by Member State**



The following five graphs (2.1–2.5) address these different issues individually so as to get a better picture of the differences in attitudes between EU Member States (countries being ranked by percentage in descending order) .

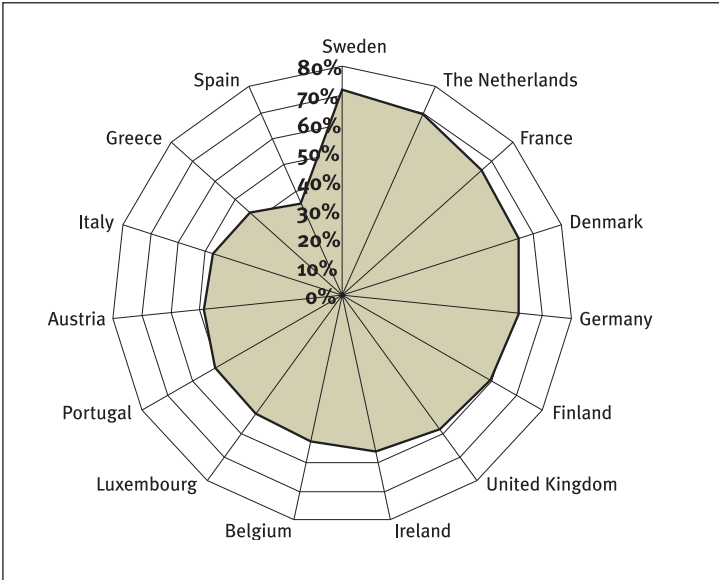
**GRAPH 2.1**

**Nuclear plants and waste**



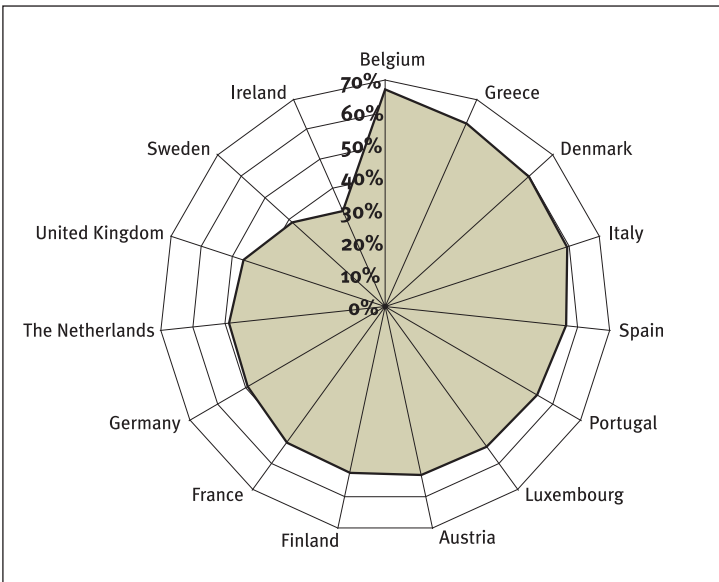
**GRAPH 2.2**

**Chemical plants, oil refineries, oil transport**



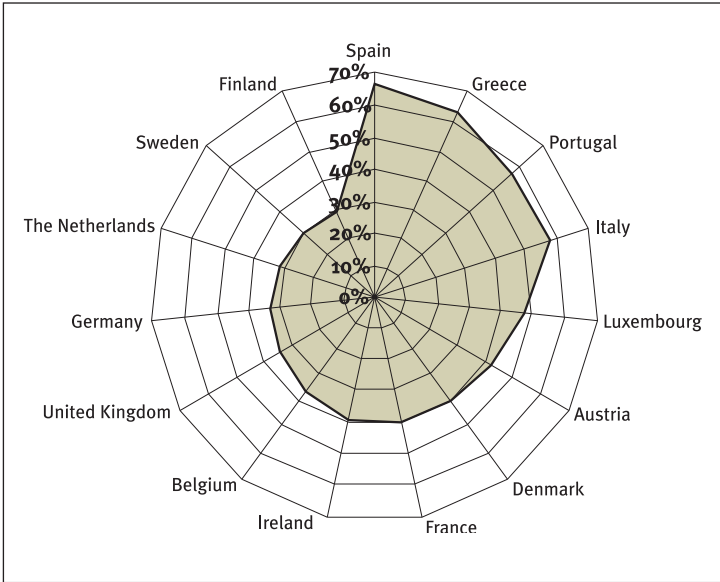
**GRAPH 2.3**

**Food safety**



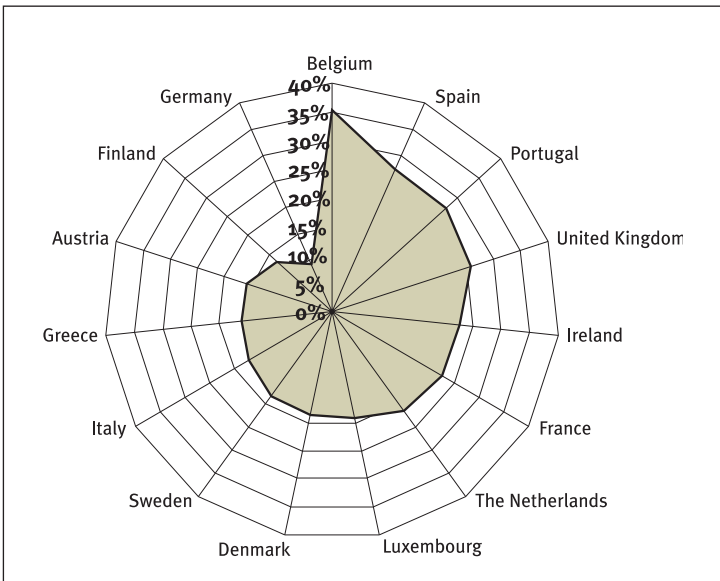
**GRAPH 2.4**

**Health and safety at work**



**GRAPH 2.5**

**Road accidents**



Graph 2.1 shows that concern to see prevention policies developed for nuclear safety is greatest in Member States where nuclear power is used fairly extensively (Finland, Sweden, Germany). However, France is an exception to this rule, as the percentage of people there choosing these priorities is slightly lower than the European average. In the Member States in southern Europe (admittedly non-producers apart from Spain), these issues are not ranked first.

With regard to chemical plants, oil refineries and associated transport operations (Graph 2.2), there is again a difference between Member States in northern Europe, where people are more inclined to be cautious, and countries in southern Europe, where people are less concerned.

By contrast, where food safety is concerned (Graph 2.3), people in Member States in both southern and northern Europe express great concern (Belgium, Greece, Denmark, Italy) and, at the other end of the scale, are less concerned (Ireland, Sweden, Great Britain).

Health and safety at work (Graph 2.4) is most often cited in the countries in the south of the European Union, (Spain, Greece, Portugal, Italy) and much less in Finland, Sweden, the Netherlands, where labour legislation is probably considered to offer better protection.

Lastly, the desire to see more action taken to prevent road accidents (Graph 2.5) is greatest in Belgium, Spain and Portugal.

### 3.5. Energy-related research

TABLE 16

► Question 15

**On which of the following areas do you think energy-related research and development will have a strong impact? (SHOW CARD – READ OUT – MULTIPLE ANSWERS POSSIBLE)**

1. *Social and economic development*
2. *Quality of air, soil and water*
3. *Reduction of greenhouse gas emissions that contribute to global warming and climate change*
4. *Employment*
5. *Reducing bills for electricity, gas, etc.*
6. *Other (SPONTANEOUS)*
7. *None (SPONTANEOUS)*
8. *DKn*

COUNTRY	1	2	3	4	5	6	7	8
<b>B</b>	24	54	49	17	31	1	1	15
<b>DK</b>	25	59	62	19	25	1	2	9
<b>WD</b>	35	60	58	25	21	2	2	10
<b>D TOTAL</b>	36	59	56	24	21	2	2	10
<b>OD</b>	41	54	52	22	22	1	1	10
<b>GR</b>	37	46	40	16	23	0	1	19
<b>E</b>	29	34	39	12	18	1	2	25
<b>F</b>	21	64	53	19	31	0	2	8
<b>IRL</b>	24	47	51	15	24	2	1	19
<b>I</b>	31	52	47	14	15	1	1	15
<b>L</b>	32	61	51	20	25	2	2	9
<b>NL</b>	29	66	63	22	20	1	1	10
<b>A</b>	34	56	52	20	30	1	2	9
<b>P</b>	28	52	34	14	22	0	1	16
<b>FIN</b>	22	55	63	20	18	1	2	10
<b>S</b>	40	68	81	33	25	0	0	6
<b>UK TOTAL</b>	31	48	51	23	34	0	2	18
<b>EU15</b>	30	54	51	20	24	1	1	14

Europeans believe that energy-related R&D will have greatest impact on the quality of air, soil and water (54%) and the reduction of greenhouse gas emissions (51%). In some countries in northern Europe, these rankings are reversed: in Denmark, Finland and in particular Sweden, reduction of greenhouse gas emissions is more frequently cited (62%, 63% and 81% respectively).

The impact on social and economic development ranks thirds (30%).



**TABLE 17**

► **Question 21**

**In which of the following areas would you like to see more energy-related research in the European Union? (SHOW CARD — READ OUT — MULTIPLE ANSWERS POSSIBLE)**

1. Coal
2. Oil
3. Gas
4. Renewable energy sources, such as solar power, wind
5. Nuclear fission, the splitting of heavy atoms
6. Nuclear fusion, the merging of light atoms
7. Cleaner means of transport such as electric cars
8. Other (SPONTANEOUS)
9. I would not like to see more energy-related research in the European Union (SPONTANEOUS)
10. DKn

<b>COUNTRY</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>B</b>	5	7	18	73	11	17	58	2	3	7
<b>DK</b>	2	4	8	79	11	21	58	0	1	5
<b>WD</b>	5	6	14	74	10	26	51	2	1	8
<b>D TOTAL</b>	5	6	13	74	10	27	52	2	1	9
<b>OD</b>	4	6	9	74	11	32	55	2	1	9
<b>GR</b>	9	18	36	59	9	10	38	0	2	11
<b>E</b>	4	8	12	60	6	10	37	1	5	20
<b>F</b>	6	7	15	68	11	21	58	0	2	6
<b>IRL</b>	6	7	20	58	10	10	30	1	3	17
<b>I</b>	4	4	12	74	8	16	57	1	0	7
<b>L</b>	3	4	12	77	9	14	53	1	2	5
<b>NL</b>	3	4	7	77	18	36	61	2	1	7
<b>A</b>	6	8	12	70	5	12	46	2	3	9
<b>P</b>	3	6	22	46	7	10	32	1	2	27
<b>FIN</b>	4	4	13	75	19	32	50	1	0	7
<b>S</b>	3	4	13	80	14	42	67	1	0	5
<b>UK TOTAL</b>	5	6	11	64	13	20	50	0	3	14
<b>EU15</b>	5	6	13	69	10	21	51	1	2	10

When it comes to energy-related research, Europeans would firstly like to see the European Union do more in two areas: renewable energy sources (69%) and cleaner means of transport (51%). Nuclear fusion comes next (21%). Conventional energy sources trail far behind, with natural gas scoring 13%, nuclear fission 10%, oil 6%, and coal 5%. These preferences are linked in part to respondents' political views. For instance, renewable energy sources and cleaner means of transport are the most frequent choices of those on the centre-left of the political spectrum (boxes 3 and 4), with 75% (average 69%)

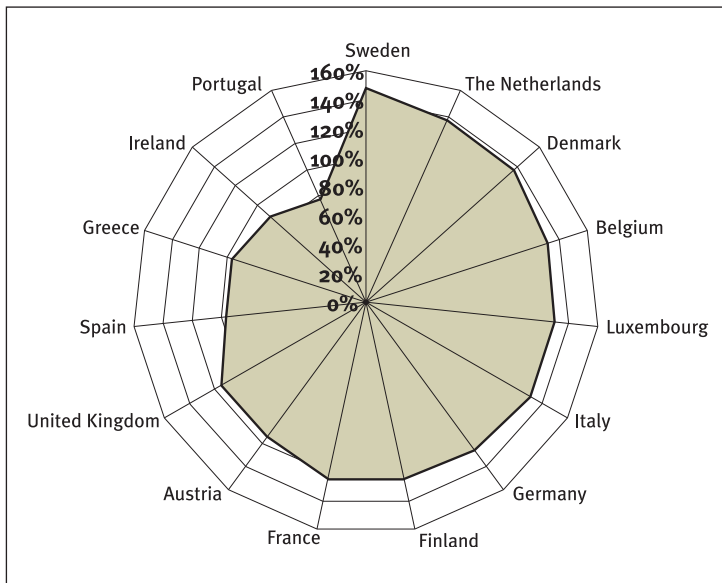
and 57% (average 51%) respectively. By contrast, those who lean more to the right (boxes 7 and 8 on the political scale) more frequently choose research into nuclear fusion (29%, compared with an average of 21%). This is also a more frequent choice amongst men than amongst women (25% compared with 17%).

To make comparison of the differences between Member States easier, Graphs 3.1 and 3.2 show Member States ranked in descending order according to the percentage of people choosing the two most frequently chosen groups of options:

- research into renewable energy sources and cleaner means of transport (Graph 3.1)
- nuclear research (fission and fusion) (Graph 3.2)

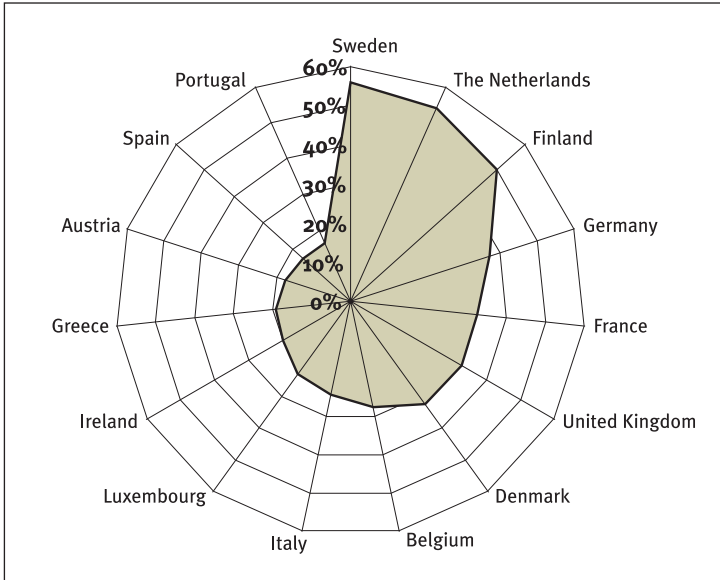
**GRAPH 3.1**

**Research into new energy sources and clean transport**



GRAPH 3.2

### Research into nuclear energy



**Whilst research into new energy sources and clean means of transport was the most frequent choice in Sweden, the Netherlands and Denmark, it also appears to enjoy very wide support throughout Europe.** By contrast, research into nuclear fission or fusion is a markedly more popular choice in three countries in northern Europe (Sweden, the Netherlands, Finland) and a much less popular one in Austria, Spain and Portugal.

Support for research into renewable energy sources or clean means of transport rises with the respondents' cultural level. Amongst those who continued their education beyond the age of 20, 77% choose renewable energy sources (average: 65%) and 60% clean means of transport (average: 49%). There are also sizeable differences as regards research into nuclear fusion, which is chosen by 30% of people with this level of education, compared with the average of 21%.

**TABLE 18**

► *Question 20*

**For which of the following reasons do you think the European Union should continue to fund nuclear research? (SHOW CARD — READ OUT — MULTIPLE ANSWERS POSSIBLE)**

1. *To reduce the cost of nuclear power*
2. *To increase the safety of nuclear power stations in the European Union*
3. *To achieve a broadly accepted solution for the disposal of radioactive waste in the European Union*
4. *To improve nuclear safety and waste disposal in non-European Union countries*
5. *For other reasons (SPONTANEOUS)*
6. *The European Union should not continue to fund nuclear research*
7. *DKn*

<b>COUNTRY</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>B</b>	29	50	52	39	2	9	10
<b>DK</b>	8	52	45	47	1	22	6
<b>WD</b>	20	54	46	41	2	20	10
<b>D TOTAL</b>	21	53	45	40	2	20	10
<b>OD</b>	26	48	43	37	2	18	11
<b>GR</b>	20	40	38	38	2	14	18
<b>E</b>	24	37	37	26	1	15	21
<b>F</b>	33	52	52	47	1	7	5
<b>IRL</b>	15	47	39	35	2	11	18
<b>I</b>	20	45	38	34	3	13	13
<b>L</b>	19	50	49	46	3	15	7
<b>NL</b>	16	48	50	50	3	12	9
<b>A</b>	17	41	38	31	2	27	8
<b>P</b>	20	29	32	27	3	5	34
<b>FIN</b>	16	54	51	61	5	3	6
<b>S</b>	16	71	46	74	1	4	5
<b>UK TOTAL</b>	25	49	38	48	3	6	13
<b>EU15</b>	23	48	43	41	2	13	12

The question which is the subject of Table 18 helps to identify the possible reasons why people consider nuclear research should continue. The main reason cited is safety: 48% of the respondents consider that the aim of such research should be to increase the safety of nuclear power stations in the European Union. This reason is chosen even more frequently in Member States which have significant numbers of nuclear power stations: Sweden (71%), Finland (54%), Germany (53%) and France (52%). The second most frequently cited reason (43%) is to find a broadly accepted solution for the disposal of radioactive waste. Here, again, it is the countries for which this is actually a problem where this reason is cited, in particular Belgium (52%), France (52%) and Finland (51%). Increasing nuclear safety and waste disposal in non-EU countries is the reason which ranks third (41%). This issue is more of a

concern in countries close to northern Russia: Sweden (74%) and Finland (61%). It should be noted that the idea of reducing the cost of nuclear power is considered to be a key criterion for research by only one quarter of Europeans (23%).

The answers to this question also vary according to the respondents' cultural levels and political leanings:

- on the whole, women are less certain when it comes to matters such as this, as 15% of them (compared with 9% of men) were don't knows, although, apart from that, their attitudes scarcely differ from those of men.
- relatively speaking, more of those who have continued their education beyond the age of 20 want to see nuclear research continued so as to increase the safety of nuclear power stations (55%, compared with an average of 48%), to find a broadly accepted solution for the disposal of radioactive waste (52%, compared with an average of 43%) and to increase nuclear safety in non-EU countries (48%, compared with an average of 41%).
- those who lean more to the right politically (boxes 7 and 8) place greater emphasis on the economic argument, 27% of them wanting to see research aimed at reducing the cost of nuclear power (as compared with 21% of those on the left).

**All in all, it would appear that the justification for, and advisability of, EU funding for nuclear research is accepted by a wide margin, in particular with the aim of resolving the waste problem and increasing power station safety.**

TABLE 19

## ► Question 28

Some people say that large-scale investments are required into long-term research activities (nuclear fusion, renewable energy sources, etc.) which may provide cleaner energy for future generations. Please choose from the following statements those that come closest to your own opinion. (SHOW CARD – READ OUT – MULTIPLE ANSWERS POSSIBLE)

1. *The potential benefits justify major investments*
2. *Other energy resources are limited and may run out*
3. *I would welcome any attempt to promote such research, provided that its cost and progress are carefully monitored*
4. *Priority should be given to technologies that bring immediate results*
5. *It is more important to improve what we are doing now than to invest in something uncertain*
6. *I don't believe such solutions exist (SPONTANEOUS)*
7. *DKn*

COUNTRY	1	2	3	4	5	6	7
<b>B</b>	14	30	39	24	22	3	17
<b>DK</b>	27	33	53	14	26	2	8
<b>WD</b>	33	30	42	26	23	7	7
<b>D TOTAL</b>	33	30	41	26	23	7	8
<b>OD</b>	33	31	36	26	21	5	11
<b>GR</b>	15	16	36	29	15	4	30
<b>E</b>	20	21	32	14	13	3	31
<b>F</b>	17	26	40	23	24	7	12
<b>IRL</b>	18	20	33	20	22	4	23
<b>I</b>	28	21	40	19	17	3	16
<b>L</b>	19	30	43	25	25	4	13
<b>NL</b>	24	37	54	32	20	3	10
<b>A</b>	28	27	37	21	21	10	11
<b>P</b>	15	16	27	19	11	4	37
<b>FIN</b>	22	32	52	20	19	2	10
<b>S</b>	26	35	61	33	24	2	8
<b>UK TOTAL</b>	27	31	46	19	21	4	15
<b>EU15</b>	25	27	41	22	20	5	15

Amongst the various statements concerning long-term investments in future energy sources, there is one which appears to be a priority for Europeans (41% on average): namely that research is a good idea provided that its cost and progress are carefully monitored. This cautious approach is advocated in particular by Swedes (61%), the Dutch (54%), Finns (52%) and Danes (53%). This option is also endorsed by managerial-grade employees (50%) and those who have continued their education for a

long period (49%). The statement reflecting fears that traditional energy sources are running out ranks second overall (27%), and was the most frequent choice in the Netherlands (37%), Sweden (35%) and Denmark (33%). The statement that potential benefits justify such investments was chosen by about the same proportion of respondents (25%).

Respondents find two other arguments less convincing: the ideas that priority should be given to technologies which give immediate results (22%) and that we should improve what we are doing now rather than invest in something uncertain (20%).

An analysis of these answers on the basis of socio-cultural variables reveals in particular differences in the proportions of don't knows: 19% of women and 25% of those who did not continue their education beyond the age of 15 fall into this category. By contrast, those educated to a higher level more often choose all the statements offered, except for the idea that it is more important to improve what we are doing now rather than invest in something uncertain.

**It therefore appears that Europeans want to see EU support for long-term risky research but also want its costs and progress to be carefully monitored.**

**TABLE 20**

► **Question 22**

**Some people say that there is a lack of interest amongst young people in energy-related studies at university. What do you think are the two main reasons for this? (SHOW CARD — READ OUT — MAX. 2 ANSWERS)**

1. *Energy-related studies are not appealing enough to most young people*
2. *Energy-related studies are not promoted enough as a course of study*
3. *Energy-related studies are too difficult*
4. *Energy-related businesses are not appealing enough*
5. *I don't think that there is a lack of interest (SPONTANEOUS)*
6. *Other (SPONTANEOUS)*
7. *DKn*

<b>COUNTRY</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>B</b>	25	42	28	24	10	1	15
<b>DK</b>	37	47	14	34	5	3	14
<b>WD</b>	30	24	13	28	10	1	30
<b>D TOTAL</b>	29	24	13	27	9	1	31
<b>OD</b>	27	22	13	25	9	1	33
<b>GR</b>	29	40	28	25	4	3	20
<b>E</b>	30	28	19	17	7	3	26
<b>F</b>	26	40	30	25	14	2	9
<b>IRL</b>	31	39	15	21	10	2	23
<b>I</b>	25	38	21	17	10	2	21
<b>L</b>	32	23	24	32	10	3	15
<b>NL</b>	36	36	14	32	12	2	16
<b>A</b>	30	32	13	22	18	2	18
<b>P</b>	18	20	15	14	10	2	37
<b>FIN</b>	25	47	16	47	6	1	12
<b>S</b>	39	50	20	48	6	2	7
<b>UK TOTAL</b>	45	40	13	30	6	4	16
<b>EU15</b>	31	34	19	25	10	2	21

Training research scientists and hence, prior to that, attracting students, is one of the preconditions for future research in the field of energy. If there is a shortage of students in this area, to what is it due?

Europeans are of the opinion that this is mainly due to the fact that energy-related studies are not promoted enough as a course of study (34%). This opinion is very widely held in Sweden (50%), Finland (47%) and Denmark (47%). It is also more common amongst those who have continued their education for a long period (45%). The reason cited second most frequently by respondents is that energy-related studies are not appealing enough to most young people (31%). This perception is most frequently



encountered in Great Britain (45%), Sweden (39%) and Denmark (37%). The fact that energy-related studies do not lead to sufficiently attractive jobs is cited by 25% of all respondents, but by 48% in Sweden and 47% in Finland. The opinion that energy-related studies are too difficult is held by only 19% of those interviewed (but by 30% in France).

It is also interesting to compare these opinions with the opinions of the youngest age group (15-24) or of those who on the date of the survey stated that they were still studying. There is some overlap between the two groups since, in this sample, 52% of those in the 15-24 age group said they were still studying. For students and those still at school, the main reason for the lack of interest is, as for the population as a whole, the fact that energy-related studies are insufficiently promoted as a course of study (39%, compared with an average of 34%). However, the lack of appeal of energy-related studies is clearly cited more frequently by students and those still at school (38%) than by the sample as a whole (31%).

## 4. Behaviour and policies

### 4.1. Energy policies and the citizen

TABLE 21

► Question 23

**Who do you think can make a significant impact on the amount of energy used in the European Union? (SHOW CARD — READ OUT — MULTIPLE ANSWERS POSSIBLE)**

1. Citizens
2. Industry
3. The European Union institutions (the European Commission, the European Parliament, the Council, etc.)
4. National governments
5. Local or regional authorities
6. Other (SPONTANEOUS)
7. None of these (SPONTANEOUS)
8. DKn

COUNTRY	1	2	3	4	5	6	7	8
<b>B</b>	42	62	34	34	16	1	1	9
<b>DK</b>	38	57	40	41	13	1	0	3
<b>WD</b>	46	63	28	37	15	1	2	8
<b>D TOTAL</b>	45	64	29	37	17	1	2	8
<b>OD</b>	42	66	30	38	22	1	2	7
<b>GR</b>	30	58	36	46	16	0	1	5
<b>E</b>	25	29	46	39	15	1	1	18
<b>F</b>	41	45	33	43	29	1	1	5
<b>IRL</b>	37	47	34	39	21	2	0	12
<b>I</b>	32	47	25	25	11	1	0	15
<b>L</b>	48	65	31	32	15	1	1	4
<b>NL</b>	34	75	26	31	9	1	0	5
<b>A</b>	38	74	24	21	9	1	1	7
<b>P</b>	28	41	31	33	12	1	2	12
<b>FIN</b>	42	70	37	39	15	1	0	3
<b>S</b>	42	74	42	43	21	1	0	3
<b>UK TOTAL</b>	37	47	29	52	22	1	2	8
<b>EU15</b>	37	52	32	38	18	1	1	9

Who, citizens, public institutions or industry, is most able to make a significant impact on energy use? According to more than half of all Europeans (52%), the answer is industry. This perception is even

more common in the Netherlands, Sweden and Austria, where nearly three-quarters of respondents (75%, 74% and 74% respectively) give this answer. National governments come second (38%), to which should be added the 18% of respondents for whom the answer is local or regional authorities. The figure for these two answers combined is highest in Great Britain, France and Sweden (73% 72% and 63% respectively). The EU institutions are cited by 38% of Europeans generally but by 46% of Spaniards and 42% of Swedes. Citizens are perceived as being influential in this area only by 37% of respondents, but by a higher proportion in Luxembourg (48%), Germany (45%) and Finland (42%).

**TABLE 22**

► **Question 25**

**Which of the following energy-saving measures would you support? (SHOW CARD – READ OUT – MULTIPLE ANSWERS POSSIBLE)**

1. Higher taxes on energy for industry, provided that other taxes decrease accordingly and that the overall amount of taxes does not increase
2. Higher taxes on energy for individuals, provided that other taxes decrease accordingly and that the overall amount of taxes does not increase
3. Stricter regulations for individuals, like for example, insulation in buildings
4. Stricter regulations for private car drivers, like speed limits, restrictions on the access of cars to certain places, etc
5. Stricter regulations and checks for industry
6. Public information campaigns
7. Financial incentives for people who buy energy-saving products
8. None of these (SPONTANEOUS)
9. Other (SPONTANEOUS)
10. DKn

<b>COUNTRY</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>B</b>	25	12	22	32	53	27	45	3	0	10
<b>DK</b>	27	19	25	27	29	29	67	3	1	4
<b>WD</b>	23	13	26	26	55	24	58	7	1	3
<b>D TOTAL</b>	23	12	25	27	56	24	58	6	1	4
<b>OD</b>	23	7	20	28	59	23	59	4	1	5
<b>GR</b>	30	8	23	29	61	31	28	3	0	11
<b>E</b>	20	7	13	14	31	42	32	4	1	17
<b>F</b>	22	10	24	32	57	33	39	5	1	7
<b>IRL</b>	16	10	34	25	38	26	41	3	0	12
<b>I</b>	14	6	24	26	46	34	45	4	1	9
<b>L</b>	33	14	26	36	59	32	51	5	2	8
<b>NL</b>	32	16	27	24	52	43	58	4	1	4
<b>A</b>	35	20	25	28	41	18	44	6	1	6
<b>P</b>	15	8	22	20	22	33	20	4	1	27
<b>FIN</b>	30	9	19	21	47	37	50	2	1	7
<b>S</b>	31	15	17	26	52	49	63	3	1	4
<b>UK TOTAL</b>	24	13	32	31	41	28	53	4	1	8
<b>EU15</b>	22	10	24	27	47	31	47	5	1	8

The question above Table 22 concerns the popularity of measures which could be taken to save energy. Almost half of all Europeans support two of the seven measures suggested, namely stricter regulations and checks for industry (47%) and financial incentives for people who buy energy-saving products

(47%). The third choice is public information campaigns (31%). Two policies have the support of about a quarter of respondents, namely stricter regulations for private car drivers (27%) and stricter regulations for individuals, such as insulation in buildings. The least popular measures are those of a strictly fiscal nature, i.e. higher taxes or charges, whether for industry (22%) or, in particular, for individuals (10%).

- Stricter regulations for industry, the measure which has most support amongst Europeans as a whole has the support of a very large proportion of Greeks (61%, compared with an average of 47%) and of the French (57%). However, this measure is less popular in Denmark (29%). It has more support amongst those with a higher level of education (55% of those who continued their education beyond the age of 20), managerial-grade employees (55%) and those who are on the left (boxes 1 and 2) of the political spectrum (53%).
- Financial incentives for people who buy energy-saving products are, however, more popular in Denmark (67% compared with an average of 47%), Sweden (63%) and the Netherlands (58%), but also amongst those with a higher level of education (56%) and those classified as centre left (boxes 3 and 4) politically (53%). Support for information campaigns is also more frequent in Sweden and the Netherlands (49% and 43% respectively, compared with an average of 31%) and amongst respondents furthest to the left on the political spectrum (38%).
- Support for stricter regulations for individuals is particularly strong in Great Britain and Ireland.
- Lastly, support for increased taxation (for individuals and for companies) obviously has little support in the Member States of the European Union, with the exception of Denmark, where 27% support higher taxes for companies (compared with an average of 22%) and 19% supported higher taxes for individuals (compared with an average of 10%). Admittedly, the wording of this question made it clear that the condition was that higher taxes on energy would not lead to an overall increase in taxation. A desire to see companies taxed more heavily is also more frequently encountered 'on the left' (boxes 1 and 2) than 'on the right' (boxes 9 and 10), the respective figures being 27% and 18%.

**TABLE 23**

► *Question 29*

**Would you like to be consulted on the following?**

1. *Yes*
2. *No*
3. *I have already been consulted (SPONTANEOUS)*
4. *I don't know enough to say (SPONTANEOUS)*
5. *DKn*

COUNTRY	The choice of energy sources for the future					Transport in your city/region such as road improvements, public transport, cycle lanes					The plans of companies and governments for the construction of new energy facilities				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
<b>B</b>	45	37	0	13	4	47	36	1	11	5	34	46	0	13	8
<b>DK</b>	54	36	0	8	3	62	31	1	4	2	49	41	0	7	4
<b>WD</b>	40	32	2	20	5	43	32	3	17	5	31	37	1	24	8
<b>D TOTAL</b>	39	32	2	21	6	44	32	3	17	5	30	37	1	24	8
<b>OD</b>	36	32	3	23	7	46	30	2	15	6	27	36	1	25	11
<b>GR</b>	42	30	0	21	7	52	26	0	16	6	38	32	0	21	9
<b>E</b>	44	32	0	15	9	52	29	1	11	8	36	37	0	17	10
<b>F</b>	50	33	1	15	2	53	33	2	10	2	45	37	1	15	3
<b>IRL</b>	50	17	2	22	9	55	17	3	17	9	50	19	2	21	9
<b>I</b>	52	25	1	17	5	66	20	1	9	5	44	30	1	17	9
<b>L</b>	52	29	1	16	3	58	28	2	9	2	42	40	1	13	4
<b>NL</b>	52	36	3	6	3	54	38	3	3	2	44	46	2	5	3
<b>A</b>	37	34	1	18	9	40	32	2	16	9	31	36	1	20	12
<b>P</b>	45	23	0	25	7	51	22	0	22	5	41	25	0	27	7
<b>FIN</b>	64	22	4	5	4	55	29	9	3	4	54	31	5	6	5
<b>S</b>	44	41	1	11	4	59	31	1	6	3	42	44	1	10	4
<b>UK TOTAL</b>	54	31	1	8	5	64	25	1	5	5	52	34	1	8	6
<b>EU15</b>	47	31	1	15	5	54	28	2	11	5	41	36	1	16	7

Would the European public like to be consulted before energy projects and developments take place? This question was asked for three different subject areas: the choice of energy sources for the future, local projects (transport etc) and plans of companies and governments for the construction of new energy facilities. Of these three subject areas, the one most immediately relevant to people's daily lives was the one on which most people want to be consulted: 54% of respondents would like to be consulted on local projects. In second place comes the choice of energy sources for the future, on which 47% of respondents want to be consulted. There was least interest in being consulted on plans for the construction of new energy facilities (41%).

The Danes and Finns were amongst the keenest to be consulted on the choice of energy for the future and long-term projects. However, where local projects are concerned, Italians are the keenest to be consulted.

In all three cases, it was those who have continued their education beyond age of 20 who most want to be consulted: 59% on energy sources for the future (average: 47%), 64% on local projects (average: 54%) and 51% on companies' and governments' plans for the construction of new energy facilities (average: 41%). The same is true, though to a lesser extent, of those who are furthest to the left on the political spectrum (the respective scores being 56%, 58% and 45%).

## 4.2. Individual behaviour

TABLE 24

► Question 24. a)

**What have you done or are you doing to save energy? (SHOW CARD — MULTIPLE ANSWERS POSSIBLE)**

► Question 24. b)

**And what do you intend to start doing? (SHOW SAME CARD — MULTIPLE ANSWERS POSSIBLE)**

1. *Cut down on heating and/or air conditioning*
2. *Cut down on lighting and/or the use of domestic electrical appliances*
3. *Insulate(d) my house (walls, windows, etc.)*
4. *Taking initiatives to save energy at work*
5. *Reduce(d) travel*
6. *Cut down on fuel used in my car, e.g. by using the car less, driving more slowly, etc.*
7. *Buy a car which uses less fuel*
8. *Use public transport more*
9. *Nothing (SPONTANEOUS)*
10. *Nothing, because I do not feel the need to do anything (SPONTANEOUS)*
11. *Nothing, because I lack the necessary information and incentives (SPONTANEOUS)*
12. *Other (SPONTANEOUS)*
13. *DKn*

COUNTRY	1		2		3		4		5		6		7	
	a)	b)	a)	b)	a)	b)	a)	b)	a)	b)	a)	b)	a)	b)
<b>B</b>	54	19	50	21	44	17	7	7	10	7	20	13	21	22
<b>DK</b>	59	28	79	35	45	20	13	8	4	2	20	13	21	23
<b>WD</b>	47	11	55	12	34	16	9	7	10	8	38	11	26	28
<b>D TOTAL</b>	47	11	55	12	33	16	9	7	10	8	36	12	24	28
<b>OD</b>	46	14	58	13	31	14	11	7	9	5	31	14	16	29
<b>GR</b>	39	15	40	15	16	11	2	4	8	3	9	8	7	9
<b>E</b>	32	13	41	15	15	10	4	6	5	5	10	7	10	9
<b>F</b>	54	13	50	15	41	16	10	8	13	9	23	12	20	18
<b>IRL</b>	26	14	31	15	36	11	6	5	7	8	10	11	10	12
<b>I</b>	38	15	42	16	22	13	2	5	5	3	20	14	15	22
<b>L</b>	63	17	63	15	59	16	17	11	21	10	40	18	33	28
<b>NL</b>	55	20	56	26	46	15	8	7	6	3	16	10	14	17
<b>A</b>	36	11	44	12	38	16	9	8	8	8	24	11	25	22
<b>P</b>	23	8	57	7	9	9	5	4	3	3	7	4	5	9
<b>FIN</b>	34	11	55	15	32	13	6	6	10	7	26	16	16	17
<b>S</b>	38	28	49	37	26	18	7	9	15	13	27	26	20	34
<b>UK TOTAL</b>	41	6	43	9	48	7	7	3	15	5	19	9	15	10
<b>EU15</b>	43	13	48	15	33	13	7	6	9	6	22	11	17	19



► Question 24. a)

**What have you done or are you doing to save energy? (SHOW CARD — MULTIPLE ANSWERS POSSIBLE)**

► Question 24. b)

**And what do you intend to start doing? (SHOW SAME CARD — MULTIPLE ANSWERS POSSIBLE)**

1. *Cut down on heating and/or air conditioning*
2. *Cut down on lighting and/or the use of domestic electrical appliances*
3. *Insulate(d) my house (walls, windows, etc.)*
4. *Taking initiatives to save energy at work*
5. *Reduce(d) travel*
6. *Cut down on fuel used in my car, e.g. by using the car less, driving more slowly, etc.*
7. *Buy a car which uses less fuel*
8. *Use public transport more*
9. *Nothing (SPONTANEOUS)*
10. *Nothing, because I do not feel the need to do anything (SPONTANEOUS)*
11. *Nothing, because I lack the necessary information and incentives (SPONTANEOUS)*
12. *Other (SPONTANEOUS)*
13. *DKn*

COUNTRY	8		9		10		11		12		13	
	a)	b)	a)	b)	a)	b)	a)	b)	a)	b)	a)	b)
<b>B</b>	19	16	5	6	4	6	3	3	1	1	4	22
<b>DK</b>	15	10	2	16	1	7	1	2	2	2	1	9
<b>WD</b>	25	13	3	6	4	7	3	4	1	2	3	24
<b>D TOTAL</b>	25	14	3	6	4	6	3	4	1	2	3	24
<b>OD</b>	23	15	3	6	3	4	2	3	2	3	4	24
<b>GR</b>	11	9	26	25	3	4	7	9	1	1	1	17
<b>E</b>	19	10	23	15	3	4	6	6	1	2	4	31
<b>F</b>	17	10	6	11	5	6	6	7	2	3	1	20
<b>IRL</b>	11	9	16	12	7	10	7	6	1	1	5	24
<b>I</b>	15	16	16	7	2	3	5	5	1	2	2	20
<b>L</b>	32	19	1	3	1	2	1	2	1	1	4	32
<b>NL</b>	15	10	11	32	2	6	1	1	2	2	0	3
<b>A</b>	20	17	6	8	4	6	3	4	2	3	6	21
<b>P</b>	8	7	15	11	7	5	5	6	1	2	4	43
<b>FIN</b>	26	14	6	14	4	7	2	2	2	2	1	15
<b>S</b>	26	25	7	5	3	5	2	2	2	2	1	8
<b>UK TOTAL</b>	17	7	6	15	3	10	8	10	1	1	2	24
<b>EU15</b>	19	12	10	11	4	6	5	6	1	2	3	22

Before presenting the details for the different energy-saving measures, it is worth noting how many such measures respondents are taking or intend to take. For the sample as a whole, out of the list of

eight measures suggested in the question, respondents are taking an average of two at present (1.99) and intend to start taking one in future (0.94).

Table 25 shows that these figures vary greatly from country to country:

**TABLE 25**

**Number of energy-saving measures people currently take, and intend to take in future, in the Member States of the European Union**

	current	future
<i>Luxembourg</i>	3.27	1.34
<i>Denmark</i>	2.55	1.40
<i>Germany</i>	2.40	1.06
<i>France</i>	2.29	1.00
<i>Belgium</i>	2.25	1.20
<i>Netherlands</i>	2.16	1.08
<i>Sweden</i>	2.08	1.88
<i>Austria</i>	2.05	1.04
<i>Finland</i>	2.05	0.98
<i>Great Britain</i>	2.04	0.56
<i>Italy</i>	1.59	1.03
<i>Ireland</i>	1.37	0.84
<i>Spain</i>	1.34	0.74
<i>Greece</i>	1.31	0.73
<i>Portugal</i>	1.17	0.49
<i>Total</i>	1.99	0.94

Top of the league as far as civic-minded environmental action is concerned are Luxembourg (3.28), Denmark (2.55) and Germany (2.40). At the bottom of the table, the countries where respondents say they do less to save energy are Portugal (1.17), Greece (1.31), Spain (1.34) and Ireland (1.37).

These rankings, for what individuals are doing now, are the same, with few exceptions, when it comes to what they intend to do in future, the sole exception being Sweden, whose score for current measures is close to the average (2.08) but which comes top as regards the number of energy-saving measures which people intend to take in the future (1.88).

Lastly, the number of energy-saving measures taken or intended rises in line with respondents' cultural levels: it is 2.3, for instance, for those who have continued their education beyond the age of 20.

Overall, the energy-saving measure most frequently cited is cutting down on lighting and/or the use of domestic electrical appliances (48%). Looking at the answers for the various measures suggested, there is no particular concentration of any one measure in a specific country. Some countries, as we

have seen (Luxembourg, Denmark and Germany), have a higher number of measures, and their response rates are therefore systematically higher than the average, whatever the measure. However, in some cases, there is a dramatically higher-than-average response. For example 79% of Danes, compared with an average of 48% overall, state that they are cutting down on lighting and/or the use of domestic electrical appliances.

All in all, what individuals are doing to save energy varies from country to country and according to respondents' socio-cultural group. Only a minority of Europeans state that they do nothing to save energy, but the bulk of the energy-saving measures claimed concern domestic uses (heating, lighting, insulation). About two-thirds of Europeans intend to do more in the future, but again will focus more on domestic rather than transport-related uses.

**TABLE 26**

► *Question 26*

**Would you be prepared to pay more for energy produced from renewable sources than for energy produced from other sources? (IF YES) How much more would you be prepared to pay? (SHOW CARD — READ OUT — ONE ANSWER ONLY)**

<i>COUNTRY</i>	No, I am not prepared to pay more	Yes, I would pay up to 5% more	Yes, I would pay 6 to 10% more	Yes, I would pay 11 to 25% more	Yes, I would pay more than 25% more	DKn
<i>B</i>	64	21	8	1	0	5
<i>DK</i>	44	24	23	5	2	4
<i>WD</i>	57	25	9	1	0	7
<i>D TOTAL</i>	59	24	9	1	0	8
<i>OD</i>	65	20	5	1	0	10
<i>GR</i>	50	29	10	2	1	8
<i>E</i>	57	20	7	1	1	15
<i>F</i>	63	18	10	1	0	8
<i>IRL</i>	45	22	11	2	0	21
<i>I</i>	45	28	13	3	1	11
<i>L</i>	37	32	21	3	1	5
<i>NL</i>	38	33	21	3	1	5
<i>A</i>	45	30	13	1	0	10
<i>P</i>	72	14	2	1	0	11
<i>FIN</i>	48	31	16	2	1	3
<i>S</i>	44	29	19	3	1	4
<i>UK TOTAL</i>	52	24	14	2	1	6
<i>EU15</i>	54	24	11	2	1	9

A not insignificant proportion of Europeans claim to be prepared to pay more for energy from renewable energy sources: 54% say they would not be prepared to do so, but 24% would accept an increase of 5%, and 13% a higher increase, making a total of 37%. This willingness to pay more varies from country to country: 58% in Luxembourg, 57% in the Netherlands, 53% in Denmark, but only 34% in Germany, 29% in France, 28% in Spain and 17% in Portugal.

Here again, those who continued their education for a long period are more favourably disposed to taking action to help the environment. 50% of those who continued their education beyond the age of 20 agree with the idea of paying more for their energy as a way of supporting production methods based on renewable energy sources. This willingness is also influenced by people's political views. 63% of those on the right of the political spectrum (boxes 7 and 8) reject the idea of paying more for energy from renewable energy sources, compared with only 48% of those at the other end of the political spectrum (boxes 1 and 2).

**This survey therefore reveals, or confirms, the emergence of a market for 'green' energy amongst consumers, especially in northern Europe.**

**TABLE 27**

► **Question 27**

**I am going to show you a list of products or equipment. When you decide to buy a new one, please tell me whether you pay attention to the energy it uses or not**

1. *Yes*
2. *I would buy the cheapest one (SPONTANEOUS)*
3. *No*
4. *I would never buy one (SPONTANEOUS)*
5. *DKn*

COUNTRY	A light bulb					A washing machine				
	1	2	3	4	5	1	2	3	4	5
<b>B</b>	54	15	27	0	4	59	10	23	1	6
<b>DK</b>	76	4	19	0	1	86	1	9	1	2
<b>WD</b>	59	8	31	0	2	78	3	16	0	3
<b>D TOTAL</b>	61	8	29	0	2	79	4	15	0	3
<b>OD</b>	69	7	21	0	3	83	5	9	1	2
<b>GR</b>	55	3	40	1	1	56	3	38	1	2
<b>E</b>	58	6	35	0	2	50	5	40	1	4
<b>F</b>	53	12	32	0	3	56	11	28	1	4
<b>IRL</b>	34	9	49	4	4	34	9	43	8	6
<b>I</b>	62	10	26	0	3	55	10	30	0	6
<b>L</b>	55	15	25	1	5	61	17	17	1	4
<b>NL</b>	57	11	30	1	2	80	4	14	1	2
<b>A</b>	56	13	27	1	3	79	7	10	1	3
<b>P</b>	61	5	32	1	2	39	9	41	6	5
<b>FIN</b>	46	9	44	1	1	71	7	18	2	2
<b>S</b>	52	8	39	0	1	75	3	16	3	3
<b>UK TOTAL</b>	53	7	37	1	2	53	6	36	2	4
<b>EU15</b>	57	9	32	0	2	62	7	27	1	4

COUNTRY	A refrigerator					A car				
	1	2	3	4	5	1	2	3	4	5
<b>B</b>	59	11	25	1	5	59	7	18	8	8
<b>DK</b>	91	1	6	0	2	68	1	21	5	5
<b>WD</b>	78	2	17	0	3	71	3	13	8	6
<b>D TOTAL</b>	79	3	15	0	3	70	3	12	8	7
<b>OD</b>	83	5	8	1	3	63	5	10	11	11
<b>GR</b>	54	3	40	1	2	61	2	26	6	5
<b>E</b>	50	5	41	1	4	61	4	23	7	5
<b>F</b>	54	11	31	1	4	56	8	26	4	6
<b>IRL</b>	32	9	45	8	6	42	5	33	11	8
<b>I</b>	53	10	31	0	5	67	9	16	4	6
<b>L</b>	59	18	17	1	5	59	16	18	2	5
<b>NL</b>	79	3	15	1	2	61	3	23	8	5
<b>A</b>	80	7	9	1	3	73	5	10	6	5
<b>P</b>	40	9	42	4	4	41	5	26	18	10
<b>FIN</b>	77	6	14	1	2	66	5	16	8	5
<b>S</b>	79	3	13	3	3	75	4	14	4	3
<b>UK TOTAL</b>	50	6	39	1	4	52	4	29	9	6
<b>EU15</b>	61	7	28	1	4	62	5	20	7	6

As consumers, do Europeans give any consideration to the idea of using less energy? Just less than two-thirds of them state that they pay attention to the amount of energy a product uses, whatever the product. For electric light bulbs, the figure is a little lower (57%). The figures for washing machines, refrigerators and cars are 60%, 61% and 62% respectively.

The attention paid to energy use varies from country to country. In three out of four cases, it is Denmark where prospective purchasers pay most attention to energy use (86% in the case of washing machines, 91% in the case of refrigerators). Where cars are concerned, it is Austrians who pay most attention to energy use (73%). Behaviour in this area is also influenced by cultural levels: the longer the period of education, the more attention is paid to environmental arguments.

To summarise the preparedness of Europeans to save energy, an index has been compiled which takes account of all the answers to the four questions concerning this issue. The index gives the sum total for each individual on the basis of his/her answers to questions on energy-saving, according to the following principles:

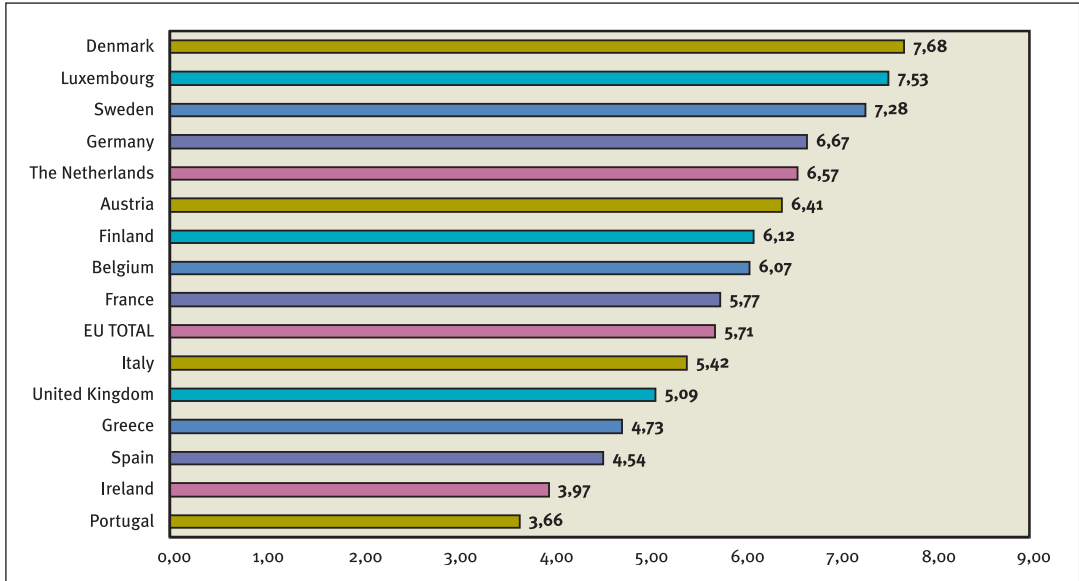
- number of energy-saving measures taken: from 0 to 8
- number of energy-saving measures planned: from 0 to 8
- would be prepared to pay more for renewable energy: 1 for 'yes' (whatever the limit)
- pays attention to energy-use factors when purchasing products: from 0 to 4.

A person responding positively to all the questions would therefore score 21 on this index. In this sample, the index varies from 1 to 21, the average being 5.71.

In Graph 4, the index has been calculated for the different Member States of the European Union:

**GRAPH 4**

**Energy-saving index, by country**



The contrast often observed between countries in northern Europe, where more attention is paid to environmental arguments, and countries in southern Europe, where there is less concern about such matters, is reflected to a large extent in this graph: Denmark, Luxembourg, Sweden, Germany and the Netherlands, lead the way, with Portugal, Spain, Greece and Italy (but also Ireland and Great Britain) trailing behind at the other end.

The link between willingness to save energy and political views is not all that pronounced, as Table 28 shows: overall, the index scarcely varies between those on the left (6.01 for boxes 1 and 2) and those on the centre right (5.97 for boxes 7 and 8). And the figure for those further to the right is only slightly lower (4.92 for boxes 9 and 10).

TABLE 28

**'Energy-saving' index by position on the left/right political scale**

(1 - 2) Left	6.01
(3 - 4)	6.02
(5 - 6) Centre	5.90
(7 - 8)	5.97
(9 -10) Right	4.92
DKn	5.12
Total	5.71

However, it is interesting to look at the variations in the index when the figures are broken down by sex and by the age at which respondents completed their education (Table 29). Overall, the index rises substantially with the level of education (measured by the age at which respondents completed their education), from 5.11 to 6.67. But the variations in the index by level of education are not equal for men and for women. Amongst those with the lowest level of education (i.e. who left school before the age of 16), the index is higher for men than for women. Conversely, amongst those who continued their education for longer, it is the women who are more concerned about saving energy. Amongst those who continued their education beyond the age of 20, the index was 6.86 for women, compared with 6.52 for men.

TABLE 29

**'Energy-saving' index by age of completion of education and by sex**

Age completed education	Index	Sex	Index
<i>under 16</i>	5.11	Men	5.38
		Women	4.91
<i>16-19</i>	5.81	Men	5.78
		Women	5.85
<i>20 or over</i>	6.67	Men	6.52
		Women	6.86
<i>in education</i>	4.85	Men	4.73
		Women	4.98
<i>Total</i>		5.71	



# Conclusion

Overall, as has been noted throughout this report, variations in attitudes to energy, similar to those observed with regard to perceptions of science and technology, are fairly frequent. Attitudes vary firstly according to country, secondly according to individuals' socio-demographic background and, lastly, according to their ideological leanings.

As regards the first of these factors, the frequent differences between countries in the north and those in the south of the European Union appear to follow certain, sometimes conflicting, patterns:

- a more highly developed environmental awareness in long-industrialised and densely populated northern Member States contrasts with laxer attitudes in the southern Member States.
- greater 'demand' for technology and industrialisation in countries which were later in reaping the benefits of economic development (this is often the case in southern Member States but also, in northern Europe, in a country such as Finland).
- greater receptiveness to the culture of science and technology in countries where the average level of education is higher (as in Denmark, Sweden and the Netherlands).
- lastly, specific cultural or ideological characteristics which mean that people in a particular country may be culturally more or less inclined to accept scientific and technological innovation or, conversely, reluctant to take risks.

The most pronounced socio-demographic differences stem from differences in cultural levels (measured here by the average age of completion of education). The rule most often seems to be that the longer the period for which a person has continued his/her education, the more positive that person's overall perception is of science and technology. However, there are plenty of exceptions to this rule, especially where the most controversial technologies are concerned.

In some cases, results for men and women differ. More women than men tend to fall into the 'don't know' category, especially when asked about issues perceived as being technically complex.

Lastly, answers differ, although not that often, according to the age of those questioned.

Answers sometimes also vary according to political leanings. Most often, those who are on the right of the political spectrum are more willing to support technological or industrial ventures and, more generally, to accept business values, whereas those on the left are more concerned to ensure monitoring and regulation by the State and are stauncher advocates of environmental protection.

# **ANNEXES**

# I. Technical specifications

Between February 23 and April 4 2002, the European Opinion Research Group, a consortium of Market and Public Opinion Research agencies, made out of INRA (EUROPE) and GfK Worldwide, carried out wave 57.0 of the standard Eurobarometer, on request of the EUROPEAN COMMISSION, Directorate-General Press and Communication, Opinion Polls.

The Standard EUROBAROMETER 57.0 covers the population of the respective nationalities of the European Union Member States, aged 15 years and over, resident in each of the Member States. The basic sample design applied in all Member States is a multi-stage, random (probability) one. In each EU country, a number of sampling points was drawn with probability proportional to population size (for a total coverage of the country) and to population density.

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

<i>Countries</i>	<i>Institutes</i>	<i>Number of interviews</i>	<i>Fieldwork dates</i>	<i>Population 15+ (x 000)</i>
<b>Belgium</b>	INRA BELGIUM	1016	25/02 – 25/03	8 326
<b>Denmark</b>	GfK DANMARK	999	23/02 – 04/04	4 338
<b>Germany (East)</b>	INRA DEUTSCHLAND	1040	24/02 – 16/03	13 028
<b>Germany (West)</b>	INRA DEUTSCHLAND	1014	23/02 – 16/03	55 782
<b>Greece</b>	Market Analysis	1001	25/02 – 29/03	8 793
<b>Spain</b>	INRA ESPAÑA	1000	28/02 – 18/03	33 024
<b>France</b>	CSA-TMO	1004	02/03 – 25/03	46 945
<b>Ireland</b>	LANSLOWNE Market Research	1000	03/03 – 25/03	2 980
<b>Italy</b>	INRA Demoskopoea	994	27/02 – 20/03	49 017
<b>Luxembourg</b>	ILRes	600	23/02 – 04/04	364
<b>The Netherlands</b>	Intomart	995	25/02 – 26/03	12 705
<b>Austria</b>	SPECTRA	1025	25/02 – 25/03	6 668
<b>Portugal</b>	METRIS	1000	24/02 – 23/03	8 217
<b>Finland</b>	MDC MARKETING RESEARCH	1039	23/02 – 27/03	4 165
<b>Sweden</b>	GfK SVERIGE	1000	28/02 – 03/04	7 183
<b>Great Britain</b>	MARTIN HAMBLIN LTD	1000	26/02 – 21/03	46 077
<b>Northern Ireland</b>	ULSTER MARKETING SURVEYS	305	02/03 – 23/03	1 273
<b>Total Number of Interviews</b>		16 032		

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

The results of the Eurobarometer studies are reported in the form of tables, datafiles and analyses. Per question a table of results is given with the full question text in English, French and German. The results are expressed as a percentage of the total. The results of the Eurobarometer surveys are analysed and made available through the Directorate-General Press and Communication, Opinion Polls of the European Commission, rue de la Loi 200, B-1049 Brussels. The results are published on the Internet server of the European Commission: <http://europa.eu.int/comm/dg10/epo>. All Eurobarometer datafiles are stored at the Zentral Archiv (Universität Köln, Bachemer Strasse, 40, D-50869 Köln-Lindenthal), available through the CESSDA Database <http://www.nsd.uib.no/cessda/europe.html>. They are at the disposal of all institutes members of the European Consortium for Political Research (Essex), of the Inter-University Consortium for Political and Social Research (Michigan) and of all those interested in social science research.

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

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

## II. Co-operating agencies and research executives

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### III. Questionnaire

The questions below were put to representative samples of the European citizens in all countries of the European Union, in the official language(s) of each country. The questions on energy are numbered from 6 to 29.

► *Question 6 a)*

**Energy in the form of electricity, oil, coal, etc. is needed for many purposes. Which two of the following do you think use the most energy? (SHOW CARD – READ OUT – MAX. 2 ANSWERS)**

- Household appliances and lighting at home
- Heating and cooling homes and offices
- Lighting streets and other public places
- Transport (planes, trains, lorries, cars, etc.)
- Factories
- Other (SPONTANEOUS)
- Dkn (1)

► *Question 6. b)*

**For each of the following statements, please tell me if you think it is the case or not?**

Read out	Yes, is the case	No, it is not the case	DKn
1. Overall energy use is increasing in (OUR COUNTRY)			
2. Overall energy use is increasing in the European Union			
3. We could save, simply and cheaply, much of the energy we use in our homes and offices			
4. Transport in all its forms is almost completely dependent on oil, petrol or diesel			

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(1) The abbreviation ‘Dkn’ stands for ‘Don’t know’.

► **Question 7**

**To what extent is each of the following used to produce energy in (OUR COUNTRY)?  
(SHOW CARD WITH SCALE)**

Read out	Little	Medium	Much	Nil (spontaneous)	DKn
1. Coal					
2. Oil					
3. Gas					
4. Nuclear energy					
5. Hydroelectric energy					
6. Other renewable sources, such as wood, wind, solar energy, etc.					

► **Question 8**

**For each of the following statements about ELECTRICITY, please tell me if you think it is the case or not.**

Read out	Yes, it is the case	No, it is not the case	DKn
1. More than half of the electricity used in the European Union comes from coal			
2. More than one quarter of the electricity used in the European Union comes from nuclear power stations			
3. More than one quarter of the electricity produced in the European Union comes from renewable sources of energy, such as hydroelectric energy (dams), wind, or solar power			
4. Compared to 5 years ago, gas has become more important as a means of producing electricity in the European Union			
5. It is important for me to know approximately how much electricity in kilowatt hours is used in my home per year			
6. I know roughly how much was paid in total for electricity in my home over the last year			



► **Question 9**

**For each of the following, please tell me if it is the case, or not?**

Read out	Yes, it is the case	No, it is not the case	DKn
1. Global warming and climate change are serious issues which need immediate action			
2. The use of fossil fuels (coal, oil, gas, etc.) contributes significantly to global warming and climate change			
3. Nuclear power contributes significantly to global warming and climate change			
4. Transport is largely responsible for global warming and climate change			
5. The use of fossil fuels adversely affects air quality			
6. The use of natural gas contributes to environmental problems, but less than oil			

► **Question 10**

**50% of the energy used in the European Union comes from outside the European Union. This dependency is expected to increase in the future. With which of the following statements, if any, do you agree? (SHOW CARD — READ OUT — MULTIPLE ANSWERS POSSIBLE)**

- It is an urgent issue
- Energy imports (of coal, oil, gas, uranium, etc.) from outside the European Union should be reduced
- More energy sources should be developed within the European Union
- More should be done to encourage energy saving in the European Union
- There are issues which are more urgent
- None of these (SPONTANEOUS)
- Dkn

► *Question 11*

**Nuclear energy is currently produced by fission or the splitting of heavy atoms. Another option being developed is nuclear fusion, which involves the merging of light atoms. Do you think that power stations using nuclear fusion...?**

Read out	Yes	No	DKn
1. would be safe against major nuclear accidents			
2. would produce as much long-term nuclear waste as today's nuclear power stations do			
3. would contribute significantly to global warming			
4. would use abundant fuel resources			
5. need much more research and development to confirm their potential			

► *Question 12*

**Which of the following would you like to know more about? (SHOW CARD — READ OUT — MULTIPLE ANSWERS POSSIBLE)**

- How to save energy at home
- How to save energy at work
- How to use renewable energy sources such as solar power or wind at home
- What the alternatives are to petrol and diesel in vehicles
- The safety of nuclear power stations and radioactive waste
- The prospects for new energy options, such as fuel cells, hydrogen, nuclear fusion, etc.
- European Union activities in energy-related research and development
- Nothing, I am interested, but do not really wish to be informed about specific topics (SPONTANEOUS)
- Nothing, I am not interested and do not wish to be informed (SPONTANEOUS)
- Other (SPONTANEOUS)
- DKn

► *Question 13*

**Are you aware of European Union energy-related research and development, or not? (IF YES) In which of the following areas? (SHOW CARD – READ OUT – MULTIPLE ANSWERS POSSIBLE)**

No, I am not aware

Yes, coal

Yes, oil

Yes, gas

Yes, renewable energy sources, such as solar power, wind

Yes, nuclear fission (the splitting of heavy atoms)

Yes, nuclear fusion (the merging of light atoms)

Yes, cleaner means of transport such as electric cars

Yes, other (SPONTANEOUS)

► *Question 14*

**What are your main information sources on energy issues and related technologies? (SHOW CARD – READ OUT – MULTIPLE ANSWERS POSSIBLE)**

Television

Radio

The Internet

Newspapers and general magazines

Science and technology magazines

Electricity, gas and other energy companies

Energy agencies or local authorities

Other (SPONTANEOUS)

None (SPONTANEOUS)

DKn

► *Question 15*

**On which of the following areas do you think energy-related research and development will have a strong impact? (SHOW CARD — READ OUT — MULTIPLE ANSWERS POSSIBLE)**

Social and economic development

Quality of air, soil and water

Reduction of greenhouse gas emissions that contribute to global warming and climate change

Employment

Reducing bills for electricity, gas, etc.

Other (SPONTANEOUS)

None (SPONTANEOUS)

DKn

► *Question 16*

**In respect of energy, what do you think the two first priorities for the (NATIONALITY) government should be? (SHOW CARD — READ OUT — MAX. 2 ANSWERS)**

Low prices for consumers

Ensuring uninterrupted supplies of oil, gas, electricity

Protection of the environment and public health and safety associated with energy supply

Other (SPONTANEOUS)

DKn

► *Question 17*

- a) Let's think forward about fifty years, to 2050. Which of the following energy resources do you think will be least expensive? (SHOW CARD — MAX. 2 ANSWERS)
- b) And which do you think will provide the greatest amount of useful energy? (SHOW SAME CARD — MAX. 2 ANSWERS)
- c) And which do you think will be the best for the environment? (SHOW SAME CARD — MAX. 2 ANSWERS)

Read out	a)	b)	c)
1. Solid fuels (coal, peat, etc.)			
2. Oil			
3. Natural gas			
4. Nuclear fission			
5. Nuclear fusion			
6. Hydroelectric power (dams, etc.)			
7. Other renewable sources of energy (solar power, wind, biomass , etc.)			
None of these (SPONTANEOUS)			
DKn			

► *Question 18*

**From the following list, which do you think should be the three top priorities governments in the European Union should take more action about? (SHOW CARD — READ OUT — MAX. 3 ANSWERS)**

Health and safety at work
The safety of chemical plants and the transport of chemical substances
The safety of nuclear power stations
The management and disposal of radioactive waste
Food safety
The safety of oil refineries
The safety of oil and gas transport (tankers, pipelines, etc.)
Road accidents
Other (SPONTANEOUS)
DKn

► *Question 19*

**a) In 20 years from now, do you think that all our energy needs will be satisfied by..?  
(SHOW CARD — READ OUT — ONE ANSWER ONLY)**

One single energy source	Go to question 19. b)
A mix of different energy sources	Go to question 20
DKn	Go to question 20

IF 'ONE SINGLE ENERGY SOURCE', CODE 1 IN QUESTION 19. a)

► *Question 19*

**b) Which of the following would it be? (SHOW CARD — READ OUT — ONE ANSWER ONLY)**

Renewable energy sources (wind, solar, hydroelectric, etc.)
Natural gas
Oil
Solid fuels (coal, peat, etc.)
Nuclear fission
Nuclear fusion
Other source (SPONTANEOUS)
DKn

ASK ALL

► *Question 20*

**For which of the following reasons do you think the European Union should continue to fund nuclear research? (SHOW CARD — READ OUT — MULTIPLE ANSWERS POSSIBLE)**

To reduce the cost of nuclear power
To increase the safety of nuclear power stations in the European Union
To achieve a broadly accepted solution for the disposal of radioactive waste in the European Union
To improve nuclear safety and waste disposal in non-European Union countries
For other reasons (SPONTANEOUS)
The European Union should not continue to fund nuclear research
DKn

► *Question 21*

**In which of the following areas would you like to see more energy-related research in the European Union? (SHOW CARD — READ OUT — MULTIPLE ANSWERS POSSIBLE)**

Coal

Oil

Gas

Renewable energy sources, such as solar power, wind

Nuclear fission, the splitting of heavy atoms

Nuclear fusion, the merging of light atoms

Cleaner means of transport such as electric cars

Other (SPONTANEOUS)

I would not like to see more energy-related research in the European Union (SPONTANEOUS)

DKn

► *Question 22*

**Some people say that there is a lack of interest amongst young people in energy-related studies at university. What do you think are the two main reasons for this? (SHOW CARD — READ OUT — MAX. 2 ANSWERS)**

Energy-related studies are not appealing enough to most young people

Energy-related studies are not promoted enough as a course of study

Energy-related studies are too difficult

Energy-related businesses are not appealing enough

I don't think that there is a lack of interest (SPONTANEOUS)

Other (SPONTANEOUS)

DKn

► *Question 23*

**Who do you think can make a significant impact on the amount of energy used in the European Union? (SHOW CARD – READ OUT – MULTIPLE ANSWERS POSSIBLE)**

Citizens
Industry
The European Union institutions (the European Commission, the European Parliament, the Council, etc.)
National governments
Local or regional authorities
Other (SPONTANEOUS)
None of these (SPONTANEOUS)
DKn

► *Question 24*

**a) What have you done or are you doing to save energy? (SHOW CARD – MULTIPLE ANSWERS POSSIBLE)**

**b) And what do you intend to start doing? (SHOW SAME CARD – MULTIPLE ANSWERS POSSIBLE)**

Read out	a) Actions	b) Intentions
1. Cut down on heating and/or air conditioning		
2. Cut down on lighting and/or the use of domestic electrical appliances		
3. Insulate(d) my house (walls, windows, etc.)		
4. Taking initiatives to save energy at work		
5. Reduce(d) travel		
6. Cut down on fuel used in my car, e.g. by using the car less, driving more slowly, etc.		
7. Buy a car which uses less fuel		
8. Use public transport more		
Nothing (SPONTANEOUS)		
Nothing, because I do not feel the need to do anything (SPONTANEOUS)		
Nothing, because I lack the necessary information and incentives (SPONTANEOUS)		
Other (SPONTANEOUS)		
DKn		



► *Question 25*

**Which of the following energy-saving measures would you support? (SHOW CARD — READ OUT — MULTIPLE ANSWERS POSSIBLE)**

Higher taxes on energy for industry, provided that other taxes decrease accordingly and that the overall amount of taxes does not increase

Higher taxes on energy for individuals, provided that other taxes decrease accordingly and that the overall amount of taxes does not increase

Stricter regulations for individuals, like for example, insulation in buildings

Stricter regulations for private car drivers, like speed limits, restrictions on the access of cars to certain places, etc.

Stricter regulations and checks for industry

Public information campaigns

Financial incentives for people who buy energy-saving products

None of these (SPONTANEOUS)

Other (SPONTANEOUS)

DKn

► *Question 26*

**Would you be prepared to pay more for energy produced from renewable sources than for energy produced from other sources? (IF YES) How much more would you be prepared to pay? (SHOW CARD — READ OUT — ONE ANSWER ONLY)**

No, I am not prepared to pay more

Yes, I would pay up to 5% more

Yes, I would pay 6 to 10% more

Yes, I would pay 11 to 25% more

Yes, I would pay more than 25% more

DKn

► **Question 27**

**I am going to show you a list of products or equipment. When you decide to buy a new one, please tell me whether you pay attention to the energy it uses or not?**

Read out	Yes	I would buy the cheapest one (SPONTANEOUS)	No	I would never buy one (SPONTANEOUS)	DKn
1. A light bulb					
2. A washing machine					
3. A refrigerator					
4. A car					

► **Question 28**

**Some people say that large-scale investments are required into long-term research activities (nuclear fusion, renewable energy sources, etc.) which may provide cleaner energy for future generations. Please choose from the following statements those that come closest to your own opinion (SHOW CARD — READ OUT — MULTIPLE ANSWERS POSSIBLE).**

The potential benefits justify major investments
Other energy resources are limited and may run out
I would welcome any attempt to promote such research, provided that its cost and progress are carefully monitored
Priority should be given to technologies that bring immediate results
It is more important to improve what we are doing now than to invest in something uncertain
I don't believe such solutions exist (SPONTANEOUS)
DKn

► **Question 29**

**Would you like to be consulted on the following?**

Read out	Yes	NO	I have already been consulted (SPONTANEOUS)	I don't know enough to say (SPONTANEOUS)	DKn
1. The choice of energy sources for the future					
2. Transport in your city/region such as road improvements, public transport, cycle lanes					
3. The plans of companies and governments for the construction of new energy facilities					

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The report analyses the attitudes of the citizens of the European Union to energy issues, options and technologies. It is divided into several chapters covering:

- general perceptions of energy in the European Union
- the structure of and trends in energy use
- sources of information on energy
- perceptions of energy in the future
- priorities in the energy sector
- individual behaviour and energy policies



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