



Wuppertal Institut
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GmbH

Erhebung des Einflusses der CCS-Kommunikation auf die breite Öffentlichkeit sowie auf lokaler Ebene

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Zusammenfassung

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Die Verantwortung für den Inhalt dieser Veröffentlichung liegt bei der Autorin.

Ziel des Projektes

Ein wesentliches Ziel der deutschen Energiepolitik ist es, geeignete Rahmenbedingungen für eine zukunftsfähige Energieversorgung zu schaffen, die sich an den Kriterien der Versorgungssicherheit, Wirtschaftlichkeit und Umweltverträglichkeit orientiert. Dabei ist die Umsetzung stringenter Klimaschutzziele nur durch eine deutliche Reduzierung der Treibhausgase, vor allem von CO₂, zu erreichen. Neben der Effizienzsteigerung im technischen Bereich, der Energieeinsparung im Allgemeinen, dem Brennstoffwechsel insbesondere von Kohle zum weniger Kohlenstoff intensiven Erdgas und dem Ausbau erneuerbarer Energien wird auch ein maßgeblicher Beitrag zur CO₂-Emissionsminderung von den CCS-Technologien erwartet, die sich derzeit aber noch im Entwicklungsstadium befinden.

Voraussetzungen für die großindustrielle Erprobung und den kommerziellen Einsatz der CCS-Technologien sind jedoch nicht nur ihre technische und wirtschaftliche Machbarkeit sowie die Schaffung eines rechtlichen Rahmens, sondern vor allem auch ihre gesellschaftliche Akzeptanz. Während die Ergebnisse eines vom Bundesministerium für Wirtschaft und Technologie (BMWi) geförderten Projekts verdeutlicht haben, dass deutsche Stakeholder (Wissenschaftler, Industrievertreter, Repräsentanten von Nicht-Regierungsorganisationen (NGOs) oder Politiker) keine einheitliche Position für oder wider CCS aufweisen, lagen über die Akzeptanz von CCS in der deutschen Bevölkerung vor Beginn des Projekts „CCS-Kommunikation“ noch keine empirischen Ergebnisse vor. Zudem lagen noch keine empirischen Untersuchungen vor, in denen die Effektivität verschiedener Methoden, CCS gegenüber der Bevölkerung zu kommunizieren, verglichen und bewertet wurde.

In dem geförderten Vorhaben wurden daher eine vergleichende Studie der Effektivität von zwei CCS-Kommunikationsmethoden sowie drei repräsentative Befragungen der deutschen Bevölkerung durchgeführt. Auf der Basis der erzielten Ergebnisse und der erhobenen Daten wurden Empfehlungen für die weitere Kommunikation von CCS in Deutschland abgeleitet.

Ergebnisse und Erfahrungen

a) Effektivität von zwei Methoden der CCS-Kommunikation

Im Rahmen des geförderten Vorhabens wurde die Methode der Fokusgruppe mit der Methode des Information-Choice Questionnaire (ICQ) im Hinblick auf die Frage verglichen, ob sich die Stabilität und die Konsistenz und damit die Qualität der Einstellungen von Laien bezüglich CCS in Abhängigkeit von der jeweiligen Kommunikationsmethode unterscheiden. Die Beantwortung dieser Frage setzte jedoch statistische Analysen voraus, die aufgrund der notwendigen Fallzahl nur im Rahmen des internationalen Kooperationsprojekts durchgeführt werden konnten. Die Ergebnisse dieses länderübergreifenden Vergleichs, für den alle nationalen Datensätze aggregiert wurden, verdeutlichen, dass die Verwendung des ICQ zu Einstellungen führte, die eine höhere Qualität aufwiesen, da sie stabiler und konsistenter waren als Einstellungen, die sich bei Teilnehmer/-innen der Fokusgruppen herausgebildet hatten. Zudem waren die Befragten von ihrer Meinung überzeugter, wenn sie durch einen ICQ informiert wurden als wenn sie an einer Fokusgruppe teilnahmen. Im Vergleich zur Fokusgruppe stellt der ICQ somit die effektivere Kommunikationsmethode dar.

b) Bekanntheit von CCS

Im Rahmen des Projekts wurden drei repräsentative Befragungen durchgeführt (vgl. Abschlussbericht, Kapitel IV). Die nachfolgend erläuterten Ergebnisse basieren auf der Auswertung der Befragungsergebnisse. Dabei beziehen sich die Prozentwerte für die Regionen „Schleswig-Holstein“ und „Rheinschiene“ auf jeweils 500 Befragte, für die Region „Deutschland“ auf 1017 Befragte und für die Region „Deutschland-minus“, auf 881 Befragte. Bei der Region „Deutschland-minus“ handelt es sich um das gesamte Bundesgebiet ohne die Regionen Schleswig-Holstein und Rheinschiene (vgl. Abschlussbericht, Kapitel IV).

Im Hinblick auf die Bekanntheit von CCS verdeutlichen die Befragungsergebnisse, dass rund 43% aller Befragten schon von CCS gehört haben. In Schleswig-Holstein gab sogar über die Hälfte der Befragten an, schon mal von CCS gehört zu haben. Dies verdeutlicht, dass dort die Bekanntheit zumindest des Begriffs „CO₂-Abscheidung und -Speicherung“ deutlich höher ist als in der Region Rheinschiene und in „Deutschland-minus“. Dort gaben rund 42 % bzw. rund 41 % der Befragten an, schon mal von CCS gehört zu haben.

c) Wissen über CCS

9,2 % der Befragten in „Deutschland-minus“ gaben an, dass sie einiges oder vieles über CCS wissen, während es in Schleswig-Holstein fast doppelt so viele Befragte waren. In der Region Rheinschiene antworteten 12,4 % der Befragten, dass sie einiges oder vieles über CCS wissen.

Allerdings wussten nicht alle Befragten, die angaben, dass sie „einiges oder vieles“ über CCS wissen, welche Umweltprobleme durch CCS reduziert werden können. Von den 62 Befragten in der Region Rheinschiene wussten 44 Befragte (71 %) dass CCS einen Beitrag zur Begrenzung der globalen Erwärmung leisten kann. In Schleswig-Holstein waren es 58 von 89 Befragten (65,2 %) und in „Deutschland-minus“ 47 von 81 Befragten (58 %).

In der Region Rheinschiene wussten von den insgesamt 209 Befragten, die schon mal von CCS gehört hatten, 141 Befragte (67,5 %), dass CCS einen Beitrag zur Begrenzung der globalen Erwärmung leisten kann. In Schleswig-Holstein und in „Deutschland-minus“ waren es 175 von 263 Befragten (66,5 %) bzw. 191 von 336 Befragten (56,8 %).

d) Spontane Einstellungen zu CCS als „Umweltschutz-Technologie“ und zur Genehmigung eines CCS-Demonstrationskraftwerks

42,2 % aller Befragten lehnte den Einsatz der CCS-Technologien vor dem Erhalt von Informationen spontan ab. Dabei war die spontane Ablehnung mit 51,8 % in Schleswig-Holstein am größten und in „Deutschland-minus“ mit 37 % am niedrigsten. In der Region Rheinschiene entsprach sie mit 41,8 % dem Gesamtdurchschnitt.

Im Vergleich zu den CCS-Technologien allgemein fiel die spontane Ablehnung eines Demonstrationskraftwerks deutlich geringer aus. 31,1 % aller Befragten wären gegen die Genehmigung eines Demonstrationskraftwerks. Allerdings war auch hier die spontane Ablehnung in Schleswig-Holstein mit 40,8 % am höchsten. In der Region Rheinschiene und in „Deutschland-minus“ lag sie mit 28,0 % bzw. 27,4 % deutlich unter dem Gesamtdurchschnitt.

e) Veränderungen von Einstellungen zu CCS nach dem Erhalt von Informationen

Nach dem Erhalt von Informationen zu den drei Prozessschritten Abscheidung, Transport und Speicherung stieg sowohl die Ablehnung der CCS-Technologien als auch die Ablehnung der Genehmigung eines Demonstrationskraftwerks. Allerdings stieg die Ablehnung eines Demonstrationskraftwerks deutlich stärker: sie nahm um 9

Prozentpunkte zu, während die Ablehnung der CCS-Technologien um 3,7 Prozentpunkte stieg.

Die stärksten Einstellungsänderungen bezüglich der Genehmigung eines Demonstrationskraftwerks vollzogen sich in „Deutschland-minus“ und in der Region Rheinschiene: dort nahm die Ablehnung um 10,9 Prozentpunkte bzw. 8,4 Prozentpunkte zu, während sie in der Schleswig-Holstein um 6,2 Prozentpunkte stieg. Bei den Einstellungsänderungen bezüglich der CCS-Technologien gab es hingegen nur geringfügige regionale Unterschiede.

Zudem deuten weitere Auswertungen der Befragungsergebnisse darauf hin, dass die Ablehnung von CCS nach dem Erhalt von Informationen stärker zunahm bei Personen, die gegen die Nutzung von Kohle waren, als bei Personen, die für die Nutzung erneuerbarer Energiequellen oder Erdgas waren.

f) Wichtigkeit des Themas „Umwelt“

Die Umwelt ist auch angesichts der weltweiten Wirtschaftskrise das wichtigste Thema für die deutsche Bevölkerung, zusammen mit der Arbeitslosigkeit. Rund 54 % aller Befragten schätzten die beiden Themen als gegenwärtig „sehr wichtig“ für Deutschland ein. Differenziert nach Regionen zeigten sich bei der Wichtigkeit des Themas „Umwelt“ deutliche Unterschiede: zwar kommt ihm auch in der Region Rheinschiene der größte Stellenwert zu. Im Vergleich zum Gesamtdurchschnitt bewerteten allerdings deutlich weniger Befragte das Thema als „sehr wichtig“. In Schleswig-Holstein wurde der Umwelt im Vergleich zu allen Befragten ein deutlich überdurchschnittlicher Stellenwert beigemessen. In „Deutschland-minus“ wurde das Thema „Umwelt“ im Vergleich zum Gesamtdurchschnitt ebenfalls häufiger als „sehr wichtig“ bewertet.

g) Einstellungen zur Nutzung von Energiequellen

Die deutsche Bevölkerung bevorzugt die Nutzung erneuerbarer Energiequellen. 92,2 % aller Befragten sind für die Nutzung von Solarenergie, 88,3 % für die Nutzung von Windenergie und 89,5 % für die Nutzung von Wasserkraft. Die Akzeptanz der Nutzung von Biomasse fiel im Vergleich zu den anderen erneuerbaren Energiequellen mit 73,5 % deutlich geringer aus.

Diese hohe Zustimmung zu erneuerbaren Energieträgern ist jedoch in den Regionen unterschiedlich ausgeprägt: die höchste Zustimmung zu Solarenergie (93,5 %) und zur Nutzung von Biomasse (75,9 %) gab es in „Deutschland-minus“, während die

Zustimmung zur Solarenergie in der Region Rheinschiene (89,9 %) am niedrigsten war. In Schleswig-Holstein gab die höchste Zustimmung zu Windenergie (90,6 %) und die geringste Zustimmung zur Nutzung von Biomasse (68 %). Bezüglich der Zustimmung zur Nutzung von Wasserkraft zeigten sich keine regionalen Unterschiede.

Die Einstellungen der deutschen Bevölkerung hinsichtlich der Nutzung fossiler Energieträger und Atomenergie variieren zum einen nach Art der Energiequelle. So stieß die Nutzung von Erdgas nur bei 15,7 % aller Befragten auf Ablehnung, während die Nutzung von Kohle von 50,1 % und die Nutzung von Atomenergie von 62,5 % abgelehnt wurden.

Zum anderen variieren die Einstellungen der deutschen Bürgerinnen und Bürger zur Nutzung von fossilen Energiequellen und Atomenergie nach Regionen: in Schleswig-Holstein war die Ablehnung der Nutzung von Kohle und Atomenergie am höchsten. In der Region Rheinschiene gab es ebenfalls eine starke Ablehnung von Atomenergie, aber im Vergleich zu allen Befragten eine geringere Ablehnung der Nutzung von Kohle. In „Deutschland-minus“ wurde die Nutzung von Atomenergie und Kohle im Vergleich zum Gesamtdurchschnitt weniger häufig abgelehnt.

h) Medienpräferenz

Um Informationen über neue Energietechnologien zu erhalten, würden die Deutschen am ehesten das Medium Fernsehen nutzen („Deutschland“ 35%). Weitere Informationsquellen waren für die Befragten Zeitungen („Deutschland“ 29%) und sogenannte Blogs und Wikis („Deutschland“ 28%). Die Informationsbeschaffung über neue Energietechnologien mittels Internet-Seiten von bekannten Nachrichten- und Presseagenturen wurde im Gesamtdurchschnitt geringer präferiert als die Nutzung anderer Quellen. So gab mehr als ein Drittel („Deutschland“ 35%) der deutschen Bevölkerung an, dass die Wahl dieses Mediums „sehr unwahrscheinlich“

Vertrauen in Informationsquellen

Grundsätzlich bringt die deutsche Bevölkerung Wissenschaftlern und Akteuren von Verbraucher- und Umweltschutzorganisationen das größte Vertrauen entgegen, wenn es darum geht, sich über Energiethemen zu informieren.

So gaben nahezu 78% der Befragten aus „Deutschland“ an, der Quelle „Wissenschaftler“ zu vertrauen, fast ebenso viele Bürgerinnen und Bürger vertrauten den Quellen „Verbraucher- und Umweltschutzorganisationen“ („Deutschland“ je 77% und 75%). Kein oder nur ein geringes Maß an Vertrauen wurde hingegen den

75%). Kein oder nur ein geringes Maß an Vertrauen wurde hingegen den Informationen von politischen Parteien („Deutschland“ 52%), von Strom-, Gas- und weiteren Energieversorgern („Deutschland“ 44%) sowie von Landesregierungen und von Kommunen („Deutschland“ 28%) entgegengebracht.

Tendenziell vertrauen Männer den einzelnen Informationsquellen in geringerem Maße als Frauen; sehr deutlich war dieser Unterschied beim Vertrauen in Umweltschutzorganisationen.

Empfehlungen für die Kommunikation von CCS

Regionale Unterschiede berücksichtigen

Bei einer zukünftigen Kommunikation sollte in Betracht gezogen werden, dass es regional unterschiedliche Wahrnehmungs- und Wissensstände zum Thema CCS in Deutschland gibt. Die aufbereiteten Informationen zu CCS sollten diese „regionalen Gegebenheiten“ berücksichtigen.

Unterschiedliche Bewertungen der drei CCS-Prozessschritte beachten

Die drei verschiedenen Prozessschritte der CCS-Technologien (Abscheidung, Transport und Speicherung von CO₂) wurden von den Teilnehmer/-innen der repräsentativen Befragungen unterschiedlich im Hinblick auf die persönliche und allgemeine Risiko- und Nutzenwahrnehmung bewertet. Darüber hinaus war die Ablehnung gegenüber dem Prozessschritt der Abscheidung von CO₂ deutlich geringer als gegenüber den nachgelagerten Schritten des Transports und der Speicherung von CO₂. Eine zukünftige Kommunikationsstrategie wird sich mit der Kommunikation von Vor- und Nachteilen der drei Prozessschritte, die in Deutschland voraussichtlich in verschiedenen Regionen vollzogen werden, beschäftigen müssen.

Zielgruppenspezifische Unterschiede berücksichtigen

Die Wahrnehmung von CCS unterscheidet sich nach Geschlecht, Alter und Qualifikation. Diesen Unterschieden sollte im Rahmen einer Kommunikationsstrategie Rechnung getragen werden. So sind CCS-Technologien zum Beispiel bei Frauen, jüngeren Personengruppen sowie Personen mit einem niedrigen Bildungsniveau weniger bekannt als bei anderen Personengruppen.

Fehleinschätzungen zu CCS thematisieren

Bestehende „Fehleinschätzungen“, die in der Bevölkerung zu den CCS-Technologien bereits vorherrschen, sollten im Rahmen einer CCS-Kommunikation thematisiert

werden. Solche Fehleinschätzungen können vor allem mit denen im Arbeitspaket 2 entwickelten Methoden der Kommunikation erkannt und verringert werden.

CCS in den Kontext von Kohlenutzung und Energieversorgung einbetten

Die deutsche Bevölkerung bevorzugt deutlich die Nutzung erneuerbarer sowie effizienter Energieerzeugungstechnologien, demgegenüber existiert eine eher ablehnende Haltung zur Nutzung von Kohle- und Atomkraftenergie. Eine zukünftige Kommunikation von CCS sollte diese bestehenden Einstellungen der Bevölkerung berücksichtigen. Sinnvoll erscheint die Darstellung und Kommunikation der strategischen Nutzung von CCS-Technologien im Rahmen einer ganzheitlichen zukünftigen Energieversorgungs- und Klimaschutzstrategie für Deutschland.

Unterschiedliche Kommunikationsmedien nutzen

Wenn es um die Bereitstellung von Informationen zu energierelevanten Themen geht, präferiert die deutsche Bevölkerung die Nutzung des Fernsehers und der Zeitung. Diese Medien sind vor allem geeignet, um ein breites Publikum anzusprechen und den Bekanntheitsgrad der CCS-Technologien zu erhöhen. Ein großer Teil der Befragten würde zudem auch weitere Medien nutzen, hier ist zum Beispiel das Medium Internet (Nutzung von Blogs und Wikis) zu nennen. Mit Hilfe dieses Mediums können bestimmte Gruppen mit adäquat aufbereiteten Informationen an das Thema CCS herangeführt werden (z. B. in Form von Online-Spielen oder Foren für jüngere Zielgruppen).

Vertrauenswürdige Informationsquellen einbeziehen

Den Akteuren aus der Wissenschaft, den Verbraucher- und den Umweltschutzorganisationen wird das größte Maß an Vertrauen bezüglich der Informationen über Energiethemen entgegengebracht. Daher sollten diese drei Akteursgruppen in eine zukünftige Kommunikationsstrategie eingebunden werden.

Grundsätzlich wird die Wahl der jeweiligen Kommunikationsmethode abhängig sein von der Reichweite der Kommunikationsstrategie (national oder regional), den gegebenen Voraussetzungen (bezogen auf bestehende oder geplante CCS-Aktivitäten), dem Ziel der Kommunikationsstrategie (Bildung, Messung der öffentlichen Wahrnehmung von CCS, Einsatz von Stakeholdern, etc.) sowie der Zielgruppe (Akteure lokaler Institutionen/Organisationen, Öffentlichkeit, politische Entscheidungsträger, Akteure von Nicht-Regierungsorganisationen, etc.).

Es wird notwendig sein, ein Mix aus geeigneten Kommunikationsmethoden (z. B. Massenmedien, direkte Kommunikationsprozesse in Form von Gruppengesprächen

oder Bürgerkonferenzen, Nutzung von Fragebögen, etc.) zu wählen, um in der Öffentlichkeit ein tieferes Verständnis von CCS zu schaffen.

Zusammen mit dem Zuwendungsgeber sollte konkretisiert werden, wie die erarbeiteten Empfehlungen für die Kommunikation von CCS praktisch angewendet werden können. Darüber hinaus sollten der Kenntnisstand und die Einstellungen der deutschen Bevölkerung zu CCS regelmäßig erhoben werden, um beurteilen zu können, ob sich im weiteren Zeitverlauf stabile und konsistente Meinungen zu CCS herausbilden und in welche Richtung sie sich entwickeln. Ein regelmäßiges Monitoring würde zudem die Möglichkeit bieten, zu untersuchen, welchen Einfluss die durchgeführten Kommunikationsstrategien auf die Wissensentwicklung und den Wandel von Einstellungen zu CCS in der Bevölkerung haben und welche Maßnahmen getroffen werden sollten, um die Kommunikation wirkungsvoller zu gestalten.

Scrutinizing the impact of CCS communication on the general and local public

Results of the representative national surveys of public awareness, knowledge and opinions concerning CCS

March 2010

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Contents

I	Introduction.....	5
II	Short overview of research on public acceptance of CCS	5
III	Implementation of the representative national surveys of public awareness, knowledge and opinions concerning CCS.....	9
III.1	Methodological design of the representative national surveys.....	9
III.2	Information presented in the surveys	10
III.3	Implementation of the national surveys in six European countries.....	11
IV	Analysis and comparison of the results of the representative national surveys.....	14
IV.1	Sociodemographics	14
IV.2	Attitudes.....	19
IV.2.1	<i>Most important issues</i>	<i>19</i>
IV.2.2	<i>Energy issues.....</i>	<i>20</i>
IV.3	Media preference.....	23
IV.4	Trust	25
IV.5	Awareness and Knowledge.....	27
IV.5.1	<i>General Knowledge on environmental issues and science</i>	<i>27</i>
IV.5.2	<i>Knowledge on activities contributing to CO₂ build-up.....</i>	<i>29</i>
IV.5.3	<i>(Self-reported) awareness of CCS</i>	<i>32</i>
IV.5.4	<i>Public understanding of the environmental concerns CCS aims to address</i>	<i>35</i>
IV.6	Initial attitudes	38
IV.7	Experiment: the influence of information and information sources on initial attitudes regarding CCS	46
IV.7.1	<i>Design of the experiment</i>	<i>46</i>
IV.7.2	<i>Results of the experiment</i>	<i>48</i>
V	Conclusions.....	55
	Appendices	62
	Appendix 1: Questionnaire Version A	62
	Appendix 2: Statistical analysis of the experiment: the influence of information and information sources on initial attitudes regarding CCS	72
	Appendix 3: Data insights	82
	References	149
	Endnotes	150

Register of Illustrations

Figure 1: Comparison: Education Level	17
--	-----------

Figure 2: (Self-reported) Awareness of CCS	33
---	-----------

Register of Tables

Tab. 1 Overview of surveys on public awareness, knowledge and opinions or public acceptance concerning CCS in all six European countries	7
---	----------

Tab. 2 Overview on methodological parameters.....	13
--	-----------

Tab. 3 Overview on gender distribution.....	14
--	-----------

Tab. 4 Characteristics of the respondents: age	16
---	-----------

Tab. 5 Average response on most important issues	20
---	-----------

Tab. 6 Average response on energy issues	22
---	-----------

Tab. 7 Average response on media preferences	24
---	-----------

Tab. 8 Average response on trust	26
---	-----------

Tab. 9 Percentages of self-reported awareness of CCS specified per country	34
---	-----------

Tab. 10 Which environmental problem is reduced by CCS? Response percentages are for respondents in all countries except Germany	36
--	-----------

Tab. 11 Understanding that CCS aims to reduce global warming as a function of self-reported awareness of CCS specified per country	37
---	-----------

Tab. 12 Average response on initial attitudes on CCS.....	40
--	-----------

Tab. 13 Average response CCS demonstration plants.....	43
---	-----------

Tab. 14 Change of initial attitudes towards CCS after receiving information ...	49
--	-----------

Tab. 15 Comparison of pre-information and post-information attitudes towards CCS for those respondents who had changed the attitude after receiving information	52
--	-----------

Tab. 16 Comparison of pre-information and post-information attitudes towards CCS per countries (the Netherlands, UK).....	53
--	-----------

Tab. 17 Comparison of pre-information and post-information attitudes towards CCS per countries (Germany, Norway).....	54
Tab. 18 Means (and standard deviations) for change in initial CCS attitudes as a function of experimental condition: results for Germany.....	75
Tab. 19 Means (and standard deviations) for change in initial CCS attitudes as a function of experimental condition: results for Greece	76
Tab. 20 Means (and standard deviations) for change in initial CCS attitudes as a function of experimental condition: results for the Netherlands	77
Tab. 21 Means (and standard deviations) for change in initial CCS attitudes as a function of experimental condition: results for Norway	77
Tab. 22 Means (and standard deviations) for change in initial CCS attitudes as a function of experimental condition: results for Romania	78
Tab. 23 Means (and standard deviations) for change in initial CCS attitudes as a function of experimental condition: results for the UK.....	79
Tab. 24 Means (and standard deviations) for attitude change as a function of experimental condition for all six countries.....	81

I Introduction

As part of the FENCO-ERA project “Scrutinizing the impact of CCS communication on the general and local public (Impact of communication)” representative national surveys were conducted in six European countries: Germany, Greece, the Netherlands, Norway, Romania and the UK. In this report we compare results of the six national surveys on questions of public awareness, knowledge and opinions concerning CCS in the context of more general attitudes towards climate change and other energy technologies. In particular, we highlight the pathways by which the lay public can obtain information about CCS and examine how they respond to information. A more detailed analysis of the regional surveys conducted in four of the six countries (the UK, Germany, the Netherlands and Norway) can be found in a companion report [Reiner et al, 2010].

II Short overview of research on public acceptance of CCS

Previous research has indicated that public awareness of CCS is currently low [Reiner et al., 2006; Ashworth et al. 2006; De Best-Waldhober et al. 2008; Fischedick et al. 2008] and that public opinions are rather unstable [Daamen et al, 2006]. In some European countries, e.g. in the Netherlands and in the UK, representative public opinion surveys on CCS have been conducted in the past. In several other European countries, for instance Greece and Romania, no surveys on the public perception of CCS have yet been realised. Even in countries such as Norway, which has undertaken numerous activities on CCS, no representative surveys on public perceptions and awareness of CCS are available. Table 1 gives an overview of published studies conducted in the participating countries or regions within the countries, including information on the applied methods and the number of interviewees (sample size). The listed studies constitute the starting point for the present study, but the main lesson from Table 1 is that existing public opinion surveys related to CCS has been sporadic at best and non-existent in most of the countries. There have been no coordinated surveys across several European countries although Reiner et al.

[2006] describe a survey which was replicated in the UK, Sweden, Japan, the US and later in Spain and Australia, but that was done over the course of several years). There have been no efforts to test the role of information or assess information channels nor have there been any previous studies that examine regional issues in greater detail.

Tab. 1 Overview of surveys on public awareness, knowledge and opinions or public acceptance concerning CCS in all six European countries

Country	Number of studies on national level	Number of studies related to regions	Year of survey implementation	Sample size (n)	Method	Reference
Germany	1	none	2007	n=268 (stakeholders in terms of CCS related topics, e.g. members of environmental Non-Governmental Organizations)	qualitative as well as quantitative	Fischedick et al., 2008
Greece	none	none	none	none	none	none
The Netherlands	-	1	2003	n=108 (nonrepresentative regional citizen sample in the North-West of the Netherlands: citizens of Bergen and Alkmaar)	quantitative	Huijts et al., 2007
	1	-	2004	representative sample for the Dutch population: n=995 (for the ICQ ¹); n=327 (for the traditional questionnaire)	quantitative	De Best-Walldhober et al., 2006, 2009
	1	-	2007	representative sample for the Dutch population: n=1000	quantitative	De Best-Walldhober et al., 2008
Norway	1	none	2009	n=1031 (public)	quantitative	TNS Gallups, 2009 ²
Romania	none	none	none	none	none	none

¹ The Information-Choice Questionnaire (ICQ) provides individual respondents who participate in a survey with written information on CCS before asking for opinions and attitudes on CCS options, whereas the traditional questionnaire does not comprise any written information on CCS.

² This reference is listed in endnotes.

Country	Number of studies on national level	Number of studies related to regions	Year of survey implementation	Sample size (n)	Method	Reference
UK	1	-	2004	n=1056 (public)	internet, representative national survey	Reiner et al., 2006
UK	-	1	2003	n=212 (public, convenience sample of passengers at Liverpool Airport in Northwest of England)	face-to-face interviews	Shackley et al., 2005
EU	1	-	2007	n = 511 (stakeholders from across Europe of which, Germany 55, Greece 4, Norway 25, UK 100, the Netherlands 48)	online stakeholder survey	Shackley et al., 2007
EU	1 (conducted in all 27 EU member states)	-	2006	Germany 1529, Greece, 1000, Romania 1007, UK 1337, the Netherlands 1020 (representative national surveys)	asked single question (have you heard of CCS?) CAPI (Computer Assisted Personal Interview) where available	Eurobarometer, 2007

III Implementation of the representative national surveys of public awareness, knowledge and opinions concerning CCS

As part of the “Impact of communication” project a comparative study of CCS communication was carried out. Representative surveys of the general public’s awareness, knowledge and opinions were conducted in each of the six participating countries. A major aim of the national surveys is to close the knowledge gap which - as shown in the previous chapter - exists due to the lack of in-depth studies anywhere in Europe (or indeed globally). However, the need to conduct national surveys in the six European countries is not purely driven by the absence of surveys on public awareness and knowledge concerning CCS. In some of the countries included, such as the Netherlands, the UK and Germany, studies of awareness, knowledge and opinions towards CCS do exist. Our research approach however reaches further than existing studies by assessing factors that could potentially influence future public acceptance of CCS (e.g. trust in information sources, media preferences) in order to facilitate the design and implementation of effective CCS communication strategies. The research design allows for a cross-national comparison of results in the six participating European countries. We then provide general recommendations for CCS communications.

III.1 Methodological design of the representative national surveys

The questionnaire for the national surveys contains a set of core questions which were used in all countries³. Countries with planned or ongoing CCS projects such as Germany, the Netherlands, Norway and the UK used an extended version including questions regarding the awareness and attitudes on specific demonstration plants on a regional level. These regional results are part of the separate report “Results of regional surveys of public awareness and opinions regarding CO₂ capture, transport and storage project proposals” and are not

³ See Appendix 1 for the English version of the questionnaire.

discussed at this point. The translation of the questionnaires in each language was carried out very accurately with all partners taking care of country specific terms and methodological requirements. To ensure representativeness and comparability of the national data, a minimum of 1,000 respondents were surveyed in each country. In all countries the recruitment of participants for the survey was arranged by a professional polling firm. In Germany, Greece and Romania the surveys were conducted by telephone. The Netherlands, the UK and Norway realised a web-based survey. However, all samples were representative for the respective countries. All survey data were collected from October 2009 to January 2010. The analyses were done from January to March 2010.

III.2 Information presented in the surveys

Under the assumption that the majority of respondents had no knowledge or attitudes concerning CCS at all, the study was designed to provide the respondents with a low level of information on CCS during the interviews. The information was presented in a way to make it easily and quickly understandable. This method was necessary to ensure that those respondents who had never heard of CCS before were able to get a first impression of the technology. On the basis of this information, the respondents had to give their estimations on CCS technologies. The first information which was presented within the questionnaire comprised a very general definition of CCS: *„Carbon Capture and storage technologies: capture carbon dioxide from power plant exhaust and store it in underground reservoirs“*. This short statement was embedded in two questions (cf. Q6.1.1a and Q 6.2.1 of the questionnaire), aiming at measuring the initial attitudes on CCS and other available technologies (e.g. Solar energy).

Additional information on CCS was presented within the framework of an experiment included in the survey. The experiment investigated whether positive and negative information and information sources affect the perception of CCS. In order to examine these four conditions the sample in each country was divided into four groups. The respondents were asked the questions on the attitudes

towards energy technologies and towards the CCS demonstration plant twice: before and after being supplied with the extended information on CCS. Each group within the experiment was given different information. The first group obtained information offering a more critical perspective on CCS. The second group received exactly the same information as the first group but was also provided the source of the information (Greenpeace). The latter two groups were provided with a more positive perspective on CCS, in one group there was no attribution of the source and in the other they were informed that Shell was the source of this information. The results of this experiment are described in chapter IV.7 „Experiment: the influence of information and information sources on initial attitudes regarding CCS“ and also in Appendix 2.

III.3 Implementation of the national surveys in six European countries

In Greece and Romania nationwide surveys were implemented, whereas in Germany, the Netherlands, Norway and the United Kingdom both regional and nationwide surveys have been carried out. In Germany there was one regional survey in the Rhine Area where a power plant with CCS near Hürth is planned and another in northern Germany (Schleswig-Holstein) where potential storage sites are located. In the Netherlands the survey took place in the northern provinces of Drenthe, Friesland, and Groningen where large gas fields could be used for CO₂ storage. In Norway the regional survey took place in the county of Rogaland, where a demonstration CCS-power plant will be built at Kårstø. In the UK the regional survey was conducted in the Yorkshire and Humberside region where the potential demonstration plant at Hatfield is located; this is also a region where the construction of CO₂ transport infrastructure has been proposed. Both Norway and the UK plan to store CO₂ from these plants offshore, under the seabed of the North Sea.

Table 2 includes more details about the methodological parameters of the surveys. It is important to note that the regional surveys and the specific proposals are discussed further in [Reiner et al, 2010] and that we deal in this

report only with the nationally representative surveys and that all results presented here are based on those national surveys.

Tab. 2 Overview on methodological parameters

Country	National sample size (n)	Regional sample size(s) (n)	Number of regions	Regions	Survey period	Survey method	Criteria for representativeness of the national and regional sample
Germany	1017	500 for each region)	2	Schleswig-Holstein, Rhine-Area	Oct. 09 – Dec. 09	telephone	sex, age, education, region
Greece	1000	0	0	-	Oct. 09	telephone	sex, age, education
The Netherlands	1109	349	1	Northern provinces: Drenthe, Friesland, and Groningen	Oct. 09	webbased	sex, age, education and additional variables
Norway	1000	300	1	Rogaland	Jan. 10	webbased	sex, age, region
Romania	1002	0	0	-	Oct. 09	telephone	sex, age, education
UK	1030	415	1	Yorkshire/Humber	Nov. 09	webbased	sex, age, region, social class

IV Analysis and comparison of the results of the representative national surveys

Sociodemographic characteristics, media preferences, levels of trust in institutions, awareness and knowledge are key factors in determining the acceptance of new technologies. Sociodemographic characteristics are also informative as to the representativeness of a survey.

IV.1 Sociodemographics

The representative samples of about 1000 respondents were chosen based on several criteria, such as gender, age, region, and for some countries occupation, educational qualification or social class.

Table 3 summarises the frequencies and percentages of male and female participants per country.⁴ In all countries the percentage of females is equal or very slightly higher than the percentage of males. The distribution between the sexes in the six analysed European countries is largely in accordance with the 2008 Eurostat data set [cf. Eurostat 2008].

Tab. 3 Overview on gender distribution

Gender			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.1.1.1. Gender	1 Male	Number	466	479	544	520	506	499	3014
		%	46,6%	47,8%	49,1%	50,0%	49,8%	49,9%	48,9%
	2 Female	Number	534	523	565	520	511	501	3154
		%	53,4%	52,2%	50,9%	50,0%	50,2%	50,1%	51,1%
Total		Number	1000	1002	1109	1040	1017	1000	6168
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

⁴ In the body of the report each question of the survey is written in italics. To give an overview of all questions, the whole questionnaire is attached in Appendix 1.

Five different age classes were generated for cross-national comparison and further analysis in terms of awareness and knowledge of CCS:

- Group 1: 18 to 24 years old
- Group 2: 25 to 49 years old
- Group 3: 50 to 64 years old
- Group 4: 65 to 79 years old
- Group 5: 80 years and older

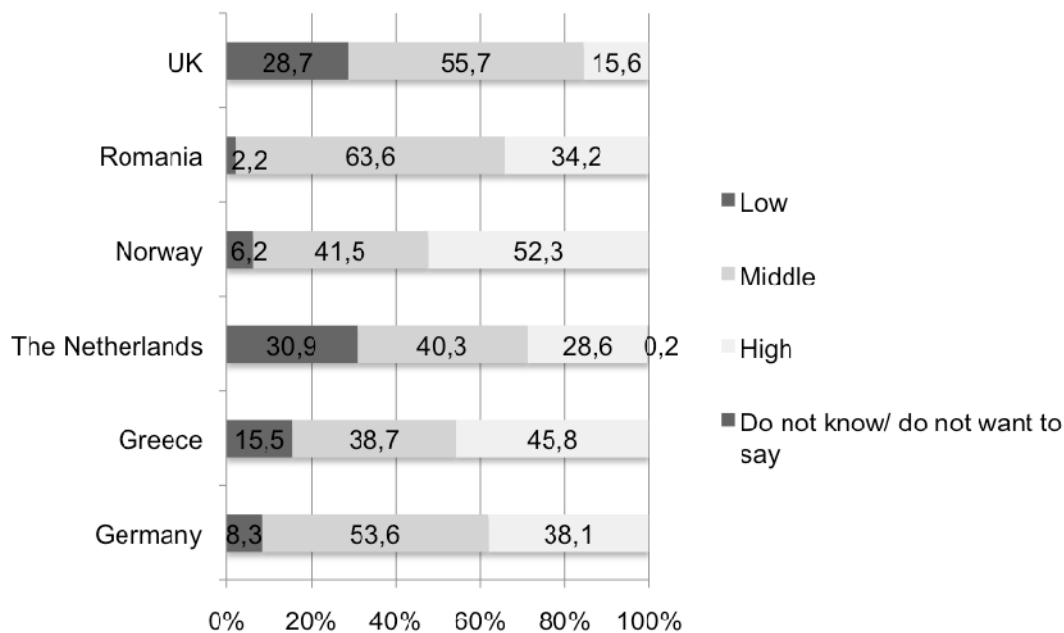
The largest age group in all countries is the middle-aged group (between 25 and 49 years old) (cf. Table 4). Within the German sample the youngest group (under 24 years) was relatively small and the groups of older respondents (groups 3 to 5) were relatively large in comparison to the other countries. The German sample had the highest average age, whereas the samples from Greece and Norway were skewed slightly towards younger respondents, as shown in Table 4.

Tab. 4 Characteristics of the respondents: age

Age		Country						Total	
		Greece	Romania	The Netherlands	UK	Germany	Norway		
Age groups	1 > 80	Number	0	21	14	3	32	0	70
		%	,0%	2,1%	1,3%	,3%	3,1%	,0%	1,1%
	2 65 - 79	Number	14	148	200	114	206	21	703
		%	1,4%	14,8%	18,0%	11,0%	20,3%	2,1%	11,4%
	3 50 - 64	Number	274	221	288	341	293	366	1783
		%	27,5%	22,1%	26,0%	32,8%	28,8%	36,6%	28,9%
	4. 25 - 49	Number	574	500	514	487	439	506	3020
		%	57,6%	49,9%	46,3%	46,8%	43,2%	50,7%	49,0%
	5 18 - 24	Number	134	112	93	95	47	106	587
		%	13,5%	11,2%	8,4%	9,1%	4,6%	10,6%	9,5%
Total	Number	996	1002	1109	1040	1017	999	6163	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

In order to take into account the different education systems in each participating country the international standard classification of education (ISCED97) was applied. For more effective comparison, the eight education levels of ISCED97⁵ have been reduced to three⁶ levels as shown in Figure 1.

Figure 1: Comparison: Education Level



Norway and Greece had the largest percentage of respondents in the high education category (i.e., some tertiary education) whereas Romania, the Netherlands, the UK and Germany had the most in the middle education group. A large number of respondents from the Netherlands and the UK and far more than in any of the other countries could be categorised as having a low level of education. The differences in reported education levels suggests that education levels are related to the balance of age classes within the national samples, i.e.,

⁵ Level 0 = preprimary education; Level 1 = primary education or a first stage of basic education, Level 2 = lower secondary or second stage of basic education, Level 3 = (upper) secondary education, Level 4 = postsecondary non-tertiary education, Level 5 = first stage of tertiary education, Level 6 = second stage of tertiary education, Level 7 = other individually specified education and Level 8 = do not know/do not want to say.

⁶ Cf. Q121: *What is the highest level of education you have achieved?*

the countries with the youngest respondents also had the highest levels of education (e.g. Norway and Greece).

IV.2 Attitudes

IV.2.1 Most important issues

To investigate the importance of environmental issues in relation to other important issues, the respondents were asked which issues were least important (=score 1) or most important (=score 7) to their own country today (on a 7 point Likert scale).

The choice of issues followed the Eurobarometer design [EUROBAROMETER, 2007], which investigates which are the most important issues in EU Member States and the priority given to environmental issues among these topics. The five different issues to be evaluated by the respondents were: Unemployment, Crime, Healthcare, Economic situation and Environment (cf. Table Q211a to Q211e in Appendix 3).

The most important issue (=score 7) for the Greek respondents was Environment (69.7%), followed by Unemployment (68.0%), but all other issues were evaluated with more than the half of all respondents as “most important” (=score 7).

Almost half (49.5%) of all Dutch respondents evaluated the Healthcare system as the most important issue, whereas one third of the Dutch people identified the issue of Crime as most important. The Environment was prioritised by only 19.9% of all respondents.

The results of the UK sample revealed that the Economic situation (52.1%), Crime (50.0%) and Healthcare (48.2%) were considered most important. The Environment was seen as ‘very important’ by 35.5% of respondents.

The most important issue for the Norwegian respondents was Healthcare (37.2%), followed by Crime (25.7%) and Environment (23.2%).

In the Romanian sample Healthcare (72.4%) and the Economic situation (70.8%) were regarded as most important.

The most important issue for the German respondents was Unemployment (59.9%), followed very closely by the Economic situation (57.9%). The Environment was seen as 'very important' by 54.6% of respondents.

Looking across the six countries, Environment is most important for Greek respondents (cf. Table 5), Romanian and German respondents place Environment amongst other 'very important' issues, whereas respondents from Norway, the UK and the Netherlands rate Environment as a somewhat lower priority.

Tab. 5 Average response on most important issues

Issues			Country					
			Greece	Romania	The Netherlands	UK	Germany	Norway
Q.2.1.1.	a) Unemployment	Mean	6.36	5.95	5.67	6.04	6.22	5.29
		SD	1.21	1.62	1.06	1.08	1.17	1.29
	b) Crime	Mean	5.94	5.80	5.86	6.13	5.69	5.57
		SD	1.50	1.86	1.05	1.09	1.50	1.22
	c) Healthcare system	Mean	6.14	6.37	6.31	6.15	6.14	6.01
		SD	1.32	1.29	0.82	1.02	1.19	1.00
	d) Economic situation	Mean	6.10	6.26	5.78	6.26	6.26	5.39
		SD	1.36	1.46	0.99	0.95	1.09	1.19
	e) Environment	Mean	6.39	6.18	5.44	5.70	6.17	5.32
		SD	1.18	1.32	1.24	1.33	1.14	1.41

(1 = least important to 7 = most important)

IV.2.2 Energy issues

The second question which addressed the respondents' attitudes on energy issues was: *Using a scale from 1 (=opposed) to 7 (=in favour) please indicate the extent to which you are in favour or opposed to the uses of these different sources of electricity in your country.* The results deviations are displayed in Table Q221a to Q221g in Appendix 3.

A large majority in the Greek sample was very supportive (i.e., score of 7 = in favour) of using several sources of electricity in their country as follows: Solar energy (85.6%) and Wind energy (72.7%). More than the half of the respondents would be in favour of Hydroelectric energy (50.8%). Meanwhile Greek respondents strongly opposed (score 1 = opposed) Nuclear (62.3%) and Coal

(41.6%) as energy sources, although one should note that there is currently no nuclear power used in Greece.

The respondents to the Dutch survey ranked Solar energy (61.1%) and Wind energy (54.9%) very highly. More than two fifths of the respondents were also very supportive of Hydroelectric energy (43.6%). Whereas the Dutch respondents strongly oppose (score 1 = opposed) Coal (18.1%) and Nuclear (16.8%), but on a much lower level than the Greek people.

The UK respondents would definitely use (score = 7) Solar energy (56.9%) and Wind energy (50.6%) and more than two strongly support Hydroelectric energy (45.4%). A smaller share of UK respondents would strongly oppose (score 1 = opposed) Nuclear (11.9%) and Coal (8.4%) compared to the other countries surveyed.

The Romanian sample strongly favour (score = 7) Solar energy (68.9%) and Wind energy (64.3%) and more than half of respondents would strongly support Hydroelectric energy (53.3%), which are broadly similar to the Greek results described above. 11.4% of Romanians were strongly in favour to Coal, which is the strongest support for Coal in the countries surveyed. It is perhaps most surprising, given the importance of nuclear power in Romania that a large minority (38.6%) were strongly opposed.

The German sample strongly favoured (score = 7) Solar energy (65.1%), Hydroelectric energy (53.6%) and Wind energy (52.0%). The respondents strongly opposed (score = 1) both Nuclear power (30.7%) and Coal (13.5%) the energy sources.

The respondents of the Norwegian sample would use the several sources of electricity in their country as follows: Solar energy (58.8%) and Wind energy (51.5%). Hardly one third of the respondents (32.1%) would be in favour to Hydroelectric energy. This percentage is, compared to the other countries, relatively low. In contrast to the aforementioned Renewable energy sources the Norwegian respondents would oppose (score 1 = opposed) Coal (50.9%) and

Nuclear (41.1%) on a very high level in comparison to other countries, although this is not especially surprising since neither coal nor nuclear power is currently used in Norway.

In sum respondents from all countries most strongly supported the use of solar energy, followed by wind and hydroelectric energy and these levels of support were far higher than for other energy sources (cf. Table 6). Coal is viewed most favourably in Romania and the UK, whereas Norway and Greece indicate the highest levels of opposition. Opposition to nuclear power was strongest in Greece and Norway, the countries without nuclear power stations, but was also high in Germany and Romania.

Tab. 6 Average response on energy issues

Energy source			Country					
			Greece	Romania	The Netherlands	UK	Germany	Norway
Q.2.2.1.	a) Solar energy	Mean	6.73	6.27	6.41	6.26	6.38	6.23
		SD	0.86	1.37	0.89	1.07	1.08	1.11
	b) Wind energy	Mean	6.39	6.16	6.24	5.99	6.04	5.95
		SD	1.25	1.44	1.08	1.38	1.33	1.43
	c) Hydroelectric energy	Mean	5.80	6.08	6.01	5.93	6.16	5.32
		SD	1.57	1.27	1.12	1.25	1.18	1.47
	d) Biomass energy	Mean	4.73	4.71	5.35	4.58	5.41	5.11
		SD	1.71	1.72	1.40	1.60	1.49	1.46
	e) Coal	Mean	2.79	4.00	3.14	3.94	3.75	1.98
		SD	1.85	1.88	1.50	1.62	1.75	1.29
	f) Natural gas	Mean	5.40	5.14	5.27	5.14	5.04	4.84
		SD	1.55	1.74	1.24	1.47	1.46	1.52
	g) Nuclear energy	Mean	2.21	3.24	3.87	4.38	3.12	2.72
		SD	1.88	2.28	1.91	1.94	1.91	1.90

(1 = opposed to 7 = in favour)

IV.3 Media preference

To support a development of effective methods and comprehensive tools for a further public communication strategy, it is necessary to know which information channels the respondents would use for getting information about new energy technologies. The respondents were asked: *Please indicate on a scale from 1 (very unlikely) to 7 (very likely) for each of the following channels the likelihood that you would use the channel for getting information about new energy technologies* (cf. Table Q310a to Q310e in Appendix 3).

The Greek sample were very likely (score = 7) to use the following channels for getting information about new energy technologies: Television (35.2%), Internet sites of media outlets (32.0%), and Scientific or specialist press (28.8%) whereas 26.0% of all Greek respondents were very unlikely (score 1 = very unlikely) to use Blogs or Wikis – no other media channel scored lower.

The Dutch respondents would be most likely (score = 7) to use Television (21.9%) and Internet sites of media outlets (16.7%), but very unlikely (score = 1) to use Blogs or Wikis (33.5%) or the Scientific or specialist press (17.7%).

The two top channels respondents from the UK were very likely to use for getting information about new energy technologies were Television (31.7%) and Internet sites of media outlets (22.9%). For 29.9% of all respondents in this group it would be very unlikely use Blogs or Wikis) and Scientific or specialist press (22.3%).

The respondents in the Norwegian sample were very likely to use the following channels for getting information about new energy technologies: Television (34.4%) and Newspapers (27.1%). The Norwegians who would use Blogs or Wikis is rather low in comparison with other channels – 37.5% claimed they would be very unlikely to use Blogs or Wikis.

For the Romanian sample, Television was cited as being the channel ‘very likely’ to be used by almost two-thirds of respondents (65.0%) for getting information

about new energy technologies, while all other sources were chosen to a much lower extent. 43.0% of all Romanian respondents were very unlikely to use Blogs or Wikis, Many Romanians also claimed they would be very unlikely to use either the Scientific or specialist press (37.8%) or Internet sites of media outlets (37.3%).

The respondents from Germany would use the following channels for getting information about new energy technologies as follows (score 7 very likely): Television (34.8%), Newspapers (29.0%) and Blogs or Wikis (27.9%).

Overall, Television was consistently cited as the source more likely to be used than any other source (particularly in Romania) (cf. Table 7). Respondents from the Netherlands, Norway and the UK were least likely to use Blogs and wikis. More than other countries, Romanians were very unlikely to use Scientific or specialist press. Finally, the share of German respondents who would be very likely use Blogs or Wikis is very high in comparison with the other countries.

Tab. 7 Average response on media preferences

Media channel			Country					
			Greece	Romania	The Netherlands	UK	Germany	Norway
Q.3.1.0.	a) Newspapers	Mean	4.88	4.10	4.76	4.71	5.23	5.30
		SD	1.87	2.29	1.63	1.82	1.71	1.58
	b) Magazines	Mean	4.19	3.59	4.05	3.90	4.66	4.49
		SD	1.94	2.11	1.59	1.81	1.92	1.67
	c) Scientific or specialist press	Mean	4.49	3.11	3.75	3.63	4.67	4.22
		SD	2.22	2.13	1.88	1.98	2.08	1.88
	d) Television	Mean	5.11	6.07	5.30	5.55	5.39	5.53
		SD	1.95	1.60	1.46	1.43	1.67	1.50
	e) Radio	Mean	4.81	4.85	4.19	4.11	4.57	4.37
		SD	1.90	2.21	1.76	1.85	1.96	1.85
	f) Internet sites of major media outlets	Mean	4.83	4.04	4.82	4.98	4.41	4.10
		SD	2.17	2.63	1.70	1.72	2.23	1.86
	g) Blogs/wikis	Mean	3.97	3.46	2.72	3.01	4.45	2.52
		SD	2.20	2.53	1.68	1.81	2.30	1.65

(1 = very unlikely to 7 = very likely)

IV.4 Trust

Another important factor on which to base effective communication methods and tools for a public communication strategy is the identification of sources and institutions in which people place the most trust. If their trust in information sources is lacking, people's information selection and information evaluations are affected in a negative way, with detrimental consequences on the impressions people have of the issue [cf. ter Mors, 2009]. To assess their degree of trust regarding potential sources, the respondents had to answer the following question: *To what extent would you trust information about energy related issues from each of the following sources?* The answering scale varies from 1 (=not at all) to 7 (=totally).

There are considerable variations in the evaluations of trustworthiness of different information sources. Scientists, Environmental protection organizations and Consumer associations are viewed as the most trustworthy sources (cf. Table 8). The European Union (EU), Electricity, gas and other energy companies are viewed as neither positive nor negative on average, although, there are important national differences, for example, most Norwegian and British respondents viewed the EU as less trustworthy than in Greece or Romania where the EU is rated more highly. Political parties, National and Regional governments and Journalists were seen as least trustworthy on average.

Tab. 8 Average response on trust

Trust			Country					
			Greece	Romania	The Netherlands	UK	Germany	Norway
Q.4.1.0.	a) National government	Mean	3.42	3.04	4.47	3.62	4.18	3.90
		SD	1.93	1.87	1.31	1.58	1.49	1.48
	b) Regional/ local government	Mean	4.07	3.59	4.36	3.73	4.13	3.80
		SD	1.79	1.95	1.23	1.49	1.42	1.29
	c) The European Union	Mean	4.90	5.11	4.24	3.51	4.25	3.81
		SD	1.75	1.69	1.32	1.58	1.57	1.35
	d) Electricity, gas and other energy companies	Mean	4.11	4.23	4.04	3.67	3.72	3.86
		SD	1.80	1.89	1.27	1.49	1.66	1.32
	e) Scientists	Mean	6.09	6.11	5.25	5.21	5.44	5.17
		SD	1.26	1.44	1.20	1.23	1.38	1.21
	f) Journalists	Mean	3.33	3.90	3.97	3.51	4.29	3.49
		SD	1.81	1.93	1.27	1.42	1.47	1.33
	g) Political parties	Mean	2.61	1.99	3.61	3.04	3.34	3.14
		SD	1.66	1.46	1.25	1.43	1.42	1.28
	h) Environmental protection organizations	Mean	5.64	5.35	4.46	4.65	5.36	4.18
		SD	1.57	1.80	1.45	1.50	1.51	1.56
	i) Consumer associations	Mean	4.48	4.70	5.19	4.73	5.33	4.86
		SD	1.82	1.87	1.15	1.33	1.36	1.22

(1 = not at all to 7 = totally)

The results regarding the trustworthiness of information sources in the different countries showed that Scientists are evaluated most trustworthy in all countries. The Dutch and the Germans also rank Consumer associations very highly. The trust in Political parties, Journalists and also in National governments is the lowest, though there are considerable differences between some countries: while the Romanians rate the trustworthiness of Political parties as extremely low, the Dutch rating is more neutral, nevertheless, political parties were rated least trustworthy on average in each country surveyed.. There are also some differences in the evaluation of Environmental NGOs, on average Greeks rated them as quite trustworthy, whereas the Norwegian respondents viewed them neutrally.

IV.5 Awareness and Knowledge

Four questions were created to examine public knowledge on environmental issues and on activities contributing to CO₂ build-up, and in a second step to evaluate public awareness of CCS.

IV.5.1 General Knowledge on environmental issues and science

First, we developed a short test to assess public knowledge on environmental issues and science (cf. Tables Q511a to Q511f in Appendix 3). This test consisted of six separate statements. For each statement people had to indicate, to the best of their knowledge, whether the statement was true or false. The six statements read:

- a) We are currently in a warm period between ice ages (true = correct answer),
- b) Roughly two-thirds of the energy used to produce electricity from fossil fuels is lost (true = correct answer),
- c) The greenhouse effect is caused by a hole in the Earth atmosphere (false = correct answer),
- d) Every time we use coal or oil or gas, we contribute to the greenhouse effect (true = correct answer),
- e) Oil and gas reservoirs are typically found 100 meters below the surface (false = correct answer),
- f) Oxygen is the main component of the smoke emitted from a smokestack or tailpipe (false = correct answer).

In the Greek sample, results indicated that more than three quarters of respondents are aware that we are in a warm period between ice ages (75.5%), that every time we use coal and oil or gas, we contribute to the greenhouse effect (88.1%) and that oxygen is the main component of the smoke emitted from a smokestack or tailpipe (83.3%). For all but one of the knowledge questions more than half of all respondents answered correctly but only 28.2% of Greeks were aware that the greenhouse effect is not caused by a hole in the Earth's atmosphere.

In the Dutch sample, more than half of all respondents provided the correct answer for each statement. The worst score was 54.7%, who correctly answered that the greenhouse effect is not caused by a hole in the atmosphere. All the other statements received significantly higher percentages of correct answers.

The results of the British sample reveal that there were misconceptions particularly concerning two statements: only 42.2% of this group know that the greenhouse effect is not caused by a hole in the Earth's atmosphere and 46.0% know that oil and gas reservoirs are not typically found 100 meters below the surface. All other statements were answered correctly by almost three quarters of the respondents.

The results of the Norwegian sample are quite similar to the Dutch survey: more than half of the respondents chose the right answers to each statement. The statement on oil and gas reservoirs was answered correctly by 58.8% of all respondents, the lowest score overall, while all other statements received higher percentages of correct answers.

The results of the remaining two countries, Germany and Romania, are not comparable with the results of the other four countries. The Romanian and German respondents were able to give the answer "don't know" during the telephone interview, whereas the design of the survey used in the other four countries did not permit the statement "don't know" for the respondents.

The results of the Romanian sample reveals that there were misconceptions particularly about two statements: only 36.8% of this group know that the greenhouse effect is not caused by a hole in the Earth's atmosphere while 18.3% indicate that they do not know if the greenhouse effect is caused by a hole in the Earth's atmosphere and 46.3% of Romanians did not know that oil and gas reservoirs are not typically found 100 meters below the surface and 16.6% stated that they had no knowledge about this topic. All other statements were answered correctly by more than two third of the respondents.

The German survey reveals that there was a misconception about one statement in particular: only 30.5% of all respondents knew that the greenhouse effect is

not caused by a hole in the Earth's atmosphere and 10.3% of all respondents from Germany chose the answer "don't know" for this statement. All other statements were answered correctly by more than half of the respondents, even though roughly one quarter of the respondents stated "don't know" about the following statements: we are currently in a warm period between ice ages (23.5% "don't know"), two-thirds of the energy used to produce electricity from fossil fuels is lost (23.5% "don't know") and oil and gas reservoirs are typically found 100 meters below the surface (25.3% "don't know").

Clearly, the greatest degree of confusion was over the misconception that a hole in the atmosphere caused global warming (a confusion with the ozone hole) and that oil and gas reservoirs were considerably deeper than many believed (typically 1 kilometer below the surface as opposed to 100 meters). The cross-national variation⁷ in the results of these knowledge questions on environmental issues and science indicates that only a minority of Greek (28.2%) and British (42.2%) respondents were aware that the greenhouse effect is not caused by a hole in the Earth's atmosphere whereas the majority of Norwegian (60.7%) and Dutch (54.7%) respondents knew that the greenhouse effect is not caused by a hole in the atmosphere. There is also a considerable variation in the results of the statement on oil and gas reservoirs: the Dutch (62.4%) were more likely to answer correctly than the British respondents (46.0%).

IV.5.2 Knowledge on activities contributing to CO₂ build-up

We further assessed people's knowledge on sources of CO₂ by asking respondents: *There is a growing concern about increasing levels of carbon dioxide in the atmosphere. How do the following activities contribute to these levels?*

- a) Cars (motoring)
- b) Coal burning power plants
- c) Nuclear power plants
- d) Windmills/wind turbines

⁷ Not including Romania and Germany.

- e) Planting trees
- f) Factories (e.g., steel mills)

Respondents had to choose one of three possible answers, either: (1) the activity increases CO₂ levels; (2) the activity has no effect on CO₂ levels; or (3) the activity decreases CO₂ levels. In Germany and Romania, respondents could also indicate that they did not know the answer.

When interpreting the results one should keep in mind that the respondents had a 1/3 chance to guess the correct answer even without any prior knowledge whatsoever, so that only percentages substantially higher than 33.3% point to accurate public knowledge on how an activity contributes to CO₂ levels. We will first discuss the results for each country in turn and then provide a cross-country comparison of public knowledge on sources of CO₂.

The results of the Greek sample show that most people were aware of how these activities contribute to CO₂ levels in the atmosphere (cf. Table 521a to Q521f in Appendix 3). With regard to factories like steel mills, for example, 97.4% of all respondents correctly indicated that such factories increase CO₂ levels in the atmosphere. Only a very small minority indicated that factories had no impact (0.5%) or decreased CO₂ concentrations (2.1%). The results are similar to the results for car use (97.1% correct). Only 4.9% of respondents erroneously thought that wind turbines increase CO₂ levels in the atmosphere whereas one fifth of the sample indicated that nuclear power plants (19.9%) had no impact on CO₂ levels in the atmosphere compared to 71.1% which had the misconception that nuclear power plants increase CO₂.

For the Dutch sample, results indicated that large majorities of those surveyed correctly understood how these activities contribute to CO₂ levels in the atmosphere with the exception of nuclear power. With regard to car use, for example, 92.9% of all respondents correctly indicated that car use increases CO₂ levels in the atmosphere. Only a very small minority indicated that car use had no impact (4.4%) or decreased CO₂ concentrations (2.7%). We observed a similar pattern of results for coal-fired power plants (90.0% correct) and steel factories

(94.0% correct). About half the sample indicated that nuclear power plants (49.8%) and windmills (51.7%) had no impact on CO₂ levels in the atmosphere. Only 1.9% of the respondents erroneously thought that wind turbines increase CO₂ levels in the atmosphere although 31.0% believed that nuclear power plants increased CO₂ levels. Finally, 91.0% indicated that planting trees decreases CO₂ levels.

In the UK sample, 93.7% of all respondents answered correctly that car use increases CO₂ levels in the atmosphere, and at a similar level, the questions on coal burning power plants (90.2%), planting trees (89.0%) and factories like steel mills (92.4%) were answered correctly. More than half of all British respondents (51.0%) knew that nuclear power plants do not contribute to the increase of CO₂ levels in the atmosphere but 36% believed that nuclear power increased CO₂ levels. By comparison, less than 5% believed that windmills or wind turbines increase CO₂ levels.

For Romania, results have shown that most people were correctly aware that car use (93.9%), coal burning power plants (91.8%) and factories like steel mills (92.9%) increase CO₂ levels. Just over half (50.8%) of the Romanian respondents indicated that nuclear power plants increase CO₂ levels in the atmosphere.

Similar to the first knowledge question, the results from Germany have to be evaluated separately due to the possibility that the respondents would have given the answer “don’t know”.

The results of the German sample reveal that the following three statements were evaluated very similarly by the respondents: with regard to car use 91.7% of all respondents answered correctly, that car use increases CO₂ levels in the atmosphere, other statements on the topics of coal burning power plants (92.0%) and on factories like steel mills (91.3%) were also answered correctly. More than one third of the respondents (35.1%) knew that nuclear power plants do not contribute to the increase of CO₂ levels in the atmosphere, 9.6% of all people did not know that nuclear power plants have no impact on CO₂ levels. Even

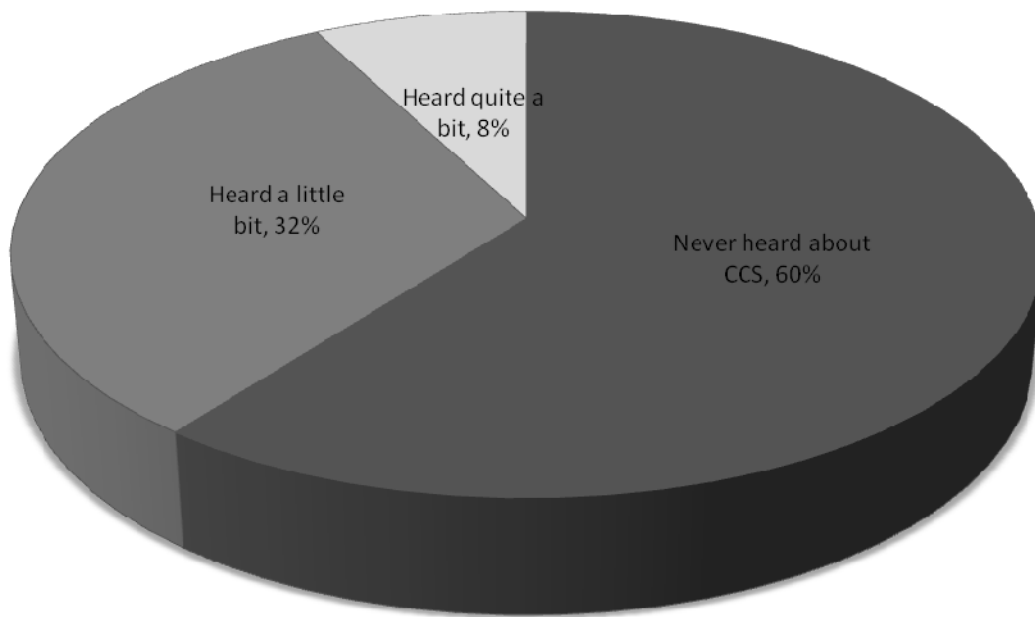
accounting for the additional responses of “don’t know” (2.8%), Germans scored relatively poorly on the question of the effects of tree planting, with only 80.4% knowing that trees reduce increases CO₂ levels compared to roughly 90% in the UK, Netherlands and Norway. By comparison, less than 4% of German respondents believed that windmills or wind turbines led to increased CO₂ in the atmosphere.

According to the national results, the Norwegian and Dutch respondents show the highest results in knowledge on activities contributing to increasing CO₂ in the atmosphere, similar to the basic science questions, but even in those two countries, roughly one-third of respondents believed that nuclear power increased levels of carbon dioxide in the atmosphere. Incorrect responses are especially apparent on the subject of nuclear power plants across all six countries and also on the question of planting trees in several countries.

IV.5.3 (Self-reported) awareness of CCS

Next, we asked respondents *Have you heard about “Carbon dioxide capture and storage” (also known as “Carbon dioxide capture and sequestration”)?* They could either indicate (1) No, never heard, (2) A little bit, or (3) Yes, quite a bit. Figure 2 provides the percentages for the entire sample, in which the results of all six countries were totalized.

Figure 2: (Self-reported) Awareness of CCS



(n=6168)

Three fifths (60%) of all respondents indicated never having heard about “Carbon capture and storage” (also known as “Carbon capture and sequestration”). An additional 32% indicated to have heard about CCS a little bit, while only 8% stated that they had heard quite a bit about CCS. There were important differences between countries, however. Table 9 provides an overview of awareness by country.

Tab. 9 Percentages of self-reported awareness of CCS specified per country

Awareness of CCS			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.5.3.1 Have you ever heard about CCS	1 No, never heard	Numb er	765	759	555	644	630	374	3727
		%	76,5%	75,7%	50,0%	61,9%	61,9%	37,4%	60,4%
	2 A little bit	Numb er	187	214	493	331	288	452	1965
		%	18,7%	21,4%	44,5%	31,8%	28,3%	45,2%	31,9%
	3 Yes, quite a bit	Numb er	48	29	61	65	99	174	476
		%	4,8%	2,9%	5,5%	6,3%	9,7%	17,4%	7,7%
Total		Numb er	1000	1002	1109	1040	1017	1000	6168
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

These results suggest that the level of awareness increases with the actual existence of (plans for) CCS activities in a specific country. That is to say, in Greece and Romania, the vast majority (just over 75%) indicated never having heard of CCS, which may not be very surprising considering that CCS is in the very early stages of development in these countries. In all the other countries, actual (plans for) CCS activities already exist, which may be the reason why people in these countries more often report to have either heard a little bit or quite a bit about CCS. That is, existing CCS activities, together with increased media coverage, may be an explanation for different levels of CCS awareness between the countries. For example, in the Netherlands there has been extensive public debate over CCS activities planned in the municipality of Barendrecht and Norway has the longest-running major CO₂ storage project in the world (Sleipner) and strong opposition to any fossil-fired generation without CCS, which may account for higher levels of awareness of CCS in the Netherlands and Norway compared to Greece or Romania, which do not have any large-scale CCS project at an advanced stage of planning. At the same time, only 5.5% of the Dutch respondents indicate having heard about CCS quite a bit

which is lower than the number of British, German, and especially Norwegian respondents indicating that they have heard quite a bit about CCS. The percentages for the UK and Germany are comparable, with the number of people who have never heard of CCS in these countries somewhere in between Greece and Romania on the lower end and the Netherlands and Norway on the higher end.

IV.5.4 Public understanding of the environmental concerns CCS aims to address

Furthermore, we assessed people's ideas about the environmental concern that CO₂ capture and storage aims to address. Based on the above mentioned results on awareness of CCS, between countries different levels of knowledge about the environmental concern CCS aims to address may be expected. To gauge this, respondents answered the following question: *“Carbon capture and sequestration” or “Carbon capture and storage” can reduce which of the following environmental concerns?*

- a) Toxic waste
- b) Ozone depletion
- c) Global warming
- d) Acid rain
- e) Smog
- f) Water pollution

For each environmental concern, respondents had to choose one of three possible answers, either (1) can reduce, (2) does not reduce, or (3) I do not know. The only environmental concern which could in fact be reduced by CCS technologies is global warming. We will first present the results for public understanding that CCS aims to reduce global warming specified per country.

The results pursuant to the percentages for public understanding of the relationship between CCS and global warming (cf. Table Q532c in Appendix 3) show, that the majority of the respondents in all countries (except in the UK with

43.2%) think CCS can reduce global warming. So, these percentages seem to suggest considerable public understanding of the fact that CCS aims to reduce global warming. However, this is not a valid conclusion, as we will show next.

Table 10 presents percentages indicative of public understanding of the environmental concern CCS aims to address. The German data are not included in these percentages because in Germany only those who indicated they had heard about CCS were asked to indicate the environmental concerns that CCS aims to address; hence, the German results are not comparable to the results of the other countries and are omitted for this analysis.

Tab. 10 Which environmental problem is reduced by CCS? Response percentages are for respondents in all countries except Germany

Environmental problem	Can reduce	Does not reduce	Don't know ⁸
Toxic waste	36,7%	34,7%	28,5%
Ozone depletion	51,1%	21,7%	27,3%
Global warming	60,0%	15,0%	25,1%
Acid rain	49,4%	22,0%	28,6%
Smog	54,9%	19,2%	26,0%
Water pollution	40,6%	30,9%	28,5%

As noted before, at first glance, these results suggest that people are quite aware that CCS aims to reduce global warming (60% of respondents in the five countries correctly associate CCS with the reduction of global warming). Whereas only 15% said CCS does not reduce global warming. At the same time, many respondents indicated that CCS reduces smog (54.9%), ozone depletion (51.1%), acid rain (49.4%), and even large numbers thought it addressed water pollution (40.6%) and toxic waste (36.7%). As such, it seems that the initial reaction to CCS was as a “one-size-fits-all” solution to a broad range of environmental issues. In fact, only less than 3% of all respondents correctly indicated the reduction of global warming as the *unique* aim of CCS. These results indicate that knowledge about CCS among members of the general public is quite poor.

⁸ This percentage also includes the Romanian people who refrained from answering the question.

We also examined whether people who claimed to be aware of CCS were also more likely to correctly indicate which environmental concern CCS addresses as compared to those who claimed to have never heard of CCS (Table 11 provides a cross-tabulation of questions Q531 and Q532(c)).

Tab. 11 Understanding that CCS aims to reduce global warming as a function of self-reported awareness of CCS specified per country

	No, never heard of	A little bit	Yes, quite a bit
Greece	64.7%	76.5%	75.0%
Romania	71.5%	68.7%	72.4%
The Netherlands	38.4%	73.0%	77.0%
UK	27.3%	66.8%	80.0%
Germany	Not Applicable	55.6%	58.6%
Norway	23.3%	80.1%	87.4%
Total	48.9%	70.1%	76.9%

In the Netherlands, the UK, and Norway, the more aware people claim to be of CCS, the more likely they are to indicate that CCS aims to address global warming. However, this trend is not clear for Greece and Romania, where a majority of people who indicated to have never heard of CCS also answered that CCS aims to reduce global warming. It is important to note, however, that the group of respondents with at least some self-reported knowledge about CCS *in particular* believed that CCS also reduces other environmental concerns such as ozone depletion (57.3%), smog (60.0%), and acid rain (55.9%). As such, it seems that knowledge about the aims of CCS is poor even among members of the general public who indicate that they know a little or quite a bit about the technology.

IV.6 Initial attitudes

Since previous studies pointed out [Ashworth et al. 2006; De Best-Waldhober et al. 2008; Fishedick et al. 2007] that only a small share of the public is aware of CCS technologies, the respondents received a brief description of CCS: *Carbon capture and storage: Capturing carbon dioxide from power plant exhaust and storing in underground reservoirs*. Research has shown that such initial attitudes regarding CCS are highly unstable, because they are reported by people who have very little knowledge about the technology [e.g. Daamen, De Best-Waldhober, Damen, & Faaij, 2006]. Hence, future communications about CCS can be expected to heavily influence the initial attitudes people hold

The first question on initial attitudes towards CCS technologies asked about the technology in comparison to other energy related technologies (cf. Table Q611a to Q611e in Appendix 3). The question was as follows: *The following technologies have been proposed to address global warming. If you were responsible for designing a plan to address global warming, which of the following technologies would you use?* The respondents had to express whether they would use the following technologies on a scale ranging from 1 (=definitely not use) to 7 (=definitely use):

- (a) *Carbon capture and storage: Capturing carbon dioxide from power plant exhaust and storing in underground reservoirs.*
- (b) *Energy efficient appliances: Producing appliances that use less energy to accomplish the same tasks.*
- (c) *Nuclear energy: Producing energy from a nuclear reaction.*
- (d) *Solar energy: Using the energy from the sun for heating or electricity production.*
- (e) *Wind energy: Producing electricity from the wind, traditionally in a windmill.*

The Greek respondents (score 7 = would definitely use) would use the different technologies to address global warming as follows: Solar energy (87.4%), Wind energy (80.5%), Energy efficient appliances (63.3%), CCS (33.5%) and Nuclear energy (5.1%).

The respondents of the Dutch sample would use the different technologies to address global warming as follows (score 7 = would definitely use): Solar energy (65.0%), Wind energy (56.7%), Energy efficient appliances (48.1%), CCS (10.1%) and Nuclear energy (9.7%).

The UK sample (score 7 = would definitely use) would use the different technologies to address global warming as follows: Solar energy (56.0%), Wind energy (50.7%), Energy efficient appliances (47.8%), Nuclear energy (16.1%) and CCS (11.7%).

The Norwegian respondents (score 7 = would definitely use) would use the different technologies to address global warming as follows: Solar energy (61.9%), Wind energy (57.5%), Energy efficient appliances (42.8%), CCS (10.7%) and Nuclear energy (7.4%).

The respondents of the Romanian sample would use the different technologies to address global warming as follows (score 7 = would definitely use): Solar energy (72.9%), Wind energy (72.3%), Energy efficient appliances (61.3%), CCS (28.8%) and Nuclear energy (16.3%).

The German sample (score 7 = would definitely use) would use the different technologies to address global warming as follows: Solar energy (73.5%), Wind energy (65.5%), Energy efficient appliances (59.2%), CCS (14.8%) and Nuclear energy (7.1%).

To address global warming 'Renewable energy technologies' and 'Energy efficiency technologies' were the responses most frequently given by respondents. The use of CCS technologies was evaluated much less positively. The German sample presented the highest rate of respondents who would definitely not use CCS technologies to address global warming (16.2% = score 1), all counterparts indicated lower percentages within this score. A significant fraction of respondents were strongly opposed to the use of Nuclear Energy: for example, 62.7% of Greek respondents and also roughly one third of Romanian

(35.5%), the German (36.6%) and Norwegian (32.2%) respondents would definitely not use this technology to address global warming although Dutch respondents were closer to neutral and British respondents even slightly positive in their view of nuclear power.

In sum, the initial attitudes in the countries range from a more or less neutral to a somewhat positive evaluation regarding the use of CCS technologies (cf. Table 12). In general, Greece and Romania on average would slightly support the use of CCS technologies to address global warming, but these are also the countries with the lowest awareness of CCS and where increased awareness does not translate into improved knowledge of what issue CCS is meant to address. The Netherlands, the UK, Norway and Germany are essentially neutral on average regarding the use of CCS, although the Germans are the most sceptical of all respondents.

Tab. 12 Average response on initial attitudes on CCS

Technologies			Country					
			Greece	Romania	The Netherlands	UK	Germany	Norway
Q.6.1.1.	a) CCS	Mean	4.97	5.03	4.20	4.49	3.99	4.14
		SD	1.96	1.86	1.61	1.54	1.93	1.63
	b) Energy efficient appliances	Mean	6.22	6.13	6.04	6.03	6.22	5.86
		SD	1.31	1.46	1.17	1.19	1.22	1.27
	c) Nuclear energy	Mean	2.18	3.45	3.70	4.12	2.91	3.05
		SD	1.84	2.31	1.92	2.01	1.93	1.93
	d) Solar energy	Mean	6.75	6.38	6.39	6.17	6.51	6.27
		SD	0.81	1.34	1.03	1.20	1.03	1.16
	e) Wind energy	Mean	6.59	6.32	6.21	5.95	6.33	6.11
		SD	1.09	1.43	1.16	1.44	1.21	1.34

(1 = definitely not use to 7 = definitely use)

In the next question on initial attitudes regarding CCS the respondents had to answer a question on government support for a CCS demonstration plant. The question comprises the idea of a CCS demonstration plant to be planned by the national governments of the different countries. The question was: *CCS technologies capture carbon dioxide from power plant exhaust and store it in*

underground reservoirs. If our government decided to proceed with a plant to test the applicability of this technology would you be supportive of such a proposal?

The respondents had to exhibit if they would be strongly opposed (= score 1) or strongly supportive (= score 7) of the governmental activities on such a CCS demonstration plant (cf. Q621 in Appendix 3).

In Greece almost half of all respondents (47.5%) would be strongly in favour if their government decided to proceed with a plant to test CCS technologies whereas relatively few (5.3%) would be strongly opposed to a CCS demonstration plant and less than 12% opposed to any degree.

Similarly, 45.2% in the Romanian survey would be strongly in favour of CCS test plants, 7.7% would be strongly against such demonstration plants, and less than 13% would be opposed to any degree. In spite of the fact that over three-quarters of respondents in both Greece and Romania claim to have heard of CCS before only around 14% in each country expressed a neutral view on the proposed plant.

The results in the Netherlands are quite different: only 6.5% strongly favour CCS demonstration plants and a similar percentage (5.5%) would be strongly opposed to governmental plans for a CCS demonstration plant. Overall, 46.3% of all Dutch respondents (scores of 5 to 7 on a 7-point scale) would be in favour of CCS test plants, whereas 28.9% of Dutch respondents neither support nor oppose proposals for a CCS demonstration plant and slightly less than a quarter would oppose such plans to some degree.

In the UK 10% of the respondents would be strongly in favour if their government decided to proceed with a CCS demonstration plant (44.5% would support to some degree), whereas 4% of the UK sample would be strongly opposed (19.2% opposed to some degree) and more than one third (36.3%) neither support nor oppose such a proposal.

The Norwegian sample showed similarities to the results of the Netherlands and the UK: 10.5% of all Norwegians would be strongly in favour of such CCS demonstration plants (40.5% support to some degree), whereas 6.1% of the respondents would strongly reject (almost 25% oppose to some degree) such governmental plans on CCS test plants. Slightly more than one-third (34.8%) were more neutral.

The German sample indicates that 22.2% of all respondents would be strongly in favour (45.5% supportive overall) if their government decided to proceed with a plant to test CCS technologies and 14.4% of all respondents would be strongly opposed (28.5% opposed overall) to CCS demonstration plants.

In sum, the results suggest that Greece and Romania, which had indicated the highest ratio of respondents who have never heard of CCS (cf. Table Q531 in Appendix 3) are the most likely to support CCS test plants. The results of the Netherlands, the UK, Norway and Germany are somewhat similar with more than two fifths of respondents in each country in favour of CCS test plants. Perhaps surprisingly, Norway, which had the highest share of those who claimed to know “quite a bit” about CCS had the lowest share of those in favour of such a proposal. The German sample showed the highest percentage of people who are strongly opposed to a demonstration plant.

Compared to the results of the previous question regarding the use of CCS to address global warming (cf. Table 12), these results are slightly more positive. That means that, on average, the initial reaction of respondents is slightly in favour of trying out CCS technologies and a relatively small share (no more than 25-30% opposed) at the outset (cf. Table 13).

Tab. 13 Average response CCS demonstration plants

Demonstration plant		Country					
		Greece	Romania	The Netherlands	UK	Germany	Norway
Q.6.2.1.	Mean	5.56	5.49	4.31	4.43	4.37	4.32
	SD	1.74	1.85	1.53	1.44	1.99	1.55

(1 = strongly opposed to 7 = strongly supportive)

Depending on which answer the respondents chose, a second question could be asked to find out if their attitudes might lead them to pursue any active efforts against or in favour of the planned CCS facility⁹. Respondents who stated that they would oppose such a CCS demonstration plant were asked the question (cf. Table Q622 in Appendix 3): *I feel so strongly that I would most probably make an active effort (such as signing petitions) against this CCS facility.* On the other hand, those respondents who stated out that they would support such a CCS demonstration plant were asked the question (cf. Table Q623 in Appendix 3): *I feel so strongly that I would most probably make an active effort (such as signing petitions) in favour of this CCS facility.* They had to give an estimation of their own behaviour on a scale from 1 (=strongly disagree) to 7 (=strongly agree). Respondents who gave a neutral response (4 on a scale of 1-7) were not asked a follow-up question.

It is important to note in the interpretation of the results that the percentages of the following two questions on concrete activities are related to the number of respondents who answered the respective questions. Hence, to interpret the percentages correctly, it is useful to gather the Tables including the Appendix which present the number of absolute frequencies (that means for example that

⁹ Unless the respondents stated out a neutral position (=score 4); those were directly referred to the next question (n=1591).

the 28.1% of Greek respondents who strongly agreed that they would make an active effort against test plants correspond to 114 respondents).

The percentages of respondents in the different countries who would make an active effort in favour of CCS demonstration plants differ notably (cf. Table Q623 in Appendix 3): whereas more than two fifths of the groups in Greece (score 7 = 47.7%) and Romania (score 7 = 43.3%) feel so strongly that they would probably make an active effort (such as signing petitions) in favour of CCS facilities, the respondents from the Netherlands (score 7 = 8.8%), the UK (score 7 = 10.6%) and Norway (score 7 = 4.0%) exhibit low percentages regarding the willingness to make active efforts pro CCS demonstration plants. Regarding the fact that a considerable number of the Greek and Romanian respondents stated out that they had never heard about CCS before, this result is quite unexpected.

Only a few of those respondents oppose CCS demonstration plants would also make an active effort against these plants (cf. Table Q622 in Appendix 3). 28.1% (= score 7) of the Greece respondents, 20.0% of the German respondents (= score 7) and 17.2% (= score 7) of the Romanian people feel so strongly, that they would probably make an active effort (such as signing petitions) against CCS facilities. Respondents in the Netherlands (score 7= 8.0%), the UK (score 7= 9.0%) and Norway (score 7= 5.7%) exhibit much lower percentages regarding their willingness to make active efforts against CCS demonstration plants.

In sum, respondents from Norway, the Netherlands and the UK would make active efforts against or in favour of CCS test plants to a very low extent in comparison to those from Greece, Romania and Germany. The Greek group claimed to be the most likely to act; they would make active efforts both against and in favour of CCS facilities more readily than in the other five countries.

The percentages suggest that the opponents of CCS test plants would not start any action as readily as the proponents. However, it is important to note that our respondents are not residents living near planned CCS activities and that overall levels of awareness of CCS even amongst those claiming to be willing to take

action is very low and so it is difficult to draw very strong conclusions from these results.

All in all, the initial attitudes regarding the use of CCS technologies vary within the countries from a more neutral to a slightly positive rating. Respondents' initial attitude towards the implementation of a CCS demonstration plant is slightly more positive than their initial attitude towards the use of CCS technologies. In general Greece and Romania indicate the most positive initial attitudes regarding CCS technologies in spite of having the lowest awareness and levels of knowledge regarding what CCS is meant to address.

IV.7 Experiment: the influence of information and information sources on initial attitudes regarding CCS

IV.7.1 Design of the experiment

As mentioned in section IV.6 the attitudes towards CCS in the present study are “initial attitudes” in the sense that they are expressed by people without being thoroughly informed about the technology. As shown in section IV.6 prior to participating in the present study 60% of the respondents indicated to have never heard about CCS. Before evaluating CCS, respondents were only given a very brief description of what CCS involves (i.e., “CO₂ capture and storage: Capturing CO₂ from power plants exhaust and storing it in underground reservoirs”).

Initial attitudes towards CCS can be expected to be strongly influenced by new information because they are reported by people who have very little knowledge about the technology. Hence, future communications about CCS can be expected to heavily influence the initial attitudes people hold (cf. Daamen, De Best-Waldhober, Damen, & Faaij, 2006). The impact of communication about CCS on initial attitudes is exactly what we examined by means of an experiment included in the representative surveys. The impact of communication about CCS on initial attitudes is exactly what we examined in the present study that was included in the representative surveys. More specifically, by means of an experiment we examined whether presenting people with positive or negative information about CCS would change their initial attitudes. Our prediction was that initial attitudes regarding CCS would become more negative after being presented a short negative text about CCS, while being presented a short positive text about CCS would lead to more positive attitudes. In order to examine this, after respondents had indicated their initial attitudes regarding CCS they were randomly assigned to one of two experimental conditions: half of the respondents in each country received positive information about CCS, while the other half of respondents in this country received negative information about the technology.

In the positive communication condition respondents received the following information:

Carbon capture and storage (CCS) is a key technology in reducing greenhouse gas emissions from fossil fuels, in particular from coal-fired power. All elements of CCS – capture, transport and underground storage – are in operation today. In sequestering CO₂ a replication what has been done with natural gas for many years in hundreds of different locations around the world is possible. CO₂ transportation overland by pipeline is well established. What still needs to be put into practice is the joining up and operation of the various technologies, and especially their large-scale incentivisation and implementation.

In the negative communication condition respondents received the following information:

Carbon capture and storage (CCS) aims to reduce the climate impact of burning fossil fuels by capturing carbon dioxide (CO₂) from power station smokestacks and disposing of it underground. Its future development has been widely promoted by the coal industry as a justification for the construction of new coal-fired power plants. However, the technology is largely unproven and will not be ready in time to save the climate. The underground storage operations are not simple processes, nor do they offer a one-size-fits-all solution to climate change. Each storage location is unique and requires detailed characterisation, management and monitoring.

After respondents had received either the positive or the negative CCS information, we asked them again whether they would use CCS to address global warming (with possible answers to this question again ranging from 1="definitely not use" to 7="definitely use"). This question was identical to the one we had asked the respondents before they had read the information text. In our analysis we focused on the degree and direction of change between respondents' pre- and post-information attitudes.

In addition to the variation in the content of the CCS information provided (e.g. positive information versus negative information) we also systematically varied the source of this information. In the positive information condition, half of the respondents learned that the source of this information was Shell, while for the other half of respondents no source information was provided. The information

itself was identical in both cases. In the negative information condition, half of the respondents learned that the source of this information was Greenpeace, whereas to the other half of respondents no source was mentioned. Again, respondents received identical information. Afterwards we examined whether the influence of positive and negative information on attitude change would depend on the source of information (e.g. a specific source versus no source) and whether there would be differences between countries in this regard.

In sum, in order to measure the impact of different information content and information sources on attitude change respondents in each country were randomly assigned to one of four experimental conditions:

1. positive CCS information – no source
2. positive CCS information – Shell as information source
3. negative CCS information – no source
4. negative CCS information – Greenpeace as information source

IV.7.2 Results of the experiment

In order to scrutinise whether the information provision had an influence on the initial attitudes towards CCS the respondents were asked the question “would you use CCS to address global warming?” twice: before and after being supplied with information. In order to assess the change in attitude we compared the scores the respondents gave to this question at the first and the second time.

Table 14 illustrates that 61.4% of all respondents changed their evaluation of CCS after they received the information. The proportions of respondents who changed their attitudes were higher than average in the UK, Germany and the Netherlands. In Greece and Norway the proportions of respondents who changed their attitudes were slightly below average and in Romania visibly so.

Tab. 14 Change of initial attitudes towards CCS after receiving information

		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
No change	Number	401	469	398	352	350	411	2381
	%	40.1%	46.8%	35.9%	33.8%	34.4%	41.1%	38.6%
Change	Number	599	533	711	688	667	589	3787
	%	59.9%	53.2%	64.1%	66.2%	65.6%	58.9%	61.4%
Total	Number	1000	1002	1109	1040	1017	1000	6168
	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

As more than half of the respondents changed their attitude after having received very limited information on CCS, the result of the assessment meets our initial assumption that initial attitudes of lay persons towards CCS can be easily changed by new information.

We then thoroughly analyzed the data to examine whether our second assumption - initial attitudes will become more negative after presenting negative information and respectively more positive after presenting positive information – was correct. The detailed results of these statistical analyses are provided in Appendix 2. Overall, the pattern of results indeed was that initial attitudes regarding CCS became more negative after being presented a short negative text about CCS, while a short positive text about CCS lead to more positive attitudes. There were notable differences, however, in the degree to which positive and negative communications led to communication-congruent attitude change. That is, in Norway and Romania the provision of positive CCS information led to somewhat more communication-congruent attitude change than the provision of negative CCS information, while the reverse was true in the Netherlands and in the UK. Finally, *within* the negative CCS information conditions and the positive CCS information conditions attitude change did not depend much on who had provided the information: only in Greece and Germany we found effects of information source. That is, in Germany negative CCS information had more impact when the identity of the source was unknown compared to when Greenpeace allegedly had provided the information. In Greece, having Shell as an information source of positive CCS information lead to somewhat more communication-congruent attitude change compared to when respondents had not received any information on the identity of the information source.

To summarise, the results of the experiment confirm the prediction that initial attitudes of lay persons who are not thoroughly informed on CCS can be strongly influenced by new information. Second, the results confirmed our hypothesis that initial attitudes of lay persons change in a negative direction after presenting negative information and in a positive direction after presenting positive information. Finally, regarding the influence of the information source, the overall

results indicate very little impact of source of information on attitude change in the current experiment.

These results concerning the change in attitude due to different information contents and sources illustrate that initial attitudes are not very well suited to predict future public support or opposition to CCS. Thus, based on the results of the representative surveys and the comparison of communication methods (cf. Terwel et al. 2009) recommendations were derived concerning how to communicate CCS in order to enable the public to develop well-informed and well-considered opinions which are valuable predictors of future public acceptance of CCS (cf. Recommendations for the communication of CCS).

Again, as indicated above, a detailed summary of the results of the experiment for the entire sample is provided in Appendix 2. In addition, in Tables 15 and 16 we provide results for a specific subsample of respondents ($N = 3787$: 61.4% of the entire sample), namely for those respondents who changed their attitude after receiving information.

Tab. 15 Comparison of pre-information and post-information attitudes towards CCS for those respondents who had changed the attitude after receiving information

Experimental condition		Country					
		Greece			Romania		
		Pre-information attitude	Post-information attitude	Change	Pre-information attitude	Post-information attitude	Change
Negative info without source	Don't use CCS	%	20.6%	43.8%	23.1%	19.6%	18.2%
	Neutral	%	23.1%	15.6%	-7.5%	15.4%	11.9%
	Use CCS	%	56.3%	40.6%	-15.6%	65.0%	69.9%
	Number		160	160	143	143	143
	Total	%	100.0%	100.0%		100.0%	100.0%
Negative info with source	Don't use CCS	%	20.5%	37.2%	16.7%	20.0%	18.4%
	Neutral	%	17.9%	19.2%	1.3%	19.2%	6.4%
	Use CCS	%	61.5%	43.6%	-17.9%	60.8%	75.2%
	Number		156	156	125	125	125
	Total	%	100.0%	100.0%		100.0%	100.0%
Positive info without source	Don't use CCS	%	20.8%	14.6%	-6.3%	28.0%	9.8%
	Neutral	%	18.8%	16.7%	-2.1%	15.4%	15.4%
	Use CCS	%	60.4%	68.8%	8.3%	56.6%	74.8%
	Number		144	144	143	143	143
	Total	%	100.0%	100.0%		100.0%	100.0%
Positive info with source	Don't use CCS	%	28.8%	15.8%	-12.9%	29.5%	14.8%
	Neutral	%	23.7%	10.8%	-12.9%	13.9%	9.8%
	Use CCS	%	47.5%	73.4%	25.9%	56.6%	75.4%
	Number		139	139	122	122	122
	Total	%	100.0%	100.0%		100.0%	100.0%

(For the sake of readability we aggregated the scores to the question whether the respondents would use CCS to address global warming in the following manner: scores 1-3 = "don't use CCS", score 4 = "neutral", scores 5 -7 = "use CCS".)

Tab. 16 Comparison of pre-information and post-information attitudes towards CCS per countries (the Netherlands, UK)

Experimental condition		Country						
		The Netherlands			UK			
		Pre-information attitude	Post-information attitude	Change	Pre-information attitude	Post-information attitude	Change	
Negative info without source	Don't use CCS	%	30.3%	43.4%	13.2%	21.7%	54.0%	32.3%
	Neutral	%	20.4%	23.7%	3.3%	36.5%	15.9%	-20.6%
	Use CCS	%	49.3%	32.9%	-16.4%	41.8%	30.2%	-11.6%
		Number	152	152		189	189	
	Total	%	100.0%	100.0%		100.0%	100.0%	
Negative info with source	Don't use CCS	%	30.2%	47.5%	17.3%	20.8%	50.0%	29.2%
	Neutral	%	25.7%	19.6%	-6.1%	33.1%	15.7%	-17.4%
	Use CCS	%	44.1%	33.0%	-11.2%	46.1%	34.3%	-11.8%
		Number	179	179		178	178	
	Total	%	100.0%	100.0%		100.0%	100.0%	
Positive info without source	Don't use CCS	%	37.3%	31.4%	-5.9%	25.8%	22.6%	-3.1%
	Neutral	%	24.9%	22.7%	-2.2%	35.8%	11.3%	-24.5%
	Use CCS	%	37.8%	45.9%	8.1%	38.4%	66.0%	27.7%
		Number	185	185	0	159	159	
	Total	%	100.0%	100.0%	0	100.0%	100.0%	
Positive info with source	Don't use CCS	%	34.4%	24.1%	-10.3%	21.0%	21.0%	.0%
	Neutral	%	28.7%	26.2%	-2.6%	29.0%	19.1%	-9.9%
	Use CCS	%	36.9%	49.7%	12.8%	50.0%	59.9%	9.9%
		Number	195	195		162	162	
	Total	%	100.0%	100.0%		100.0%	100.0%	

(For the sake of readability we aggregated the scores to the question whether the respondents would use CCS to address global warming in the following manner: scores 1-3 = "don't use CCS", score 4 = "neutral", scores 5-7 = "use CCS".)

Tab. 17 Comparison of pre-information and post-information attitudes towards CCS per countries (Germany, Norway)

Experimental condition			Country								Total		
			Germany				Norway						
			Pre-information attitude	Post-information attitude	Change	Pre-information attitude	Post-information attitude	Change	Pre-information attitude	Post-information attitude	Change	Pre-information attitude	Post-information attitude
Negative info without source	Don't use CCS	%	35.0%	46.9%	11.9%	40.3%	47.5%	7.2%	27.6%	42.9%	15.4%		
	Neutral	%	23.1%	21.9%	-1.3%	25.9%	18.0%	-7.9%	24.6%	17.8%	-6.8%		
	Use CCS	%	41.9%	31.3%	-10.6%	33.8%	34.5%	.7%	47.8%	39.2%	-8.6%		
	Number		160	160		139	139		943	943			
	Total	%	100.0%	100.0%		100.0%	100.0%		100.0%	100.0%			
Negative info with source	Don't use CCS	%	37.1%	44.9%	7.8%	29.6%	41.4%	11.8%	26.6%	41.1%	14.4%		
	Neutral	%	26.9%	18.0%	-9.0%	32.9%	19.7%	-13.2%	26.3%	16.8%	-9.5%		
	Use CCS	%	35.9%	37.1%	1.2%	37.5%	38.8%	1.3%	47.0%	42.1%	-4.9%		
	Number		167	167		152	152		957	957			
	Total	%	100.0%	100.0%		100.0%	100.0%		100.0%	100.0%			
Positive info without source	Don't use CCS	%	39.2%	38.0%	-1.2%	33.1%	27.2%	-6.0%	31.2%	24.7%	-6.5%		
	Neutral	%	21.6%	18.7%	-2.9%	30.5%	15.9%	-14.6%	24.7%	17.0%	-7.7%		
	Use CCS	%	39.2%	43.3%	4.1%	36.4%	57.0%	20.5%	44.2%	58.3%	14.2%		
	Number		171	171		151	151		953	953	0		
	Total	%	100.0%	100.0%		100.0%	100.0%		100.0%	100.0%	0		
Positive info with source	Don't use CCS	%	36.7%	39.6%	3.0%	41.5%	26.5%	-15.0%	32.1%	24.3%	-7.8%		
	Neutral	%	21.3%	18.3%	-3.0%	27.9%	19.0%	-8.8%	24.6%	18.0%	-6.6%		
	Use CCS	%	42.0%	42.0%	.0%	30.6%	54.4%	23.8%	43.3%	57.7%	14.5%		
	Number		169	169		147	147		934	934			
	Total	%	100.0%	100.0%		100.0%	100.0%		100.0%	100.0%			

V Conclusions

It was known at the outset of the project that public awareness of CCS was likely to be low and opinions would be unstable and largely uninformed on the topic and technology of CCS. This results of the six surveys does not contradict that basic assessment, but it does provide some insights into the situations facing policy and decision makers in the six participating countries – Greece, Germany, the Netherlands, Norway, Romania and the UK. It should be stressed at this point that the survey and data presented in this report are not in any way representative of Europe or the EU as a whole, the report merely describes the situation in these six quite different countries. Further, as we have seen earlier in the report there are large national variations, and we can in no way extrapolate the findings even to neighbouring countries like Bulgaria, France or Sweden where one would expect the situation to be quite different. In order to better understand the situation in countries outside of our sample, separate investigations must be conducted although such studies would benefit from using a similar survey instrument that would allow comparison with our results.

Within these limitations however, the surveys offer interesting some insights into the current public opinion on CCS. In previous chapters of this report we have discussed the results in detail, and in Appendix 3 we present the distribution of all items in the questionnaire. Hence this conclusion will be brief and focus on the most salient points identified: Attitudes towards environment and sources of electricity, Trust, Knowledge, Awareness of CCS, Initial attitudes towards CCS and Results of the experiment. The risk and benefit analysis of specific capture, transport and storage proposals will not be discussed here, nor do we address regional effects both of which are addressed in a companion report [Reiner et al., 2010]. In this conclusion we will not investigated means, correlations, regressions etc. between the various variables, but having discussed the abovementioned topics in a national context we will discuss socio-demographics and CCS.

Attitudes: the relative importance of environmental issues.

Employing methods from the EUROBAROMETER the respondents rated the relative importance of five topics in their respective countries on a 7 point scale. The five

topics were Unemployment, Health care system, Crime, the Economic situation and the Environment. The six countries as a whole viewed the Economic situation and the Health care system as the most important; however there were large national variations. In Greece, Environment was the most important of these five issues, Romania and Germany ranked Environment as the third most important issue, while in the Netherlands and Norway Environment ranked at or near the bottom of the five issues. The only safe conclusion to be made at this point is that even though it is considered important, Environment is not a clear winner in the fight for attention amongst other key national priorities.

Attitudes: use of different technologies for electrical power.

The respondents rated seven potential sources of electrical power on a scale from 1 (strongly opposed) to 7 (strongly support). In all six countries the rank of the three preferred technologies was: (1) Solar, (2) Wind and (3) Hydroelectric. The two first consistently had mean scores above 6, Hydroelectric had about 6. Biomass and Natural gas had positive support on average, both well above 4, while Coal and Nuclear energy were opposed by the majority of respondents although there were important national variations, for example, over 40% favoured the use of coal in Romania and almost 50% favoured the use of nuclear power in the UK, both of which were significantly stronger support for coal and nuclear respectively than in any other country surveyed.

Media preference:

The respondents were asked to rate the likelihood of their use of different media channels to obtain information about new energy technologies on a scale from 1 (unlikely) to 7 (likely). The media channels were: Newspapers, Magazines, Scientific or specialist press, Television (TV), Radio, Internet sites of major media outlets and Blogs/wikis. Apart from this preference for TV there were considerable variations between the nations. In the Netherlands and the UK Internet sites of major media outlets were ranked as number two, in Norway, Greece and Germany it was the Newspapers, in Romania it was the Radio. Blogs were rated as unlikely sources of information in the Netherlands, the UK and Norway but were more important in

Germany, Greece and Romania. Specialist papers, Magazines and Newspapers all saw respectable use. In such a situation, with no clear patterns of media preference it would seem that the only solution to spread information would be to employ a broad variety of media, and tailor the actual use to each country's specific situation.

Trust:

First of all, Scientists were by far the most trustworthy group on information about energy-related issues in all countries followed by Environmental protection organisations. The third highest ranked institution was Consumer protection organisations. Perhaps somewhat surprisingly, information from Electricity and gas companies was viewed as neither trusted nor mistrusted on average as was information from the European Union. However, trust in the European Union as a source of information was much greater in Romania and Greece than in the other four countries. Journalists, Regional governments, National governments and especially Political parties, were to a varying degree distrusted in all countries. Thus in order to more credibly inform the public it is necessary for governments to involve scientists as well as Environmental Protection Organisations and Consumer organisations

Knowledge issues:

There were four sets of questions associated with knowledge issues: (i) General Knowledge on environmental issues and science, (ii) Knowledge on activities contributing to CO₂ build-up, (iii) Awareness of CCS and (iv) understanding of which environmental issue CCS is meant to address. A detailed presentation of the data is provided in the Appendix. Awareness and knowledge of CCS' impact on environmental concerns will be discussed separately below.

Regarding the knowledge questions in general the majority of the respondents were able to answer correctly a series of six questions on general issues. The most problematic question was about the causes for the greenhouse effect. More than half of respondents believed that global warming is caused by a hole in the atmosphere. Regarding knowledge on activities contributing to CO₂ build-up in the atmosphere on 5 of the 6 questions roughly 9 out of 10 respondents gave the correct answer. The

sixth and problematic question was the role of nuclear power, where 44% of the respondents answered that nuclear power stations increased CO₂ levels.

Awareness of CCS and its impact on environmental concerns.

In these six countries taken as a whole, CCS is relatively little known, 60% of the respondents had never heard of it, 32% had heard “a little bit” and 8% had heard “quite a bit”. There is much variation between the nations, in Romania 76% had not heard about CCS while in Norway only 38% had not heard of it. However, apart from Norway and the Netherlands (48%) the majority of the populations had not heard of CCS. The respondents were also asked whether or not CCS could contribute to reduce the following six environmental concerns: Toxic waste, Ozone depletion, Global warming, Acid rain, Smog and Water pollution. CCS is designed only to reduce Global warming, however, there were typically between 30 and 50% incorrect answers for each question. This of course is consistent with the limited awareness of CCS in most countries. Thus the general public is clearly uninformed about CCS and its consequences, even though there are important national variations in awareness and knowledge.

Initial attitudes towards CCS demonstration plants.

Even though the respondents had relatively little knowledge on CCS and its impacts they had opinions on a CCS demonstration plants. The overall attitude in the six countries was supportive, 53% supported it (answered 5 to 7 on the 1-7 scale), 26% were neutral and 21% opposed it (answered 1 to 3 on the scale). However, the support was, by far, strongest in Greece and Romania. In these two countries almost three-quarters of respondents supported a demonstration plant. In the other four countries support ranged from 38% (Norway) to 46% (the Netherlands). Thus in the four countries in the North Sea area, countries with concrete plans for demonstration plants, support is only lukewarm.

Information experiment results:

As mentioned earlier, initial attitudes regarding CCS can be expected to be highly unstable, because they are reported by people who have very little knowledge about the technology. Due to that instability, future communications on CCS are likely to heavily influence the initial attitudes people hold. The impact of CCS-communication on initial attitudes is exactly what we examined by means of an experiment which was included in the representative surveys. More specifically, we examined whether the presentation of positive or negative information about CCS would change initial attitudes. Our prediction was that initial attitudes regarding CCS would become more negative when a short negative text about CCS is presented, whereas a short positive text would lead to more positive attitudes. In order to examine this effect, after respondents had indicated their initial attitudes regarding CCS they were randomly assigned to one of two experimental conditions: respectively half of the respondents in each country received negative or positive information about CCS. The details of the experiment and the results are presented in chapter IV.7 and in Appendix 2.

To summarise, the results of the experiment, firstly confirm the expectation that initial attitudes of lay persons who are not thoroughly informed on CCS are highly unstable. Secondly, the assumption has been confirmed that initial attitudes of lay persons change in a negative direction after presenting negative information to them and in a positive direction after positive information is presented to them. Thirdly, regarding the influence of the information source, the results on the overall average for the respondents of all countries indicate that the source of information has virtually no impact on the change of attitude. Only in Greece and Germany did we find information source to have an impact. That is, in Germany negative CCS information had *more* impact when the identity of the source was unknown compared to when Greenpeace was said to have provided the information. In Greece, having Shell as an information source of positive CCS information led to somewhat more communication-congruent attitude change compared to when respondents had not received any information on the identity of the information source.

Socio-demographics:

A thorough analysis of how the socio-demographic status affects the other variables is far too space-consuming to be included here. However, we will look briefly on the effects of socio-demographics on two key items: Awareness of CCS and Initial attitude of CCS demonstration plant. For detailed results please consult Appendix 3.

Regarding knowledge of CCS there is a very striking difference between the sexes. In all six countries women consistently had less knowledge of CCS than men. The difference in percentage terms between men and woman ranged from 7% (Greece) to 33% (UK) more women than men claim to not have heard about CCS. Looking at age and awareness of CCS we do not find patterns as strong as these, however in both Norway and the Netherlands there is an increase in knowledge of CCS corresponding to an increase in age. Regarding educational level we again find a clear picture: higher education means greater likelihood of having heard about CCS. This holds true for all countries except Romania. Regarding initial attitudes towards a CCS demonstration plant we find that women are more negative towards CCS in all countries except Greece although this difference is sometimes slight. Further, for the Netherlands and Germany we find that older people are more positive towards CCS than younger people; and finally that in the Netherlands, the UK and Norway the more educated are more likely to support CCS than the less educated.

The results are not entirely surprising. However they are still important, and the gender difference is probably the most important of all. Thus policy makers who want to communicate with the general population need to remember that the general population consists of different subgroups. Communication strategies must be tailored to the relevant group.

Some final conclusions:

In addition to presenting actual figures on several issues like knowledge, attitudes, trust, awareness of CCS and attitudes towards CCS, the survey confirmed several of our assumptions about public perceptions of CCS: It is unstable, uninformed on important issues, there are differences based on nationality, age, gender, education level and so on. In order to inform the general public one must not rely on one single

information strategy. Rather one should target different groups and develop communication strategies suitable for each group.

However we would like to stress that our research and conclusions are not in any way final. In such an unstable field where there is still so much to research, it cannot be. The value of a first survey is always less than the value of a second, when we can establish a framework for comparison. Thus this research must be seen as a baseline, a starting point for repeated investigation, not a final verdict on the awareness of and attitudes towards CCS in these countries or other European countries.

Appendices

Appendix 1: Questionnaire Version A

WP3-Questionnaire Fenco - Communication CCS

Version 1¹⁰ – For Greece and Romania

1.0.0 Sociodemographics

1.1.0 Gender, age

Q1.1.1: Are you male or female?

Male/female _____

Q1.1.2: Which year were you born?

1.2.0 Education

Q1.2.1: What is the highest level of education you have achieved?

[Because of significant national variations each FENCO partner must adapt the alternatives under Education to their own national context]

[Below is an illustrative example:]

No qualifications _____

Primary school _____

Secondary school _____

Technical or vocational qualification _____

Undergraduate degree _____

Postgraduate qualification _____

[(Other) Please state your education qualification _____]

Q1.2.2 Please indicate the total number of years you have spent in education _____

2.0.0 Attitudes

2.1.0 Importance of energy and environmental issues in general

¹⁰ The second version was an extended version used by the countries Germany, the Netherlands, Norway and the UK. The issues targeted on regional aspects, the results are presented in the report: „Scrutinizing the impact of CCS communication on the general and local public. Results of the regional surveys of public awareness and opinions concerning concrete CCS facilities.

Q2.1.1: On a scale from 1-7 please indicate how important you feel the following issues are to [our country] today.

Issues	1 Least important	2	3	4	5	6	7 Most important
(a) Unemployment							
(b) Crime							
(c) Healthcare system							
(d) Economic situation							
(e) Environment							

2.2.0 Importance of energy issues

Q 2.2.1: Using a scale from 1-7 please indicate the extent to which you are in favour or opposed to the uses of these different sources of electricity in (our country)?

Energy source	1 Opposed	2	3	4	5	6	7 In favour
(a) Solar energy							
(b) Wind energy							
(c) Hydroelectric energy							
(d) Biomass energy ¹							
(e) Coal							
(f) Natural Gas							
(g) Nuclear energy							

[¹Biomass energy is used in different ways in different countries, eg. wood, pellet ovens, etc..
For respondents to recognize this particular kind of energy source, it is important that relevant examples are used for each country.]

3.0.0 Media preference

Q 3.1.0: Please indicate on a scale from 1-7 for each of the following channels the likelihood that you would use the channel for getting information about new energy technologies.

Media channel	1 Very unlikely	2	3	4	5	6	7 Very likely
(a) Newspapers							
(b) Magazines							
(c) Scientific or specialist press							
(d) Television							
(e) Radio							
(f) Internet sites of major media outlets							
(g) Blogs/wikis							

4. 0.0 Trust

Q 4.1.0: To what extent would you trust information about energy related issues from each of the following sources?

Sources	1 Not at all	2	3	4	5	6	7 Totally
(a) National government							
(b) Regional/ local government							
(c) The European Union							
(d) Electricity, gas and other energy companies							
(e) Scientists							
(f) Journalists							
(g) Political Parties							
(h) Environmental protection organizations							
(i) Consumer associations							

5.0.0 Knowledge

5.1.0 General knowledge on environmental issues and science

Q5.1.1: To the best of your knowledge, please mark whether each statement below is true or false.

Statement	True	False
(a) 'We are currently in a warm period between ice ages'		
(b) 'Roughly two-thirds of the energy used to produce electricity from fossil fuels is lost'		
(c) 'The greenhouse effect is caused by a hole in the earth's atmosphere'		
(d) 'Every time we use coal or oil or gas, we contribute to the greenhouse effect'		
(e) 'Oil and gas reservoirs are typically found 100 meters below the surface'		
(f) 'Oxygen is the main component of the smoke emitted from a smokestack or tailpipe'		

5.2.0 Knowledge on Activities contributing to CO₂ build-up

Q 5.2.1: There is a growing concern about increasing levels of carbon dioxide in the atmosphere. How do the following activities contribute to these levels?

Activity	Increases carbon dioxide	No impact	Decreases carbon dioxide
(a) Cars (motoring)			
(b) Coal burning power plants			
(c) Nuclear power plants			
(d) Windmills/ wind turbines			
(e) Planting trees			
(f) Factories (e.g. steel mills)			

5.3.0 Awareness of CCS

Q 5.3.1: Have you heard about “Carbon capture and storage” (also known as “Carbon capture and sequestration”)?

No, never heard _____

A little bit _____

Yes, quite a bit _____

Q 5.3.2: “Carbon capture and sequestration” or “carbon capture and storage” can reduce which of the following environmental concerns?

Concerns	Can reduce	Does not reduce	Don't know
(a) Toxic waste			
(b) Ozone depletion			
(c) Global warming			
(d) Acid rain			
(e) Smog			
(f) Water pollution			

6. 0.0 Initial attitude

6.1.0 (On technologies available)

Q 6.1.1: The following technologies have been proposed to address global warming. If you were responsible for designing a plan to address global warming, which of the following technologies would you use?

Technologies	1 Definitely not use	2	3	4	5	6	7 Definitely use
(a) Carbon capture and storage: Capturing carbon dioxide from power plant exhaust and storing in underground reservoirs.							
(b) Energy efficient appliances: Producing appliances that use less energy to accomplish the same tasks.							
(c) Nuclear energy: Producing energy from a nuclear reaction.							
(d) Solar energy: Using the energy from the sun for heating or electricity production.							
(e) Wind energy: Producing electricity from the wind, traditionally in a windmill.							

6.2.0 (On demoplant)

Q 6.2.1: CCS technologies capture carbon dioxide from power plant exhaust and store it in underground reservoirs. If our government decided to proceed with a plant to test the applicability of this technology would you be supportive of such a proposal?

1) Strongly opposed

7) Strongly supportive

IF (1), (2) or (3):

Q 6.2.2: I feel so strongly that I would most probably make an active effort (such as signing petitions) against this CCS facility.

1) Strongly disagree

7) Strongly agree

IF (5), (6) or (7):

Q 6.2.3: I feel so strongly that I would most probably make an active effort (such as signing petitions) in favour of this CCS facility.

1) Strongly disagree

7) Strongly agree

I 2.0.0 Present positive/negative general information about CCS

I 2.0.1: We now provide you with some additional information regarding CCS technology. After this information has been presented, we will end by asking you the previous two questions once again, so please do not be surprised!

I2.1.0 Present negative general information about CCS (Greenpeace)

I2.1.1: Carbon capture and storage (CCS) aims to reduce the climate impact of burning fossil fuels by capturing carbon dioxide (CO₂) from power station smokestacks and disposing of it underground. Its future development has been widely promoted by the coal industry as a justification for the construction of new coal-fired power plants. However, the technology is largely unproven and will not be ready in time to save the climate. The underground storage

operations are not simple processes, nor do they offer a one-size-fits-all solution to climate change. Each storage location is unique and requires detailed characterisation, management and monitoring.

I2.1.2: Greenpeace International

<http://www.greenpeace.org/international/press/reports/false-hope-executive-summary>

Bjureby, Rochon, Gulowsen: “Reality check on carbon storage”, published by Greenpeace International, May 2009, S. 8.

I2.1.3: Now that you have been presented with this additional information (from Greenpeace), we would like you to answer the following questions again.

I2.2.0 Present positive general information about CCS (Shell)

I2.2.1: Carbon capture and storage (CCS) is a key technology in reducing greenhouse gas emissions from fossil fuels, in particular from coal-fired power. All elements of CCS – capture, transport and underground storage – are in operation today. In sequestering CO₂ a replication what has been done with natural gas for many years in hundreds of different locations around the world is possible. CO₂ transportation overland by pipeline is well established. What still needs to be put into practice is the joining up and operation of the various technologies, and especially their large-scale incentivisation and implementation.

I2.2.2: Source: Shell: „The development, demonstration and deployment of low carbon technology – the case for CCS“, Malcolm Brinded, Executive Director Exploration & Production, Royal Dutch Shell plc., Corporate Leaders Group on Climate Change, London, 29 June 2009

I2.2.3: Now that you have been presented with this additional information (from Shell), we would like you to answer the following questions again.

10.0.0 General acceptance

10.1.0 (On technologies available)

Q 10.1.1: The following technologies have been proposed to address global warming. If you were responsible for designing a plan to address global warming, which of the following technologies would you use?

Technologies	1 Definitely not use	2	3	4	5	6	7 Definitel y use
(a) Carbon capture and storage: Capturing carbon dioxide from power plant exhaust and storing in underground reservoirs.							
(b) Energy efficient appliances: Producing appliances that use less energy to accomplish the same tasks.							
(c) Nuclear energy: Producing energy from a nuclear reaction.							
(d) Solar energy: Using the energy from the sun for heating or electricity production.							
(e) Wind energy: Producing electricity from the wind, traditionally in a windmill.							

10.2.0 (On demoplant)

Q 10.2.1: CCS technologies capture carbon dioxide from power plant exhaust and store it in underground reservoirs. If our government decided to proceed with a plant to test the applicability of this technology would you be supportive of such a proposal?

1) Strongly opposed

7) Strongly supportive

IF (1), (2) or (3):

Q 10.2.2: I feel so strongly that I would most probably make an active effort (such as signing petitions) against this CCS facility.

1) Strongly disagree

7) Strongly agree

IF (5), (6) or (7):

Q 10.2.3: I feel so strongly that I would most probably make an active effort (such as signing petitions) in favour of this CCS facility.

1) Strongly disagree

7) Strongly agree

Appendix 2: Statistical analysis of the experiment: the influence of information and information sources on initial attitudes regarding CCS

As mentioned in section IV.7 of this report, the attitudes regarding CCS in the present study are “initial attitudes” in the sense that they are reported by people without being thoroughly informed about the technology. In fact, as shown previously in section IV5.3 of this report, prior to participating in the present study 60% of all respondents indicate to have never heard about CCS. Before evaluating CCS, respondents were only given a very brief description of what CCS entails (i.e., “CO₂ capture and storage: Capturing CO₂ from power plants exhaust and storing it in underground reservoirs”).

Such initial attitudes regarding CCS can be expected to be strongly influenced by new information, because they are reported by people who have very little knowledge about the technology. Hence, future communications about CCS can be expected to heavily influence the initial attitudes people hold (cf. Daamen, De Best-Waldhober, Damen, & Faaij, 2006). The impact of communication about CCS on initial attitudes is exactly what we examined in the present study. More specifically, by means of an experiment we examined whether presenting people with positive or negative information about CCS would change their initial attitudes. Our prediction was that initial attitudes regarding CCS would become more negative after being presented a short negative text about CCS, while being presented a short positive text about CCS would lead to more positive attitudes. In order to examine this, after respondents had indicated their initial attitudes regarding CCS they were randomly assigned to one of two experimental conditions: half of the respondents in each country received positive information about CCS, while the other half of respondents in this country received negative information about the technology.

In the positive communication condition respondents received the following information:

Carbon capture and storage (CCS) is a key technology in reducing greenhouse gas emissions from fossil fuels, in particular from coal-fired power. All elements of CCS – capture, transport and underground storage – are in operation today. In sequestering CO₂ a replication what has been done with natural gas for many years in hundreds of different locations around the world is possible. CO₂ transportation overland by pipeline is well established. What still needs to be put into practice is the joining up and operation of the various technologies, and especially their large-scale incentivisation and implementation.

In the negative communication condition, on the other hand, respondents received the following information:

Carbon capture and storage (CCS) aims to reduce the climate impact of burning fossil fuels by capturing carbon dioxide (CO₂) from power station smokestacks and disposing of it underground. Its future development has been widely promoted by the coal industry as a justification for the construction of new coal-fired power plants. However, the technology is largely unproven and will not be ready in time to save the climate. The underground storage operations are not simple processes, nor do they offer a one-size-fits-all solution to climate change. Each storage location is unique and requires detailed characterisation, management and monitoring.

After respondents had received either the positive or the negative CCS information, we asked them again whether they would use CCS to address global warming (with possible answers to this question again ranging from 1 = *definitely not use*, to 7 = *definitely use*). This attitude question was identical to we had asked them only minutes before. In our analysis we focused on the degree and direction of change between respondents' pre- and post-information attitudes.

In addition to the variation in the valence of the CCS information provided (i.e., positive information versus negative information) we also systematically varied the source of this information. In the positive information condition, half of the respondents learned that the source of this information was Shell, while for the other half of respondents no source information was provided. The information that respondents in both positive information conditions received was identical. In the negative information condition on the other hand, half of the respondents learned that the source of this information was Greenpeace, whereas the other half of respondents no source was mentioned. Respondents in both negative information conditions received identical information. We examined whether the influence of positive and negative information on attitude change would depend on source information (i.e., a specific source versus no source) and whether there would be differences between countries in this regard.

In sum, in order to measure the impact of different information content and different information sources on attitude change respondents in each country were randomly assigned to one of four experimental conditions:

1. Positive CCS information–no source
2. Positive CCS information–Shell as an information source
3. Negative CCS information–no source
4. Negative CCS information–Greenpeace as an information source

Results for Germany

In the German data set, multiple t-tests revealed that only in the negative CCS information–no source condition the average attitude-change score differed significantly from zero, $p < .001$. Attitude change in this condition was congruent with the communication provided, as the provision of negative CCS information resulted in less positive attitudes concerning CCS (cf. Table 18). Further, attitude change in this negative information condition was significantly more communication-congruent compared to when respondents had received identical

negative information, but thought that Greenpeace had been the source of the negative information, $p < .001$.

Tab. 18 Means (and standard deviations) for change in initial CCS attitudes as a function of experimental condition: results for Germany

Experimental condition	Pre-information attitude	Post-information attitude	Attitude change
Positive CCS information – no source condition ($N = 255$)	4.03 (1.84)	4.10 (1.89)	.07 (1.89)
Positive CCS information – Shell as an information source ($N = 252$)	4.10 (2.02)	3.96 (1.88)	-.14 (1.98)
Negative CCS information – no source ($N = 253$)	3.91 (1.89)	3.54 (1.77)	-.37 (1.72)
Negative CCS information – Greenpeace as an information source ($N = 257$)	3.91 (1.97)	3.86 (2.04)	-.05 (1.95)

Results for Greece

In the Greek data set, multiple t-tests revealed that in all four experimental conditions the attitude-change scores differed significantly from zero, all $ps < .05$. We then conducted Analysis of Variance (ANOVA) to examine whether there were systematic differences in attitude change between the four experimental conditions. The analysis indicated this indeed was the case, $F(3,996) = 17.43$, $p < .001$, $\eta^2 = .05$. The results for Greece (cf. Table 19) showed that respondents' attitudes regarding CCS became more positive after receiving the positive CCS information, while their attitudes changed in the opposite direction after receiving negative information about CCS, as predicted. This difference in the direction of attitude change that occurred between the positive and the negative information conditions was statistically significant, $p < .001$. Further, the results showed that having Shell as an information source lead to somewhat more communication-congruent attitude change compared to when respondents had not received any information on the identity of the information source, $p = .059$. Attitude change in the negative information conditions, on the other hand, did not depend on information source, *ns*.

Tab. 19 Means (and standard deviations) for change in initial CCS attitudes as a function of experimental condition: results for Greece

Experimental condition	Pre-information attitude	Post-information attitude	Attitude change
Positive CCS information – no source condition ($N = 250$)	5.06 (1.94)	5.32 (1.79)	.26 (2.02)
Positive CCS information – Shell as an information source ($N = 250$)	5.01 (1.94)	5.64 (1.68)	.63 (1.97)
Negative CCS information – no source ($N = 250$)	4.82 (2.00)	4.25 (2.15)	-.57 (2.31)
Negative CCS information – Greenpeace as an information source ($N = 250$)	5.01 (1.98)	4.58 (2.08)	-.42 (2.27)

Results for the Netherlands

In the Dutch data set, multiple t-tests revealed that in all four experimental conditions the attitude-change scores differed from zero, *all ps* < .05. We then conducted Analysis of Variance (ANOVA) to examine whether there were systematic differences in attitude change between the four experimental conditions. The analysis indicated this indeed was the case, $F(3,1104) = 15.88$, $p < .001$, $\eta^2 = .04$. The results for the Netherlands (cf. Table 20) showed that respondents' attitudes regarding CCS became more positive after receiving the positive CCS information, while their attitudes changed in the opposite direction after receiving negative information about CCS, as predicted. This difference in the direction of attitude change that occurred between the positive and the negative information conditions was statistically significant, $p < .001$. It did appear, however, that there was somewhat more communication-congruent attitude change in the negative information conditions than in the positive information conditions. Attitude change *within* the negative CCS information conditions and the positive CCS information conditions did not depend on information source, *ns*.

Tab. 20 Means (and standard deviations) for change in initial CCS attitudes as a function of experimental condition: results for the Netherlands

Experimental condition	Pre-information attitude	Post-information attitude	Attitude change
Positive CCS information – no source condition (<i>N</i> = 283)	4.02 (1.61)	4.27 (1.71)	.24 (1.55)
Positive CCS information – Shell as an information source (<i>N</i> = 289)	4.25 (1.55)	4.43 (1.58)	.18 (1.56)
Negative CCS information – no source (<i>N</i> = 258)	4.38 (1.62)	3.95 (1.65)	-.43 (1.49)
Negative CCS information – Greenpeace as an information source (<i>N</i> = 278)	4.18 (1.63)	3.77 (1.61)	-.41 (1.49)

Results for Norway

In the Norwegian data set, multiple t-tests revealed that only in the positive CCS conditions the attitude-change scores differed significantly from zero, $p < .001$. Attitude change in these conditions was congruent with the communication provided, as the provision of the positive CCS information resulted in more positive attitudes concerning CCS (cf. Table 21). Attitude change *within* the positive CCS information conditions did not depend on information source, *ns*.

Tab. 21 Means (and standard deviations) for change in initial CCS attitudes as a function of experimental condition: results for Norway

Experimental condition	Pre-information attitude	Post-information attitude	Attitude change
Positive CCS information – no source condition (<i>N</i> = 251)	4.19 (1.57)	4.52 (1.65)	.33 (1.40)
Positive CCS information – Shell as an information source (<i>N</i> = 251)	4.05 (1.73)	4.43 (1.78)	.38 (1.45)
Negative CCS information – no source (<i>N</i> = 249)	4.13 (1.62)	4.00 (1.79)	-.13 (1.46)
Negative CCS information – Greenpeace as an information source (<i>N</i> = 249)	4.20 (1.60)	4.04 (1.70)	-.15 (1.49)

Results for Romania

In the Romanian data set, multiple t-tests revealed that in all experimental conditions, except the negative CCS information–no source condition, the attitude-change scores differed from zero, all $ps < .05$. We then conducted Analysis of Variance (ANOVA) to examine whether there were systematic differences in attitude change between the four experimental conditions. The analysis indicated this indeed was the case, $F(3,998) = 4.48$, $p < .01$, $\eta^2 = .01$. The results for Romania (cf. Table 22) showed that respondents' attitudes regarding CCS became more positive after receiving the positive CCS information, while their attitudes did not change as much after receiving negative information about CCS. Attitude change in the positive CCS information conditions differed significantly from that in the negative CCS information condition, $p < .001$. Attitude change *within* the negative CCS information conditions and the positive CCS information conditions did not depend on information source *ns*.

Tab. 22 Means (and standard deviations) for change in initial CCS attitudes as a function of experimental condition: results for Romania

Experimental condition	Pre-information attitude	Post-information attitude	Attitude change
Positive CCS information – no source condition ($N = 251$)	4.88 (1.93)	5.50 (1.77)	.62 (1.81)
Positive CCS information – Shell as an information source ($N = 245$)	5.03 (1.90)	5.54 (1.75)	.51 (1.50)
Negative CCS information – no source ($N = 255$)	5.08 (1.82)	5.24 (1.86)	.16 (1.63)
Negative CCS information – Greenpeace as an information source ($N = 251$)	5.12 (1.80)	5.36 (1.83)	.24 (1.57)

Results for the UK

In the UK data set, multiple t-tests revealed that in all four experimental conditions the attitude-change scores differed from zero, all $ps < .07$. We then conducted Analysis of Variance (ANOVA) to examine whether there were systematic differences in attitude change between the four experimental conditions. The analysis indicated this indeed was the case, $F(3,1036) = 29.32$,

$p < .001$, $\eta^2 = .08$. The results for the UK (cf. Table 23) showed that respondents' attitudes regarding CCS became more positive after receiving the positive CCS information, while their attitudes changed in the opposite direction after receiving negative information about CCS, as predicted. This difference in the direction of attitude change that occurred between the positive and the negative information conditions was statistically significant, $p < .001$. It did appear, however, that there was somewhat more communication-congruent attitude change in the negative information conditions than in the positive information conditions. Attitude change *within* the negative CCS information conditions and the positive CCS information conditions did not depend on information source, *ns*.

Tab. 23 Means (and standard deviations) for change in initial CCS attitudes as a function of experimental condition: results for the UK

Experimental condition	Pre-information attitude	Post-information attitude	Attitude change
Positive CCS information–no source ($N = 245$)	4.43 (1.47)	4.75 (1.64)	.32 (1.49)
Positive CCS information–Shell as an information source ($N = 261$)	4.70 (1.53)	4.87 (1.72)	.18 (1.58)
Negative CCS information–no source ($N = 282$)	4.38 (1.58)	3.68 (1.88)	-.71 (1.64)
Negative CCS information–Greenpeace as an information source ($N = 252$)	4.46 (1.55)	3.74 (1.79)	-.72 (1.90)

Summary

The results of the experiment for all six countries are summarized in Table 24 and indicate that initial attitudes regarding CCS can be strongly influenced by new information, even short communications about CCS. Overall, the pattern of results was that initial attitudes regarding CCS became more negative after being presented a short negative text about CCS, while a short positive text about CCS led to more positive attitudes. There were notable differences, however, in the degree to which positive and negative communications led to communication-congruent attitude change. That is, in Norway and Romania the provision of positive CCS information led to somewhat more communication-congruent

attitude change than the provision of negative CCS information, while the reverse was true in the Netherlands and in the UK. Finally, *within* the negative CCS information conditions and the positive CCS information conditions attitude change did not depend much on who had provided the information: only in Greece and Germany we found effects of information source. That is, in Germany negative CCS information had more impact when the identity of the source was unknown compared to when Greenpeace allegedly had provided the information. In Greece, having Shell as an information source of positive CCS information led to somewhat more communication-congruent attitude change compared to when respondents had not received any information on the identity of the information source.

Appendix 3: Data insights

Gender		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.1.1.1. Male or female	1 Male	Number	466	544	520	506	499	3014
		%	46,6%	49,1%	50,0%	49,8%	49,9%	48,9%
2 Female	Number	534	523	565	520	511	501	3154
	%	53,4%	52,2%	50,9%	50,0%	50,2%	50,1%	51,1%
Total	Number	1000	1002	1109	1040	1017	1000	6168
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Age		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.1.1.2. Age groups	1 > 80	Number	0	14	3	32	0	70
		%	,0%	1,3%	,3%	3,1%	,0%	1,1%
	2 65 - 79	Number	14	200	114	206	21	703
		%	1,4%	18,0%	11,0%	20,3%	2,1%	11,4%
	3 50 - 64	Number	274	288	341	293	366	1783
		%	27,5%	26,0%	32,8%	28,8%	36,6%	28,9%
	4 25 - 49	Number	574	514	487	439	506	3020
		%	57,6%	46,3%	46,8%	43,2%	50,7%	49,0%
	5 18 - 24	Number	134	93	95	47	106	587
		%	13,5%	8,4%	9,1%	4,6%	10,6%	9,5%
Total	Number	996	1002	1109	1040	1017	999	6163
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Education Level			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.1.2.1. ICED97 Education level	Level 0 - Pre-primary education	Number	0	0	0	197	0	0	197
		%	,0%	,0%	,0%	18,9%	,0%	,0%	3,2%
	Level 1 - Primary education or first stage of basic education	Number	73	0	46	0	8	0	127
		%	7,3%	,0%	4,1%	,0%	,8%	,0%	2,1%
	Level 2 - Lower secondary or second stage of basic education	Number	82	22	297	102	76	62	641
		%	8,2%	2,2%	26,8%	9,8%	7,5%	6,2%	10,4%
	Level 3 - (Upper) secondary education	Number	387	86	447	277	528	239	1964
		%	38,7%	8,6%	40,3%	26,6%	51,9%	23,9%	31,8%
	Level 4 - Post-secondary non-tertiary education	Number	0	551	0	303	17	175	1046
		%	,0%	55,0%	,0%	29,1%	1,7%	17,5%	17,0%
	Level 5 - First stage of tertiary education	Number	397	301	223	75	171	324	1491
		%	39,7%	30,0%	20,1%	7,2%	16,8%	32,4%	24,2%
	Level 6 - Second stage of tertiary education	Number	61	42	94	81	217	199	694
		%	6,1%	4,2%	8,5%	7,8%	21,3%	19,9%	11,3%
	7,00 Other - Individually specified	Number	0	0	0	5	0	0	5
		%	,0%	,0%	,0%	,5%	,0%	,0%	,1%
	8,00 Do not know/ do not want to say	Number	0	0	2	0	0	0	2
		%	,0%	,0%	,2%	,0%	,0%	,0%	,0%
Total	Number	1000	1002	1109	1040	1017	999	6167	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Issue		Country						Total	
		Greece	Romania	The Netherlands	UK	Germany	Norway		
Q.2.1.1. (a) Unemployment	1 least important	Number	17	44	1	3	9	11	85
		%	1.7%	4.4%	.1%	.3%	.9%	1.1%	1.4%
	2	Number	9	17	7	4	6	15	58
		%	.9%	1.7%	.6%	.4%	.6%	1.5%	.9%
	3	Number	16	37	30	14	17	57	171
		%	1.6%	3.7%	2.7%	1.3%	1.7%	5.7%	2.8%
	4	Number	23	47	105	71	54	161	461
		%	2.3%	4.7%	9.5%	6.8%	5.3%	16.1%	7.5%
	5	Number	101	137	278	199	153	296	1164
		%	10.1%	13.7%	25.1%	19.1%	15.0%	29.6%	18.9%
	6	Number	154	136	440	292	169	269	1460
		%	15.4%	13.6%	39.7%	28.1%	16.6%	26.9%	23.7%
	7 most important	Number	680	584	248	457	609	191	2769
		%	68.0%	58.3%	22.4%	43.9%	59.9%	19.1%	44.9%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Issue			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.2.1.1. (b) Crime	1 least important	Number	29	76	2	2	16	7	132
		%	2.9%	7.6%	.2%	.2%	1.6%	.7%	2.1%
	2	Number	19	21	2	4	19	11	76
		%	1.9%	2.1%	.2%	.4%	1.9%	1.1%	1.2%
	3	Number	32	37	24	21	66	40	220
		%	3.2%	3.7%	2.2%	2.0%	6.5%	4.0%	3.6%
	4	Number	60	57	89	71	114	107	498
		%	6.0%	5.7%	8.0%	6.8%	11.2%	10.7%	8.1%
	5	Number	163	101	237	153	188	270	1112
		%	16.3%	10.1%	21.4%	14.7%	18.5%	27.0%	18.0%
	6	Number	155	118	410	269	164	308	1424
		%	15.5%	11.8%	37.0%	25.9%	16.1%	30.8%	23.1%
	7 most important	Number	542	592	345	520	450	257	2706
		%	54.2%	59.1%	31.1%	50.0%	44.2%	25.7%	43.9%
Total		Number	1000	1002	1109	1040	1017	1000	6168
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Issue		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.2.1.1 (c) Healthcare system	1 least important	Number %	18 1.8%	0 .0%	1 .1%	9 .9%	1 .1%	45 .7%
	2	Number %	15 1.5%	0 .0%	3 .3%	7 .7%	2 .2%	41 .7%
	3	Number %	17 1.7%	5 .5%	10 1.0%	20 2.0%	11 1.1%	87 1.4%
	4	Number %	41 4.1%	26 2.3%	67 6.4%	59 5.8%	70 7.0%	312 5.1%
	5	Number %	68 6.8%	143 12.9%	168 16.2%	160 15.7%	181 18.1%	857 13.9%
	6	Number %	118 11.8%	386 34.8%	290 27.9%	210 20.6%	363 36.3%	1541 25.0%
	7 most important	Number %	725 72.4%	549 49.5%	501 48.2%	552 54.3%	372 37.2%	3285 53.3%
	Total	Number %	1000 100.0%	1109 100.0%	1040 100.0%	1017 100.0%	1000 100.0%	6168 100.0%

Issue		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.2.1.1. (d) Economic situation	1 least important	Number %	17 3.4%	1 .1%	1 .1%	5 .5%	9 .9%	67 1.1%
	2	Number %	14 1.4%	3 .3%	2 .2%	4 .4%	6 .6%	44 .7%
	3	Number %	34 3.4%	20 1.8%	10 1.0%	19 1.9%	44 4.4%	148 2.4%
	4	Number %	42 4.2%	83 7.5%	44 4.2%	45 4.4%	155 15.5%	405 6.6%
	5	Number %	154 15.4%	275 24.8%	143 13.8%	138 13.6%	280 28.0%	1069 17.3%
	6	Number %	160 16.0%	449 40.5%	298 28.7%	217 21.3%	327 32.7%	1559 25.3%
	7 most important	Number %	579 57.9%	278 25.1%	542 52.1%	589 57.9%	179 17.9%	2876 46.6%
Total		Number %	1000 100.0%	1109 100.0%	1040 100.0%	1017 100.0%	1000 100.0%	6168 100.0%

Issue		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.2.1.1. (e) Environment	1 least important	Number %	12 1.2%	6 .5%	10 1.0%	6 .6%	17 1.7%	62 1.0%
	2	Number %	23 2.3%	21 1.9%	17 1.6%	5 .5%	25 2.5%	99 1.6%
	3	Number %	24 2.4%	54 4.9%	43 4.1%	22 2.2%	52 5.2%	220 3.6%
	4	Number %	39 3.9%	151 13.6%	107 10.3%	53 5.2%	172 17.2%	553 9.0%
	5	Number %	128 12.8%	269 24.3%	217 20.9%	162 15.9%	228 22.8%	1089 17.7%
	6	Number %	163 14.3%	387 34.9%	277 26.6%	214 21.0%	274 27.4%	1458 23.6%
	7 most important	Number %	613 61.2%	221 19.9%	369 35.5%	555 54.6%	232 23.2%	2687 43.6%
	Total	Number %	1000 100.0%	1109 100.0%	1040 100.0%	1017 100.0%	1000 100.0%	6168 100.0%

Energy Source		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.2.2.1 (a) Solar energy	1 opposed	Number	26	0	6	9	3	54
		%	1.0%	.0%	.6%	.9%	.3%	.9%
	2	Number	12	3	3	5	3	27
		%	.1%	.3%	.3%	.5%	.3%	.4%
	3	Number	18	8	10	12	19	73
		%	.6%	.7%	1.0%	1.2%	1.9%	1.2%
	4	Number	42	39	69	39	67	270
		%	1.4%	3.5%	6.6%	3.8%	6.7%	4.4%
	5	Number	99	113	113	97	140	592
		%	3.0%	10.2%	10.9%	9.5%	14.0%	9.6%
	6	Number	115	268	247	193	180	1086
		%	8.3%	24.2%	23.8%	19.0%	18.0%	17.6%
	7 in favour	Number	690	678	592	662	588	4066
		%	85.6%	61.1%	56.9%	65.1%	58.8%	65.9%
Total		Number	1000	1109	1040	1017	1000	6168
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Energy Source		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.2.2.1. (b) Wind energy	1 opposed	Number	19	25	4	20	19	107
		%	1.9%	2.5%	.4%	1.9%	1.9%	1.7%
	2	Number	7	18	10	16	23	80
		%	.7%	1.8%	.9%	1.5%	2.3%	1.3%
	3	Number	13	27	15	30	28	142
		%	1.3%	2.7%	1.4%	2.9%	2.8%	2.3%
	4	Number	51	49	55	70	69	367
		%	5.1%	4.9%	5.0%	7.0%	6.9%	6.0%
	5	Number	75	107	127	139	154	738
		%	7.5%	10.7%	11.5%	13.4%	15.4%	12.0%
	6	Number	108	132	289	236	192	1184
		%	10.8%	13.2%	26.1%	22.7%	19.2%	19.2%
	7 in favour	Number	727	644	609	526	515	3550
		%	72.7%	64.3%	54.9%	50.6%	51.5%	57.6%
Total		Number	1000	1002	1109	1040	1017	6168
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Energy Source		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.2.2.1 (c) Hydroelectric energy	1 opposed	Number	34	13	3	2	8	70
		%	3.4%	1.3%	.3%	.2%	.8%	1.1%
	2	Number	21	13	7	11	8	73
		%	2.1%	1.3%	.6%	1.1%	.8%	1.2%
	3	Number	32	18	25	21	22	188
		%	3.2%	1.8%	2.3%	2.0%	2.2%	3.0%
	4	Number	88	59	77	150	62	700
		%	8.8%	5.9%	6.9%	14.4%	6.1%	11.3%
	5	Number	178	160	197	132	124	955
		%	17.8%	16.0%	17.8%	12.7%	12.2%	15.5%
	6	Number	139	205	316	252	248	1318
		%	13.9%	20.5%	28.5%	24.2%	24.4%	21.4%
	7 in favour	Number	508	534	484	472	545	2864
		%	50.8%	53.3%	43.6%	45.4%	53.6%	46.4%
Total		Number	1000	1002	1109	1040	1017	6168
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Energy Source			Country							Total
			Greece	Romania	The Netherlands	UK	Germany	Norway		
Q.2.2.1 (d) Biomass energy	1 opposed	Number	71	59	19	41	23	15	228	
		%	7.1%	5.9%	1.7%	3.9%	2.3%	1.5%	3.7%	
	2	Number	35	65	19	67	25	28	239	
		%	3.5%	6.5%	1.7%	6.4%	2.5%	2.8%	3.9%	
	3	Number	63	108	74	122	57	85	509	
		%	6.3%	10.8%	6.7%	11.7%	5.6%	8.5%	8.3%	
	4	Number	300	177	167	297	140	219	1300	
		%	30.0%	17.7%	15.1%	28.6%	13.8%	21.9%	21.1%	
	5	Number	199	248	262	203	245	229	1386	
		%	19.9%	24.8%	23.6%	19.5%	24.1%	22.9%	22.5%	
	6	Number	118	156	303	151	218	201	1147	
		%	11.8%	15.6%	27.3%	14.5%	21.4%	20.1%	18.6%	
	7 in favour	Number	214	189	265	159	309	223	1359	
		%	21.4%	18.9%	23.9%	15.3%	30.4%	22.3%	22.0%	
Total	Number	1000	1002	1109	1040	1017	1000	6168		
	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

Energy Source			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.2.2.1 (e) Coal	1 opposed	Number	416	131	201	87	137	509	1481
		%	41.6%	13.1%	18.1%	8.4%	13.5%	50.9%	24.0%
	2	Number	93	130	197	114	123	222	879
		%	9.3%	13.0%	17.8%	11.0%	12.1%	22.2%	14.3%
	3	Number	91	135	240	181	205	119	971
		%	9.1%	13.5%	21.6%	17.4%	20.2%	11.9%	15.7%
	4	Number	208	170	271	310	189	103	1251
		%	20.8%	17.0%	24.4%	29.8%	18.6%	10.3%	20.3%
	5	Number	112	203	146	175	196	30	862
		%	11.2%	20.3%	13.2%	16.8%	19.3%	3.0%	14.0%
	6	Number	33	119	29	87	92	7	367
		%	3.3%	11.9%	2.6%	8.4%	9.0%	.7%	6.0%
	7 in favour	Number	47	114	25	86	75	10	357
		%	4.7%	11.4%	2.3%	8.3%	7.4%	1.0%	5.8%
Total		Number	1000	1002	1109	1040	1017	1000	6168
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Energy Source			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.2.2.1 (f) Natural gas	1 opposed	Number	33	53	5	17	21	24	153
		%	3.3%	5.3%	.5%	1.6%	2.1%	2.4%	2.5%
	2	Number	18	58	21	35	35	43	210
		%	1.8%	5.8%	1.9%	3.4%	3.4%	4.3%	3.4%
	3	Number	63	73	52	72	90	105	455
		%	6.3%	7.3%	4.7%	6.9%	8.8%	10.5%	7.4%
	4	Number	128	97	215	231	183	250	1104
		%	12.8%	9.7%	19.4%	22.2%	18.0%	25.0%	17.9%
	5	Number	251	219	314	219	288	236	1527
		%	25.1%	21.9%	28.3%	21.1%	28.3%	23.6%	24.8%
	6	Number	176	237	304	234	205	159	1315
		%	17.6%	23.7%	27.4%	22.5%	20.2%	15.9%	21.3%
	7 in favour	Number	331	265	198	232	195	183	1404
		%	33.1%	26.4%	17.9%	22.3%	19.2%	18.3%	22.8%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Energy Source			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.2.2.1 (g) Nuclear energy	1 opposed	Number	623	387	186	124	312	411	2043
		%	62.3%	38.6%	16.8%	11.9%	30.7%	41.1%	33.1%
	2	Number	76	125	119	78	128	147	673
		%	7.6%	12.5%	10.7%	7.5%	12.6%	14.7%	10.9%
	3	Number	73	68	146	125	156	114	682
		%	7.3%	6.8%	13.2%	12.0%	15.3%	11.4%	11.1%
	4	Number	79	75	224	206	167	143	894
		%	7.9%	7.5%	20.2%	19.8%	16.4%	14.3%	14.5%
	5	Number	59	112	185	158	121	69	704
		%	5.9%	11.2%	16.7%	15.2%	11.9%	6.9%	11.4%
	6	Number	25	99	136	158	62	53	533
		%	2.5%	9.9%	12.3%	15.2%	6.1%	5.3%	8.6%
	7 in favour	Number	65	136	113	191	71	63	639
		%	6.5%	13.6%	10.2%	18.4%	7.0%	6.3%	10.4%
Total		Number	1000	1002	1109	1040	1017	1000	6168
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Media Channel			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.3.1.0 (a) Media preference Newspapers	1 very unlikely	Number	93	215	60	77	48	30	523
		%	9,3%	21,5%	5,4%	7,4%	4,7%	3,0%	8,5%
	2	Number	51	112	59	88	46	39	395
		%	5,1%	11,2%	5,3%	8,5%	4,5%	3,9%	6,4%
	3	Number	76	112	102	86	77	63	516
		%	7,6%	11,2%	9,2%	8,3%	7,6%	6,3%	8,4%
	4	Number	118	79	218	165	118	141	839
		%	11,8%	7,9%	19,7%	15,9%	11,6%	14,1%	13,6%
	5	Number	229	130	258	207	183	195	1202
		%	22,9%	13,0%	23,3%	19,9%	18,0%	19,5%	19,5%
	6	Number	194	113	249	224	250	261	1291
		%	19,4%	11,3%	22,5%	21,5%	24,6%	26,1%	20,9%
	7 very likely	Number	239	241	163	193	295	271	1402
		%	23,9%	24,1%	14,7%	18,6%	29,0%	27,1%	22,7%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Media Channel		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.3.1.0 (b) Media preference Magazines	1 very unlikely	Number						
		%						
	2	Number						
		%						
	3	Number						
		%						
	4	Number						
		%						
	5	Number						
		%						
	6	Number						
		%						
	7 very likely	Number						
		%						
Total		Number						
		%						

Media Channel			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.3.1.0 (c) Media preference Scientific or specialist press	1 very unlikely	Number	176	379	196	232	123	101	1207
		%	17,6%	37,8%	17,7%	22,3%	12,1%	10,1%	19,6%
	2	Number	74	122	142	120	92	116	666
		%	7,4%	12,2%	12,8%	11,5%	9,0%	11,6%	10,8%
	3	Number	81	97	146	135	87	131	677
		%	8,1%	9,7%	13,2%	13,0%	8,6%	13,1%	11,0%
	4	Number	110	102	198	190	104	198	902
		%	11,0%	10,2%	17,9%	18,3%	10,2%	19,8%	14,6%
	5	Number	159	111	184	134	163	170	921
		%	15,9%	11,1%	16,6%	12,9%	16,0%	17,0%	14,9%
6	Number	112	96	175	135	183	132	833	
	%	11,2%	9,6%	15,8%	13,0%	18,0%	13,2%	13,5%	
7 very likely	Number	288	95	68	94	265	152	962	
	%	28,8%	9,5%	6,1%	9,0%	26,1%	15,2%	15,6%	
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Media Channel		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.3.1.0 (d) Media preference Television	1 very unlikely	Number	34	34	20	36	19	225
		%	8,2%	3,1%	1,9%	3,5%	1,9%	3,6%
	2	Number	27	19	20	43	29	205
		%	6,7%	1,7%	1,9%	4,2%	2,9%	3,3%
	3	Number	62	65	47	76	55	342
		%	6,2%	5,9%	4,5%	7,5%	5,5%	5,5%
	4	Number	99	165	136	103	120	671
		%	9,9%	14,9%	13,1%	10,1%	12,0%	10,9%
	5	Number	185	251	209	189	200	1132
		%	18,5%	22,6%	20,1%	18,6%	20,0%	18,4%
	6	Number	153	332	278	216	233	1319
		%	15,3%	29,9%	26,7%	21,2%	23,3%	21,4%
	7 very likely	Number	352	243	330	354	344	2274
		%	35,2%	21,9%	31,7%	34,8%	34,4%	36,9%
Total	Number	1000	1002	1109	1040	1017	1000	6168
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Media Channel		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.3.1.0 (e) Media preference Radio	1 very unlikely	Number	153	110	134	96	88	675
		%	15,3%	9,9%	12,9%	9,4%	8,8%	10,9%
	2	Number	62	103	109	89	102	520
		%	6,2%	9,3%	10,5%	8,8%	10,2%	8,4%
	3	Number	67	155	114	132	123	682
		%	6,7%	14,0%	11,0%	13,0%	12,3%	11,1%
	4	Number	80	235	217	134	198	988
		%	8,0%	21,2%	20,9%	13,2%	19,8%	16,0%
	5	Number	135	215	199	195	184	1153
		%	13,5%	19,4%	19,1%	19,2%	18,4%	18,7%
	6	Number	152	188	156	131	143	935
		%	15,2%	17,0%	15,0%	12,9%	14,3%	15,2%
	7 very likely	Number	353	103	111	240	162	1215
		%	35,2%	9,3%	10,7%	23,6%	16,2%	19,7%
Total		Number	1002	1109	1040	1017	1000	6168
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Media Channel			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.3.1.0 (f) Media preference Internet sites of major media outlets	1 very unlikely	Number	164	374	67	60	206	113	984
		%	16,4%	37,3%	6,0%	5,8%	20,3%	11,3%	16,0%
	2	Number	38	25	67	51	60	118	359
		%	3,8%	2,5%	6,0%	4,9%	5,9%	11,8%	5,8%
	3	Number	53	47	98	76	86	140	500
		%	5,3%	4,7%	8,8%	7,3%	8,5%	14,0%	8,1%
	4	Number	98	50	169	178	84	194	773
		%	9,8%	5,0%	15,2%	17,1%	8,3%	19,4%	12,5%
	5	Number	160	79	263	209	164	178	1053
		%	16,0%	7,9%	23,7%	20,1%	16,1%	17,8%	17,1%
	6	Number	167	99	260	228	178	134	1066
		%	16,7%	9,9%	23,4%	21,9%	17,5%	13,4%	17,3%
	7 very likely	Number	320	328	185	238	239	123	1433
		%	32,0%	32,7%	16,7%	22,9%	23,5%	12,3%	23,2%
Total		Number	1000	1002	1109	1040	1017	1000	6168
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Media Channel		Country						Total	
		Greece	Romania	The Netherlands	UK	Germany	Norway		
Q.3.1.0 (g) Media preferences Blogs or wikis	1 very unlikely	Number	260	431	371	311	221	375	1969
		%	26,0%	43,0%	33,5%	29,9%	21,7%	37,5%	31,9%
	2	Number	55	62	222	166	53	223	781
		%	5,5%	6,2%	20,0%	16,0%	5,2%	22,3%	12,7%
	3	Number	65	56	161	158	76	141	657
		%	6,5%	5,6%	14,5%	15,2%	7,5%	14,1%	10,7%
	4	Number	165	72	163	167	74	124	765
		%	16,5%	7,2%	14,7%	16,1%	7,3%	12,4%	12,4%
	5	Number	159	73	113	126	163	66	700
		%	15,9%	7,3%	10,2%	12,1%	16,0%	6,6%	11,3%
	6	Number	123	70	52	69	146	42	502
		%	12,3%	7,0%	4,7%	6,6%	14,4%	4,2%	8,1%
	7 very likely	Number	173	238	27	43	284	29	794
		%	17,3%	23,8%	2,4%	4,1%	27,9%	2,9%	12,9%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Trust		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.4.1.0 (a) Trust national government	1 not at all	Number	266	314	40	143	66	86
		%	26,6%	31,3%	3,6%	13,8%	6,5%	8,6%
	2	Number	93	157	54	126	83	96
		%	9,3%	15,7%	4,9%	12,1%	8,2%	9,6%
	3	Number	142	129	116	173	139	169
		%	14,2%	12,9%	10,5%	16,6%	13,7%	16,9%
	4	Number	173	144	304	284	259	282
Total		%	17,3%	14,4%	27,4%	27,3%	25,5%	28,2%
	5	Number	178	139	353	194	312	226
		%	17,8%	13,9%	31,8%	18,7%	30,7%	22,6%
	6	Number	75	74	213	97	105	127
		%	7,5%	7,4%	19,2%	9,3%	10,3%	12,7%
	7 totally	Number	73	45	29	23	53	14
		%	7,3%	4,5%	2,6%	2,2%	5,2%	1,4%
Total	Number	1000	1002	1109	1040	1017	1000	6168
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Trust		Country						
		Greece	Romania	The Netherlands	UK	Germany	Norway	Total
Q.4.1.0 (b) Trust Regional or local government	1 not at all	Number	213	23	107	60	54	594
		%	13,7%	2,1%	10,3%	5,9%	5,4%	9,6%
	2	Number	147	65	120	79	97	581
		%	7,3%	5,9%	11,5%	7,8%	9,7%	9,4%
	3	Number	138	145	181	149	229	962
		%	13,8%	13,1%	17,4%	14,7%	22,9%	15,6%
	4	Number	191	347	307	293	316	1604
		%	19,1%	31,3%	29,5%	28,8%	31,6%	26,0%
	5	Number	241	337	208	285	229	1485
		%	24,1%	30,4%	20,0%	28,0%	22,9%	24,1%
	6	Number	138	171	100	119	64	694
		%	13,8%	15,4%	9,6%	11,7%	6,4%	11,3%
	7 totally	Number	82	21	17	32	11	248
		%	8,2%	1,9%	1,6%	3,1%	1,1%	4,0%
Total		Number	1000	1109	1040	1017	1000	6168
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Trust		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.4.1.0 (c) Trust The European Union	1 not at all	Number 75	61	40	155	70	63	464
		% 7,5%	6,1%	3,6%	14,9%	6,9%	6,3%	7,5%
	2	Number 46	28	71	135	79	105	464
		% 4,6%	2,8%	6,4%	13,0%	7,8%	10,5%	7,5%
	3	Number 64	77	182	191	140	207	861
		% 6,4%	7,7%	16,4%	18,4%	13,8%	20,7%	14,0%
	4	Number 160	128	324	274	244	319	1449
		% 16,0%	12,8%	29,2%	26,3%	24,0%	31,9%	23,5%
	5	Number 245	226	293	174	273	214	1425
		% 24,5%	22,6%	26,4%	16,7%	26,8%	21,4%	23,1%
	6	Number 197	242	184	89	139	78	929
		% 19,7%	24,2%	16,6%	8,6%	13,7%	7,8%	15,1%
	7 totally	Number 213	240	15	22	72	14	576
		% 21,3%	24,0%	1,4%	2,1%	7,1%	1,4%	9,3%
Total	Number	1000	1002	1109	1040	1017	1000	6168
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Trust			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.4.1.0 (d) Trust Electricity gas and other companies	1 not at all	Number	125	130	34	101	125	51	566
		%	12,5%	13,0%	3,1%	9,7%	12,3%	5,1%	9,2%
	2	Number	86	86	100	136	127	103	638
		%	8,6%	8,6%	9,0%	13,1%	12,5%	10,3%	10,3%
	3	Number	122	120	199	205	194	204	1044
		%	12,2%	12,0%	17,9%	19,7%	19,1%	20,4%	16,9%
	4	Number	217	170	373	293	237	331	1621
		%	21,7%	17,0%	33,6%	28,2%	23,3%	33,1%	26,3%
	5	Number	235	213	278	192	170	209	1297
		%	23,5%	21,3%	25,1%	18,5%	16,7%	20,9%	21,0%
	6	Number	106	152	105	89	119	87	658
		%	10,6%	15,2%	9,5%	8,6%	11,7%	8,7%	10,7%
	7 totally	Number	109	131	20	24	45	15	344
		%	10,9%	13,1%	1,8%	2,3%	4,4%	1,5%	5,6%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Trust		Country						Total	
		Greece	Romania	The Netherlands	UK	Germany	Norway		
Q.4.1.0 (e) Trust Scientists	1 not at all	Number	14	25	13	15	19	12	98
		%	1,4%	2,5%	1,2%	1,4%	1,9%	1,2%	1,6%
	2	Number	11	19	13	18	18	20	99
		%	1,1%	1,9%	1,2%	1,7%	1,8%	2,0%	1,6%
	3	Number	17	28	60	44	50	54	253
		%	1,7%	2,8%	5,4%	4,2%	4,9%	5,4%	4,1%
	4	Number	62	51	173	192	141	169	788
		%	6,2%	5,1%	15,6%	18,5%	13,9%	16,9%	12,8%
	5	Number	139	105	328	274	222	272	1340
		%	13,9%	10,5%	29,6%	26,3%	21,8%	27,2%	21,7%
	6	Number	237	171	388	385	314	388	1883
		%	23,7%	17,1%	35,0%	37,0%	30,9%	38,8%	30,5%
	7 totally	Number	520	603	134	112	253	85	1707
		%	52,0%	60,2%	12,1%	10,8%	24,9%	8,5%	27,7%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Trust		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.4.1.0 (f) Trust Journalists	1 not at all	Number	161	44	112	54	74	682
		%	23,7%	4,0%	10,8%	5,3%	7,4%	11,1%
	2	Number	113	99	148	75	178	746
		%	13,3%	8,9%	14,2%	7,4%	17,8%	12,1%
	3	Number	155	206	212	137	221	1090
		%	15,9%	18,6%	20,4%	13,5%	22,1%	17,7%
	4	Number	178	380	319	268	295	1600
		%	17,8%	34,3%	30,7%	26,4%	29,5%	25,9%
	5	Number	180	267	173	265	179	1243
		%	18,0%	24,1%	16,6%	26,1%	17,9%	20,2%
	6	Number	57	101	66	176	45	564
		%	5,7%	9,1%	6,3%	17,3%	4,5%	9,1%
	7 totally	Number	56	12	10	42	8	243
		%	5,6%	1,1%	1,0%	4,1%	,8%	3,9%
Total		Number	1000	1109	1040	1017	1000	6168
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Trust		Country						Total	
		Greece	Romania	The Netherlands	UK	Germany	Norway		
Q.4.1.0 (g) Trust Political parties	1 not at all	Number	387	569	66	197	134	125	1478
		%	38,7%	56,8%	6,0%	18,9%	13,2%	12,5%	24,0%
	2	Number	153	154	143	182	156	191	979
		%	15,3%	15,4%	12,9%	17,5%	15,3%	19,1%	15,9%
	3	Number	158	130	273	255	237	271	1324
		%	15,8%	13,0%	24,6%	24,5%	23,3%	27,1%	21,5%
	4	Number	144	75	374	248	271	281	1393
		%	14,4%	7,5%	33,7%	23,8%	26,6%	28,1%	22,6%
	5	Number	105	35	190	119	161	102	712
		%	10,5%	3,5%	17,1%	11,4%	15,8%	10,2%	11,5%
	6	Number	28	19	60	29	53	28	217
		%	2,8%	1,9%	5,4%	2,8%	5,2%	2,8%	3,5%
	7 totally	Number	25	20	3	10	5	2	65
		%	2,5%	2,0%	,3%	1,0%	,5%	,2%	1,1%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Trust			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.4.1.0 (h) Trust Environmental protection organizations	1 not at all	Number	41	65	48	44	30	78	306
		%	4,1%	6,5%	4,3%	4,2%	2,9%	7,8%	5,0%
	2	Number	17	39	71	54	26	77	284
		%	1,7%	3,9%	6,4%	5,2%	2,6%	7,7%	4,6%
	3	Number	41	66	132	99	59	143	540
		%	4,1%	6,6%	11,9%	9,5%	5,8%	14,3%	8,8%
	4	Number	86	77	268	251	135	247	1064
		%	8,6%	7,7%	24,2%	24,1%	13,3%	24,7%	17,3%
	5	Number	177	163	310	265	213	243	1371
		%	17,7%	16,3%	28,0%	25,5%	20,9%	24,3%	22,2%
	6	Number	251	247	225	231	288	168	1410
		%	25,1%	24,7%	20,3%	22,2%	28,3%	16,8%	22,9%
	7 totally	Number	387	345	55	96	266	44	1193
		%	38,7%	34,4%	5,0%	9,2%	26,2%	4,4%	19,3%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Trust		Country						Total	
		Greece	Romania	The Netherlands	UK	Germany	Norway		
Q.4.1.0 (i) Trust consumer associations	1 not at all	Number	105	87	6	28	17	13	256
		%	10,5%	8,7%	5%	2,7%	1,7%	1,3%	4,2%
	2	Number	63	82	20	42	25	24	256
		%	6,3%	8,2%	1,8%	4,0%	2,5%	2,4%	4,2%
	3	Number	98	88	55	84	59	93	477
		%	9,8%	8,8%	5,0%	8,1%	5,8%	9,3%	7,7%
	4	Number	174	133	192	257	132	218	1106
		%	17,4%	13,3%	17,3%	24,7%	13,0%	21,8%	17,9%
	5	Number	244	211	346	309	258	325	1693
		%	24,4%	21,1%	31,2%	29,7%	25,4%	32,5%	27,4%
	6	Number	169	204	379	258	326	268	1604
		%	16,9%	20,4%	34,2%	24,8%	32,1%	26,8%	26,0%
	7 totally	Number	147	197	111	62	200	59	776
		%	14,7%	19,7%	10,0%	6,0%	19,7%	5,9%	12,6%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Statement of respondents Knowledge on environmental issues and science			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.5.1.1 (a) We are currently in a warm period between ice ages	1 true	Number	755	649	709	766	555	608	4042
		%	75,5%	64,8%	63,9%	73,7%	54,6%	60,8%	65,5%
	2 false	Number	245	240	400	274	223	392	1774
		%	24,5%	24,0%	36,1%	26,3%	21,9%	39,2%	28,8%
Total	88 do not know	Number	0	113	0	0	239	0	352
		%	,0%	11,3%	,0%	,0%	23,5%	,0%	5,7%
		Number	1000	1002	1109	1040	1017	1000	6168
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Statement of respondents Knowledge on environmental issues and science			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.5.1.1 (b) Roughly two-thirds of the energy used to produce electricity from fossil fuels is lost	1 true	Number	668	778	733	850	612	632	4273
		%	66,8%	77,6%	66,1%	81,7%	60,2%	63,2%	69,3%
	2 false	Number	332	138	376	190	166	368	1570
		%	33,2%	13,8%	33,9%	18,3%	16,3%	36,8%	25,5%
88 do not know	Number	0	86	0	0	239	0	325	
	%	,0%	8,6%	,0%	,0%	23,5%	,0%	5,3%	
	Number	1000	1002	1109	1040	1017	1000	6168	
Total	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Statement of respondents Knowledge on environmental issues and science			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.5.1.1 (c) The greenhouse effect is caused by a hole in the earths atmosphere	1 true	Number	718	450	502	601	602	393	3266
		%	71,8%	44,9%	45,3%	57,8%	59,2%	39,3%	53,0%
	2 false	Number	282	369	607	439	310	607	2614
		%	28,2%	36,8%	54,7%	42,2%	30,5%	60,7%	42,4%
Total	88 do not know	Number	0	183	0	0	105	0	288
		%	,0%	18,3%	,0%	,0%	10,3%	,0%	4,7%
		Number	1000	1002	1109	1040	1017	1000	6168
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Statement of respondents Knowledge on environmental issues and science			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.5.1.1 (d) Every time we use coal or oil or gas, we contribute to the greenhouse effect	1 true	Number	881	830	946	925	909	886	5377
		%	88,1%	82,8%	85,3%	88,9%	89,4%	88,6%	87,2%
	2 false	Number	119	99	163	115	65	114	675
		%	11,9%	9,9%	14,7%	11,1%	6,4%	11,4%	10,9%
Total	88 do not know	Number	0	73	0	0	43	0	116
		%	,0%	7,3%	,0%	,0%	4,2%	,0%	1,9%
		Number	1000	1002	1109	1040	1017	1000	6168
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Statement of respondents Knowledge on environmental issues and science			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.5.1.1 (e) Oil and gas reservoirs are typically found 100 meters below the surface	1 true	Number	417	372	417	562	214	412	2394
		%	41,7%	37,1%	37,6%	54,0%	21,0%	41,2%	38,8%
	2 false	Number	583	464	692	478	546	588	3351
		%	58,3%	46,3%	62,4%	46,0%	53,7%	58,8%	54,3%
Total	88 do not know	Number	0	166	0	0	257	0	423
		%	,0%	16,6%	,0%	,0%	25,3%	,0%	6,9%
		Number	1000	1002	1109	1040	1017	1000	6168
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Statement of respondents Knowledge on environmental issues and science			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.5.1.1 (f) Oxygen is the main component of the smoke emitted from a smokestack or tailpipe	1 true	Number	167	179	153	169	111	235	1014
		%	16,7%	17,9%	13,8%	16,3%	10,9%	23,5%	16,4%
	2 false	Number	833	783	956	871	832	765	5040
		%	83,3%	78,1%	86,2%	83,8%	81,8%	76,5%	81,7%
Total	88 do not know	Number	0	40	0	0	74	0	114
		%	,0%	4,0%	,0%	,0%	7,3%	,0%	1,8%
		Number	1000	1002	1109	1040	1017	1000	6168
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Statement of respondents Knowledge on CO ₂ build-up		Country					Total
		Greece	Romania	The Netherlands	UK	Germany	
Q.5.2.1 (a) Cars	1 increases CO ₂	Number 971	941	1030	974	933	5791
	%	97,1%	93,9%	92,9%	93,7%	91,7%	93,9%
	2 no impact	Number 10	6	49	41	48	201
	%	1,0%	,6%	4,4%	3,9%	4,7%	3,3%
	3 decreases CO ₂	Number 19	55	30	25	21	161
88 do not know	%	1,9%	5,5%	2,7%	2,4%	2,1%	2,6%
	Number 0	0	0	0	0	15	15
	%	,0%	,0%	,0%	,0%	1,5%	,2%
Total	Number	1000	1002	1109	1040	1017	6168
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Statement of respondents Knowledge on CO ₂ build-up		Country					Total
		Greece	Romania	The Netherlands	UK	Germany	
Q.5.2.1 (b) Coal burning power plants	1 increases CO ₂	Number 861	920	998	938	936	5594
	%	86,1%	91,8%	90,0%	90,2%	92,0%	90,7%
	2 no impact	Number 76	34	73	74	35	338
	%	7,6%	3,4%	6,6%	7,1%	3,4%	5,5%
	3 decreases CO ₂	Number 63	47	38	28	14	203
88 do not know	%	6,3%	4,7%	3,4%	2,7%	1,4%	3,3%
	Number 0	0	1	0	0	32	33
	%	,0%	,1%	,0%	,0%	3,1%	,5%
Total	Number	1000	1002	1109	1040	1017	6168
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Statement of respondents Knowledge on CO ₂ build-up			Country					Total
			Greece	Romania	The Netherlands	UK	Germany	
Q.5.2.1 (c) Nuclear power plants	1 increases CO ₂	Number	711	509	344	374	427	2686
		%	71,1%	50,8%	31,0%	36,0%	42,0%	43,5%
	2 no impact	Number	199	407	552	530	357	2625
		%	19,9%	40,6%	49,8%	51,0%	35,1%	42,6%
	3 decreases CO ₂	Number	90	84	213	136	135	757
88 do not know		%	9,0%	8,4%	19,2%	13,1%	13,3%	12,3%
	Number		0	2	0	0	98	100
	%		,0%	,2%	,0%	,0%	9,6%	1,6%
Total	Number		1000	1002	1109	1040	1017	6168
	%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Statement of respondents Knowledge on CO ₂ build-up			Country					Total
			Greece	Romania	The Netherlands	UK	Germany	
Q.5.2.1 (d) Windmills or wind turbines	1 increases CO ₂	Number	49	71	21	45	40	234
		%	4,9%	7,1%	1,9%	4,3%	3,9%	3,8%
	2 no impact	Number	444	437	573	624	510	3250
		%	44,4%	43,6%	51,7%	60,0%	50,1%	52,7%
	3 decreases CO ₂	Number	507	493	515	371	416	2632
88 do not know		%	50,7%	49,2%	46,4%	35,7%	40,9%	42,7%
	Number		0	1	0	0	51	52
	%		,0%	,1%	,0%	,0%	5,0%	,8%
Total	Number		1000	1002	1109	1040	1017	6168
	%		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Statement of respondents Knowledge on CO ₂ build-up		Country					Total
		Greece	Romania	The Netherlands	UK	Germany	Norway
Q.5.2.1 (e) Planting trees	1 increases CO ₂	Number %	44 9,9%	32 2,9%	45 4,3%	33 3,2%	24 2,4%
	2 no impact	Number %	88 8,8%	68 6,1%	69 6,6%	138 13,6%	62 6,2%
	3 decreases CO ₂	Number %	868 86,8%	1009 81,1%	926 89,0%	818 80,4%	914 91,4%
	88 do not know	Number %	0 0%	1 1%	0 0%	28 2,8%	0 0%
	Total	Number %	1000 100,0%	1109 100,0%	1040 100,0%	1017 100,0%	1000 100,0%

Statement of respondents Knowledge on CO ₂ build-up		Country					Total
		Greece	Romania	The Netherlands	UK	Germany	Norway
Q.5.2.1 (f) Factories like steel mills	1 increases CO ₂	Number %	974 97,4%	1043 94,0%	961 92,4%	929 91,3%	929 92,9%
	2 no impact	Number %	5 5%	30 2,7%	57 5,5%	34 3,3%	57 5,7%
	3 decreases CO ₂	Number %	21 2,1%	36 3,2%	22 2,1%	23 2,3%	14 1,4%
	88 do not know	Number %	0 0%	0 0%	0 0%	31 3,0%	0 0%
	Total	Number %	1000 100,0%	1109 100,0%	1040 100,0%	1017 100,0%	1000 100,0%

(Self-reported) awareness of CCS			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.5.3.1. Have you ever heard about CCS	1 no, never heard	Number	765	759	555	644	630	374	3727
		%	76,5%	75,7%	50,0%	61,9%	61,9%	37,4%	60,4%
	2 a little bit	Number	187	214	493	331	288	452	1965
		%	18,7%	21,4%	44,5%	31,8%	28,3%	45,2%	31,9%
	3 yes, quite a bit	Number	48	29	61	65	99	174	476
		%	4,8%	2,9%	5,5%	6,3%	9,7%	17,4%	7,7%
Total		Number	1000	1002	1109	1040	1017	1000	6168
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Q.1.1.1 Gender * Q.5.3.1 Have you ever heard about CCS?		Crosstabulation			Q.5.3.1. Have you ever heard about CCS?			Total
					1 no, never heard	2 a little bit	3 yes, quite a bit	
Greece	Q.1.1.1 Gender	1 Male	Number		335	104	27	466
		%			43,8%	55,6%	56,3%	46,6%
	2 Female	Number			430	83	21	534
		%			56,2%	44,4%	43,8%	53,4%
	Total	Number			765	187	48	1000
		%			100,0%	100,0%	100,0%	100,0%
Romania	Q.1.1.1 Gender	1 Male	Number		346	115	18	479
		%			45,6%	53,7%	62,1%	47,8%
	2 Female	Number			413	99	11	523
		%			54,4%	46,3%	37,9%	52,2%
	Total	Number			759	214	29	1002
		%			100,0%	100,0%	100,0%	100,0%
The Netherlands	Q.1.1.1 Gender	1 Male	Number		209	294	41	544
		%			37,7%	59,6%	67,2%	49,1%
	2 Female	Number			346	199	20	565
		%			62,3%	40,4%	32,8%	50,9%
	Total	Number			555	493	61	1109
		%			100,0%	100,0%	100,0%	100,0%
UK	Q.1.1.1 Gender	1 Male	Number		252	212	56	520
		%			39,1%	64,0%	86,2%	50,0%
	2 Female	Number			392	119	9	520
		%			60,9%	36,0%	13,8%	50,0%
	Total	Number			644	331	65	1040
		%			100,0%	100,0%	100,0%	100,0%
Germany	Q.1.1.1 Gender	1 Male	Number		249	180	77	506
		%			39,5%	62,5%	77,8%	49,8%
	2 Female	Number			381	108	22	511
		%			60,5%	37,5%	22,2%	50,2%
	Total	Number			630	288	99	1017
		%			100,0%	100,0%	100,0%	100,0%
Norway	Q.1.1.1 Gender	1 Male	Number		91	261	147	499
		%			24,3%	57,7%	84,5%	49,9%
	2 Female	Number			283	191	27	501
		%			75,7%	42,3%	15,5%	50,1%
	Total	Number			374	452	174	1000
		%			100,0%	100,0%	100,0%	100,0%

Crosstabulation					
Q.1.1.2 Age group* Q.5.3.1 Have you ever heard about CCS?					
Greece, Romania, the Netherlands					
		Q.5.3.1. Have you ever heard about CCS?			Total
		1 no, never heard	2 a little bit	3 yes, quite a bit	
Greece	Q.1.1.2 Age group				
	2 65-79	Number %	9 1,2%	3 1,6%	14 1,4%
	3 50-64	Number %	217 28,4%	43 23,2%	274 27,5%
	4 25-49	Number %	441 57,8%	109 58,9%	574 57,6%
	5 18-24	Number %	96 12,6%	30 16,2%	134 13,5%
	Total	Number %	763 100,0%	185 100,0%	996 100,0%
Romania	Q.1.1.2 Age group				
	1 >80	Number %	19 2,5%	2 ,9%	21 2,1%
	2 65-79	Number %	122 16,1%	19 8,9%	148 14,8%
	3 50-64	Number %	168 22,1%	47 22,0%	221 22,1%
	4 25-49	Number %	371 48,9%	117 54,7%	500 49,9%
	5 18-24	Number %	79 10,4%	29 13,6%	112 11,2%
	Total	Number %	759 100,0%	214 100,0%	1002 100,0%
The Netherlands	Q.1.1.2 Age group				
	1 >80	Number %	3 ,5%	10 2,0%	14 1,3%
	2 65-79	Number %	75 13,5%	116 23,5%	200 18,0%
	3 50-64	Number %	143 25,8%	134 27,2%	288 26,0%
	4 25-49	Number %	285 51,4%	196 39,8%	514 46,3%
	5 18-24	Number %	49 8,8%	37 7,5%	93 8,4%
	Total	Number %	555 100,0%	493 100,0%	1109 100,0%

Crosstabulation					Q.5.3.1. Have you ever heard about CCS?		
Q.1.1.2 Age group* Q.5.3.1 Have you ever heard about CCS? UK, Germany, Norway					1 no, never heard	2 a little bit	3 yes, quite a bit
UK	Q.1.1.2 Age group	1 >80	Number	%	3	0	0
		2 65-79	Number	%	57	41	16
		3 50-64	Number	%	180	131	30
		4 25-49	Number	%	343	130	14
		5 18-24	Number	%	61	29	5
	Total		Number	%	644	331	65
Germany	Q.1.1.2 Age group	1 >80	Number	%	25	5	2
		2 65-79	Number	%	116	61	29
		3 50-64	Number	%	167	95	31
		4 25-49	Number	%	287	117	35
		5 18-24	Number	%	35	10	2
	Total		Number	%	630	288	99
Norway	Q.1.1.2 Age group	2 65-79	Number	%	6	5	10
		3 50-64	Number	%	115	177	74
		4 25-49	Number	%	205	226	75
		5 18-24	Number	%	47	44	15
	Total		Number	%	373	452	174
					100,0%	100,0%	100,0%
							Total
							3
							0
							0,0%
							3,3%
							114
							11,0%
							341
							32,8%
							487
							46,8%
							95
							9,1%
							1040
							100,0%
							32
							3,1%
							206
							20,3%
							293
							28,8%
							439
							43,2%
							47
							4,6%
							1017
							100,0%
							21
							2,1%
							366
							36,6%
							506
							50,7%
							106
							10,6%
							999
							100,0%

Crosstabulation		Q.5.3.1. Have you ever heard about CCS?				
Q.1.2.1 Education * Q.5.3.1 Have you ever heard about CCS?		Greece, Romania				
Greece	Q.1.2.1. ISCED97 Education level	1 no, never heard		2 a little bit		Total
		Number	%	Number	%	
	1 Level 1 - Primary education or first stage of basic education	62	8,1%	6	10,4%	73
	2 Level 2 - Lower secondary or second stage of basic education	72	9,4%	8	4,2%	82
	3 Level 3 - (Upper) secondary education	304	39,7%	74	18,8%	387
	5 Level 5 - First stage of tertiary education	293	38,3%	81	47,9%	397
	6 Level 6 - Second stage of tertiary education	34	4,4%	18	9,6%	61
	Total	765	100,0%	187	100,0%	1000
Romania	Q.1.2.1. ISCED97 Education level	2 Level 2 - Lower secondary or second stage of basic education		2		22
		3 Level 3 - (Upper) secondary education		1		86
	4 Level 4 - Post-secondary non-tertiary education	424	55,9%	113	48,3%	551
	5 Level 5 - First stage of tertiary education	217	28,6%	74	34,5%	301
	6 Level 6 - Second stage of tertiary education	29	3,8%	11	6,9%	42
	Total	759	100,0%	214	100,0%	1002

Q.1.2.1 Education * Q.5.3.1 Have you ever heard about CCS? The Netherlands, UK		Crosstabulation				Q.5.3.1. Have you ever heard about CCS?		
				1 no, never heard	2 a little bit	3 yes, quite a bit	Total	
The Netherlands	Q.1.2.1. ISCED97 Education level	1 Level 1 - Primary education or first stage of basic education	Number %	27 4,9%	19 3,9%	0 ,0%	46 4,1%	
		2 Level 2 - Lower secondary or second stage of basic education	Number %	178 32,1%	113 22,9%	6 9,8%	297 26,8%	
		3 Level 3 - (Upper) secondary education	Number %	222 40,0%	204 41,4%	21 34,4%	447 40,3%	
		5 Level 5 - First stage of tertiary education	Number %	96 17,3%	109 22,1%	18 29,5%	223 20,1%	
		6 Level 6 - Second stage of tertiary education	Number %	31 5,6%	47 9,5%	16 26,2%	94 8,5%	
		8 Do not know/ do not want to say	Number %	1 ,2%	1 ,2%	0 ,0%	2 ,2%	
		Total	Number %	555 100,0%	493 100,0%	61 100,0%	1109 100,0%	
UK	Q.1.2.1. ISCED97 Education level	0 Level 0 - Pre-primary education	Number %	141 21,9%	48 14,5%	8 12,3%	197 18,9%	
		2 Level 2 - Lower secondary or second stage of basic education	Number %	78 12,1%	21 6,3%	3 4,6%	102 9,8%	
		3 Level 3 - (Upper) secondary education	Number %	182 28,3%	82 24,8%	13 20,0%	277 26,6%	
		4 Level 4 - Post-secondary non-tertiary education	Number %	155 24,1%	123 37,2%	25 38,5%	303 29,1%	
		5 Level 5 - First stage of tertiary education	Number %	26 4,0%	37 11,2%	12 18,5%	75 7,2%	
		6 Level 6 - Second stage of tertiary education	Number %	59 9,2%	18 5,4%	4 6,2%	81 7,8%	
		7 Other - Individually specified	Number %	3 ,5%	2 ,6%	0 ,0%	5 ,5%	
		Total	Number %	644 100,0%	331 100,0%	65 100,0%	1040 100,0%	

Crosstabulation							
Q.1.2.1 Education * Q.5.3.1 Have you ever heard about CCS?							
Germany, Norway							
Germany	Q.1.2.1. ISCED97 Education level	1 Level 1 - Primary education or first stage of basic education	Number %	7 1,1%	0 0,0%	1 1,0%	Total
		2 Level 2 - Lower secondary or second stage of basic education	Number %	64 10,2%	12 4,2%	0 0,0%	
		3 Level 3 - (Upper) secondary education	Number %	356 56,5%	140 48,6%	32 32,3%	
		4 Level 4 - First stage of tertiary education	Number %	10 1,6%	6 2,1%	1 1,0%	
		5 Level 5 - Second stage of tertiary education	Number %	100 15,9%	58 20,1%	13 13,1%	
		6 Level 6 - Primary education or first stage of basic education	Number %	93 14,8%	72 25,0%	52 52,5%	
	Total		Number %	630 100,0%	288 100,0%	99 100,0%	1017 100,0%
Norway	Q.1.2.1. ISCED97 Education level	2 Level 2 - Lower secondary or second stage of basic education	Number %	28 7,5%	32 7,1%	2 1,2%	62 6,2%
		3 Level 3 - (Upper) secondary education	Number %	119 31,8%	101 22,3%	19 11,0%	239 23,9%
		4 Level 4 - Post-secondary non-tertiary education	Number %	65 17,4%	77 17,0%	33 19,1%	175 17,5%
		5 Level 5 - First stage of tertiary education	Number %	114 30,5%	151 33,4%	59 34,1%	324 32,4%
		6 Level 6 - Second stage of tertiary education	Number %	48 12,8%	91 20,1%	60 34,7%	199 19,9%
		Total		Number %	374 100,0%	452 100,0%	173 100,0%

Statement of respondents Knowledge – environmental concerns CCS aims to address		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.5.3.2 (a) CCS can reduce Toxic waste	1 can reduce	570	709	204	208	101	210	2002
	%	57,0%	70,8%	18,4%	20,0%	9,9%	21,0%	32,5%
	2 does not reduce	237	207	497	305	247	401	1894
	%	23,7%	20,7%	44,8%	29,3%	24,3%	40,1%	30,7%
	3 do not know	193	86	408	527	39	389	1642
99 no statement	%	19,3%	8,6%	36,8%	50,7%	3,8%	38,9%	26,6%
	Number	0	0	0	0	630	0	630
	%	,0%	,0%	,0%	,0%	61,9%	,0%	10,2%
Total	Number	1000	1002	1109	1040	1017	1000	6168
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Statement of respondents Knowledge – environmental concerns CCS aims to address		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.5.3.2 (b) CCS can reduce Ozone depletion	1 can reduce	582	635	609	338	202	413	2779
	%	58,2%	63,4%	54,9%	32,5%	19,9%	41,3%	45,1%
	2 does not reduce	209	271	170	198	136	196	1180
	%	20,9%	27,0%	15,3%	19,0%	13,4%	19,6%	19,1%
	3 do not know	209	96	330	504	49	391	1579
99 no statement	%	20,9%	9,6%	29,8%	48,5%	4,8%	39,1%	25,6%
	Number	0	0	0	0	630	0	630
	%	,0%	,0%	,0%	,0%	61,9%	,0%	10,2%
Total	Number	1000	1002	1109	1040	1017	1000	6168

Statement of respondents Knowledge – environmental concerns CCS aims to address		Country					Total
		Greece	Romania	The Netherlands	UK	Germany	
Q.5.3.2 (c) CCS can reduce Global warming	1 can reduce	674	711	619	449	218	3274
	%	67,4%	71,0%	55,8%	43,2%	21,4%	53,1%
	2 does not reduce	141	215	150	125	125	818
	%	14,1%	21,5%	13,5%	12,0%	12,3%	13,3%
	3 do not know	185	76	340	466	44	1446
99 no statement	%	18,5%	7,6%	30,7%	44,8%	4,3%	23,4%
	Number	0	0	0	0	630	630
	%	,0%	,0%	,0%	,0%	61,9%	10,2%
Total	Number	1000	1002	1109	1040	1017	6168
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Statement of respondents Knowledge – environmental concerns CCS aims to address		Country					Total
		Greece	Romania	The Netherlands	UK	Germany	
Q.5.3.2 (d) CCS can reduce Acid rain	1 can reduce	583	644	522	345	194	2681
	%	58,3%	64,3%	47,1%	33,2%	19,1%	43,5%
	2 does not reduce	203	252	202	181	135	1197
	%	20,3%	25,1%	18,2%	17,4%	13,3%	19,4%
	3 do not know	214	106	385	514	58	1660
99 no statement	%	21,4%	10,6%	34,7%	49,4%	5,7%	26,9%
	Number	0	0	0	0	630	630
	%	,0%	,0%	,0%	,0%	61,9%	10,2%
Total	Number	1000	1002	1109	1040	1017	6168
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Statement of respondents Knowledge – environmental concerns CCS aims to adress		Country					Total
		Greece	Romania	The Netherlands	UK	Germany	
Q.5.3.2 (e) CCS can reduce Smog	1 can reduce	703	667	620	383	211	2977
	%	70,3%	66,6%	55,9%	36,8%	20,7%	48,3%
	2 does not reduce	140	231	162	163	146	1043
	%	14,0%	23,1%	14,6%	15,7%	14,4%	16,9%
	3 do not know	157	104	327	494	30	1518
99 no statement	%	15,7%	10,4%	29,5%	47,5%	2,9%	24,6%
	Number	0	0	0	0	630	630
	%	,0%	,0%	,0%	,0%	61,9%	10,2%
Total	Number	1000	1002	1109	1040	1017	6168
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Statement of respondents Knowledge – environmental concerns CCS aims to adress		Country					Total
		Greece	Romania	The Netherlands	UK	Germany	
Q.5.3.2 (f) CCS can reduce Water pollution	1 can reduce	615	692	296	216	122	2226
	%	61,5%	69,1%	26,7%	20,8%	12,0%	36,1%
	2 does not reduce	217	260	416	271	215	1699
	%	21,7%	25,9%	37,5%	26,1%	21,1%	27,5%
	3 do not know	168	50	397	553	50	1613
99 no statement	%	16,8%	5,0%	35,8%	53,2%	4,9%	26,2%
	Number	0	0	0	0	630	630
	%	,0%	,0%	,0%	,0%	61,9%	10,2%
Total	Number	1000	1002	1109	1040	1017	6168
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Initial attitudes – use of technologies to address global warming			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.6.1.1 (a) To decrease global warming I would use Carbon Capture and Storage	1 definitely not use	Number	106	88	69	53	165	60	541
		%	10,6%	8,8%	6,2%	5,1%	16,2%	6,0%	8,8%
	2	Number	38	36	97	52	79	110	412
		%	3,8%	3,6%	8,7%	5,0%	7,8%	11,0%	6,7%
	3	Number	45	67	175	110	139	159	695
		%	4,5%	6,7%	15,8%	10,6%	13,7%	15,9%	11,3%
	4	Number	179	139	309	334	239	286	1486
		%	17,9%	13,9%	27,9%	32,1%	23,5%	28,6%	24,1%
	5	Number	185	199	227	219	163	177	1170
		%	18,5%	19,9%	20,5%	21,1%	16,0%	17,7%	19,0%
6	Number	112	184	120	150	81	101	748	
	%	11,2%	18,4%	10,8%	14,4%	8,0%	10,1%	12,1%	
7 definitely use	Number	335	289	112	122	151	107	1116	
	%	33,5%	28,8%	10,1%	11,7%	14,8%	10,7%	18,1%	
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Initial attitudes – use of technologies to address global warming			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.6.1.1 (b) To decrease global warming I would use Energy efficient appliances	1 definitely not use	Number	20	28	6	7	16	4	81
		%	2,0%	2,8%	,5%	,7%	1,6%	,4%	1,3%
	2	Number	9	17	3	5	3	12	49
		%	,9%	1,7%	,3%	,5%	,3%	1,2%	,8%
	3	Number	20	31	20	17	16	30	134
		%	2,0%	3,1%	1,8%	1,6%	1,6%	3,0%	2,2%
	4	Number	43	46	113	101	64	119	486
		%	4,3%	4,6%	10,2%	9,7%	6,3%	11,9%	7,9%
	5	Number	127	95	159	163	114	170	828
		%	12,7%	9,5%	14,3%	15,7%	11,2%	17,0%	13,4%
	6	Number	148	171	275	250	202	237	1283
		%	14,8%	17,1%	24,8%	24,0%	19,9%	23,7%	20,8%
	7 definitely use	Number	633	614	533	497	602	428	3307
		%	63,3%	61,3%	48,1%	47,8%	59,2%	42,8%	53,6%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Initial attitudes – use of technologies to address global warming		Country						Total	
		Greece	Romania	The Netherlands	UK	Germany	Norway		
Q.6.1.1 (c) To decrease global warming I would use Nuclear energy	1 definitely not use	Number	627	354	208	170	372	322	2053
		%	62,7%	35,3%	18,8%	16,3%	36,6%	32,2%	33,3%
	2	Number	77	98	148	92	139	148	702
		%	7,7%	9,8%	13,3%	8,8%	13,7%	14,8%	11,4%
	3	Number	75	94	134	107	137	122	669
		%	7,5%	9,4%	12,1%	10,3%	13,5%	12,2%	10,8%
	4	Number	59	81	226	212	139	173	890
		%	5,9%	8,1%	20,4%	20,4%	13,7%	17,3%	14,4%
	5	Number	84	111	178	156	112	107	748
		%	8,4%	11,1%	16,1%	15,0%	11,0%	10,7%	12,1%
	6	Number	27	101	107	136	46	54	471
		%	2,7%	10,1%	9,6%	13,1%	4,5%	5,4%	7,6%
	7 definitely use	Number	51	163	108	167	72	74	635
		%	5,1%	16,3%	9,7%	16,1%	7,1%	7,4%	10,3%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Initial attitudes – use of technologies to address global warming			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.6.1.1 (d) To decrease global warming I would use Solar energy	1 definitely not use	Number	9	33	5	10	11	6	74
		%	,9%	3,3%	,5%	1,0%	1,1%	,6%	1,2%
	2	Number	2	5	4	3	2	7	23
		%	,2%	,5%	,4%	,3%	,2%	,7%	,4%
	3	Number	2	10	7	24	11	14	68
		%	,2%	1,0%	,6%	2,3%	1,1%	1,4%	1,1%
	4	Number	10	37	66	80	33	76	302
		%	1,0%	3,7%	6,0%	7,7%	3,2%	7,6%	4,9%
	5	Number	40	61	97	114	62	101	475
		%	4,0%	6,1%	8,7%	11,0%	6,1%	10,1%	7,7%
	6	Number	63	126	209	227	151	177	953
		%	6,3%	12,6%	18,8%	21,8%	14,8%	17,7%	15,5%
	7 definitely use	Number	874	730	721	582	747	619	4273
		%	87,4%	72,9%	65,0%	56,0%	73,5%	61,9%	69,3%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Initial attitudes – use of technologies to address global warming			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.6.1.1 (e) To decrease global warming I would use Wind energy	1 definitely not use	Number	21	34	9	22	17	10	113
		%	2,1%	3,4%	,8%	2,1%	1,7%	1,0%	1,8%
	2	Number	3	13	6	22	4	23	71
		%	,3%	1,3%	,5%	2,1%	,4%	2,3%	1,2%
	3	Number	6	19	16	27	24	23	115
		%	,6%	1,9%	1,4%	2,6%	2,4%	2,3%	1,9%
	4	Number	15	28	75	86	35	78	317
		%	1,5%	2,8%	6,8%	8,3%	3,4%	7,8%	5,1%
	5	Number	48	69	131	126	86	99	559
		%	4,8%	6,9%	11,8%	12,1%	8,5%	9,9%	9,1%
	6	Number	102	115	243	230	185	192	1067
		%	10,2%	11,5%	21,9%	22,1%	18,2%	19,2%	17,3%
Total	7 definitely use	Number	805	724	629	527	666	575	3926
		%	80,5%	72,3%	56,7%	50,7%	65,5%	57,5%	63,7%
		Number	1000	1002	1109	1040	1017	1000	6168
			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Crosstabulation Q.1.1.1 Gender * Q.6.1.1.1 Use of CCS		Q.6.1.1.1 Carbon capture and storage								
		1 - definitely not use	2	3	4	5	6	7 – defi- nitely use	Total	
Greece	Q.1.1.1 Gender	1 Male	Number %	42 39,6%	19 50,0%	25 55,6%	90 50,3%	91 49,2%	44 39,3%	466 46,6%
		2 Female	Number %	64 60,4%	19 50,0%	20 44,4%	89 49,7%	94 50,8%	68 60,7%	534 53,4%
	Total	Number %	106 100,0%	38 100,0%	45 100,0%	179 100,0%	185 100,0%	112 100,0%	335 100,0%	1000 100,0%
Romania	Q.1.1.1 Gender	1 Male	Number %	41 46,6%	19 52,8%	33 49,3%	59 42,4%	99 49,7%	84 45,7%	479 47,8%
		2 Female	Number %	47 53,4%	17 47,2%	34 50,7%	80 57,6%	100 50,3%	100 54,3%	523 52,2%
	Total	Number %	88 100,0%	36 100,0%	67 100,0%	139 100,0%	199 100,0%	184 100,0%	289 100,0%	1002 100,0%
The Netherlands	Q.1.1.1 Gender	1 Male	Number %	42 60,9%	43 44,3%	79 45,1%	142 46,0%	115 50,7%	62 51,7%	544 49,1%
		2 Female	Number %	27 39,1%	54 55,7%	96 54,9%	167 54,0%	112 49,3%	58 48,3%	565 50,9%
	Total	Number %	69 100,0%	97 100,0%	175 100,0%	309 100,0%	227 100,0%	120 100,0%	112 100,0%	1109 100,0%
UK	Q.1.1.1 Gender	1 Male	Number %	25 47,2%	20 38,5%	52 47,3%	155 46,4%	118 53,9%	75 50,0%	520 50,0%
		2 Female	Number %	28 52,8%	32 61,5%	58 52,7%	179 53,6%	101 46,1%	75 50,0%	520 50,0%
	Total	Number %	53 100,0%	52 100,0%	110 100,0%	334 100,0%	219 100,0%	150 100,0%	122 100,0%	1040 100,0%
Germany	Q.1.1.1 Gender	1 Male	Number %	62 37,6%	43 54,4%	63 45,3%	117 49,0%	75 46,0%	49 60,5%	506 49,8%
		2 Female	Number %	103 62,4%	36 45,6%	76 54,7%	122 51,0%	88 54,0%	32 39,5%	511 50,2%
	Total	Number %	165 100,0%	79 100,0%	139 100,0%	239 100,0%	163 100,0%	81 100,0%	151 100,0%	1017 100,0%
Norway	Q.1.1.1 Gender	1 Male	Number %	22 36,7%	48 43,6%	74 46,5%	117 40,9%	106 59,9%	56 55,4%	499 49,9%
		2 Female	Number %	38 63,3%	62 56,4%	85 53,5%	169 59,1%	71 40,1%	45 44,6%	501 50,1%
	Total	Number %	60 100,0%	110 100,0%	159 100,0%	286 100,0%	177 100,0%	101 100,0%	107 100,0%	1000 100,0%

Crosstabulation Q.1.1.2 Age group* Q.6.1.1.1 Use of CCS Uk, Germany, Norway			Q.6.1.1.1 Carbon capture and storage								
			1 - definitely not use	2	3	4	5	6	7 - definitely		
UK	Q.1.1.2 Age group 1 >80	Number	1	0	0	0	0	2	0	3	
		%	1,9%	,0%	,0%	,0%	,0%	1,3%	,0%	,3%	
		2 65-79	Number	3	7	11	23	28	21	21	114
		%	5,7%	13,5%	10,0%	6,9%	12,8%	14,0%	17,2%	11,0%	
		3 50-64	Number	14	11	31	100	80	52	53	341
	%	26,4%	21,2%	28,2%	29,9%	36,5%	34,7%	43,4%	32,8%		
4 25-49	Number	29	29	58	182	91	57	41	487		
%	54,7%	55,8%	52,7%	54,5%	41,6%	38,0%	33,6%	46,8%			
5 18-24	Number	6	5	10	29	20	18	7	95		
%	11,3%	9,6%	9,1%	8,7%	9,1%	12,0%	5,7%	9,1%			
Total			53	52	110	334	219	150	122	1040	
Germany	Q.1.1.2 Age group 1 >80	Number	6	2	6	10	4	2	2	32	
		%	3,6%	2,5%	4,3%	4,2%	2,5%	2,5%	1,3%	3,1%	
		2 65-79	Number	35	12	25	49	29	17	39	206
		%	21,2%	15,2%	18,0%	20,5%	17,8%	21,0%	25,8%	20,3%	
		3 50-64	Number	52	22	40	64	36	27	52	293
	%	31,5%	27,8%	28,8%	26,8%	22,1%	33,3%	34,4%	28,8%		
4 25-49	Number	64	40	61	103	82	34	55	439		
%	38,8%	50,6%	43,9%	43,1%	50,3%	42,0%	36,4%	43,2%			
5 18-24	Number	8	3	7	13	12	1	3	47		
%	4,8%	3,8%	5,0%	5,4%	7,4%	1,2%	2,0%	4,6%			
Total			165	79	139	239	163	81	151	1017	
Norway	Q.1.1.2 Age group 2 65-79	Number	0	2	3	3	5	2	6	21	
		%	,0%	1,8%	1,9%	1,0%	2,8%	2,0%	5,6%	2,1%	
		3 50-64	Number	24	42	43	89	57	49	62	366
		%	40,0%	38,2%	27,0%	31,1%	32,2%	49,0%	57,9%	36,6%	
		4 25-49	Number	26	56	88	165	95	42	34	506
	%	43,3%	50,9%	55,3%	57,7%	53,7%	42,0%	31,8%	50,7%		
5 18-24	Number	10	10	25	29	20	7	5	106		
%	16,7%	9,1%	15,7%	10,1%	11,3%	7,0%	4,7%	10,6%			
Total			60	110	159	286	177	100	107	999	
			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Crosstabulation		Q.6.1.1.1 Carbon capture and storage							
Q.1.2.1 Education * Q.5.3.1 Use of CCS Greece, Romania		1 - definitely not use	2	3	4	5	6	7 - definitely use	Total
Greece	Q.1.2.1.1. ISCED97 Education level								
	1 Level 1 - Primary education or first stage of basic education	19 17,9%	5 13,2%	3 6,7%	11 6,1%	8 4,3%	1 ,9%	26 7,8%	73 7,3%
	2 Level 2 - Lower secondary or second stage of basic education	12 11,3%	2 5,3%	2 4,4%	24 13,4%	9 4,9%	9 8,0%	24 7,2%	82 8,2%
	3 Level 3 - (Upper) secondary education	45 42,5%	12 31,6%	12 26,7%	61 34,1%	73 39,5%	46 41,1%	138 41,2%	387 38,7%
	5 Level 5 - First stage of tertiary education	27 25,5%	16 42,1%	21 46,7%	74 41,3%	80 43,2%	46 41,1%	133 39,7%	397 39,7%
	6 Level 6 - Second stage of tertiary education	3 2,8%	3 7,9%	7 15,6%	9 5,0%	15 8,1%	10 8,9%	14 4,2%	61 6,1%
Total		106 100,0%	38 100,0%	45 100,0%	179 100,0%	185 100,0%	112 100,0%	335 100,0%	1000 100,0%
Romania	Q.1.2.1.1. ISCED97 Education level								
	2 Level 2 - Lower secondary or second stage of basic education	3 3,4%	0 ,0%	1 1,5%	3 2,2%	2 1,0%	7 3,8%	6 2,1%	22 2,2%
	3 Level 3 - (Upper) secondary education	13 14,8%	1 2,8%	3 4,5%	14 10,1%	16 8,0%	15 8,2%	24 8,3%	86 8,6%
	4 Level 4 - Post- secondary non-tertiary education	42 47,7%	18 50,0%	36 53,7%	69 49,6%	103 51,8%	103 56,0%	180 62,3%	551 55,0%
	5 Level 5 - First stage of tertiary education	27 30,7%	16 44,4%	21 31,3%	49 35,3%	66 33,2%	53 28,8%	69 23,9%	301 30,0%
	6 Level 6 - Second stage of tertiary education	3 3,4%	1 2,8%	6 9,0%	4 2,9%	12 6,0%	6 3,3%	10 3,5%	42 4,2%
Total		88 100,0%	36 100,0%	67 100,0%	139 100,0%	199 100,0%	184 100,0%	289 100,0%	1002 100,0%

Crosstabulation		Q.6.1.1.1 Carbon capture and storage							
Q.1.2.1 Education * Q.5.3.1 Use of CCS Germany, Norway		1 - definitely	2	3	4	5	6	7 - definitely	Total
Germany	Q.1.2.1. ISCED97 Education level								
	1 Level 1 - Primary education or first stage of basic education	3 1,8%	1 1,3%	0 0,0%	1 4%	1 6%	1 1,2%	1 7%	8 8%
	2 Level 2 - Lower secondary or second stage of basic education	12 7,3%	5 6,3%	8 5,8%	21 8,8%	11 6,7%	6 7,4%	13 8,6%	76 7,5%
	3 Level 3 - (Upper) secondary education	93 56,4%	38 48,1%	73 52,5%	137 57,3%	77 47,2%	39 48,1%	71 47,0%	528 51,9%
	4 Level 4 - Post- secondary non-tertiary education	2 1,2%	1 1,3%	3 2,2%	5 2,1%	4 2,5%	0 0%	2 1,3%	17 1,7%
	5 Level 5 - First stage of tertiary education	24 14,5%	13 16,5%	21 15,1%	33 13,8%	40 24,5%	18 22,2%	22 14,6%	171 16,8%
	6 Level 6 - Second stage of tertiary education	31 18,8%	21 26,6%	34 24,5%	42 17,6%	30 18,4%	17 21,0%	42 27,8%	217 21,3%
Total		165 100,0%	79 100,0%	139 100,0%	239 100,0%	163 100,0%	81 100,0%	151 100,0%	1017 100,0%
Norway	Q.1.2.1. ISCED97 Education level								
	2 Level 2 - Lower secondary or second stage of basic education	6 10,2%	5 4,5%	10 6,3%	18 6,3%	11 6,2%	6 5,9%	6 5,6%	62 6,2%
	3 Level 3 - (Upper) secondary education	21 35,6%	27 24,5%	42 26,4%	67 23,4%	40 22,6%	22 21,8%	20 18,7%	239 23,9%
	4 Level 4 - Post- secondary non-tertiary education	8 13,6%	19 17,3%	27 17,0%	38 13,3%	35 19,8%	19 18,8%	29 27,1%	175 17,5%
	5 Level 5 - First stage of tertiary education	16 27,1%	29 26,4%	49 30,8%	105 36,7%	59 33,3%	36 35,6%	30 28,0%	324 32,4%
	6 Level 6 - Second stage of tertiary education	8 13,6%	30 27,3%	31 19,5%	58 20,3%	32 18,1%	18 17,8%	22 20,6%	199 19,9%
	Total	59 100,0%	110 100,0%	159 100,0%	286 100,0%	177 100,0%	101 100,0%	107 100,0%	999 100,0%

Initial attitudes – CCS demonstration plants			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.6.2.1. Would you support a CCS test plant?	1 strongly opposed	Number	53	77	61	42	146	61	440
		%	5.3%	7.7%	5.5%	4.0%	14.4%	6.1%	7.1%
	2	Number	18	26	100	59	52	50	305
		%	1.8%	2.6%	9.0%	5.7%	5.1%	5.0%	4.9%
	3	Number	43	25	115	99	92	136	510
		%	4.3%	2.5%	10.4%	9.5%	9.0%	13.6%	8.3%
	4	Number	142	139	320	378	264	348	1591
		%	14.2%	13.9%	28.9%	36.3%	26.0%	34.8%	25.8%
	5	Number	163	118	256	242	144	176	1099
		%	16.3%	11.8%	23.1%	23.3%	14.2%	17.6%	17.8%
	6	Number	106	164	185	116	93	124	788
		%	10.6%	16.4%	16.7%	11.2%	9.1%	12.4%	12.8%
	7 strongly supportive	Number	475	453	72	104	226	105	1435
		%	47.5%	45.2%	6.5%	10.0%	22.2%	10.5%	23.3%
Total			1000	1002	1109	1040	1017	1000	6168
			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Initial attitudes – efforts against CCS demonstration plants			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.6.2.2. Would you make an active effort against this CCS test plant?	1 strongly disagree	Number	18	52	31	13	49	47	210
		%	15.8%	40.6%	11.2%	6.5%	16.9%	19.0%	16.7%
	2	Number	9	9	41	18	19	35	131
		%	7.9%	7.0%	14.9%	9.0%	6.6%	14.2%	10.4%
	3	Number	14	8	38	30	43	44	177
		%	12.3%	6.3%	13.8%	15.0%	14.8%	17.8%	14.1%
	4	Number	20	11	65	56	67	63	282
		%	17.5%	8.6%	23.6%	28.0%	23.1%	25.5%	22.5%
	5	Number	15	10	47	44	31	30	177
		%	13.2%	7.8%	17.0%	22.0%	10.7%	12.1%	14.1%
	6	Number	6	16	32	21	23	14	112
		%	5.3%	12.5%	11.6%	10.5%	7.9%	5.7%	8.9%
7 strongly agree	Number	32	22	22	18	58	14	166	
	%	28.1%	17.2%	8.0%	9.0%	20.0%	5.7%	13.2%	
Total	Number	114	128	276	200	290	247	1255	
	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Initial attitudes – efforts in favour of CCS demonstration plants			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.6.2.3. Would you make an active effort in favour of this CCS test plant?	1 strongly disagree	Number	31	42	9	14	59	49	204
		%	4.2%	5.7%	1.8%	3.0%	12.7%	12.1%	6.1%
	2	Number	7	14	28	17	22	66	154
		%	.9%	1.9%	5.5%	3.7%	4.8%	16.3%	4.6%
	3	Number	18	15	37	45	49	57	221
		%	2.4%	2.0%	7.2%	9.7%	10.6%	14.1%	6.7%
	4	Number	65	48	141	131	85	127	597
		%	8.7%	6.5%	27.5%	28.4%	18.4%	31.4%	18.0%
	5	Number	174	144	149	145	84	59	755
		%	23.4%	19.6%	29.0%	31.4%	18.1%	14.6%	22.7%
	6	Number	94	154	104	61	43	31	487
		%	12.6%	21.0%	20.3%	13.2%	9.3%	7.7%	14.7%
	7 strongly agree	Number	355	318	45	49	121	16	904
		%	47.7%	43.3%	8.8%	10.6%	26.1%	4.0%	27.2%
Total		Number	744	735	513	462	463	405	3322
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Attitudes (after receiving information) towards the use of technologies to address global warming		Country						Total	
		Greece	Romania	The Netherlands	UK	Germany	Norway		
Q.10.1.1 (a) To decrease global warming I would use Carbon Capture and Storage	1 definitely not use	Number	106	66	81	120	162	75	610
		%	10,6%	6,6%	7,3%	11,5%	15,9%	7,5%	9,9%
	2	Number	45	40	135	107	120	115	562
		%	4,5%	4,0%	12,2%	10,3%	11,8%	11,5%	9,1%
	3	Number	74	37	145	96	136	136	624
		%	7,4%	3,7%	13,1%	9,2%	13,4%	13,6%	10,1%
	4	Number	148	113	294	209	212	220	1196
		%	14,8%	11,3%	26,5%	20,1%	20,8%	22,0%	19,4%
	5	Number	163	150	218	213	171	180	1095
		%	16,3%	15,0%	19,7%	20,5%	16,8%	18,0%	17,8%
	6	Number	124	212	142	173	96	162	909
		%	12,4%	21,2%	12,8%	16,6%	9,4%	16,2%	14,7%
	7 definitely use	Number	340	384	94	122	120	112	1172
		%	34,0%	38,3%	8,5%	11,7%	11,8%	11,2%	19,0%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Attitudes (after receiving information) towards the use of technologies to address global warming		Country						Total
		Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.10.1.1 (b) To decrease global warming I would use Energy efficient appliances	1 definitely not use	Number 20	19	4	11	9	10	73
		% 2,0%	1,9%	,4%	1,1%	,9%	1,0%	1,2%
	2	Number 6	12	3	5	7	13	46
		% ,6%	1,2%	,3%	,5%	,7%	1,3%	,7%
	3	Number 21	23	21	17	31	43	156
		% 2,1%	2,3%	1,9%	1,6%	3,0%	4,3%	2,5%
	4	Number 55	48	119	98	48	117	485
		% 5,5%	4,8%	10,7%	9,4%	4,7%	11,7%	7,9%
	5	Number 116	107	151	136	108	169	787
		% 11,6%	10,7%	13,6%	13,1%	10,6%	16,9%	12,8%
	6	Number 165	176	280	224	193	222	1260
		% 16,5%	17,6%	25,2%	21,5%	19,0%	22,2%	20,4%
	7 definitely use	Number 617	617	531	549	621	426	3361
		% 61,7%	61,6%	47,9%	52,8%	61,1%	42,6%	54,5%
Total		Number 1000	1002	1109	1040	1017	1000	6168
		% 100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Attitudes (after receiving information) towards the use of technologies to address global warming		Country						Total	
		Greece	Romania	The Netherlands	UK	Germany	Norway		
Q.10.1.1 (c) To decrease global warming I would use Nuclear energy	1 definitely not use	Number	582	317	207	160	368	344	1978
		%	58,2%	31,6%	18,7%	15,4%	36,2%	34,4%	32,1%
	2	Number	75	91	150	115	164	162	757
		%	7,5%	9,1%	13,5%	11,1%	16,1%	16,2%	12,3%
	3	Number	71	98	135	107	141	119	671
		%	7,1%	9,8%	12,2%	10,3%	13,9%	11,9%	10,9%
	4	Number	74	96	237	190	133	142	872
		%	7,4%	9,6%	21,4%	18,3%	13,1%	14,2%	14,1%
	5	Number	92	114	152	158	102	100	718
		%	9,2%	11,4%	13,7%	15,2%	10,0%	10,0%	11,6%
	6	Number	38	105	109	115	36	62	465
		%	3,8%	10,5%	9,8%	11,1%	3,5%	6,2%	7,5%
	7 definitely use	Number	68	181	119	195	73	71	707
		%	6,8%	18,1%	10,7%	18,8%	7,2%	7,1%	11,5%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Attitudes (after receiving information) towards the use of technologies to address global warming			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.10.1.1 (d) To decrease global warming I would use Solar energy	1 definitely not use	Number	7	21	2	8	14	6	58
		%	,7%	2,1%	,2%	,8%	1,4%	,6%	,9%
	2	Number	3	12	2	5	6	4	32
		%	,3%	1,2%	,2%	,5%	,6%	,4%	,5%
	3	Number	1	16	6	18	13	17	71
		%	,1%	1,6%	,5%	1,7%	1,3%	1,7%	1,2%
	4	Number	18	28	73	82	34	62	297
		%	1,8%	2,8%	6,6%	7,9%	3,3%	6,2%	4,8%
	5	Number	31	48	97	94	60	102	432
		%	3,1%	4,8%	8,7%	9,0%	5,9%	10,2%	7,0%
	6	Number	69	145	220	209	138	183	964
		%	6,9%	14,5%	19,8%	20,1%	13,6%	18,3%	15,6%
	7 definitely use	Number	871	732	709	624	752	626	4314
		%	87,1%	73,1%	63,9%	60,0%	73,9%	62,6%	69,9%
Total		Number	1000	1002	1109	1040	1017	1000	6168
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Attitudes (after receiving information) towards the use of technologies to address global warming		Country						Total	
		Greece	Romania	The Netherlands	UK	Germany	Norway		
Q.10.1.1 (e) To decrease global warming I would use Wind energy	1 definitely not use	Number	13	30	6	24	14	13	100
		%	1,3%	3,0%	,5%	2,3%	1,4%	1,3%	1,6%
	2	Number	3	10	4	24	12	22	75
		%	,3%	1,0%	,4%	2,3%	1,2%	2,2%	1,2%
	3	Number	11	17	17	21	20	29	115
		%	1,1%	1,7%	1,5%	2,0%	2,0%	2,9%	1,9%
	4	Number	28	24	82	81	43	67	325
		%	2,8%	2,4%	7,4%	7,8%	4,2%	6,7%	5,3%
	5	Number	50	62	116	95	84	95	502
		%	5,0%	6,2%	10,5%	9,1%	8,3%	9,5%	8,1%
	6	Number	103	129	228	203	170	205	1038
		%	10,3%	12,9%	20,6%	19,5%	16,7%	20,5%	16,8%
	7 definitely use	Number	792	730	656	592	674	569	4013
		%	79,2%	72,9%	59,2%	56,9%	66,3%	56,9%	65,1%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Attitudes (after receiving information) towards CCS demonstration plants			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.10.2.1. Would you support CCS test plant	1 strongly disagree	Number	81	69	65	106	176	61	558
		%	8,1%	6,9%	5,9%	10,2%	17,3%	6,1%	9,0%
	2	Number	33	14	119	102	91	85	444
		%	3,3%	1,4%	10,7%	9,8%	8,9%	8,5%	7,2%
	3	Number	51	33	145	136	125	144	634
		%	5,1%	3,3%	13,1%	13,1%	12,3%	14,4%	10,3%
	4	Number	140	134	336	288	179	312	1389
		%	14,0%	13,4%	30,3%	27,7%	17,6%	31,2%	22,5%
	5	Number	154	87	227	201	168	198	1035
		%	15,4%	8,7%	20,5%	19,3%	16,5%	19,8%	16,8%
	6	Number	118	166	170	120	108	127	809
		%	11,8%	16,6%	15,3%	11,5%	10,6%	12,7%	13,1%
	7 strongly agree	Number	423	499	47	87	170	73	1299
		%	42,3%	49,8%	4,2%	8,4%	16,7%	7,3%	21,1%
Total	Number	1000	1002	1109	1040	1017	1000	6168	
	%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Attitudes (after receiving information) - efforts against CCS demonstration plants			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.10.2.2. Would make active effort against test plant	1 strongly disagree	Number	26	40	35	19	47	41	208
		%	15,8%	34,5%	10,6%	5,5%	12,0%	14,1%	12,7%
	2	Number	10	13	41	33	18	53	168
		%	6,1%	11,2%	12,5%	9,6%	4,6%	18,3%	10,3%
	3	Number	18	14	54	47	68	74	275
		%	10,9%	12,1%	16,4%	13,7%	17,3%	25,5%	16,8%
	4	Number	27	8	69	76	78	58	316
		%	16,4%	6,9%	21,0%	22,1%	19,9%	20,0%	19,3%
	5	Number	26	5	52	56	64	28	231
		%	15,8%	4,3%	15,8%	16,3%	16,3%	9,7%	14,1%
7 strongly agree	6	Number	9	9	48	57	34	20	177
		%	5,5%	7,8%	14,6%	16,6%	8,7%	6,9%	10,8%
		Number	49	27	30	56	83	16	261
		%	29,7%	23,3%	9,1%	16,3%	21,2%	5,5%	16,0%
Total		Number	165	116	329	344	392	290	1636
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Attitudes (after receiving information) - efforts in favour of CCS demonstration plants			Country						Total
			Greece	Romania	The Netherlands	UK	Germany	Norway	
Q.10.2.3. Would make active effort in favour test plant	1 strongly disagree	Number	21	43	8	12	185	50	319
		%	3,0%	5,7%	1,8%	2,9%	41,5%	12,6%	10,1%
	2	Number	5	13	17	20	46	73	174
		%	,7%	1,7%	3,8%	4,9%	10,3%	18,3%	5,5%
	3	Number	16	17	30	37	43	66	209
		%	2,3%	2,3%	6,8%	9,1%	9,6%	16,6%	6,6%
	4	Number	48	48	114	95	65	115	485
		%	6,9%	6,4%	25,7%	23,3%	14,6%	28,9%	15,4%
	5	Number	156	116	132	117	34	53	608
		%	22,4%	15,4%	29,7%	28,7%	7,6%	13,3%	19,3%
7 strongly agree	6	Number	124	154	105	71	26	29	509
		%	17,8%	20,5%	23,6%	17,4%	5,8%	7,3%	16,2%
		Number	325	361	38	56	47	12	839
		%	46,8%	48,0%	8,6%	13,7%	10,5%	3,0%	26,7%
Total		Number	695	752	444	408	446	398	3143
		%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

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Endnotes

1. http://www.tns-gallup.no/arch/_img/9085657.pdf