ASSESSING THE DEMAND AND CAPACITY FOR MIXING MODES OF DATA COLLECTION ON THE EUROPEAN SOCIAL SURVEY: FINAL REPORT ON THE MAPPING EXERCISE

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1 ABSTRACT

This is the final report of a study carried out in the context of the European Social Survey's (ESS) methodological research into mixing modes of data collection. The study – called the 'mapping exercise' – was aimed at assessing (a) the demand for an alternative data collection strategy on the ESS, and (b) the capacity among participating countries for either switching or mixing modes. The research consisted of two stages. Firstly, we carried out extensive desk research to identify appropriate indicators of demand and capacity and to gather secondary data relating to our variables of interest. Secondly, we conducted a consultation exercise with ESS fieldwork directors and representatives of National Statistical Institutes (NSIs) in participating countries to collect supplementary primary data. This report represents an attempt to draw together these different sources of data to inform our evaluation of the need to mix modes of data collection on the ESS and decision-making regarding what form a mixed-mode ESS might take. In the report, we describe the background to the research, review relevant related literature, describe the methods we used, and present the results of our analysis of data. We conclude with a summary of our key results and a discussion of the implications of our findings for future data collection strategy on the ESS.

2 INTRODUCTION

In this report, we present the findings of a piece of research that was designed to assess the need for alternatives to face-to-face interviewing currently used as the sole method of data collection on the European Social Survey (ESS). The research was described as a 'mapping exercise' because it aimed to build up a portrait of current survey practice across the different European countries that have participated in the ESS to date (Rounds 1-3). Within this, there were two distinct objectives:

1. To assess the *demand* in each country for using an alternative mode or for using a mixed mode design to collect data for the ESS.
2. To establish in each country what the *capacity* is for carrying out large-scale surveys like the ESS using either an alternative data collection mode to face-to-face interviewing or using a mixed-mode data collection design.

The ultimate purpose of the exercise was to gather data from a variety of different sources that could inform future decisions regarding data collection strategies for the ESS (and for other similar comparative studies).

The report is structured in the following way: we first present the background to the research and the rationale for assessing demand and capacity for using different modes. We then review a number of existing studies of survey practice that informed the approach undertaken here, before presenting the methodology used in the present study. The presentation of the findings of our research is divided into two parts, the first addressing factors relevant to the demand for alternative data collection strategies; the second addressing factors relevant to the capacity for using alternative modes to face-to-face, or for mixing modes. Finally, we discuss the findings of our research and derive recommendations for future data collection on the ESS.

3 BACKGROUND

Cross-national surveys are faced with a number of challenges not typically encountered in national studies; to ensure comparability of the datasets across different countries, they depend for their reliability on a sort of 'principle of equivalence' (Jowell, 1998), which applies to all aspects of the survey process – in sampling, question wording, response options, coding schema and so on. For this reason the most ambitious multinational projects tend to require all participating countries to employ the same mode of data collection. In the case of the European Social Survey (ESS), the exclusive mode for data collection is face-to-face interviewing.

The decision to opt for face-to-face interviews over alternative modes of data collection was driven by a number of different factors. Face-to-face interviewing has long been recognised as a kind of 'gold standard' among data collection methodologies. It has demonstrated advantages with respect to obtaining higher response rates (de Leeuw 1992; Holbrook, Green and Krosnick, 2003), because in-person contacts are more effective at persuading would-be respondents to take part. It is also credited with obtaining better quality data compared with telephone interviews or self-administered modes, partly because the interviewer is able to ensure that questions are not accidentally skipped and respondents' answers are recorded correctly. This is particularly important with long and complex questionnaires such as

those used on the ESS. Moreover, in a comparative context, in-person interviewing offers several other important advantages, making it the best-possible *unimode* data collection option for a rigorous cross-national survey like the ESS. In particular, cross-cultural variations in literacy levels might prohibit the sole use of self-administered questionnaires, while national differences in the extent of population coverage offered by alternative data collection technologies (such as fixed-line telephones and the Internet) tend to rule them out.

Yet despite its advantages, the *sole* use of face-to-face interviewing may not in fact be the best data collection strategy for the ESS longer term. For one, in-person interviews generally represent the most expensive data collection option – particularly in geographically larger countries (with widely-dispersed populations), where interviewers are required to travel long distances to reach certain sample members. Partly for this reason, face-to-face interviewing is not always the preferred data collection option in all countries. For example, telephone interviewing long since took over from face-to-face interviewing in the United States as the dominant survey data collection mode – and it has become similarly popular in a number of European countries. Such preferences for particular approaches can make it difficult to find suitably-equipped and qualified agencies to conduct face-to-face fieldwork of the kind required on the ESS.

Variations in survey practice may also influence public preferences for different data collection methods in different countries, which, in turn, may have consequences for levels of participation. For many countries taking part in early rounds of the ESS, response rates fell well below the target of 70% and the costs of trying to maintain them using face-to-face methods alone may mean that some countries will find it increasingly difficult to continue participating in the survey. Thus, as with other aspects of cross-cultural survey methodology (such as sampling and translation), insisting on the *same* methods, may not be the best way to ensure that *equivalent* methods are used, and importantly, may stand in the way of participation in future rounds.

It is for these reasons that an ongoing programme of research by the Central Co-ordinating Team (CCT) of the ESS has already begun to explore the feasibility of mixing modes of data collection in its future rounds. A range of different mixed mode designs are being considered. For example, at its simplest, mixing modes on the ESS could mean allowing certain countries meeting appropriately stringent quality criteria to switch to an alternative single mode of data collection (telephone being the most likely). More complex designs would involve mixing modes *within* countries, such as in a sequential design where respondents are contacted using the cheapest data collection mode and non-respondents are followed up in more expensive modes; or perhaps even offering respondents themselves the opportunity to select their choice of response mode. Yet the empirical support for considering alternatives to a unimode face-to-face data collection strategy on the ESS is currently limited to anecdotal evidence based on the experiences of survey researchers who have attempted to undertake rigorous cross-national studies and ESS participants' perceptions of the current 'survey climate' in their country. Not enough is known about the *actual* demand for mixing modes cross-nationally, and still less about the capacity for doing so. This research seeks to overcome this gap in knowledge by reviewing existing survey practice in the participating countries of the ESS and gathering information about the feasibility of using different approaches in different countries.

4 RELATED RESEARCH

The preliminary stage of our research involved a review of the literature, aimed at identifying existing research into survey practice and other relevant studies of factors influencing data collection mode choice in cross-national surveys. The principal objective of this review was to identify research that could inform the design and methodology of our own study, as well as to build up a picture of data collection practices on other comparative surveys.

4.1 Research into survey practice

A number of different studies have examined variations in survey practice, either across different surveys (e.g. Vehovar et al., 2002), across different survey organisations within a country (e.g. Sturgis and Campanelli, 1998; Atanasov et al., 2001) or across countries (e.g. de Heer and Israëls, 1992; de Heer and Moritz, 1997). For the most part, these studies have focused on the question of whether, and if so, what differences in practice help to explain variation in survey outcomes (notably, differences in response rates (including rates of refusal and non-contact) and data quality). For example, Sturgis and Campanelli (1998) compared doorstep techniques used in two UK surveys by two different survey organisations, in order to examine the effect of the interviewer on survey response. A number of differences in fieldwork practice were observed which were linked to variation in the effectiveness of interviewers at gaining cooperation, including whether or not an advance letter was used, interviewers' familiarity with the survey, whether or not the field-force was working on more than one survey, interviewer training, and survey topic. Vehovar et al.'s (2002) study described and compared the Labour Force Survey and the Household Budget Survey in Slovenia, focusing on sampling issues and factors concerned with the implementation of the surveys (e.g. interviewing mode, costs of the survey, use of weighting, etc.) in order to explain differences in response rates between the two.

Of particular interest here are studies that have examined variation in survey practice across countries participating in large-scale comparative studies and how observed differences in practice relate to levels of participation. For example, de Heer and his colleagues conducted an International Survey on Non-Response (see de Heer and Israëls, 1992; Maas and de Heer, 1995; de Heer, 1999), in order to collect comparable data from governmental survey agencies about response and nonresponse on general population surveys, including the Labour Force Survey (LFS) and expenditure surveys, which are carried out in many countries. They also collected data about survey practices that might account for differences in response rates and response trends. Questionnaires were sent to contacts across Europe asking about the following topics: sampling design, survey design, fieldwork strategy, interview corps, survey climate, and response data[1]. De Heer (1999) used the data from these questionnaires

[1] The specific sub-topics covered in the questionnaire were as follows: **sampling design** (sample unit, observational unit, over- or under-representation of subgroups, use of substitution, use of proxies), **survey design** (topic of the survey, survey method, data collection mode(s), fieldwork techniques), **fieldwork strategy** (contact strategy and approach, persuasion strategy, incentives, nature of survey participation, fieldwork period, workload), **interview corps** (use of controls and monitoring, interviewer payment, employment conditions), **survey climate** (special events, publicity campaigns), **response data** (fieldwork sample, administrative and overcoverage losses, final response, final nonresponse, refusals, noncontacts, other nonresponse) (de Heer, 1999; p. 131).

to examine the relationship between survey practice and response on the Labour Force Survey and observed considerable variation across countries in the way the survey is implemented, including differences in survey design (e.g. whether a panel or cross-sectional design is used), differences in fieldwork strategies (such as the mode of data collection used) and differences in the actual 'survey-taking climate' (de Heer, 1999:136) in participating countries, all of which influenced the response, non-contact and refusal rates obtained.

Similar findings emerged in relation to the Family Expenditure Survey (FES), with different modes of data collection being used across countries and wide cross-national variation in sample designs and fieldwork practice. For example, in Germany 'a kind of quota sampling is used…by advertisements in newspapers people are asked to participate' (de Heer and Israëls, 1992:96). In contrast, in Great Britain, a randomly selected sample of 10,000 addresses is used; proxies are not allowed and there are no re-issues and much attention is paid to 'quality control and motivation of the interviewers' (de Heer and Israëls, 1992:96). Again, such differences were linked to variations in levels of participation in the FES across countries.

De Heer and Moritz (1997) carried out an international overview of survey practices on travel surveys to examine what variables affect nonresponse and data quality in this type of survey. As part of their study they described the survey characteristics of a selection of travel surveys in 13 European countries. They identified the following as the most important aspects of survey practice that may affect response rate and data quality: subject or topic, survey burden, type of sample frame, observational unit, survey method, mode of data collection and data collection instruments, substitution of refusals, use of proxy respondents, use of advance letters, call scheduling, attempts at refusal conversion, incentives for respondents, interviewer incentives, and survey climate. For example, they compared the different sample frames and sample designs used in different countries and concluded that "every country has its own thoughts of what might be an optimal or practical sample design" and that there is no "accepted standard" (de Heer and Moritz, 1997: 4).

More recently, similar studies have been carried out on other major comparative surveys. For example, Nicoletti and Peracchi (2005) examined the influence of survey characteristics (in terms of data collection practices) and socio-demographic characteristics of the population with the same aim of examining how each affects survey response on the European Community Household Panel (ECHP). The aspects of survey practice they compared across countries included the number of visits to households made by interviewers, duration of interviews, length of fieldwork period and modes of data collection. Smith (2005) compared differences in response rates cross-nationally using data from the International Social Survey Programme (ISSP). He identified four reasons why response rates may differ across participating countries: differences in laws; differences in interviewing staff; differences in survey climate and differences in study design; focusing in particular on the effect of the latter. To investigate this further, he carried out a survey of ISSP field directors looking at the usefulness and effectiveness of various response rate enhancement techniques, using a mixture of open and closed questions. The open question asked which procedures were the most effective, and found that interviewer training was mentioned the most, followed by good interviewer behaviour, having experienced interviewers, using respondent incentives, and using advance letters. The closed question asked about the effectiveness of specific procedures in increasing response

rate and found that the top two procedures were also interviewer related: supervision of interviewers and interviewer training.

As with the previous studies, Smith also found a range of different techniques were being used across countries participating in the ISSP. The responses he obtained to his survey of field directors provide some explanation for why survey organisations select certain techniques over others. However, he also acknowledges that many decisions are based on either the availability of resources or on organisations simply doing what has always been done. Smith suggests that a useful addition to the literature would be data on national survey climates since it is currently difficult to distinguish between this and other influences on patterns of response across countries.

As we have seen, most work on survey practices has looked at their effect on response rates. A different study by de Heer (2000), however, investigated differences in practices across different types of survey organisation in 8 European countries, as part of a collaborative research project coordinated by the UK's Office for National Statistics (ONS). The study formed part of the International Adult Literacy Survey (IALS) and was aimed at identifying whether or not survey agencies in each country had the capacity to carry out a large-scale adult literacy survey. Eight countries were selected and descriptive information was collected about the survey methods used in each. The selected countries (France, Germany, Greece, Italy, The Netherlands, Portugal, Sweden and Great Britain) were chosen to give a rounded view of practices in Western Europe (as well as for reasons of available budget and time). A list of 'fields of interest' or aspects of survey procedures (de Heer, 2000: 43) was developed and used as a structure to guide open interviews with representatives of the selected survey organisations (which were selected for having a record of carrying out high quality research). The agencies were also chosen to represent a range of different types of organisation: the country's national statistical institute (NSI), a private agency and, where possible, a university-linked agency. The fields of interest covered in this study can be categorised under the following headings: general survey information; modes of data collection; sampling; experience of using different methods; response, non-response and fieldwork procedures; data processing; and contextual country information. All were selected to provide insight into whether different countries had the capability of conducting the IALS to the same specification. The report concluded that none of the institutes covered had adequate experience and expertise across all aspects of the survey process to carry out literacy surveys. The National Statistical Institutes were found to lack experience of the specific topic while other institutes, that may have the expertise in literacy surveys, lacked the knowledge of methodological aspects of the survey process, such as sampling. In addition the NSIs' rules regarding confidentiality can make it hard to work on an international survey. De Heer recommends forming "consortia" of institutes to combine knowledge and expertise (de Heer, 1999:44), but concludes that although there is a lot of variation in survey practice both between countries and between survey agencies within countries, much of this variation could be reduced.

Although there are important differences between the European Social Survey and the other comparative surveys in these previous studies, the results are informative for the present research in a number of different ways. Firstly, they identify a long list of variables that have been connected a) to variation in response rates across countries, which are likely to be relevant to our investigation into the effectiveness of face-to-face interviewing on the ESS in relation to other modes and b) to the capacity of different survey agencies (and indeed, countries) to conduct surveys of different

kinds, using particular methods. Secondly, they highlight the considerable variation that exists across countries in the way the same survey can be implemented, the implications this can have for survey outcomes and, therefore, the ongoing need to monitor differences in survey practice. As de Heer (1999) has argued, research into survey practice is particularly important in multi-nation studies because of the need to ensure the accuracy of cross-national comparisons (particularly as cross-national data are becoming increasingly important sources of indicators used in multilevel governance). It can also enable survey organisations to compare their methods with others, to discover possible downfalls and alternatives, and possibly stimulate survey practitioners, including those in other fields, to improve their survey practice (de Heer 1999:141).

4.2 Mode choices and mode preferences

One variable of interest in almost all the studies reviewed so far is the mode of data collection used in different countries on each of the major cross-national surveys examined (LFS, ECHP, ISSP, expenditure surveys and travel surveys). Unlike on the ESS, which insists on a single mode of data collection across all participating countries, mode of data collection is not fixed on these surveys, meaning that fieldwork agencies, or co-ordinators of the survey in each country are responsible for selecting what they consider to be the most appropriate mode for the study. For example, the LFS allows different modes to be used in different countries; some use face-to-face; others use telephone interviewing; others self-administered questionnaires, and many use a mix of modes (typically at different stages of the panel design of the survey, rather than to administer the questionnaire to different respondents). This raises the question of how decisions about data collection mode are made in each country, and to what extent mode choices are driven by survey design factors (including the survey topic and population of interest; whether the survey is cross-sectional or has a longitudinal element; the length of the questionnaire, whether it is to be an add-on to an existing national survey, and so on[2]), compared with country-specific factors (including the available budget, the extent of coverage offered by different modes; survey climate, including public preferences for different modes, or the methodological 'habits' of the fieldwork organisation, or indeed of survey practitioners generally within that country). However, again, most research into survey practices has focused on how mode contributes to cross-national variations in response rate, rather than on factors influencing mode choices to begin with.

De Heer and Israëls' 1992 study compared mode of data collection on the LFS across 11 countries. At this time, most countries used face-to-face interviewing as the primary mode of data collection on the survey, with the exception of Finland and Sweden, where response rates were markedly lower than in countries using face-to-face. Nicolas (2005) compared the use of modes in the following international comparative survey research projects: the ISSP, the World and European Values Surveys (WVS/ EVS) and the Comparative Study of Electoral Systems (CSES). Only one or two countries opted *not* to use face-to-face interviewing both in the 1995 WVS (where Australia and New Zealand both used self-administered questionnaires (SAQs)) and in the 1999/2000 EVS-WVS wave (where Japan used postal SAQs). On

[2] In many of the comparative surveys considered here, the design is allowed to vary by country.

the first wave of the CSES, around 29 of the 41 participating countries opted for face-to-face interviewing, 6 opted for telephone interviewing, while the remainder opted for self-administered questionnaires (either as an add-on to a personal interview or as a separate postal survey). Telephone interviewing on this survey was selected in Germany, Iceland, Israel, Sweden, Switzerland and the USA. On the ISSP, only around half of participating countries fielded the survey in face-to-face mode in the years looked at in this study (1993, 2000, 2001), with the remainder predominantly opting to administer the questionnaire as a self-administered add-on to an existing face-to-face survey or as a separate postal survey. Just Sweden (in 2000) and Denmark (in 2001) opted to use telephone interviewing on the ISSP. These studies provided limited data on the reasons behind data collection choices although Nicolas (2005) highlights the importance of cost accessibility, questionnaire length, level of education of respondents and gaining trust of respondents as guiding factors.

For the most part, the use of mixed modes on cross-national surveys has tended to take the form of individual countries using their 'preferred mode' of data collection, typically based on the level of coverage offered by different modes in different countries. For example, the International Crime and Victimisation Survey (ICVS) (coordinated by the United Nations Interregional Crime and Justice Research Institute) which has been conducted over four rounds to date by a European consortium led by Gallup Europe has used two types of data collection modes over the years, with modes being selected based on the level of penetration of fixed line telephones in each country: for countries with high telephone penetration, CATI is used and for countries with low penetration, PAPI. Similarly, the European Crime and Safety Survey (EU ICS), conducted in 2005 across EU member states, was mainly carried out using CATI, and in some cases WebCATI (although fieldwork in Poland and Estonia used face-to-face interviewing, presumably also due to coverage issues). However, increasingly, as in single-nation studies, survey designers are considering the need to use a mix of modes within countries – for example, in Finland, the telephone interviews for the ICS were carried out using fixed (land line) telephones, except for a sub-sample of 500 interviewed via mobile phone, to compensate for the high proportion in the population of households without fixed line phones.

In common with the ESS, the European Commission's Standard and Flash Eurobarometer surveys have traditionally relied upon a single mode of data collection design (face-to-face interviews for the former and telephone interviews for the latter). But in the case of the Flash Eurobarometer, recent and quite rapid changes in the penetration of fixed-line telephones across the populations of EU countries (mainly resulting from the rise in 'mobile-only' households) have forced the survey agencies responsible for fieldwork on the survey to consider mixed mode alternatives in order to provide access to parts of the population no longer accessible using traditional approaches to RDD sampling. (The Flash Eurobarometer is currently coordinated by Gallup Europe, who has collaborated with the ESS in a programme of mixed mode research precisely to address these concerns.)

Blyth (2007) presents an analysis of data from a Special Eurobarometer conducted in 2005, in which he examined the scale of non-coverage of landline telephones and the internet to evaluate their effectiveness as single-mode data collection options in European Union countries. He found non-coverage to be "much larger than is generally acknowledged" (p.8), highlighting the need for combining modes to ensure general population surveys are able to access representative samples. He also

identified significant cost differences between modes, both within and across countries, arguing

> *"it is unsurprising that users and practitioners are questioning whether the use of methods, which can be more than twice as expensive as alternatives (...), can be justified against the objectives and applications of a particular study. In multi-country studies can it be justified to spend up to ten times more on one country than another of equal or greater population size? Clearly the answer will be increasingly no."* (Blyth, 2007: 4)

These arguments are equally relevant to the ESS as it considers its future funding arrangements as research infrastructure, as they are to the standard Eurobarometer, which also uses face-to-face interviewing across all participating countries.

Nicolas (2005) summarises the key problems facing survey designers in his distinction between traditional modes (face-to-face, fixed line phone and mail self-completion) and new modes (CATI, cell phones, internet self-completion). He argues that access is getting harder and response rates are falling for the traditional modes while the newer modes still have problems of coverage and socio-economic bias. The task in the present research was to try to identify the relative impact of these different problems on mode choices for the ESS. In particular, we wanted to separate out survey-related factors from country-specific factors in selecting data collection designs, in order to assess the level of demand for alternatives (whether single or mixed mode) and the capacity for using alternatives in each of the countries participating in the survey to date. The next section considers the methodological approach we adopted in this research.

5 THE PRESENT STUDY

In the studies reviewed, a variety of methods were used to gather data about cross-national variations in survey practice and factors influencing mode choices in different countries. These included gathering existing documentation from different countries about how a particular survey was implemented there; interviews with representatives from different types of survey organisation; sending questionnaires to fieldwork directors in survey organisations; and the analysis of survey data about levels of access to technology relevant to data collection in different modes. Given the broad nature of our research objectives, it was decided that a 'multi-pronged' approach using a mix of these methods would be necessary to compile the information we needed to inform our evaluation of the need for an alternative data collection strategy on the ESS.

Our research was conducted in two phases. First of all, extensive desk research was carried out in the early stages of the study, aimed at identifying relevant literature, existing resources and information available in libraries and on the Internet that could either inform the planning and overall design of the research, or directly supply us with secondary data relevant to our research questions. Secondly, a consultation exercise was carried out that involved a) sending questionnaires to practitioners in survey organisations in each of the ESS participating countries, aimed at supplementing data gathered during the desk research and collecting primary data relevant to our research questions; and b) corresponding with ESS national coordinators in each country, in order to gather local knowledge and anecdotal evidence to help build up our picture of survey practice across Europe. Thus, the mapping exercise involved gathering data from a wide variety of different sources to

inform our understanding of 'demand' and 'capacity' and the various factors influencing mode choices. This report represents an attempt to compile these data.

Because the different approaches used were intended to complement one another, the results of the desk research and consultation exercise are not presented separately. Rather, we have chosen to combine the results and to organise them around a number of subtopics related to our principal research questions. These are described in further detail below.

5.1 Scope of the study

One of the principal tasks of the desk research was to define the scope of our research. As stated in the introduction, the mapping exercise had two objectives: (1) to assess the *demand* for alternatives to face-to-face interviewing on the ESS; and (2) to assess the *capacity* in each participating country for using alternative – or mixed – modes to collect data on the ESS (and other similar surveys). At the outset we therefore needed to decide which aspects of survey practice could serve as appropriate indicators of 'demand' and 'capacity'.

In terms of our assessment of the demand for alternative modes, we wanted to evaluate the 'fitness for purpose' (Blyth, 2007) of the current face-to-face approach in each country (in relation to other participating countries, as well as to other similar cross-national surveys). In other words, the extent to which it offers an appropriate and effective method of data collection for that country, and the extent to which an alternative data collection strategy (whether single or mixed mode) might offer a 'better' alternative. Based on our review of the literature on survey practice, as well as a review of the literature on mixing modes of data collection in social surveys (see Roberts, 2007), we decided to focus on the following variables influencing demand:

1. Fieldwork costs using different modes
2. Response rates associated with different modes (as well as associated non-response bias)
3. Indicators of 'survey climate' – including non-contact and refusal rates by interview mode and mode preferences

In terms of our assessment of 'capacity', we wanted to identify the range of factors affecting the possibility of using a given single mode approach or mixed modes for collecting ESS data. Based on our review of previous research, we identified the following variables as key indicators of capacity[3]:

1. Mode penetration and coverage
2. Availability of appropriate sampling frames
3. Mode availability and experience of conducting surveys in different modes

Each variable relating to demand and capacity is described in further detail in the results section. For each one, we present cross-national data from across a range of different sources, including existing ESS survey documentation, primary data from

[3] Note that our study of capacity will not consider the problem of mode effects. This is covered elsewhere in JRA1 and in the overall ESS programme of research on data collection strategies.

our consultation exercise, or secondary data identified during the desk research (table 1 details the indicators and sources of data we consulted for each one). The presentation of results from the mapping exercise is structured around these different sub-topics.

Table 1 – Indicators and sources of data used in the mapping exercise

Part A – Indicators of demand for mixed mode data collection

	Indicator	Variable	Data source
1.	**Variations in fieldwork costs**	· ESS fieldwork costs (rounds 1 to 3)	CCT Fieldwork Checklist
		· ESS round 3 fieldwork costs and national survey specifications	CCT Fieldwork Checklist
		· Relative costs of fieldwork using different modes	Consultation exercise
2.	**Variations in response rates**	· ESS response rates, rounds 1-3	National Technical Summaries/ ESS Documentation Report
		· ESS response enhancement strategies, rounds 1 & 2	ESS Documentation Report
		· Representativity of ESS data, Round 2	ESS2 data, EUROSTAT population statistics
		· Modes ranked by highest levels of response	Consultation exercise
3.	**Variations in the survey climate**	· Non-contact and refusal rates, rounds 1 & 2	Contact Form Data (analysis by Billiet and Pleysier, 2007)
		· ESS response rates in comparison with other mixed mode comparative surveys	Labour Force Survey and ISSP documentation
		· Mode preferences in different countries	Consultation exercise

Part B – Establishing the capacity for mixed mode data collection

4.	**Mode penetration and coverage**	· Penetration of fixed-line and mobile telephones in Europe	Special Eurobarometer 274/ Wave 66.3 – E-communications Household Survey; ESS round 3 data (Edition 1.0)
		· Composition and location of mobile-only households	Special Eurobarometer 274/ Wave 66.3 – E-communications Household Survey; ESS round 3 data (Edition 1.0)
		· Mean household size: mobile and fixed-line-only households	ESS round 3 data (Edition 1.0)
		· Location of mobile-only households	ESS round 3 data (Edition 1.0)
		· Mean age of adults in mobile-only households	ESS round 3 data (Edition 1.0)
		· Internet Use	CIA World Factbook 2005

		· Access to the Internet at home	Special Eurobarometer 274/ Wave 66.3 – E-communications Household Survey
		· Frequency of internet Use	ESS round 3 data (Edition 1.0)
		· Mean age of internet users in Europe	ESS round 3 data (Edition 1.0)
		· Level of education of Internet users in Europe	ESS round 3 data (Edition 1.0)
		· Literacy levels	Survey Sampling International/ CIA World Factbook
5.	**Availability of sampling frames**	· Sampling frames in latest round of ESS	ESS Documentation Report
		· Source of mobile phone numbers used in surveys by ESS fieldwork agencies	Consultation exercise
6.	**Mode availability and experience**	· Percentage of total survey fieldwork carried out in 2006 in different modes	Consultation exercise
		· Types of mixed mode design used by ESS field agencies	Consultation exercise
		· Maximum length of telephone interviews (ESS field agencies)	Consultation exercise

5.2 Methods

As stated, and as is evident from table 1, we used a multi-method approach in the mapping exercise, so we could draw on data relevant to our indicators of demand and capacity from a range of different sources. These sources are described in more detail in this section.

5.2.1 Countries included in the study

Unlike previous studies of survey practice, which have tended to focus on a restricted number of countries, we were interested in looking at as many countries as possible that have participated in the ESS to date (rounds 1 to 3). Our tables, therefore, include data for nearly all ESS participating countries, with the exception of Israel, which participated in round 1 only, and Latvia, which although a participant in round 3, had not confirmed their participation at the time the desk research for the mapping exercise was undertaken. Some of the tables also include data (where available) for other European Union countries (and candidate countries) that have not so far participated in the ESS, but which may be likely to in future. For the most part, the decision over which countries to include in each of the tables was dictated by the availability of data, so the list of countries appearing in each is not as consistent as we would have liked. Table 2 shows which countries participated in rounds 1 to 3 of the ESS to illustrate the scope of the exercise.

Table 2 – ESS participating countries, rounds 1-3

Country	R1	R2	R3	Country	R1	R2	R3
Austria	✓	✓	✓	Latvia			✓
Belgium	✓	✓	✓	Luxembourg	✓	✓	
Bulgaria			✓	Netherlands	✓	✓	✓
Cyprus			✓	Norway	✓	✓	✓
Czech Republic	✓	✓		Poland	✓	✓	✓
Denmark	✓	✓	✓	Portugal	✓	✓	✓
Estonia		✓	✓	Romania			✓
Finland	✓	✓	✓	Russia			✓
France	✓	✓	✓	Slovakia		✓	✓
Germany	✓	✓	✓	Slovenia	✓	✓	✓
Greece	✓	✓		Spain	✓	✓	✓
Hungary	✓	✓	✓	Sweden	✓	✓	✓
Iceland		✓		Switzerland	✓	✓	✓
Ireland	✓	✓	✓	Turkey		✓	
Israel	✓			Ukraine		✓	✓
Italy	✓	✓		UK	✓	✓	✓

Notes: number of countries in Round 1: 22; Round 2: 26; Round 3: 25

5.2.2 Desk Research

The desk research served two main purposes. Firstly, it helped to guide the design of the mapping exercise in its preliminary stages, and secondly to identify suitable sources of data relating to our indicators of demand and capacity. In addition to conducting the literature review, in this phase of the research we were also able to identify relevant survey documentation from the ESS and other major cross-national surveys (e.g. relating to survey costs, response rates and so on); to locate secondary data on mode penetration and coverage and approaches to sampling used in different countries; and to gather information about the experience of using different modes cross-nationally, for example, by looking at the available data collection options offered by different types of survey agency by visiting their websites.

To limit the scope of this exercise, it was necessary to identify a 'sample' of survey fieldwork organisations operating in each of the ESS participating countries. In previous studies of survey practice (e.g. de Heer, 2000), fieldwork agencies were selected to represent the range of different types of organisation providing survey data collection services (e.g. National Statistical Institutes (NSIs), private commercial agencies, not-for-profit research organisations linked to Universities, and so on). In the present study, we decided to focus only on organisations that would be most likely to be equipped to conduct fieldwork for a survey like the ESS. Thus, we drew up a list of the agencies responsible for data collection on rounds 1 to 3 of the ESS, and supplemented it with a list of agencies known to have conducted fieldwork for other large-scale comparative social surveys, including the International Social Survey Programme (ISSP), the European Values and World Values Surveys (EVS/ WVS), the Eurobarometer surveys (Standard and Flash), and the European Union Labour Force Survey (LFS) and Survey of Income and Living Conditions (EU-SILC) – the latter two both being conducted by National Statistical Institutes in each of (or a

selection of) the Member States. The list of survey agencies responsible for fieldwork for these surveys is shown in table A1 in the Appendix.

Note that our decision to focus only on survey agencies involved in studies of these kinds means that our findings concerning the capacity to conduct fieldwork in different or multiple modes are not generalisable to all research organisations operating in the participating countries or to all types of survey.

5.2.3 Consultation Exercise

The desk research not only helped us to identify available sources of data relevant to our research questions, it also helped to highlight the topics on which we needed to gather our own primary data. The consultation exercise, which formed the second phase of the research, was therefore specifically designed to supplement the information gathered during the desk research. It took place between March and June 2007 and had two elements to it. The first was a survey of representatives of fieldwork agencies in each of the ESS participating countries. In the end, we decided to approach two types of agency: those responsible for data collection on round 3 of the ESS (and round 2, for those countries that did not participate in round 3) and National Statistical Institutes. The questionnaire was distributed to ESS fieldwork directors via the ESS National Coordinators (NCs) and to representatives of the NSIs participating in the European Plan for Research in Official Statistics (EPROS) projects.

The second element of the consultation exercise involved informal communications with ESS NCs who were able to provide us with invaluable insight into different aspects of the survey-taking climate in their countries, based on their experiences on the ESS and in survey research more generally, as well their own views on the suitability of the current ESS data collection strategy in their country.

Table 3 – Response to the consultation exercise

Country	ESS fieldwork agency	NSI	NCs
Austria		✓	
Belgium	✓	✓	
Bulgaria			
Cyprus	✓	✓	
Czech Republic*	✓		✓
Denmark	✓	✓	
Estonia			✓
Finland[1]	✓		✓
France	✓		✓
Germany	✓		✓
Greece*			✓
Hungary	✓	✓	
Iceland*	✓	✓	
Ireland	✓	✓	
Israel*			
Italy*	✓		
Latvia			
Lithuania		✓	
Luxembourg*	✓		✓
Netherlands			✓
Norway[1]	✓		
Poland	✓	✓	✓
Portugal	✓		✓
Romania		✓	
Russia	✓		
Slovak Republic	✓		✓
Slovenia	✓	✓	✓
Spain	✓		✓
Sweden	✓		✓
Switzerland	✓	✓	
Turkey			
Ukraine[2]	✓		✓
United Kingdom	✓		✓

Notes: * Country did not participate in round 3 (round 2 fieldwork agency/ NC consulted)
[1] NSI also responsible for ESS fieldwork
[2] Two completed questionnaires were received from the Ukrainian ESS fieldwork director (because telephone fieldwork is undertaken on behalf of the agency (SOCIS) by TNS).

Respondents to the survey of ESS fieldwork directors and EPROS members were asked to complete a short self-administered questionnaire (set up as a form in Microsoft Word - available in the Appendix). As stated, the survey was designed to gather primary data to supplement the secondary data already gathered during the desk research. The questionnaire included questions about what proportion of their total survey fieldwork is conducted in each mode; whether mixed modes data collection is used, and if so, the way in which modes were mixed; the relative costs of fieldwork in different modes and which modes were likely to obtain the highest levels of response. Survey organisations conducting telephone interviewing were asked additional questions about whether they conducted interviews on mobile/cell phones and about in-house limits set on telephone interview length. All respondents were asked for general information about the survey organisation and the types of surveys

they carry out. The design of the questionnaire ensured that, where possible, data were collected in a standardised, quantifiable way. Equally, it was judged that some topics would benefit from more open question formats.

We were not able to obtain a response from all our contacts. Reminder emails (with copies of the questionnaire attached) were sent out on two separate occasions to chase up those who had not responded by the cut-off date. We were also unsuccessful in obtaining feedback from all the NCs we contacted. The final list of countries represented in the consultation exercise is shown in table 3. Table 4 contains further details (based on responses to the consultation) about the survey organisations responsible for ESS fieldwork in round 3 (and in round 2, for those countries that did not participate in round 3).

Table 4 – Survey organisations responsible for ESS fieldwork (Round 3)

			ESS Field Agencies						
Country	**Name of organisation**	**Type of survey organisation**	**Social Survey**	**Business Survey**	**Employee survey**	**Opinion polls**	**Market Research**	**Media & Audience Research**	**Other**
Austria									
Belgium	TNS Dimarso	Private, commercial	✓	✓	✓	✓	✓	✓	
Cyprus	Cyprus College	Based in University	✓	✓	✓	✓	✓	✓	
Czech Republic	SC&C	Private, commercial	✓	✓	✓	✓	✓	✓	
Denmark	SFI Survey	Not-for-profit, gov research institute	✓	✓	✓				
Finland	Statistics Finland	National Statistics Office	✓	✓	✓			✓	✓[1]
France	Institut de Sondage Lavialle (GfK)	Private, commercial	✓	✓	✓		✓	✓	✓[2]
Germany	INFAS	Private, commercial	✓	✓	✓	✓	✓		
Hungary	Gallup Hungary	Private, commercial	✓	✓	✓	✓	✓	✓	
Iceland	University of Iceland	Based in University	✓	✓	✓	✓			
Ireland	ESRI	Not-for-profit	✓	✓	✓				
Italy	DOXA S.p.a	Private, commercial	✓	✓		✓	✓	✓	
Luxembourg	CEPS	Public Research	✓						

	INSTEAD	Centre						
Norway	Statistics Norway	National Statistics Office	✓	✓	✓			✓
Poland	IFISPAN	Based in University	✓					
Portugal	TNS-Euroteste	Private, commercial	✓	✓		✓	✓	✓
Romania								
Russia	CESSI	Private, commercial	✓	✓		✓	✓	
Slovakia	GfK	Private, commercial	✓	✓	✓		✓	✓
Slovenia	University of Ljubljana	Based in University	✓		✓	✓		
Spain	Metroscopia	Private, commercial	✓	✓	✓	✓	✓	
Sweden	Statistics Sweden	National Statistics Office	✓	✓	✓	✓		
Switzerland	MIS	Private, commercial	✓	✓	✓	✓	✓	✓
Ukraine 1	SOCIS	Private, commercial	✓	✓	✓	✓		
Ukraine 2	TNS	Private, commercial	✓	✓	✓	✓	✓	✓
UK	BMRB	Private, commercial	✓	✓	✓		✓	✓

Source: Data from consultation exercise with ESS National Co-ordinators and NSI representatives. Figures included as provided by fieldwork agency..

Notes: 1 = Travel Survey
2 = Mystery visits

6 RESULTS

The results of the mapping and consultation exercise are presented in the following order: firstly, we consider the evidence relating to the demand for an alternative data collection strategy on the ESS, by examining cross-national variations in fieldwork costs, response rates and survey climate; secondly, we explore issues associated with the capacity for carrying out surveys in different modes (including mixed modes), concentrating in particular on mode penetration and coverage issues associated with data collection technology, as well as on the experiences of the survey agencies we contacted of using different modes. To a certain extent, the distinction we draw between demand and capacity in this way is somewhat artificial; the two are interlinked, inasmuch as where the capacity to use a particular single mode is restricted in some way, the demands for combining survey modes or using an alternative mode increases. We discuss this issue later in the report, but for the purposes of organising the results of our research, we have chosen to retain the distinction between capacity and demand.

Before turning to the results, however, it is worth taking into consideration the current design of the ESS and the relationship between survey design and the choice of data collection mode. By necessity, our evaluation of the demand for alternative modes of data collection on the survey and the capacity for using alternative or mixed modes in different participating countries has been carried out in relation to the present specification of the survey. Because the survey was designed as a single-mode, face-to-face survey, there are a number of additional challenges involved in contemplating mixing modes, which would not necessarily present themselves in other types of survey. This means that our conclusions regarding demand and capacity will not be generalisable to all surveys, although we hope they will be informative to other studies sharing similarities with the ESS.

6.1 The design of the ESS

The ESS is an academically led and methodologically rigorous biennial study of changing social attitudes and values within Europe. Intended as a time series, the principal long term aim of the project is to chart and explain the interaction between Europe's changing institutions, its political and economic structures, and the attitudes, beliefs and behaviour patterns of its diverse populations. An equally important shorter-term aim is to develop and demonstrate an approach to the conduct of rigorous quantitative multinational social surveys in Europe that matches that of the best national and international surveys. For this reason, the survey has exacting specifications, to which countries agreeing to participate must adhere.

A number of these specifications are relevant to the present research. In particular, participating in the ESS demands the use of a sampling frame providing full coverage of the residential population (aged 15+) in each country, as well as strict random probability methods at all stages of sampling (the minimum effective sample size is 1,500 - or 800 where population is under 2 million - see Häder and Lynn (2007) for further details). Under no circumstances may substitution be permitted. The target minimum response rate is 70% and the target maximum non-contact rate is 3%. Interviewers are expected to make at least four calls on different days and different times – including at least one at the weekend and one in the evening – to locate potential respondents. They are also instructed to use detailed contact forms to

monitor fieldwork progress and record the outcome of calls to addresses. Data collection is expected to take place (without exception[4]) between September and December of the fielding year (starting in 2002), with data delivery scheduled for the end of the following January. Fieldwork progress is closely monitored in each country by both NCs and members of the CCT. Data processing and deposit is coordinated by the ESS Data Archive Team at NSD, Norway, and must be carried out in accordance with a clearly specified 'Data Protocol'.

A further specification already noted is the requirement for data collection to be conducted by in-person interview[5]. The face-to-face interviews typically last around 1 hour, although there tends to be some variation between countries, and interview length depends in part on the respondent and the extent to which all items in the questionnaire are applicable (for example, people who have ever been in paid work are required to answer certain questions that those not in paid work are not). The questionnaire consists of two main parts – a core set of questions that is repeated at each round of data collection, and a set of questions (typically, on two new substantive topics per round, but which are intended to be repeated at intervals in future rounds) comprising what are called 'rotating modules'. As a general social survey, the topics covered by the questionnaire cover a range of social and political attitudes, as well as social values, cultural norms and behaviour patterns. The purpose of the rotating modules is to provide an in-depth focus on a series of particular academic or policy concerns, while the core module aims instead to monitor change and continuity in a wide range of socio-economic, socio-political, socio-psychological and socio-demographic variables.

Given its subject matter and length, the ESS questionnaire is comparatively complex and burdensome for the respondent. Furthermore, it contains a number of skip patterns, required because not all questions are applicable to all respondents, which could make the questionnaire difficult to navigate in self-administered mode. It also makes abundant use of showcards, not only for categorical items with long lists of response options, but also to display ordinal categories and scales. In short, the questionnaire was designed for face-to-face administration. This means that any move to an alternative mode of data collection would require careful modifications to the questionnaire to facilitate its administration in the new mode, but also quite possibly some adaptation to the face-to-face instrument to enhance equivalence across modes. As a time series, ensuring the continuity of measurements is paramount, so a fundamental challenge in switching data collection design is to attempt to mitigate mode effects in the data. This challenge is being addressed elsewhere in this programme of research and, as such, is not the concern of the mapping exercise.

[4] In rounds 1-3, the fixed fieldwork period has proved to be one of the most difficult specifications to enforce. Difficulties in securing funding at each round of the survey have had the effect of delaying the start of fieldwork in a number of countries (and this has in some cases had a knock-on effect on later rounds).

[5] The ESS interview also includes a supplementary questionnaire, which is currently allocated to the Schwarz Human Values Scale and MTMM experiments. Participating countries may choose whether to administer the supplementary questionnaire as an add-on to the main face-to-face interview, or whether to provide respondents with a self-administered questionnaire, either to be completed with the interviewer present, or to be collected at a later date. Contact to arrange an interview (and if appropriate, the respondent selection procedure) is in almost all countries also done in person. However, in a limited set of countries with samples of individuals, where telephone numbers are available on the sampling frame, contact may be made by telephone.

6.2 Assessing the demand for mixed mode data collection on the ESS

As stated, our evaluation of the demand for mixed mode data collection on the ESS (either allowing certain countries to switch to an alternative single mode, or allowing a mix of modes to be used within countries) examines three main variables: the costs of data collection using face-to-face interviewing and other modes; response rates on the ESS as well as on surveys using other modes; and the so-called 'survey-taking climate' (Lyberg and Dean, 1992). For each indicator, we discuss the reasons why it is relevant to our evaluation, we examine a range of variables, drawing on data from a variety of sources (summarised in table 1) and draw conclusions about the level of demand for alternatives to face-to-face.

6.2.1 Variations in fieldwork costs

The cost of survey fieldwork on the ESS varies widely by country. This is perhaps not surprising given variations in the cost of labour across the participating countries. But the price of face-to-face interviewing in particular appears to be especially vulnerable to the location in which it is being carried out. Of the four main data collection modes (face-to-face, telephone, postal and internet), face-to-face interviewing is invariably shown to be by far the most expensive option for conducting general population surveys, mainly due to the travel costs involved (Czaja and Blair, 2005: 50). Thus, the costs of in-person interviews will vary with the geography and population density of a country, being highest in countries where interviewers must travel longer distances to visit respondents at home. Similarly, the cost of a face-to-face survey is also a function of how easy it is to make contact with sample members (with most of the per interview costs being associated with the number of calls made before the first contact), and this also varies by country (Billiet and Philippens, 2004; Stoop, 2005). This means that not only is face-to-face interviewing the most expensive survey mode, but the costs of conducting face-to-face surveys are also rising because it is becoming increasingly difficult to achieve a successful interview due to changes in national survey climates (discussed in more detail below). For example, in some places it is necessary for interviewers to make more and more visits to households in order to make contact with respondents and increasingly generous incentives are often necessary to persuade sample members to participate (see Stoop, 2005). For these reasons, the cost of face-to-face fieldwork in relation to its alternatives is likely to be an important indicator of the demand for switching or mixing modes.

With the current ESS funding arrangements, whereby participating countries must secure national funding to cover their fieldwork costs, it falls on national funding councils to bear the brunt of any increases in the price of the survey. Increasingly, this is putting pressure on ESS national coordinators and fieldwork agencies to implement the survey to specification with severely restricted budgets. The reality is that the requirement to use face-to-face interviewing on the ESS may mean that for some countries (particularly geographically larger countries, where in-person interviews are increasingly viewed as an unaffordable luxury on other national surveys) the possibility of future participation might be threatened. Of course, in reality, the real burden of the costs of participation is on less wealthy countries (and countries where budgets for social science research are already restricted) where funding for the survey is limited anyway, irrespective of fluctuations in the cost of fieldwork. In this sense, the cost of face-to-face fieldwork is by itself an important

impetus for considering the alternatives. If the funding of the survey were to move towards a more centralised arrangement, however, with core funding for data collection being partially contributed by the European Commission, then variations in fieldwork costs would provide a further impetus for allowing a mix of modes on the ESS. As Blyth (2007) has argued (cited earlier), it becomes difficult to justify spending more on fieldwork in one country that is either of 'equal or greater population size' than another.

If the alternatives to face-to-face are more cost-effective, then the impetus for switching or mixing modes will be particularly compelling. Data are required, therefore, to enable direct comparisons between countries in the relative costs of conducting the ESS using different methodologies. These data will inform decisions regarding both the demand for switching or mixing modes on the survey, the capacity for using alternatives to face-to-face interviewing and the suitability of different types of mixed mode design for different countries.

Results

Table 5 shows the planned per interview costs of ESS fieldwork by country, which provide a measure of variation in survey costs cross-nationally (note that data are not available for all participating countries). These data are provided by NCs to the CCT, as part of the 'fieldwork checklist'[6] (a questionnaire they are asked to complete at each round as they negotiate the contracts between fieldwork agencies and national funding bodies). By ordering the list of countries according to relative fieldwork costs (for round 3), a number of regional variations become evident – notably, that costs are highest in northern and western European countries (e.g. the UK, the Netherlands, Norway and Sweden), lower in smaller northern (e.g. Ireland and Belgium) and in southern European countries (e.g. Italy and Greece), and lowest of all in Eastern Europe. As expected, we can observe that countries where survey costs are highest also tend to either be geographically larger, or to have a high cost of labour. This pattern of findings is illustrated in figure 1. Also apparent is the fact that in most countries, costs have risen between rounds of the survey, though more detailed analysis would be necessary to determine the factors underlying this trend.

These data should be analysed with some caution, however. Firstly, the figures shown are based on the total costs of the survey organisation in each country divided by the target number of interviews – in other words, they do not represent pure fieldwork costs. Secondly, the figures are not directly comparable across countries as the protocol for implementing the survey fieldwork varies cross-nationally. In particular, tailored sample designs in each country means that gross sample sizes vary widely (and correspondingly, the amount of effort needed to achieve the planned number of interviews). Similarly, response enhancement strategies vary between countries – not all use advance letters, or attempt to convert refusals, or offer incentives to participants (indeed, in round 3 a large-scale incentive experiment was conducted in the UK, which partly accounts for the elevated costs in that country for the most recent wave of the survey). Further details of round 3 specifications (also taken from the fieldwork checklist) are provided in table 6.

[6] We are very grateful to Achim Koch and Annelies Blom at ZUMA (Germany) and Ineke Stoop at SCP (The Netherlands) for supplying us with these data.

Table 5 – ESS fieldwork costs – Rounds 1 to 3

	Round 1	Round 2	Round 3
United Kingdom	179	241	295
Sweden	262	*	288
Norway	223	235	253
Netherlands	229	278	234
Switzerland	171	197	216
France	152	*	210
Spain	125	182	180
Germany	156	166	174
Finland	*	173	174
Denmark	176	194	161
Belgium	101	134	137
Ireland	*	86	92
Cyprus	-	-	87
Greece	*	83	-
Austria	67	67	63
Italy	63	*	-
Poland	28	37	58
Portugal	45	46	48
Slovakia	-	*	36
Slovenia	45	*	30
Czech Republic	27	25	-
Russia	-	-	26
Estonia	-	*	22
Latvia	-	-	7
Romania	-	-	7

Source: ESS fieldwork checklists.
Notes: Table shows planned costs per interview in euros (incl. VAT), based on an estimate of the total costs of the survey organization divided by the number of planned interviews.
* = data not available
- = country did not participate in round

Official figures comparing the cost of fieldwork in different modes are published by European Society for Opinion and Marketing Research (ESOMAR) based on its biennial Prices Study, in which market research companies around the world are asked to provide quotations for a number of different ad hoc research projects, including a national usage and attitude survey and a multi-nation project using different modes of data collection (both of which provide data that are informative for the present study[7]). Although these data should similarly be interpreted with some caution, they nevertheless provide the most accurate assessment of the differential cost of survey fieldwork across countries. As with the ESS data, they show considerable variation between countries in the costs of surveys (with similar regional differences between Western and Eastern Europe), as well as considerable variation between the costs of different modes of data collection.

[7] The most recent data from the Prices Study were not available at the time of writing; for this reason, no data are presented here; the findings discussed are based on the 2005 study and Blyth (2007).

Table 6 – ESS round 3 fieldwork costs and survey specification

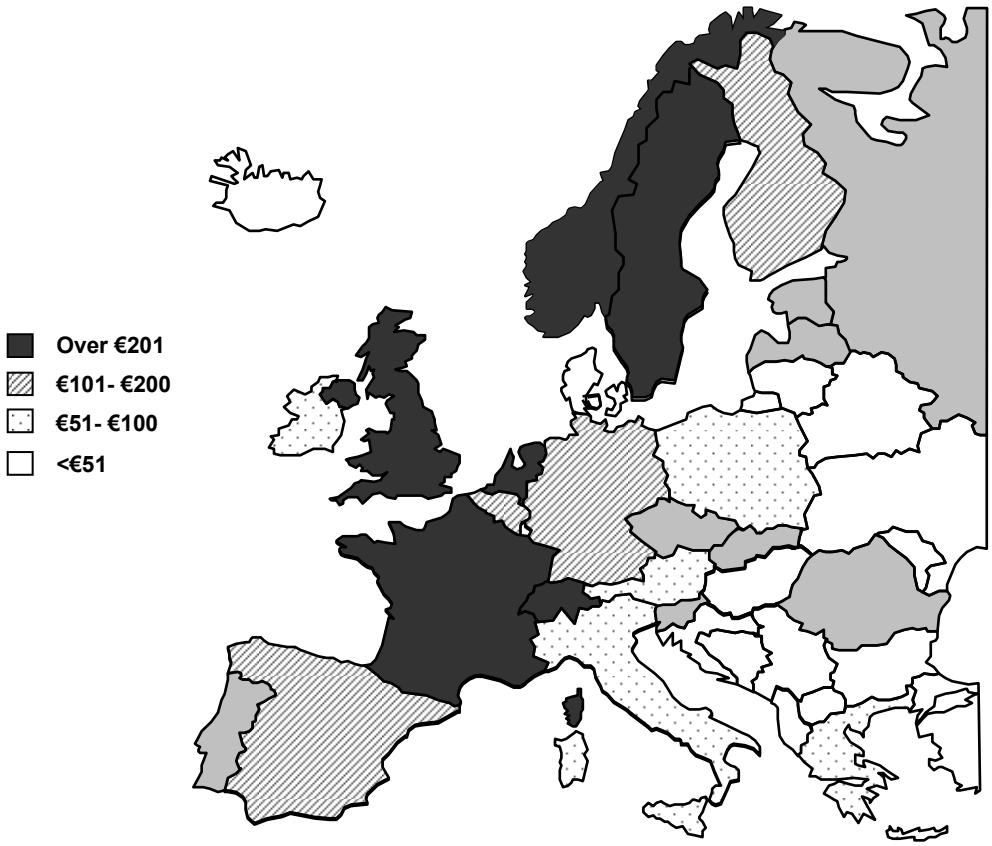
	Round 3 planned cost per interview (€)	% of non-contacts to be reissued	% of refusals to be reissued	Use of advance letter?	Use of incentives?	If ✓, type of incentive	If ✓, value of incentive
United Kingdom	295	Appr. 100%	Appr. 100%	✓	✓	Conditional, vouch./donation	20
Sweden	288	10-30%	10-30%	✓	no	n/a	n/a
Norway	253	-	-	-	-	-	-
Netherlands	234	-	-	-	-	-	-
Switzerland	216	100%	100% soft	✓	✓	Unconditional, monetary	12
France	210	75%	75%	✓	✓ (during refusal conversion)	Conditional, monetary	15
Spain	180	50%	30%	✓	✓	Conditional, monetary	5
Finland	174	5%	10-15%	✓	no	n/a	n/a
Germany	174	90%	50%	✓	✓	Conditional, lottery ticket	7.5
Denmark	161	0%	5%	✓	no	n/a	n/a
Belgium	137	-	-	✓	no	n/a	n/a
Ireland	92	-	-	-	-	-	-
Cyprus	87	25%	25%	✓	✓	Conditional, voucher	€ 9-10
Austria	63	50%	50%	no	no	n/a	n/a

Poland	58	100%	90%	✓	✓	Conditional, checks/contributions to charity	5
Portugal	48	100%	40%	✓	✓	Unconditional, lottery tickets	2.5
Slovakia	36	-	-	-	-	-	-
Slovenia	30	50%	25%	In big cities	no	n/a	n/a
Russia	26	90%	50%	✓	no	n/a	n/a
Estonia	22	90%	50%	✓	no	n/a	n/a
Latvia	7	10% +	10% +	no	no	n/a	n/a
Romania	7	0%	25%	✓	✓	Unconditional, ruler/calculator	approx. €2.00

Source: ESS fieldwork checklists.
Notes: - = information not provided

Notably, the ESOMAR data demonstrate the substantial cost savings to be made using telephone and web surveys, compared with the more expensive option of face-to-face interviewing (Blyth, 2007) and the differential costs between modes across countries give further cause to question the use of a single mode approach in a cross-national study like the ESS.

Figure 1 – Variation in planned costs per interview (ESS round 3)



In our consultation with ESS fieldwork agencies and NSIs, we asked participants to estimate the *relative* costs of conducting a survey using different modes of data collection, by comparing the costs of telephone, postal and web methods with the costs of a face-to-face survey. The results are shown in table 7. Although only providing rough 'guesstimates', these data give some insight into the relative costs of different approaches within countries, as well as the differential cost of different modes relative to face-to-face *across* countries. According to Czaja and Blair (2005: 35), after face-to-face interviewing, telephone interviewing is the next most expensive mode, followed by postal, then web surveys. Consistent with this, almost all the organisations contacted rated face-to-face surveys as the most expensive option, and all except two organisations rated the costs of the other modes in the expected order (the exceptions being Italy, where phone surveys were rated as a cheaper alternative to postal surveys, Czech Republic, where postal surveys were rated as more expensive than face-to-face interviewing and Slovakia, where postal surveys were estimated to be cheaper than web surveys.

Table 7 – Relative costs of fieldwork using different modes

	ESS Field Agencies				National Statistical Institute			
Country	**F2F**	**Tel.**	**Postal**	**Web**	**F2F**	**Tel.**	**Postal**	**Web**
Austria	-	-	-	-	100	30	25	*
Belgium	100	70	0	25	100	80	83	62
Cyprus	100	50	0	0	100	80	50	40
Czech Republic	10	80	110	80	-	-	-	-
Denmark	100	35	25	25	*	*	*	*
Finland~	100	50	35	*	-	-	-	-
France	*	*	*	*	-	-	-	-
Germany	100	43	20	15	-	-	-	-
Hungary	100	80	60	50	*	*	*	*
Iceland	100	40	25	15	100	50	30	10
Ireland	100	65	50	*	100	*	10	*
Italy	100	60	70	50	-	-	-	-
Luxembourg	*	*	*	*	-	-	-	-
Norway~	100	50	25	20	-	-	-	-
Poland	100	0	40	0	*	*	*	*
Portugal	100	75	50	0	-	-	-	-
Romania	-	-	-	-	100	60	0	0
Russia	100	63	*	*	-	-	-	-
Slovakia	100	85	35	65	-	-	-	-
Slovenia	100	30	25	20	100	8	0	0
Spain	100	60-70	30	30	-	-	-	-
Sweden	100	60	30	0	-	-	-	-
Switzerland	100	50	*	*	100	40	20	5
Ukraine 1	100	60	50	40	-	-	-	-
Ukraine 2	100	60	50	40	-	-	-	-
UK	*	*	*	*	-	-	-	-

Source: Consultation exercise.

Notes: Question phrasing was: 'To help give us an idea of the *relative costs* of fieldwork using different modes of data collection, please estimate the average cost of conducting a survey of a random probability sample of the population using the modes listed below. (Assume 1,000 achieved interviews and a 20 minute questionnaire).You do not need to give the *actual* cost estimate. Simply describe the *relative* costs of modes **b**, **c**, and **d** (below) as a percentage of the cost of mode **a** (a survey using face-to-face interviewing). Please enter your answers below.

- = questionnaire not returned

* = item non-response

~ = in Finland and Norway, the ESS fieldwork agency is the NSI

Despite these similarities in the relative costs of modes, however, the relative *differences* in costs varied a lot by country. For example, comparing face-to-face and telephone interviewing, the Slovenian ESS fieldwork agency rated phone interviews to be around 30% of the cost of face-to-face, whereas Slovakia rated them to be around 85%. More than half of the organizations rated the cost of the postal survey to be between 20 and 40% of the cost of face-to-face interviewing (although as noted, in Italy the costs of a postal survey were rated higher at around 70% of the cost of face-to-face interviews). Web surveys were rated cheapest in all countries at around 30% the cost of a face-to-face survey of a similar design.

In general the ESS field agencies in geographically smaller countries (e.g. Belgium, Ireland, Portugal, Slovakia) reported smaller differences in the cost between face-to-face and telephone interviewing. Meanwhile, ESS field agencies in larger countries (e.g. Finland, Germany, Russia, Sweden, and Ukraine) reported larger differences between these two modes. This is consistent with the comparisons of actual ESS fieldwork costs reported earlier. However, there are some exceptions, notably in Slovenia (a relatively small country) the ESS field agency reported the highest difference in costs between the two interview modes. Ordering table 8 by the relative cost of telephone interviewing (shown as a percentage of the cost of face-to-face interviewing) reveals that in some of the countries where ESS fieldwork costs are highest, the potential savings to be made by using alternative modes are greatest. For example, in Denmark, Germany, Finland, Norway and Switzerland, the cost of telephone interviewing is around half (or even less) that of conducting survey interviews in person. By comparison, postal and web methods in these field agencies could cost less than 25% the price of a similar size survey conducted using face-to-face interviewers. The ESOMAR Prices Survey data from 2005 reveal similar findings: e.g. the cost of telephone interviewing was estimated at around 80% of the cost of face-to-face interviews in The Netherlands, Germany and the UK, and 49% in France (Blyth, 2007).

Summary

The ESS currently insists that all participating countries use face-to-face interviewing, which in almost all countries, represents the most expensive of all the data collection mode options. Depending on the survey climate in each country, the cost of conducting the survey in-person is likely to rise as contactability decreases, and refusal rates rise. Given the relative costs of conducting surveys in alternative modes, the possible gains of switching are indisputable. The costs of different modes not only vary in relation to one another, but so do the relative costs of different modes across countries. This means that in countries where the costs of face-to-face interviewing are highest, the potential savings to be made by a switch to another single mode are greatest. However, the cost savings to be gained by *mixing* modes of data collection are less clear. More data are needed to demonstrate the potential advantages of mixing modes in this regard.

6.2.2 Variations in response rates

Examining the relative costs of different data collection modes presents a clear argument in favour of selecting cheaper alternatives to face-to-face interviewing. Yet an analysis of the financial costs of conducting surveys cannot be undertaken in

isolation from an evaluation of the quality of the data collected and the other advantages offered by 'more expensive' modes that may offset the burden they place on resources. One such advantage associated with face-to-face interviewing is that it is typically the most effective method of ensuring high levels of response in a survey, partly because interviewers 'on the doorstep' are quite effective at persuading sample members to take part (compared to solicitation attempts made by telephone, advance letters and emails). It is not clear the extent to which this is true across all ESS countries, however (though some existing studies provide data on this, e.g. Couper and de Leeuw, 2003), nor is it clear how much less effective other modes (and perhaps more importantly, *mixed* modes) are at achieving 'adequate' levels of response. In this section, we address the question of how effective face-to-face interviewing has been on the ESS in this respect, and attempt to evaluate the possible value of using alternative or mixed modes, as part of our assessment of the demand for a new data collection strategy on the ESS.

Before continuing it is worth considering briefly what we mean by 'adequate' levels of response and how we might evaluate the effectiveness of a particular mode. One measure of an 'adequate' level of response is the extent to which countries are able to obtain a *high* response rate. In the case of the ESS, this means reaching the target of 70%. This target was instated for a number of different reasons. Firstly, it was important to emphasise to participating countries (and especially those countries where the conduct of surveys using probability samples was less common) the need to aim for the highest possible response rate. Secondly, by setting the same target for all countries it was hoped that response rates across countries would be sufficiently similar so as not to reduce the cross-national comparability of the data (see Billiet, Koch and Philippens, 2007; Billiet et al. 2007). Both motives are underpinned by the assumption that higher response rates result in overall better survey quality. This is because, as Lynn and his colleagues (2005) have argued, low response rates generally tend to be indicative of poor fieldwork practice; but more specifically, with higher response rates, achieved samples will not only be larger, improving the precision of estimates, they are also more likely to be representative of the population (assuming a method of random probability sampling is used). As a result, they will also be less likely to suffer from bias resulting from certain subgroups being either under- or over-represented in the achieved sample due to differential non-response[8].

It is worth noting, however, that recent research examining the relationship between response rates and non-response bias has called into question the need for high response rates to ensure data quality on a survey (e.g. Groves, 2006). Specifically, it has been shown that the relationship between response rates and the presence of non-response bias in survey estimates is not as clear-cut as was first thought. In fact, Groves' (2006) meta-analysis has shown that there appears to be no clear relationship whatsoever between levels of response and the presence of bias in estimates. In sum, high response rates do not guarantee an absence of bias in the data collected, just as low response rates do not always imply a high level of nonresponse bias in the data. Equally, the effect of differential non-response on data quality depends on the nature of the estimate, so low response rates per se may not be a general problem, but one quite specific to particular types of survey measure (which in turn, depends on the nature of the bias in the sample). These findings are important not only because they have implications for how we evaluate the effectiveness of different modes of data collection at achieving adequate response rates, but also because they raise doubts

[8] A prerequisite if the data are to be analysed using inferential statistics.

about the value of pursuing high response rates in the first place – particularly where the costs of trying to persuade reluctant respondents to take part may not be commensurate with the gains to be made with respect to minimising bias.

The situation is made more complicated still by the fact that data collection modes not only vary in their effectiveness at achieving high levels of participation (e.g. see Hox and de Leeuw, 1994), but also because they are more or less likely to attract different members of the population to participate. While face-to-face interviewing appears to be one of the least problematic modes in this respect, with a generally equal cooperation rate across groups (Czaja and Blair, 2005), telephone surveys not only achieve considerably lower response rates, but also higher levels of response bias. Holbrook, Green and Krosnick's (2003) review of seven studies comparing the demographic composition of responding samples to face-to-face surveys[9] with those achieved in RDD telephone surveys found considerable agreement on a range of observed demographic differences. For the most part, the telephone samples had fewer respondents with low education, fewer respondents on low incomes, fewer older respondents, and fewer minority respondents than the face-to-face samples (Holbrook et al., 2003: 94-95). Postal and web-based surveys, on the other hand, tend to favour better educated, more literate (including computer literate) members of the population. The likelihood of survey participation is also intrinsically linked to the survey topic and the level of interest in the topic among members of the target population (Groves, Singer and Corning, 2000; Groves, Presser and Dipko, 2004). This means that in the absence of extrinsic motivators for participating in a survey (e.g. a persuasive interviewer), self-administered modes tend also to favour those with a particular interest in the survey topic.

There are both negative and positive implications of these findings. For instance, if the ESS were to allow a switch in data collection mode in certain countries, there is a possibility that the responding samples would differ along a range of demographic (and possibly other) variables from the samples previously achieved in the face-to-face survey. This could introduce non-response bias into the survey estimates that is not equivalent to any bias present in the face-to-face data, possibly confounding comparisons in that country over the time series. A more positive implication is that by mixing modes of data collection (e.g. in a design where sample members are offered a choice of modes or where non-respondents are re-contacted in alternative modes), it may be possible to off-set this form of error, by increasing response rates and gaining access to a more representative sample of the population (Dillman, 2000). In other words, if face-to-face appears to be performing poorly in certain countries with respect to obtaining high response rates, or with respect to the representativeness of its achieved samples, adding a different data collection mode to the mix may help to reduce the likelihood of the data being affected by non-response bias (see also de Leeuw, 2005; de Leeuw, Dillman and Hox, 2008).

Results – ESS response rates

To assess how well face-to-face interviewing is performing on the ESS, we focus on two main indicators: final response rates (in rounds 1 to 3) and the representativeness of the achieved samples (comparing ESS estimates of key demographic subgroups with population statistics). We then present data from our consultation exercise, in

[9] (of national area probability samples of the US population)

which we asked ESS fieldwork directors and representatives at NSIs to rank the four main modes and 'mixed modes' in terms of the level of response they believed each could achieve in their country. Patterns of response, contact and refusal rates on the ESS have been extensively analysed and discussed elsewhere (see e.g. Billiet and Pleysier, 2007; Billiet, Koch and Philippens, 2007[10]), so we do not go into detail here.

Table 8 – ESS response rates, rounds 1-3

	ESS R1	ESS R2	ESS R3
Country			
Greece	80	78.8	-
Finland	73.2	70.7	64.4
Poland	73.2	73.7	70.2
Israel	71	-	-
Slovenia	70.5	70.2	65.1
Hungary	69.9	65.9	66.1
Sweden	69.5	65.4	65.9
Portugal	68.8	71.2	72.8
Netherlands	67.9	64.3	*
Denmark	67.6	64.2	50.8
Norway	65	66.2	65.5
Ireland	64.5	62.5	*
Austria	60.4	62.4	*
Belgium	59.2	61.2	61.0
Germany	55.7	51	54.5
United Kingdom	55.5	50.6	54.6
Spain	53.2	54.9	65.9
Luxembourg	43.9	50.1	-
Italy	43.7	59.3	-
Czech Republic	43.3	55.3	-
France	43.1	43.6	46.0
Switzerland	33.5	48.6	51.5
Bulgaria	-	-	64.8
Cyprus	-	-	67.3
Estonia	-	79.1	65.0
Iceland	-	51.3	-
Latvia	-	-	*
Romania	-	-	71.8
Russia	-	-	69.5
Slovakia	-	62.7	73.2
Turkey	-	50.7	-
Ukraine	-	66.6	*

Source: National Technical Summaries/ ESS Documentation Report
Notes: - = country did not take part in that round
* = final data for these countries (Austria, Ireland, Netherlands, Latvia and Ukraine) were unavailable at the time that this table was produced

[10] Assessments of data quality and fieldwork outcomes for rounds 1 and 2 of the ESS are available through the data archive website under Survey Documentation : http://ess.nsd.uib.no/index.jsp?year=2003&module=documentation&country

However, a number of observations are important to our discussion of the demand for alternatives to face-to-face interviewing on the ESS, so there is likely to be some overlap between our treatment of the data and that of Billiet and his colleagues. Nevertheless, the reader should refer to these original sources for a detailed analysis and assessment of response and non-response on the ESS.

Table 8 shows response rates by country for rounds 1, 2 and 3 of the ESS[11]. A number of observations are noteworthy. In particular, there is considerable variation between countries in their final response rates on the ESS and only a minority of countries have so far been successful in meeting the ESS 70% target. In rounds 1 and 2, just six countries achieved a response rate at or over the target (Greece, Finland, Poland, Israel, Slovenia and Hungary in round 1; Greece, Finland, Poland, Slovenia, Portugal and Estonia in round 2). Of the 20 countries included in the first release of round 3 data, just five reached the 70% target (Poland, Portugal, Romania, Russia and Slovakia). Perhaps more concerning is the finding that five countries in round 1 achieved a response rate below 50% (Czech Republic, France, Italy, Luxembourg and Switzerland). However, in round 2, just two countries (France and Switzerland) failed to reach 50% (though Germany, Iceland, Luxembourg, Turkey and United Kingdom were only able to reach 50-51%). In the 20 round 3 countries for which we have data, just one (France) achieved a response rate below 50% (46%). The newly released round 3 data indicate that of countries participating in rounds 2 and 3 (of which we have data for 16), eight managed to improve on their previous round's performance, two stayed almost exactly the same, while six saw a decline in their response rate. All of those with a response rate below 60% in round 2 saw an improvement for round 3. Conversely, almost all countries with a round 2 response rate of 66% or over fared less well in round 3 (the one exception being Portugal). This suggests a regression to the mean is occurring.

As we saw in section 4, a large number of previous studies have explored variation in survey practice across European countries in an effort to understand differences in survey outcomes by country. Some of the variables that have been identified as possible causes of differential response rates include the use of advance letters, refusal conversion attempts and the use of respondent incentives. While the specification for the ESS emphasises the importance of using a range of response enhancement strategies to try to increase participation in the survey, countries are given considerable flexibility about which strategies, if any, to use. Tables 9a and 9b show the response enhancement strategies used in rounds 1 and 2 of the ESS, along with response rates, non-contact rates and the length of the fieldwork period.

[11] See Billiet, Koch and Philippens (2007) for details on the calculation of ESS response rates. Data in table 8 are taken from the National Technical Summaries/ ESS Documentation Report – not from Billiet and his colleagues' analysis of data from the contact forms.

Table 9a – ESS response enhancement strategies, round 1

Country	Response rate	Non-contact rate	Mode main interview (PAPI/ CAPI)	Fieldwork length	Mode of first contact	Incentives	Strategies for refusal conversion	Advance letter	Advance brochure
Austria	60.4	10.1	PAPI	8 months	Visit/ Telephone	No	Yes	Yes	No
Belgium	59.2	4.5	PAPI	7 months	Visit	No	Yes	Yes	Yes
Czech Republic	43.3	-	PAPI	3.5 months	Visit	No	No	Yes	No
Denmark	67.6	4.6	CAPI	7.5 months	-	No	-	Yes	No
Finland	73.2	1.4	CAPI	4 months	Telephone then visit	No	Yes	Yes	Yes
France	43.1	-	CAPI	3 months	-	No	No	No	Yes
Germany	55.7	5.9	CAPI	6 months	Visit	Yes	Yes	Yes	Yes
Greece	80.0	1.7	PAPI	1.5 months	Visit	Yes	Yes	Yes	No
Hungary	69.9	3.2	PAPI	1 month	Visit	No	Yes	Yes	Yes
Ireland	64.5	8.1	PAPI	4 months	Visit	No	No	No	Yes
Israel	71.0	3.0	PAPI	2 months	Visit	Yes	Yes	Yes	No
Italy	43.7	6.9	CAPI	6.5 months	Visit	Yes	Yes	Yes	No
Luxembourg	43.9	2.5	CAPI	4 months	Visit	Yes	No	Yes	No
Netherlands	67.9	2.5	CAPI	6 months	Visit	Yes	Yes	Yes	Yes
Norway	65.0	3.0	CAPI	4 months	Telephone then visit	Yes	Yes	Yes	Yes
Poland	73.2	0.4	PAPI	2.5 months	Visit	No	Yes	Yes	Yes
Portugal	68.8	3.2	PAPI	4 months	Visit	No	Yes	Yes	Yes
Slovenia	70.5	2.4	PAPI	1.5 months	Visit	No	Yes	Yes	No
Spain	53.2	7.9	PAPI	3 months	Visit	Yes	No	Yes	No
Sweden	69.5	4.0	CAPI	3 months	Telephone then visit	Yes	Yes	Yes	Yes
Switzerland	33.5	2.0	CAPI	5 months	Telephone/ Visit[1]	Yes	Yes	Yes	No
UK	55.5	3.5	CAPI	6.5 months	Visit	Yes	Yes	Yes	No

Source: ESS Documentation Report 2002-2003

Notes: - = data were not available in the ESS Documentation Report

1 = Half sample members were contacted by telephone and half by personal visits from the interviewer according to an experimental design

Table 9b – ESS response enhancement strategies, round 2

Country	Response rate	Non-contact rate	Mode main interview (PAPI/ CAPI)	Fieldwork length	Mode of first contact	Incentives	Strategies for refusal conversion	Advance letter	Advance brochure
Austria	62.41%	7.70%	PAPI	3.5 months	Visit	No	Yes	No	No
Belgium	61.37%	6.73%	CAPI	3.5 months	Visit	No	Yes	Yes	Yes
Czech Republic	55.29%	10.61%	PAPI	2.5 months	Visit	Yes	No	Yes	No
Denmark	65.11%	5.28%	CAPI	3.5 months	Telephone then visit	No	No	Yes	No
Estonia	79.27%	4.42%	PAPI	3.5 months	Visit	No	No	No	No
Finland	70.77%	2.79%	CAPI	3 months	Telephone then visit	No	Yes	Yes	Yes
France	43.57%	11.22%	CAPI	3.5 months	Not known	No	Yes	Yes	No
Germany	52.60%	5.79%	CAPI	4.5 months	Visit	Yes	Yes	Yes	Yes
Greece	43.57%	11.22%	PAPI	2.5 months	Visit	No	Yes	Yes	No
Hungary	66.52%	5.19%	PAPI	1.5 months	Not known	No	No	Yes	Yes
Iceland	51.28%	4.33%	CAPI	7.5 months	Telephone	Yes	Yes	Yes	No
Ireland	62.51%	8.71%	PAPI	5 months	Visit	No	No	No	Yes
Luxembourg	50.02%	6.94%	PAPI	4.5 months	Visit	Yes	No	Yes	No
Netherlands	64.33%	2.59%	CAPI	5 months	Not known	Yes	Yes	Yes	Yes
Norway	66.24%	2%	CAPI	4 months	Telephone then visit	Yes	Yes	Yes	Yes
Poland	43.57%	11.22%	PAPI	2.5 months	Visit	No	Yes	Yes	No
Portugal	70.52%	2.62%	PAPI	5 months	Visit	No	Yes	Yes	Yes
Slovakia	63.29%	1.48%	PAPI	2 months	Visit	Yes	No	Yes	No
Slovenia	70.24%	9.54%	PAPI	1.5 months	Visit	No	Yes	Yes	No
Spain	54.83%	12.50%	CAPI	4 months	Visit	Yes	Yes	Yes	Yes
Sweden	65.77%	4.16%	CAPI	4 months	Telephone	Yes	Yes	Yes	Yes
Switzerland	46.86%	2.67%	CAPI	5 months	Visit	Yes	Yes	Yes	Yes
UK	50.64%	7.34%	CAPI	5.5 months	Visit	Yes	Yes	Yes	Yes
Ukraine	66.59%	6.26%	PAPI	1.5 months	Visit	Yes	No	No	Yes

Source: ESS-2 2004 Documentation Report, edition 3.1

Of the six countries obtaining response rates over 70% in round 1, all used advance letters and all used refusal conversion strategies. By contrast, among the five countries obtaining response rates below 50% in round 1, three chose not to use refusal conversion strategies, while the remaining two (Italy and Switzerland) did, as well as respondent incentives. The situation is round 2 was similarly mixed: countries obtaining the highest response rates were not necessarily more likely to use more response enhancement strategies than those obtaining the lowest response rates. In other words, countries with the lowest response rates obtained low response rates on the survey despite using a range of techniques specifically designed to boost response: notably in round 2, Switzerland, Germany, Iceland and the UK all used respondent incentives, advance letters and refusal conversion strategies; only Luxembourg did not use the latter approach to encourage sample members to participate[12].

Based on these limited data, it is difficult to detect robust patterns in the relationships between these variables and response rates (except for the finding that response rates tend to be lower where non-contact rates are highest, which is discussed below). Participating countries use a variety of techniques to try to enhance response on the survey and it is not easy to evaluate their impact in the absence of a controlled experiment. Over time, however, these data are likely to be especially informative about trends in response and the relative effectiveness of different response enhancement strategies. For example, if fieldwork periods become longer, but response rates decrease or remain the same, this may suggest that fieldwork agencies are experiencing more difficulties than in the past at persuading sample members to participate. Similarly, problems may be detected where respondent incentives are introduced for the first time or the value of incentives (not shown in table) is changed, yet the impact on response is negligible. Effects of these kinds are not visible in the data we have to date (fieldwork periods were generally shorter in round 2 than in round 1, and the introduction of and increased value of incentives (e.g. in Czech Republic and Switzerland) generally yielded positive outcomes). Nevertheless, over time, observations of this kind are likely to prove helpful in diagnosing emerging difficulties.

For now, our only indicators of potential problems with the current data collection strategy are low response rates (in spite of the use of response enhancement strategies) and problems with the representativeness of the achieved samples. To investigate the latter, we compared ESS samples on a number of key demographic variables with population statistics obtained from Eurostat.

Representativeness of ESS samples

More detailed work into the representativeness of ESS samples has been carried out as part of the project's work on non-response, and in particular in relation to non-response weighting, for which the degree of non-response bias must first be known. Notably, Billiet and Meuleman (2004) compared the ESS round 1 sample distribution and the population (expected) distribution using X^2 tests in five countries (Austria, Belgium, Switzerland, Finland and Italy) and found that, with the exception of Finland, the samples were not representative regarding age and gender. Vehovar and Zupanič

[12] Unfortunately, we did not have access to experimental data that could shed light on what the response rates would have been in these countries had no such strategies been adopted, though some countries have conducted research of this kind alongside their main stage ESS fieldwork.

(2007) analysed round 2 data and found that in most countries there were not big differences between ESS data and population data in relation to age and gender but that the differences that were there (particularly for age) were not the same across all countries. Some differences were also found in relation to education, with the less and middle educated generally underrepresented in ESS samples. This work has lead to the development of non-response weights based on age, gender and education, designed to improve the overall representativeness of the samples, as well as to enhance their cross-national equivalence. However, even after weighting for non-response, Vehovar found that the median bias (i.e. the difference between the weighted and unweighted data) was 1.4% and that it goes up to 4% for certain variables (e.g. total time spent reading newspapers). This highlights one of the many challenges involved in assessing the representativeness of achieved samples in a survey.

For the purposes of the present report, we present some limited data (shown in table 10) on sample representativity in the ESS, comparing the composition of ESS round 2 samples with population statistics obtained from Eurostat (on sex, age and the percentage living in the country's capital city). Although the National Co-ordinators do provide population data to the data archive (e.g. on age, sex (by region) and education, etc.), against which the representativeness of ESS samples can be assessed, these data are sometimes incomplete and are not standardised, making it difficult to make direct comparisons[13]. The Eurostat data we use have the advantage of being in the same format for all countries (although they only cover EU countries, so some ESS participants are missing). Nevertheless, the comparisons we make are not ideal and should be handled with a degree of caution. The primary problem is that the data for Eurostat and the ESS are not directly comparable. For example, the Eurostat data cover the whole population whereas the ESS covers only those aged 15 and over. Although this has been taken into account for the age and sex figures, it was not possible for capital city, so the data shown are the proportion of the total population living in the capital (rather than the proportion of those aged 15 and over). A further problem with this latter variable is that the ESS and Eurostat do not always use common definitions for region, and it is not always clear whether the area referred to is the same in both data sources.

Table 10 presents, for each country, the proportion of the achieved sample in each group, alongside population statistics showing the actual figures for each group obtained from Eurostat. Setting aside the limitations of our analysis noted above, a number of observations are of interest. Firstly, in relation to gender: in 12 countries the differences between the ESS and the actual figures is greater than 2 percentage points, and in 7 of those countries it is greater than 4 percentage points. In only 6 is the difference less than 1 percentage point (and that includes two that are very close to 1: Czech .97 and Poland .99). In all but 8 countries men are under-represented in the ESS samples, with the largest differences to be found in Ireland (6.92), Netherlands (6.58), Portugal (6.25), Turkey (5.34) and Greece (5.08). In the cases where men are over-represented in the ESS, the differences are generally quite small (with the exception of Luxembourg).

Secondly, in relation to age: with the exception of just 4 countries (Austria, Belgium, Luxembourg and Poland), people aged 15-34 are under-represented in ESS samples.

[13] The ESS researchers working on non-response have also struggled with the obstacle of unavailability of population data, particularly for education, and have been limited both by the variables and the countries they can include in their analysis.

In 10 countries the difference between ESS and Eurostat estimates is greater than 4 percentage points. Particularly large differences are found in Ireland (13.86), Czech Republic (8.99), Netherlands (8.58) and France (8.16). Again with 4 exceptions (Luxembourg, Poland, Slovakia and Slovenia), the ESS over-represents people aged 35-74 year olds. In 8 countries the difference in estimates is greater than 4 percentage points. Particularly large differences are found in Ireland (12.73), France (8.61) and Netherlands (7.65). The pattern of findings is less clear cut for the over-75 age group: people in this group are *over*-represented in the samples of around a third of countries and *under*-represented in the samples of another third. However, the differences are harder to interpret since the group is comparatively small.

Table 10 – Representativity of ESS data, Round 2

Country	% Men		% 15-34 year olds		% 35-74 year olds		% 75+ year olds		% Capital city	
	ESS	Actual	ESS	Actual	ESS	Actual	ESS	Actual	ESS	Actual
Austria	46.6	48.05	32.4	30.70	61.2	60.18	6.4	9.12	17.2	19.82
Belgium	49.2	48.48	31.7	30.47	61.8	59.89	6.5	9.64	8.6	9.64
Czech Republic	47.3	48.27	26.4	35.39	64.0	57.38	9.6	7.22	11.43	11.45
Denmark	48.6	49.06	27.1	30.21	65.5	61.16	7.4	8.64		
Estonia	41.1	45.09	30.5	34.89	59.8	57.22	9.7	7.86		
Finland	46.9	48.48	28.6	29.82	63.3	61.38	8.1	8.80		
France	47.7	47.98	24.2	32.36	66.5	57.89	9.3	9.75	14.34	16.91
Germany	47.4	48.51	25.3	27.93	66.2	62.77	8.5	9.30	4.77	4.11
Greece	44.1	49.18	25.6	32.58	63.0	58.87	11.5	8.55		
Hungary	42.0	46.77	30.5	34.29	62.5	57.77	7.0	7.93		
Iceland	47.5	49.86	32.8	37.15	58.7	55.69	8.5	7.16		
Ireland	42.5	49.42	26.4	40.26	66.3	53.57	7.3	6.18		
Luxembourg	53.6	48.92	34.6	31.41	59.8	60.82	5.6	7.77		
Netherlands	42.5	49.08	22.5	31.08	68.8	61.15	8.6	7.77		
Norway	51.9	49.17	29.1	32.31	64.9	58.12	6.0	9.57	20.63	22.23
Poland	48.8	47.81	39.6	37.78	55.2	55.79	5.1	6.43		
Portugal	41.6	47.85	28.7	33.45	59.8	57.86	11.5	8.69	33.38	26.22[1]
Slovakia	50.3	47.98	37.8	39.24	53.7	54.92	8.5	5.85	9.92	11.16
Slovenia	46.0	48.50	32.3	33.02	59.5	59.67	8.2	7.31		
Spain	51.0	48.83	34.2	34.45	56.8	56.33	9.0	9.22	12.99	13.53
Sweden	50.4	49.19	29.4	30.36	62.1	58.91	8.5	10.73	17.97[2]	20.78[2]
Switzerland	47.1	48.46	26.6	30.14	63.9	60.76	9.4	9.10	14.39	17.02
Turkey	44.9	50.24	46.3	50.50	50.1	47.01	3.6	-		
UK	48.9	48.43	27.7	32.02	62.2	58.67	10.1	9.30		
Ukraine	37.4		25.5		63.6		10.9			

Source: ESS= ESS round 2 (weighted by dweight) (15+ population only).
Actual= EUROSTAT January 01 2005 (15+ population only for age and gender. Whole population for capital city)

Notes: 1. The description for Lisbon is slightly different for Eurostat and ESS and this may explain the different results (ESS= Lisboa e Vale do Tejo. Eurostat=Lisboa).
2. Figures for Bern was not available so Zurich was used instead.

Finally, we looked at the proportion of ESS respondents living in each country's capital city and compared it with Eurostat's population figures, to see whether people living in urban areas (who are often harder to contact) are under-represented in the survey. This was a particularly difficult variable to compare, however, since most of the data are either not available or the definitions of the area referred to in each data source differ. Indeed, sufficiently comparable data could only be found for 11 countries. For these 11 countries, the Eurostat and ESS estimates are quite similar, although the actual figures are slightly higher than those for ESS samples. Where there are big differences, notably in Portugal, this is probably due to the different definitions of the area used (the ESS data seem to cover a larger area). In addition, it is possible that the differences observed can be attributed to the fact that the Eurostat data include the whole population whereas the ESS data includes only those aged 15 and over.

Response rates and mode of data collection

In our assessment of the effectiveness of face-to-face interviewing with respect to survey response, we wanted to compare it with other modes of data collection. Because the availability of cross-national data on this is limited, we asked participants in our consultation exercise to rank the different modes (including mixed modes) in terms of the typical response rates they would expect to achieve with each[14]. The results are shown in table 11. Consistent with the literature on modes and response rates (e.g. see Hox and de Leeuw, 1994; Czaja and Blair, 2005), face-to-face interviewing as a single mode approach achieved the highest ranking from most of the participants. However, in nine countries, it was ranked below other approaches: mixed modes in Czech Republic, France, Iceland Norway and Spain (in Slovakia face-to-face was ranked joint first with mixed modes); and telephone interviewing in Denmark, Finland, Sweden and Switzerland. In Finland, France, Iceland and Norway, face-to-face interviewing alone was ranked below both mixed modes and telephone interviewing in terms of the typical response rates ESS field directors would expect each to achieve with each mode. In the remainder of countries, telephone interviewing was ranked lower than face-to-face or mixed mode approaches, while the self-completion modes were generally ranked lowest (the exceptions being in Portugal, Poland and the Ukraine). The data from the NSI participants in the consultation exercise largely mirrored these findings (not shown in table 11).

We conclude this section by combining the data on response rates with the data presented in the previous section on survey costs. As stated at the start of the section, no consideration of the relative costs of different modes can be taken without also taking account of the implications of using an alternative to face-to-face for the quality of the survey. Figure 2 illustrates the data shown in table 11, indicating which modes would typically achieve the highest response rates (as judged by ESS field directors participating in our consultation exercise). Of the four countries that ranked telephone interviewing as most likely to obtain a high response rates, telephone interviewing was

[14] Participants were asked: 'Based on your experience, which of the following data collection methods do you think would achieve the highest level of response in a national population survey (given the usual efforts, as well as the practical and cost constraints)? Please rank the methods below from 1 to 5 in terms of the typical response rates you would expect to achieve with each, where 1 = the highest response rate and 5 = the lowest response rate. A. Face-to-face interviews; B. Telephone interviews; C. Postal/ self-completion survey; D. Web/internet surveys; E. Mixed modes (including the above and other data collection modes).

also judged as a more cost-efficient alternative to face-to-face interviewing. Six countries ranked mixed mode data collection as likely to obtain the highest response rate, but unfortunately, we do not have comparable with respect to how much a mixed mode alternative to face-to-face interviewing would cost (costs being tied to the type of mixed mode design under consideration). However, some comments received from participants in the consultation exercise are informative. Notably, a number of participants highlighted the point that, depending on the type of design, the fieldwork costs may in fact increase if mixed modes were introduced and that the potential increase in response rates may not be sufficient to justify the increase in cost. This is particularly true where the potential gain in response rate is relatively small and cannot be shown to lead to improvements in the representativeness of the achieved sample (or a reduction in the likelihood of non-response bias). These are empirical questions that require further investigation.

Table 11 – Modes ranked by highest levels of response

Country	Face-to-face	Telephone	Postal	Internet	Mixed mode
Belgium	1	2	5	4	3
Cyprus	1	3	4	4	4
Czech Republic	2	3	5	4	1
Denmark	2	1	1	4	3
Finland	3	1	4	5	2
France	3	2	4	5	1
Germany	1	3	4	5	2
Hungary	1	2	4	3	3
Iceland	3	2	5	4	1
Ireland	1	2	5	4	3
Italy	1	2	5	4	3
Luxembourg	1	-	-	-	-
Norway	3	2	4	5	1
Poland	1	-	2	-	-
Portugal	1	2	3	-	-
Russia	1	3	5	4	2
Slovakia	1	2	4	5	1
Slovenia	1	2	4	5	3
Spain	2	3	5	4	1
Sweden	2	1	4	5	3
Switzerland	2	1	4	5	3
UK	1	4	5	3	2
Ukraine	1	3	2	-	-

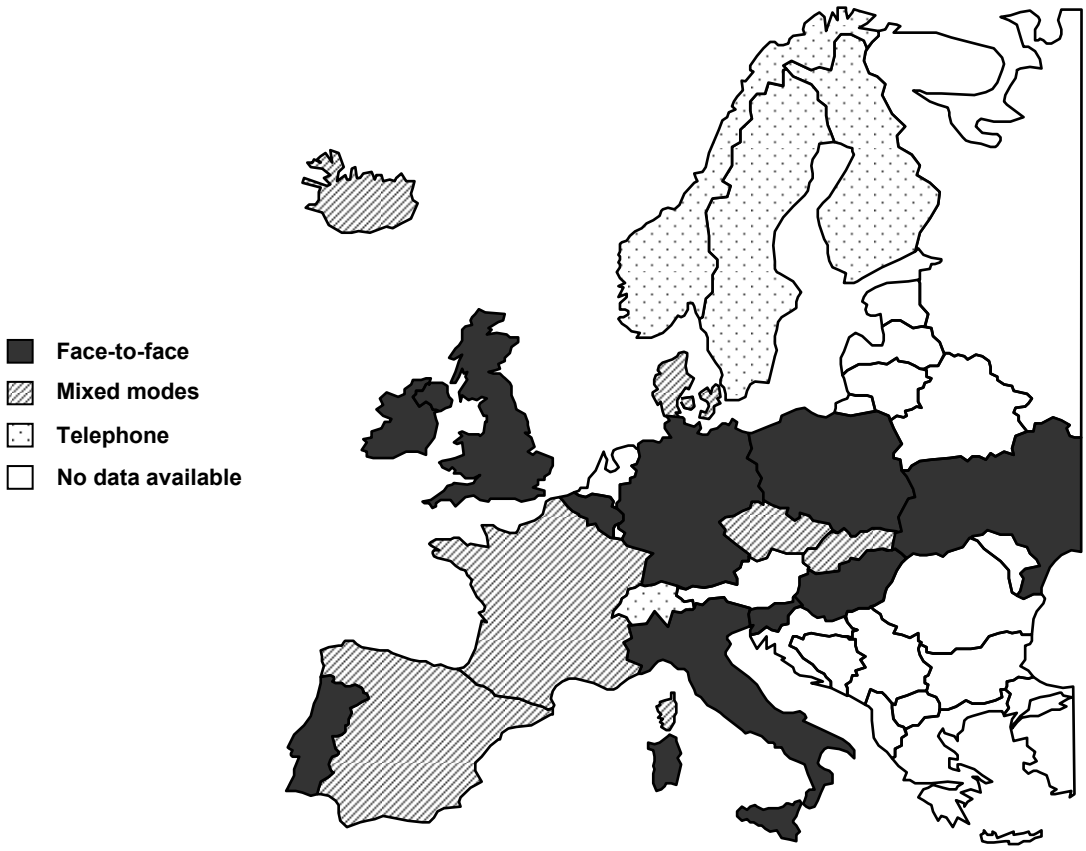
Notes: * no response from ESS field director
- mode not used by fieldwork organisation

Summary

In this section we looked at three main sources of data in order to assess the demand for alternatives to face-to-face interviewing on the ESS, based on the effectiveness of the current approach with respect to survey participation. In terms of response rates, it

is evident that few countries have so far been successful at reaching the ESS target of 70%, and some are obtaining rates considerably below the target (e.g. France, Luxembourg and Switzerland) and in some countries (e.g. Ireland and The Netherlands), the samples achieved by face-to-face are not adequately representing the demographic composition of the population. In some countries (e.g. Switzerland, Germany, Iceland and the UK in round 2) response rates remain low in spite of the fact that a range of response enhancement strategies are already being used. It is in these countries where the demand for an alternative approach would appear to be greatest. Data from our consultation exercise appears to support this conclusion. Both telephone interviewing and mixed mode approaches were judged as being more effective at achieving high response rates in a number of participating countries, some of which (e.g. France, Iceland and Switzerland) have been identified in this section as being most likely to benefit from an alternative approach. Furthermore, these alternatives not only offer advantages with respect to response rates, but as we saw in figure 3, they also offer more cost effective data collection solutions. More research is needed, however, to establish the relationship between the potential gains in response rates to be made by mixing modes and the relative costs of different approaches.

Figure 2 – Modes likely to get the highest response rate



Source: Consultation exercise.

6.2.3 Variations in the 'survey climate'

So far in our analysis of the demand for instituting a change in data collection mode on the ESS, we have considered the relative costs of fieldwork in different countries using different modes and the effectiveness of face-to-face interviewing with respect to achieving adequate levels of response and representative samples. In this section, we consider a number of indicators of the so-called survey-taking climate (Lyberg and Dean, 1992), that are likely to influence the success of the current approach to data collection in each of the participating countries of the ESS. We consider three in particular: non-contact and refusal rates using face-to-face interviewing and national preferences for different modes of data collection.

To begin with, we extend our discussion of response rates by looking at rates of non-contact and refusal to participate on the ESS. Distinguishing between non-response resulting from non-contacts and non-response resulting from refusals is essential for understanding variations in response rates (as such, non-contact and refusal rates have been analysed extensively by Billiet and his colleagues - see earlier references). We have chosen to discuss non-contacts and refusals on the ESS under the 'survey climate' heading, because they are indicative of the ease with which the survey can be carried out in different locations, and are both likely to be influenced by a range of cultural factors that may contribute to the suitability of using a particular survey method in a particular country. Non-contact rates tell us something about how effective face-to-face interviewing is as a mode at gaining access to the population of interest in each country. Similarly, comparing refusal rates across countries can tell us something about public willingness to cooperate in surveys and the extent of so-called 'survey fatigue'.

If non-contact rates on a survey are high, then we might conclude that insufficient effort was made by the fieldwork agency to gain access to all sample members. For this reason, the ESS protocol specifies a target non-contact rate of 3%. The specification of the survey also stipulates a minimum number of contact attempts be made to sampled individuals/ addresses/ households, and that these attempts be made at different times of the day, on different days of the week, in order to maximise the likelihood of gaining access to the target respondent. Each of these measures is designed to ensure that non-response due to non-contacts on the survey is kept to a minimum, so if non-contact rates on the ESS are high, then it is due to genuine challenges in the 'contactability' of sample members. Contactability has been shown to vary along a number of different dimensions likely to be sensitive to differences across cultures. For example, people living in one-person households, people with certain types of occupation and people living in cities have all been found to be harder to reach than other types of people, making them less likely to be represented in population surveys (e.g. Goyder, 1987; Stoop, 2005). Furthermore, people are said to becoming harder to contact due to changes in lifestyles – they are more 'busy' generally, and less likely to be at home, with less time available to take part in surveys, making visits by personal interviewers not necessarily the best method of making contact with all sample members.

If, on the other hand, non-contact rates on a survey are successfully kept to a minimum, then non-response is attributed to refusals by sample members to participate. As with non-contact rates, refusal rates in surveys also appear to be increasing, a trend that has been attributed to factors such as changing attitudes in the population towards survey research generally, a sense of being over-burdened by

survey requests coupled with a growing suspicion about their legitimacy and concerns about data protection.

The third indicator of the survey climate that we consider in this section is preferences for different modes in different countries, both among survey organisations and in the population. We consider both as important, because the two are likely to be interconnected: if surveys are not normally conducted in a country using a particular approach, people are likely to be inexperienced with and possibly resistant to that method when it is used either for making contact with or for collecting data from sample members; equally, survey methods that are ineffective due to resistance in the population (or in sub-groups of the population) are unlikely to be frequently used by survey agencies. Consequently, those agencies are unlikely to have developed the infrastructure needed to field surveys in certain modes (e.g. CATI equipment or experienced face-to-face interviewers).

Results – Non-contacts and refusals

Table 12 – Non-contact and refusal rates, ESS rounds 1 and 2

	ESS Round 1		ESS Round 2	
Country	**Non-contact rate (%)**	**Refusal rate (%)**	**Non-contact rate (%)**	**Refusal rate (%)**
Austria	10.1	27	6.9	29.8
Belgium	4.5	25.6	3.5	26.4
Czech Republic	11.6	20.0	10.9	11.1
Denmark	4.6	23	4.9	24.7
Estonia	-	-	3.4	11.3
Finland	1.4	20.9	2.1	22.7
France	14.7	38.5	11.6	38.9
Germany	5.9	29.3	7.0	32.8
Greece	1.7	16.9	3.6	16.5
Hungary	3.2	15.1	5.7	16.2
Iceland	-	-	4.6	39.1
Ireland	8.1	22.9	9.5	22.3
Israel	3.0	21.3	-	-
Italy	2.8	45.8	5.9	22.9
Luxembourg	6.9	37.0	7.1	34.8
Norway	3.0	25	1.7	26.4
Netherlands	2.5	26.2	2.7	19.1
Poland	0.8	19.6	0.90	19.4
Portugal	3.2	26.9	2.7	18.7
Slovakia	-	-	5.9	22.7
Slovenia	5.1	17.3	10.2	15.3
Spain	7.9	35.3	7.1	25.1
Sweden	4	21	2.4	22.0
Switzerland	2.0	55.1	2.1	44.0
Turkey	-	-	13.5	24.0
Ukraine	-	-	6.3	16.1
UK	4.9	30.6	7.9	33.2

Table 12 shows the non-contact and refusal rates on the ESS in rounds 1 and 2. These data have been taken from the analysis of contact form data by Billiet and Pleysier (2007), who provide a detailed discussion of cross-national variation in non-contact

and refusal rates on the ESS (and deviations from the survey's protocol). For the purposes of the present discussion, it is of interest simply to identify those countries where non-contact and refusal rates are highest. In round 1, around half of the 22 participating countries were unable to keep to the maximum non-contact rate of 3%. In 9 countries, non-contact exceeded 5% of issued sample cases; the highest rates were observed in France (14.7%), Czech Republic (11.6%) and Austria (10.1%). In round 2, just seven countries were able to keep non-contact rates below 3% and the highest rates were observed in Turkey (13.5%), France (11.6%), Czech Republic (10.9%) and Slovenia (10.2%). The highest refusal rates in round 1 were in Switzerland (55.1%), Italy (45.8%), France (38.5%) and Luxembourg (37%) and in round 2 were in Switzerland (44%), Iceland (39.1%), France (38.9%) and Luxembourg (34.8%). Particularly noteworthy is the observation that Switzerland, which had one of the lowest response rates in rounds 1 and 2, also had one of the lowest rates of non-contact, with the majority of its nonresponse attributable to refusals. By contrast, the high levels of nonresponse observed in France appear to be attributable to both causes of nonresponse.

In most ESS countries, contact attempts are made by personal visit from the interviewer. However, in a small number of countries contact attempts are permitted to be made by telephone (where the sampling frame contains named individuals with telephone numbers). Referring back to tables 9a and 9b, alongside table 12, it is noteworthy that this mixed mode approach appears to be quite effective at keeping non-contacts to a minimum (however, note that this does not necessarily imply that co-operation rates will be higher – e.g. see Blom and Blohm, 2007).

Mode preferences

There are a number of ways to measure mode preferences both in countries and survey organisations, as well as among the public as a whole. Regrettably, however, the available empirical data on this is sparse. To gauge public preferences respondents can be asked directly in which mode they would choose to respond to a survey, however, we unaware of any cross-national survey which has attempted to do so. To measure organisational and national preferences for particular modes we can look at the mode selected in comparative surveys where a choice of mode is offered. We can also look at anecdotal evidence of the challenges involved in using different approaches in different locations. The remainder of the section considers data of all three types.

In the context of the ESS research on modes, a mixed mode experiment conducted in Hungary collected some data on mode preferences. Respondents were asked what their preferred mode of data collection would be for a hypothetical one-hour survey in their home. The response options offered were face-to-face, telephone, paper self-completion or web self-completion. Overall, respondents showed a preference for the mode in which they were interviewed - respondents to the face-to-face version of the questionnaire were significantly more likely to express a preference for a face-to-face interview whereas the telephone respondents were more likely to select telephone interview or a self-completion mode and were significantly less likely to opt for a face-to-face interview (see Jäckle, Roberts and Lynn, 2006; p.53 for details). These findings are consistent with those of previous investigations into mode preference (e.g.

Groves, 1979; Groves and Kahn, 1979[15]) and highlight the key problem with survey measures of this kind – namely, their sensitivity themselves to mode effects. Respondents tend to be biased towards the mode in which the question is administered, making it particularly challenging to collect data of this kind. Partly for these reasons, we have not been able to obtain survey data on public mode preferences for the purposes of the mapping exercise. Instead, we rely on data that are indicative of national mode preferences within the survey industry, and anecdotal evidence from participants in our consultation exercise about the survey climate in their country.

To measure fieldwork agencies', or indeed, national mode preference we can look at the mode selected for other comparative surveys such as the ISSP and LFS, which are carried out in a large number of countries but where the mode of data collection is decided by each fieldwork agency. Note that we make the assumption that these agencies will select the mode that is likely to give the best results in that country, so we can infer from these data the countries' (or at least the fieldwork agencies) mode preference. Of course, we recognise that the choice of mode will also be influenced by the availability of resources, however, that in turn relates to the available infrastructure and experience of using different methods of survey data collection in different organisations. The modes selected (and achieved response rates) for the ISSP and LFS in 2003 are listed in table 13, along with the response rates for the 2004 ESS which was face-to-face for all countries.

Setting aside the problems involved in comparing response rates across different countries and different surveys (and the fact that in some countries (indicated by an asterisk in the table), participation in the LFS is mandatory), it is interesting to observe those countries who selected to use a mode other than face-to-face interviewing and the response rates they achieved. In particular, Finland, Iceland, Sweden and Switzerland, all used telephone as the primary mode for the LFS, and were able to achieve much higher response rates for the LFS than for the ESS, despite the LFS being voluntary. This preference for telephone interviewing in these countries supports our earlier findings: it offers not only a more a cost effective alternative to face-to-face interviewing, it can also be a more effective method of obtaining high response rates. It seems likely that potential respondents in these countries will also be more accustomed to telephone surveys and may prefer to be contacted in this way, rather than have an interviewer come to visit them at home (an argument which has been given informally as an explanation for lower response rates in both Switzerland and Sweden).

[15] In Groves and Kahn's (1979) study comparing face-to-face and telephone interviewing, respondents showed the same tendency to prefer the mode they were interviewed in, but overall, a slight preference for face-to-face over telephone.

Table 13 – ESS response rates in comparison with other mixed mode comparative surveys

Country	EU Labour Force Survey (2003)		ISSP (2003)		ESS (2004)
	Mode (of first wave – some use different mode for later waves – often telephone)	Response rate (for first wave) %	Mode	Response rate %	Response rate %
Austria	F2F	71.6*	F2F	60.3	62.4
Belgium	F2F	78*			61.2
Bulgaria	F2F	85.5	F2F	85.3	
Czech	F2F	76.5	F2F	53.4	55.3
Denmark	Mixed mode[1]	65.7	Mixed mode	66.1	64.2
Estonia	F2F	80.9			79.1
Finland	Tel [2]	83.9	Mail s-c	55.4	70.7
France	F2F	80.5*	Mail s-c	16.9	43.6
Germany	Mixed mode [3]	96-97*			51
Greece	F2F	93-95*			78.8
Spain	F2F	91.6*	F2F	98.5	54.9
Hungary	F2F	87.3	F2F	69	65.9
Iceland	Tel[2]	83			51.3
Ireland	F2F	79.2	F2F	66	62.5
Italy	F2F	95*			59.3
Latvia	F2F	85.4	F2F	58.1	
Luxembourg	Tel	37.1			50.1
Netherlands	F2F	59			64.3
Norway	Tel[2]	89.7*	Mail s-c	60	66.2
Poland	F2F	80.2	Mixed mode	67.1	73.7
Portugal	F2F	90.6*	F2F	57.1	71.2
Slovakia	F2F	91.6	F2F	79	62.7
Slovenia	F2F	86	F2F	72.3	70.2
Sweden	Mixed mode[4]	83.7	Mail s-c	60.4	65.4
Switzerland	CATI	80.7	F2F	30.2	48.6
Turkey	? (F2F or tel)	89			50.7
UK	F2F	77.5	Mixed mode	46.4	50.6

Notes: * indicates countries in which LFS was compulsory
[1] Main part (~90%) CATI. Those who can't be reached by phone receive a mail questionnaire. Demographic information, including 'edulvl', is obtained from statistical registers
[2] Demographic info from 'administrative sources'.
[3] F2F. For non-contacts, mailed questionnaire sent.
[4] CATI (CAPI when no phone)

The ISSP data in table 13 are less informative in some ways than those for the LFS, but they do provide further indication that – whether due to resource constraints or concerns about the effectiveness of the mode at obtaining adequate response – face-to-face interviewing is not always the first choice of mode in all European countries. In countries where self-completion questionnaires are used, the ISSP module is often included as a drop-off SAQ given to respondents at the end of a face-to-face interview for another survey. Response rates using this approach do not always appear to be inferior to those obtained face-to-face, and there may be some value in considering a multi-mode design of this kind for the ESS (e.g. administering one of the rotating

modules as a supplementary SAQ following a core face-to-face interview). Such an approach may also offer other advantages (e.g. enhancing response privacy) depending on the topic of the rotating module. Clearly, it would be inappropriate to draw definitive conclusions from these data, but they are illustrative for the present purposes and highlight the need for more research in this area.

Some anecdotal evidence can also add to our understanding of national variations in mode preferences. In our consultation exercise, we asked ESS National coordinators to comment on how well suited they thought face-to-face mode was for administering the ESS in their countries and what they considered to be the main challenges (if any) involved in conducting the ESS in their countries. In fact, almost all NCs who responded (with the exception of two) explicitly stated that they thought face-to-face was the best mode of data collection for the ESS, because of the design and specification of the survey, regardless of how widely this mode of data collection is practiced on other surveys. Comments of this kind were also supplemented by suggestions that others aspects of the ESS specification posed challenges for fieldwork agencies, rather than the mode of data collection per se (e.g. in Spain and France). Many NCs stated that face-to-face interviewing is still the preferred approach in their country and that people are generally quite open to personal visits by interviewers (e.g. Cyprus, Greece, Poland); others commented that face-to-face interviewing is still a widely-used survey method in their country (e.g. Czech Republic, Estonia, Luxembourg, Spain, Ukraine and UK). However, concerns were expressed about the availability of suitably-qualified fieldwork agencies in both France and Germany, and a number of NCs suggested that mixed mode approaches may be more suitable in their country, either to try to boost response, or more generally to ease the burden on respondents by cutting down the length of the questionnaire.

Summary

In this section we considered characteristics of the 'survey climate' in ESS participating countries to aid our assessment of the suitability of conducting the survey by face-to-face interviewing. Looking at non-contact and refusal rates, it is evident that in a number of countries, personal visits from interviewers, despite being distributed across different days of the week and times of the day, are still not the best way of making contact with all sample members. In some countries, contacts by telephone are proving to be a far more effective means at gaining access to potential respondents. Nevertheless, the ESS policy of minimising non-contacts means that most nonresponse on the survey can primarily be attributed to refusals by sample members to participate. In some countries, however, refusal rates are especially high, suggesting either that survey fatigue may be a particular problem (e.g. in Luxembourg), or that there is a misfit between the ESS mode of contact and data collection and the mode preferences of the public. Further research could usefully be directed at learning more about the relative effect of both factors on willingness to participate.

National mode preferences are not only relevant to our assessment of the demand for alternatives to face-to-face interviewing they are also an important component of our assessment of the capacity to conduct the ESS using different modes. In particular, where one mode comes to dominate the survey industry in a country, it can impact on the infrastructure available for conducting surveys in alternative modes (and the experience of organisations in using alternatives). This, in turn, can limit the

availability of suitably equipped fieldwork organisations to offer the alternative mode. On the ESS, this presents a problem in the form of countries where face-to-face interviewing is not widely practiced (or at least not in the context of random probability surveys), which has resulted in a dearth of qualified agencies equipped to undertake the survey to specification. This was a problem in Switzerland prior to round 1, and – based on anecdotal evidence from our consultation exercise – is also an ongoing problem in France. Germany also has only a limited number of agencies willing to undertake the ESS, because of its current design. These issues relating to capacity are considered further in the following sections.

6.3 Assessing the capacity for mixing modes of data collection

In the second half of the results section, we present data relevant to our assessment of the capacity for using alternative or mixed modes of data collection on the ESS. As stated in section 5.1, we focus on three key indicators or factors, influencing the feasibility of using different modes or mixed-mode designs in different countries. These are: mode penetration and coverage issues; the availability of appropriate sampling frames; mode availability and experience of conducting survey fieldwork in different modes. As with our assessment of demand, we introduce each topic with a brief discussion of the reasons why it is relevant to our evaluation. We then present data from a range of different sources identified in our desk research, as well as data from our own consultation exercise. Finally, we attempt to draw conclusions based on these data regarding the capacity in different countries for using alternatives to face-to-face interviewing on the ESS.

6.3.1 Mode penetration and coverage

As stated in section 6.1, the ESS has a target population of all adults aged 15 or over, resident within private households. Each of the main modes of data collection varies in the extent to which it can provide access to this population (whether for contact purposes, or data collection), so establishing the extent of mode penetration in each country represents one of the most important steps in assessing the capacity to use alternatives to face-to-face interviewing on the survey. For example, in most European countries, telephone interviewing is widely practiced (often to a high standard) and – as we have seen – is regarded by many as the most likely single-mode alternative to face-to-face interviewing on the ESS. However, in order to be considered as such, telephone interviewing as a mode must be shown to provide adequate levels of coverage of the target population. This is also true of the Internet. Access to and usage of the Internet has been rising quickly throughout Europe, but levels of penetration are still not sufficiently high to allow the ESS to be implemented solely as a web survey. To establish the extent to which alternative modes to face-to-face interviewing provide access to the ESS target population in each of the participating countries, we examine data from a range of sources on levels of penetration of technologies used for data collection (fixed-line and mobile telephones, and the Internet).

The level of penetration in the population of fixed-line telephones, mobile telephones and the Internet may be indicative of the overall *level* of coverage offered by a particular mode, but it will not necessarily be informative about the nature of any

under-coverage, where penetration is below 100%. For this, information is needed about the socio-demographic makeup of the population not accessible via particular modes. Therefore, we also present data here on the composition of these groups, so we can establish the extent to which they differ systematically from those we are able to access. This represents an important step in planning for a mixed mode data collection future, as it can inform decisions about how different modes are best combined in different countries, to ensure the survey population is adequately represented in the sample.

Independent of the issue of access, it is also important to establish the extent to which different subgroups of the population are *able* to participate in each mode. For example, the possibility of conducting a survey using self-completion questionnaires depends on levels of literacy in the population. Similarly, the ability to participate in a survey via the Internet depends not only on having an Internet connection (though the type of connection (e.g. dial-up versus broadband) is likely to be critical), but on having the skills needed to navigate a survey questionnaire using a computer. In the final part of this section, therefore, we consider the significance of these factors for evaluating the appropriateness of other modes for the ESS.

Previous studies (Nicolas, 2005, for example) have highlighted coverage issues as a reason against selecting a certain mode of data collection. Low coverage of a particular mode could mean that a section of the population would not be contactable. This is especially problematic when that section is not random, since it may lead to bias in the sample. In order to consider coverage issues associated with different modes across Europe, data have been collected on the penetration rates of telephone and of the Internet and the nature of under-coverage associated with each. In the following section we present data on penetration and coverage offered by fixed-line and mobile telephones.

6.3.1.1 Telephone: landline and mobile

An emerging challenge for carrying out telephone surveys is the rise in the use of mobile phones, whether alongside or instead of landlines. The rapid spread of this technology has had a significant impact on the survey research industry because of the implications it has for telephone survey sampling. Methods of sampling for telephone surveys vary by country, depending on the availability of up-to-date lists of numbers. In most countries, where close to 100% of households have (or had) fixed-line telephones, probability sampling for telephone surveys has been possible using methods of random digit dialling (RDD). Mobile telephones complicate these existing methods in a number of different ways. For one, mobile phone numbers cannot easily be sampled in this way, because the numbers allocated to mobiles do not usually conform to the area code system used for landline numbers which forms the basis of most automated RDD systems. Another problem is that there is no system – in most European countries – for listing the mobile phone numbers that are in use. A further complication arises from the fact that, whereas fixed-line phone numbers are assigned to households, mobile phone numbers tend to be assigned to individuals (Couper, 2002), yet it cannot be assumed that a particular mobile phone number is being used by only one person. Each of these factors poses challenges for the method of sampling that is feasible in a telephone survey that is to conduct interviews with respondents on mobiles as well as landlines. Perhaps the most serious issue, however, is the fact that as mobile phones have increased in popularity, more and more people have decided to

abandon their fixed-line telephones altogether (or, as is more often the case, to never subscribe to a fixed-line phone in the first place). This has led to a rapid rise in the number of 'mobile-only' households that are no longer contactable by fixed line phone (and as a consequence, no longer covered by RDD sampling techniques). The results below show the extent to which mobile-only households have spread across Europe and provide some evidence about the nature of their socio-demographic makeup.

Results

To establish the relative levels of penetration of fixed-line and mobile telephones across ESS countries and the characteristics of mobile-only households, we present data from a Special Eurobarometer (No. 274/ wave 66.3) - the E-Communications Household Survey – November/ December 2006, and from round 3 of the ESS (September-December 2006). Table 14 presents Eurobarometer data showing the penetration of fixed-line and mobile telephones across all European Union countries (plus two candidate countries: Turkey and Croatia), many of which have also participated in the ESS. The data in the table have been sorted by column 5, which shows the proportion of 'mobile-only households'.

Looking first at column 2, which shows overall access to a telephone (whether fixed-line or mobile), we can see most countries in Europe have high telephone coverage when both mobile phones *and* landlines are taken into account (i.e. most European residents have access to a landline *and/or* a mobile). However, in around one third of all the countries shown, less than 95% of households have telephone access. Overwhelmingly, these countries are Eastern European, with the lowest penetration rates in Romania (77%), followed by Bulgaria (85%), Hungary (87%), Poland (88%), Lithuania (90%), Slovakia (90%) and Latvia (92%). Portugal and Italy have the next lowest rates of telephone coverage, at 93% and 94% respectively. Setting aside the challenges of sampling mobile-only versus fixed-line households for telephone surveys (discussed below), it is clear that for these countries, telephone interviewing could not be considered as a *single*-mode alternative to face-to-face, because of the extent of under-coverage associated with the mode.

Column 5 of table 14 shows the proportion of households without a fixed line telephone, but with access via mobile phone (listed in descending order). In seven EU countries, over 40% of households are now 'mobile only', with the highest rates recorded in the Czech Republic and Finland (both 54%). With the exception of Finland, the highest proportions of mobile-only households can be found in Eastern European countries, where fixed-line telephone penetration rates are lowest. By contrast, just four of the countries surveyed by the Eurobarometer have mobile-only household rates of below 10% - Luxembourg and The Netherlands (both 7%), and Malta and Sweden (both 4%). According to these data, it is evident that despite relatively high overall levels of telephone access across the EU, a substantial proportion of the population can no longer be contacted via fixed-line telephone. As stated previously, this has a range of implications for sampling for telephone surveys, though the precise nature of the challenges will vary by country. It is sufficient to conclude, however, that in those countries where mobile telephones numbers cannot easily be sampled, the extent of under-coverage in a survey sampling only those households/individuals that can be contacted by fixed-line telephone would be unacceptably high. In almost all cases, a fixed-line data collection strategy would have

to be supplemented either by mobile telephone interviewing or an alternative mode to ensure adequate coverage of the population.

Table 14 – Penetration of fixed-line and mobile telephones

Country	At least one phone[1] %	Fixed line and mobile[2] %	Fixed line only %	Mobile only %	No phone %
Czech Republic	95	35	7	54	5
Finland	99	40	6	54	1
Lithuania	90	30	10	49	10
Estonia	95	39	8	48	5
Latvia	92	38	10	45	8
Slovakia	90	34	14	45	8
Hungary	87	31	14	43	12
Austria	96	40	17	39	4
Italy	94	48	8	38	5
Portugal	93	48	11	36	5
Romania	77	30	14	33	23
Belgium	96	53	12	32	3
Turkey	96	57	11	28	4
Poland	88	47	19	27	7
Spain	96	59	15	24	3
Ireland	98	64	10	24	2
Denmark	98	70	11	18	1
France	97	61	18	18	3
Greece	99	66	16	17	1
Bulgaria	85	40	28	17	15
Cyprus	99	72	12	15	1
Cyprus (TCC)	98	75	9	15	2
Slovenia	99	73	11	14	1
United Kingdom	98	73	13	13	1
Germany	95	65	22	10	2
Croatia	96	69	17	10	4
Luxembourg	99	78	14	7	-
Netherlands	100	85	7	7	0
Malta	100	86	10	4	-
Sweden	100	87	9	4	0

Source: Special Eurobarometer 274/ Wave 66.3 – E-communications Household Survey (Wave II). Fieldwork – November/December 2006. Report (2007) by TNS Opinion and Social.

Notes: [1] Fixed and/or mobile

[2] 'Households combining a fixed telephone access and mobile telephone access'

It is worth noting that because of the rapid advancement of mobile phone technology, data of this kind quickly become out-of-date and while in many countries national

trends may be regularly monitored, relatively few efforts have been made to collect comparative data on this. The Eurobarometer E-Communications Survey represents a relatively new development in this respect. In round 3, new questions on telephone access were also added to the ESS core questionnaire, providing an additional source for monitoring the changing situation in our participating countries over time. Data from the first release[16] of round 3 are presented in table 15, again sorted by the 'Mobile only' column, together with additional information about the proportion of households with a fixed-line telephone, and which currently use the Internet to make phone calls.

The results broadly support the Eurobarometer findings. Column 2 of table 15 shows overall levels of telephone access: Norway, Sweden, Cyprus, Switzerland, France, Finland, Great Britain and Slovenia have the highest levels of telephone coverage (all above 99%), whether fixed-line, mobile or Voice over Internet Protocol (VOIP). As with the Eurobarometer data, the lowest levels of coverage were found in Bulgaria and Slovakia. Levels of fixed-line telephone penetration vary widely. Among the countries included in table 15, penetration is highest in Switzerland (not covered by the Eurobarometer survey) at almost 99%. However, just five other countries have fixed-line penetration levels over 90% (Great Britain, Slovenia, Sweden, Cyprus and Germany) and the lowest rates tend to be found in those countries where the proportion of mobile-only households is highest (with the exception of Bulgaria). Column 7 shows the proportion of households that only have mobile phone access (the countries have been sorted in descending order). The order in which the countries appear in the list generally mirrors that for the Eurobarometer data. However, it is noteworthy that the ESS estimates for the proportion of mobile-only households are generally much lower than the Eurobarometer estimates. This difference undoubtedly reflects the different ways in which the estimates were derived[17].

As well as asking about fixed-line and mobile telephones, ESS respondents were also asked whether they 'ever use the Internet to make telephone calls at home'. The use of VOIP already appears to be a popular means of communication in Europe (although no trend data are available to indicate change over time) and rates of usage are as high as 27% in Estonia, 25% in France and 20% in Norway. The lowest rates of usage were recorded in Spain (5%), Portugal (9%) and Britain (9.5%). However, there is little sign of VOIP taking over other forms of telephone access at present (although this is hard to determine as having an Internet connection relies on some other kind of telephone connection within the household).

[16] The analysis is based on the first release of the data (Edition 1.0), which included 20 of the 25 round 3 countries. However, design weights were not available for three of these countries at the time of writing, so tables include data from only 17 round 3 countries.

[17] Eurobarometer respondents are asked whether at least one member of the household has a mobile phone, whereas ESS respondents are asked whether they personally have a mobile. The proportion of mobile-only households was derived based on responses to this question and the question asking whether there is a fixed-line telephone in the household's accommodation.

Table 15 – Penetration of fixed-line and mobile telephones in Europe (2006/07)

Country	At least one phone	Has a fixed line	Has a mobile	Fixed line and mobile	Fixed line only	Mobile only	Has neither fixed line nor mobile	Use internet for phone calls
Finland	99.4	49.4	93.7	88.6	2.4	49.9	0.6	13.8
Slovakia	88.1	47.0	78.3	79.0	7.2	40.9	11.7	16.0
Estonia	96.0	60.8	82.6	78.6	9.6	34.8	4.4	26.8
Portugal	91.7	63.0	77.6	76.7	11.3	28.9	7.6	8.8
Poland	92.1	70.2	68.1	65.4	18.3	21.8	7.6	16.0
Norway	99.7	79.9	92.8	91.4	4.7	19.8	0.3	20.0
Spain	97.5	79.2	78.2	75.4	13.5	18.3	2.3	5.3
Belgium	99.0	82.8	86.4	84.7	10.6	16.2	1.0	12.1
Bulgaria	83.3	69.0	57.5	61.4	18.3	14.9	15.6	13.7
Denmark	98.1	87.6	87.6	86.1	11.6	11.9	0.3	14.2
France	99.5	89.7	79.9	78.1	9.5	9.8	0.5	25.1
Great Britain	99.2	90.6	84.2	83.5	14.2	8.6	0.8	9.5
Slovenia	99.1	91.2	84.1	83.5	11.2	7.9	0.8	17.9
Sweden	99.9	93.5	91.4	90.8	4.9	6.5	-	11.9
Cyprus	99.9	93.5	84.6	83.7	4.8	6.4	0.1	15.6
Germany	98.4	93.0	78.3	77.9	15.0	5.8	1.1	10.3
Switzerland	99.7	98.8	85.4	85.3	11.1	1.0	0.1	13.5

Source: European Social Survey, Round 3, Edition 1.0.
Notes: Data weighted by design weight (only available for 17/ 20 of the first release countries).

What is striking about these data, is that they clearly indicate that fixed-line telephones can no longer be relied upon to provide full coverage of the population, in *almost all* of the European countries included in these tables (with the exception of Switzerland, and possibly, Sweden and Malta). To find out more about the extent of coverage (and the nature of under-coverage in surveys that are unable to sample mobile-only households), we present some data on the socio-demographic composition of mobile-only households. Table 16 presents Eurobarometer data on the size of mobile-only households and on the types of regions in which mobile-only households are located ('subjective urbanisation' refers to respondents' own assessment of whether they live in a 'rural', 'urban' or 'metropolitan' area). Each column shows the proportion of households of different types that are mobile only (e.g. the proportion of single-person households that are mobile-only, or the proportion of rural households, and so on).

Simply eyeballing the data, it is noteworthy that the proportion of mobile-only households is higher among three-person households (compared to the overall proportion) in over a third of EU countries (rows shaded in light grey). This situation is more common in the countries with higher proportions of mobile-only households (i.e. those in the top half of the table), and includes Eastern European countries (the Czech Republic, Lithuania, Latvia, Slovakia, Romania, Poland and Bulgaria) as well some smaller Western and Southern European countries (Portugal, Ireland and Cyprus). Exceptions in this group are Finland and Austria, but the differences in the

proportion of mobile-only households by household size are small. A second group of countries (shaded in black) show a different pattern of results: these countries (including Denmark, France, Greece, Germany, Sweden, Turkey and the Turkish Cypriot Community), which generally have lower overall numbers of mobile-only households, households of this kind are more likely to be single-person. In the remainder of countries (not shaded), mobile-only households are no more likely to be single-person than multiple-person households. With some exceptions (Estonia, Italy, Belgium and Spain), this situation is more common in countries with lower overall proportions of mobile-only households.

In terms of subjective urbanisation, there are slightly higher proportions of mobile-only households in rural areas in those countries that appear towards the top of the table (i.e. those with the highest overall penetration of such households), suggesting that these areas were less likely to have ever been connected to a fixed-line telephone. By contrast, in around 10 other countries (Slovakia, Austria, Romania, Belgium, Turkey, Ireland, Denmark, Greece, Germany and Croatia), the opposite appears to be true, with mobile-only households more common in urban and metropolitan areas compared to rural areas. In the remaining countries, there are no observable differences in the distribution of mobile-only households by region.

Table 16 – Composition and location of mobile-only households

Country	Total (%)	Household composition (%)				Subjective Urbanisation (%)		
		1	2	3	4+	Rural	Urban	Metro
Czech Republic	54	50	48	65	55	60	54	45
Finland	54	55	46	61	58	56	51	57
Lithuania	49	40	46	60	54	50	52	45
Estonia	48	49	42	51	50	57	42	43
Latvia	45	34	42	47	55	53	44	37
Slovakia	45	39	41	57	46	42	44	51
Hungary	43	34	35	53	52	42	44	43
Austria	39	40	32	45	41	34	42	44
Italy	38	41	32	37	41	40	38	36
Portugal	36	32	26	42	42	35	35	42
Romania	33	25	22	44	39	29	36	38
Belgium	32	37	29	35	28	28	33	46
Turkey	28	43	20	30	26	23	30	30
Poland	27	25	23	37	24	25	28	28
Spain	24	29	19	26	22	29	23	15
Ireland	24	17	24	34	23	18	41	23
Denmark	18	27	15	11	10	11	13	27
France	18	24	15	19	15	17	20	18
Greece	17	29	13	14	15	11	20	19
Bulgaria	17	6	11	24	27	15	22	15
Cyprus	15	11	11	21	17	15	15	-
Cyprus (TCC)	15	34	12	9	14	16	13	14
Slovenia	14	19	11	14	13	12	16	14
United Kingdom	13	13	10	17	16	10	14	14
Germany	10	15	8	9	6	7	10	15
Croatia	10	11	8	10	10	6	14	10
Luxembourg	7	7	8	6	7	5	11	5
Netherlands	7	11	7	9	2	6	7	10
Malta	4	6	4	3	4	3	5	5
Sweden	4	10	1	-	-	3	6	2

Source: Special Eurobarometer 274/ Wave 66.3 – E-communications Household Survey (Wave II). Fieldwork – November/December 2006. Report (2007) by TNS Opinion and Social.

Data from the ESS broadly support the findings from the Eurobarometer survey. Table 17 shows the distribution of mobile-only households by household size (sorted by column 2, which shows the proportion of mobile-only households that consist of just one person). As with the Eurobaromater data, it is generally in countries with a lower overall proportion of mobile-only households, that these households tend to be predominantly single-person, and notably, in Nordic and Western European countries. By contrast, in Eastern and Southern European countries, mobile-only households tend to be larger. It should be noted, however, that there are some inconsistencies to these patterns. In fact, as can be seen in table 18, which compares the mean household size of mobile-only households with households with a fixed-line telephone, only in about half of the countries shown is the difference in household size statistically significant.

Table 17 – Composition of mobile-only households (percentages)

Country	Overall % mobile-only HHs	Mobile-only Households						Other Households					
		1	2	3	4	5+	n	1	2	3	4	5+	n
Sweden	6.5	52.0	34.4	10.4	3.2	-	125	19.0	37.8	16.6	18.1	8.6	1802
Germany	5.8	51.1	27.6	9.1	6.8	5.4	168	20.1	37.1	19.5	16.7	6.6	2748
Denmark	11.9	43.6	34.1	12.3	6.1	3.9	179	16.7	41.5	15.9	17.8	8.0	1326
Norway	19.8	39.9	31.5	16.2	9.0	3.5	346	14.1	36.9	18.1	19.3	11.6	1404
Switzerland	1.0	39.7	25.8	14.7	11.7	8.1	19	16.2	35.4	15.0	21.6	11.9	1785
Great Britain	8.6	27.1	23.9	20.2	16.3	12.4	207	14.7	35.7	21.2	17.2	11.2	2187
Finland	49.9	26.3	36.0	15.2	15.1	7.4	947	20.5	43.5	13.8	13.2	9.0	949
Slovenia	7.9	24.8	23.9	30.8	12.8	7.7	117	7.6	20.8	23.6	28.5	19.5	1357
Belgium	16.2	24.1	28.3	20.3	16.5	10.3	290	10.0	34.4	18.2	24.4	12.9	1507
Estonia	34.8	19.1	32.6	22.0	16.3	10.0	528	16.7	32.4	21.3	18.1	11.5	989
France	9.8	19.0	26.6	21.8	17.9	14.7	194	11.1	35.2	17.4	22.4	13.9	1792
Cyprus	6.4	11.8	22.9	21.7	18.3	25.4	63	4.1	21.6	19.4	23.9	31.0	932
Spain	18.3	11.8	28.0	24.1	19.4	16.6	343	8.6	24.5	25.2	29.1	12.6	1531
Slovakia	40.9	9.2	18.4	23.5	28.8	20.2	722	10.0	20.9	19.6	25.0	24.5	1044
Poland	21.8	7.2	19.0	23.2	23.0	27.6	376	7.8	20.6	19.7	24.1	27.9	1343
Portugal	28.9	6.6	22.5	28.6	26.8	15.4	642	8.0	33.2	25.8	20.7	11.2	1580
Bulgaria	14.9	5.3	15.6	24.4	24.3	30.3	209	6.2	23.1	23.2	24.8	22.6	1191

Source: European Social Survey, Round 3, Edition 1.0.
Notes: Data weighted by design weight (only available for 17/ 20 of the first release countries).

Table 18 – Mean household size: mobile- and fixed-line-only households

Country	Mob only	Fixed line	*t*	*p*
Bulgaria	3.82	3.56	2.08	0.038*
Poland	3.65	3.66	-0.12	0.908
Slovakia	3.48	3.55	-0.91	0.365
Cyprus	3.32	3.74	-2.12	0.034*
Portugal	3.3	2.97	5.62	0.001*
Spain	3.13	3.17	-0.55	0.581
France	2.91	2.99	-0.75	0.456
Great Britain	2.72	2.79	-0.73	0.468
Estonia	2.7	2.82	-1.49	0.136
Belgium	2.66	3.02	-4.13	0.001*
Slovenia	2.56	3.45	-6.14	0.001*
Finland	2.45	2.5	-0.8	0.425
Switzerland	2.23	2.8	-1.84	0.066
Norway	2.05	2.81	-9.8	0.001*
Denmark	1.97	2.61	-6.48	0.001*
Germany	1.92	2.56	-6.33	0.001*
Sweden	1.65	2.63	-8.78	0.001*

Source: European Social Survey, Round 3, Edition 1.0.
Notes: Data weighted by design weight (only available for 17/ 20 of the first release countries).

ESS data also support the Eurobarometer story with respect to the types of areas in which mobile-only households are located. Table 19 shows the location of mobile-only households (self-reported). Once again, there appears to be a distinction to be made between countries where mobile-only households are more often found in big cities (those in the top half of table), and countries where such households are more commonly found in smaller towns or rural locations (countries in the lower half of the table). Looking at the location of mobile-only households alongside the distribution of households with fixed-line telephones across urban and rural areas, some marked differences are evident. However, the overall pattern of effects is not clear cut.

Finally, table 20 shows the mean age of adults in mobile-only households (defined here as household members aged 15+). Previous studies (e.g. Callegaro & Poggio 2004) have shown that mobile-only households tend to be composed of younger members than households with fixed-line telephones and the ESS data lend further support for these findings across almost all of the round 3 countries included in the first data release. With the exception of Slovenia and Switzerland, mobile-only households are significantly 'younger' than other households, and often by a substantial margin. This is especially true in the Nordic countries – for example, in Finland and Sweden adults in mobile-only households are on average 16 years younger than those in other households, while the difference in Denmark is over 15 years, and in Norway, over 14 years.

Table 19 – Location of mobile-only households

Country	Mobile-only Households					Other Households				
	A big city	Suburbs	Town	Village	Country	A big city	Suburbs	Town	Village	Country
Sweden	45.3	3.1	18.8	32.8	-	46.2	7.3	13.8	33.7	-
Germany	36.3	18.4	31.3	11.7	2.2	12.3	22.7	35.7	16.9	12.5
Denmark	34.3	4.8	32.4	28.6	-	44.3	3.0	22.0	30.7	-
Norway	26.8	14.9	36.3	22.0	-	16.2	17.4	40.4	24.8	1.3
Switzerland	24.6	13.0	30.6	19.4	12.4	11.6	16.2	26.4	21.8	24.0
Great Britain	24.1	4.5	46.6	17.0	7.8	36.9	6.9	36.2	15.4	4.7
Finland	24.0	20.8	43.2	10.4	1.6	12.0	23.4	32.4	20.0	12.1
Slovenia	23.7	13.8	38.1	20.1	4.1	16.7	11.7	35.7	30.4	5.6
Belgium	21.0	7.2	27.5	41.9	2.4	10.0	9.6	21.0	55.5	3.9
Estonia	18.4	1.8	28.7	48.2	2.9	21.3	5.0	30.8	40.4	2.5
France	18.1	5.6	30.4	45.3	0.5	20.9	4.2	32.9	40.9	1.1
Cyprus	18.1	4.6	39.0	37.7	0.6	17.2	5.9	30.4	45.6	0.9
Spain	17.4	13.9	32.5	21.0	15.1	13.1	13.5	29.5	20.4	23.5
Slovakia	12.0	18.7	34.1	32.0	3.2	15.9	16.0	24.7	40.4	3.0
Poland	11.7	22.0	48.3	17.6	0.5	6.5	25.4	42.2	22.1	3.8
Portugal	11.1	16.7	27.8	44.4	-	7.1	11.3	19.9	56.1	5.7
Bulgaria	7.8	23.3	25.9	31.9	11.2	8.0	16.9	8.6	48.1	8.3

Source: European Social Survey, Round 3, Edition 1.0.
Notes: Data weighted by design weights (only available for 17/ 20 of the first release countries).

Table 20 – Mean age of adults in mobile-only households

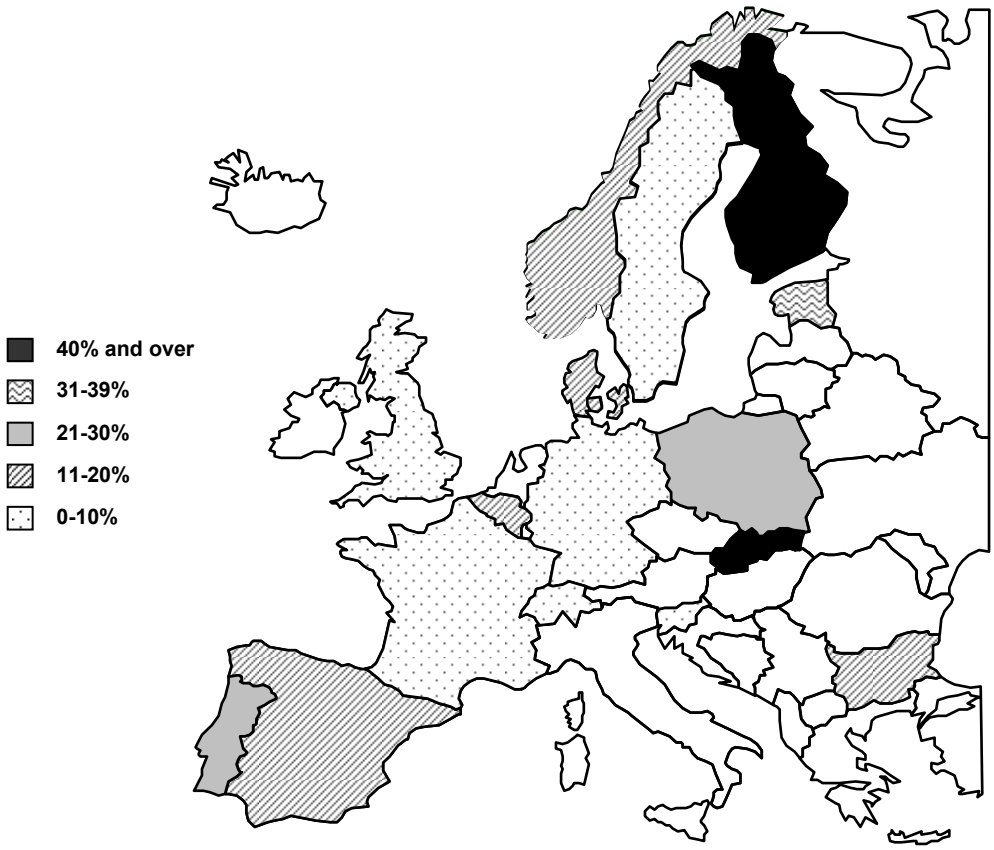
Country	Mobile-only Households	Other Households	*t*	d.f.	*p*
Slovenia	43.78	45.73	-1.41	1469	0.159
Estonia	42.59	49.73	-8.04	1513	0.001
Switzerland	40.65	47.02	-1.7	1801	0.09
Finland	40.09	56.31	-22.56	1894	0.001
Portugal	39.59	51.42	-16.9	2220	0.001
Slovakia	39.43	46.15	-10.08	1730	0.001
Belgium	38.58	47.88	-9.16	1796	0.001
Germany	37.97	48.17	-7.71	2874	0.001
Bulgaria	37.54	47.18	-9.35	1385	0.001
Poland	37.22	44.87	-9.85	1719	0.001
Spain	37.21	48.05	-12.06	1873	0.001
Denmark	35.32	50.74	-11.96	1493	0.001
Cyprus	34.91	42.87	-4.45	984	0.001
France	34.46	46.44	-10.56	1984	0.001
Great Britain	33.90	47.59	-11.33	2363	0.001
Norway	33.77	47.94	-14.79	1748	0.001
Sweden	31.31	47.47	-10.2	1924	0.001

Source: European Social Survey, Round 3, Edition 1.0.
Notes: Data weighted by design weights (only available for 17/ 20 of the first release countries).

Summary and Conclusion

This section presented data on the level of penetration of fixed-line and mobile telephones across countries participating in the ESS (and elsewhere across the EU). Telephone penetration is high across most European countries: the majority of households can be contacted either by fixed-line or mobile telephone. However, the proportion of households with no landline, but with a mobile telephone(s), is rising and this appears to be particularly true for countries where fixed-line telephone penetration had not yet reached high levels - notably, Eastern European countries (Blyth, 2007). The regional differences across Europe discussed are illustrated in figure 3. What is noteworthy is that almost no country has sufficient fixed-line coverage to carry out telephone surveys to the specification required in the ESS using only landline telephones, meaning fixed-line telephone interviews would need to be combined with mobile telephone interviews, in order to ensure the ESS population was adequately covered in the survey. In countries where overall telephone penetration rates are below 95%, telephone interviews would probably need to be combined with another mode (or modes) in order to overcome the problem of under-coverage. These conclusions are broadly in line with others working in this field (e.g. Blumberg, Luke and Cynamon, 2004): coverage is still at a level in many countries to ensure that telephone surveys will need to be conducted using either a combination of fixed line and mobile telephones, or using fixed line only, plus one other mode.

Figure 3 – Percentage of households that are 'mobile-only' in Europe



Source: European Social Survey, Round 3, Edition 1.0.

Combining modes (even if that meant simply combining mobile and fixed-line telephone interviewing) is all the more necessary given that households without fixed-line telephone access differ systematically on a number of socio-demographic variables from those with landlines. In particular, they tend to be smaller in countries with a lower overall proportion of mobile-only households and larger in countries with a higher proportion of mobile-only households; mobile-only households are not evenly distributed across all types of area (i.e. in terms of urbanisation); and members of mobile-only households are significantly younger than those of fixed-line households. Conducting a survey that excluded these households (e.g. because they could not easily be sampled) would systematically bias the sample.

In terms of our evaluation of the capacity for ESS countries to switch to an alternative mode of data collection to face-to-face interviewing, these data highlight particular difficulties with telephone interviewing as a single-mode option for population surveys in many participating countries. The rise in mobile-only households means that, unless households or individuals with no fixed-line telephone could be given a non-zero chance of being selected in a survey sample, countries with considerably less than 100% fixed-line telephone coverage would be unable to conduct the ESS by telephone to the specification required. However, even if the mobile-only portion of

the population could be included in the sample, it would be necessary to establish whether or not the two types of telephone are functionally equivalent to each other as data collection tools. Some data comparing mobile phone interviews with fixed-line and face-to-face interviews have already been gathered (in Hungary and Portugal) as part of our research collaboration with Gallup Europe and future analysis will be directed at assessing whether there are mode effects associated with these different types of telephone.

6.3.1.2 Internet access and use

To find out about levels of Internet penetration across Europe, we present further data from the Eurobarometer E-communications Survey (2006) and round 3 of the ESS, which are currently the most recent and reliable cross-national measures available. As with the data on telephone access, data on Internet penetration are problematic, not only because they quickly become out of date, but also because of disagreement over how best to define Internet 'access' – particularly in relation to the use of the Internet as a data collection tool (see Blyth, 2007). Many sources of data on Internet penetration are too broad for our purposes, measuring simply whether or not people have access to the Internet or whether they use the Internet, without taking into consideration where they access the Internet from (e.g. at home, work or from an Internet café, from mobile phones), the type of connection to the Internet they are using (i.e. whether broadband or dial-up), their frequency of usage, or the purposes for which the Internet is used. Each of these factors has a bearing on whether or not a person has the capability to respond to a web-based survey (see Czaja and Blair, 2005), and consequently, on the capacity in any given country for conducting population surveys using this particular mode of data collection.

Results

To illustrate some of the difficulties with data on Internet penetration, table 21 shows the proportion of the population in each country that 'uses the Internet', taken from the CIA World Factbook website (together with data from Survey Sampling International). The data show a clear distinction between countries with relatively high numbers of Internet users (as much as 86% of the population in Iceland), which are predominantly in Nordic countries and Western Europe, and countries with much lower levels of use (as low as 11% in Ukraine) predominantly in Eastern and Southern Europe. However, the definition of Internet Use provided with these data is 'the number of users within a country that access the Internet', together with the disclaimer: 'Statistics vary from country to country and may include users who access the Internet at least several times a week to those who access it only once within a period of several months'. Thus, not only are these data likely to over-estimate the proportion of the population in each country that would be available and capable to participate in a web-based survey, the absence of cross-national equivalence between these figures means we should be particularly cautious about how we interpret them.

Table 21 – Internet use

Country	Internet use (%)
Iceland	86.2
Sweden	74.9
Denmark	69.4
Norway	67.8
Switzerland	66
Netherlands	65.9
United Kingdom	62.9
Finland	62.5
Germany	59
Luxembourg	58.9
Israel	58.2
Portugal	58
Austria	56.8
Slovenia	54.2
Estonia	52.1
Ireland	50.7
Czech Republic	49.8
Italy	48.8
Belgium	48.7
Slovakia	46
Latvia	45.3
France	43
Spain	38.7
Cyprus	38
Greece	35.6
Hungary	30.6
Bulgaria	29.8
Poland	27.8
Turkey	22.7
Romania	22.1
Russia	16.6
Ukraine	11.3

Sources: CIA World Factbook 2005 (ISSN1553-8133)
https://www.cia.gov/cia/publications/factbook/index.html
Survey Sampling International http://www.surveysampling.com/products_sample_region.php

Because of these difficulties with the available data on Internet penetration, we prefer to make a distinction between having *access* to the Internet and *use* of the Internet. Many people have access to an Internet connection outside of their home, either at work or in public libraries, Internet cafés and so on. Having access to the Internet at home, however, provides some indication of a household that is more digitally advanced than one with no connection, and one that is more *likely* to be able to participate in a survey online (assuming that the connection is fast enough to enable the questionnaire to load quickly and for respondents' answers to be easily transmitted). The Eurobarometer data presented in table 22 indicate the proportion of households in EU (plus candidate) countries with Internet access at home, and whether or not the connection is by broadband or narrow-band connection. As with the CIA data, the same distinction can be drawn between Eastern and Southern

European countries on the one hand (in the lower half of the table below Croatia), where less than 35% of households have access to the Internet and Northern and Western European countries on the other hand, with levels of access over 50% (in the upper part of the table from Germany upwards). According to these data, levels of Internet penetration are particularly high in The Netherlands, Denmark and Sweden (all over 60%), with the majority of households connected via broad-band. By contrast, just 11% of households in Bulgaria and Romania and 7% of households in Turkey have access to the Internet.

Table 22 – Access to the Internet at home

Country	Any at-home Internet Access (%)	Narrow-band Internet Access (%)	Broad-band Internet Access (%)
Netherlands	79	14	65
Denmark	73	13	60
Sweden	64	21	43
Finland	58	9	49
Luxembourg	55	22	33
Belgium	54	7	47
United Kingdom	51	10	41
Germany	50	25	25
Malta	46	6	40
Estonia	45	4	41
Slovenia	45	19	26
France	44	4	40
Ireland	37	26	11
Austria	36	15	21
Croatia	35	24	11
Spain	32	7	25
Italy	31	17	14
Lithuania	27	10	17
Latvia	27	8	19
Cyprus (TCC)	27	26	1
Czech Republic	24	9	15
Portugal	24	7	17
Poland	24	3	21
Cyprus	24	17	7
Hungary	20	2	18
Greece	18	12	6
Slovakia	14	6	8
Romania	11	2	9
Bulgaria	11	1	10
Turkey	7	1	6

Of course, knowing that a household is connected to the Internet does not imply that the Internet is regularly used by *all* household members, which is why it is important to also take into account whether and how the connection is used by individual members of the household. The ESS provides some data on this, although it does not distinguish between use of the Internet at work or at home. Table 23 shows the frequency of Internet use in the 17 Round 3 countries that were included in the first data release. The table is sorted by the column on the far right, which shows the proportion in each country of respondents reporting that they use the Internet (whether at home or at work) *everyday*. Of the countries shown, once again it is in Nordic countries where Internet use is most frequent (around half of respondents in Denmark, Norway and Sweden reported using the Internet every day), followed by Western European countries, including Switzerland, Belgium, France and Great Britain (each between 30 and 40%) and lastly, Germany, Spain and Poland (each around 20%). Of the Eastern European countries shown in the table, Estonia and Slovenia each have relatively high proportions using the Internet daily (40% and 30% respectively). Once again, however, the countries with the least frequent Internet users are Eastern and Southern European (including Poland, Slovakia, Portugal, Bulgaria and Cyprus, which each have fewer than 20% of respondents reporting daily Internet use).

Even when a relatively broad definition of access is used, it is clear that the level of coverage offered by the Internet as a data collection tool is not sufficient for any country to adopt web-based surveys as their sole mode of data collection. Nevertheless, in certain countries, the relatively high proportion of regular internet users suggests that the Internet may indeed offer an effective data collection solution for certain groups in the population (assuming they could be sampled and contacted in a way that conforms to standard ESS protocol). Further caution should be taken before reaching this conclusion, however, as it is important to recognise that the data do not provide information about how competently people use the Internet, the purposes for which they typically use it and whether or not they would be capable of completing a long self-administered survey questionnaire on it. Some individuals may use the Internet only for very specific tasks and may not have the skills needed to complete a survey online and as with traditional forms of self-completion survey, the respondent's level of literacy is a crucial factor influencing their ability and motivation to participate. Furthermore, because Internet use at work has been combined with Internet use at home in these data, we cannot conclude that all those using the Internet on a daily basis would be able to make time for personal use of the Internet for a sufficient period of time to complete the questionnaire, or at least not without interruption.

In addition to inadequate levels of coverage, a further barrier preventing the use of web-based data collection as a *single*-mode alternative to face-to-face interviewing is that there are no suitable sampling frames containing email addresses, from which a random probability sample of the general population could be taken. This means that the Internet could not be used as the primary mode of contact, so target respondents (or households) would need to be sampled and contacted either by telephone (assuming levels of telephone coverage were adequate – see section 6.3.1.1), or that they would need to be contacted by advance letter, containing the URL through which they could access the survey. The only alternative (unless an Internet panel design (using strict probability sampling methods) were adopted for the survey) would be to retain the existing ESS sample designs and to make contact with the household/ target

respondent by personal visit, but this would of course defeat the object of switching to an alternative mode of data collection to begin with. Nevertheless, such a design would be feasible in the context of a mixed-mode survey (using a single frame sample design), where target respondents were either offered a choice of interview mode or where modes were combined sequentially and sample members were first encouraged (using whichever mode of contact) to complete the web-based version of the questionnaire before being followed-up in an alternative mode (explicitly to reduce data collection costs).

Table 23 – Frequency of internet use (2006/2007)

Country	No internet access at home or at work (%)	Never uses the internet (%)	Uses the internet less than once a week (%)	Uses the internet at least once a week (%)	Uses the internet everyday (%)
Denmark	16.2	10.1	5.9	17.7	50.1
Norway	13.8	6.5	7.9	22.6	49.3
Sweden	16.4	5.9	8	22.6	47.1
Finland	17.2	15.3	6.4	22.5	38.7
Switzerland	20.4	9.3	6.5	25.4	38.5
Estonia	25.8	17.3	5.4	13.7	37.9
Belgium	26.5	13	6.8	19	34.6
France	34	9.8	7.2	15.8	33.1
Great Britain	22	13.9	9	22.2	33
Slovenia	13.9	35.3	6.6	14.7	29.5
Germany	33.2	7.9	12.2	23.9	22.8
Spain	34.4	25.5	6.4	11.8	21.9
Poland	46.1	16.7	6.1	12	19.1
Slovakia	32.4	24.4	8.4	16.3	18.4
Portugal	40.8	30.4	4.7	9.5	14.6
Bulgaria	53.4	23.8	4.1	6.7	12
Cyprus	37.7	30.9	9.8	11.6	10.1

Source: ESS Round 3, Edition 1. Data weighted by design weight.
Notes: Respondents are asked 'How often do you use the Internet, the World Wide Web or E-mail – whether at home or at work – for your personal use?

In order to start to exploit Internet technology in the context of a mixed-mode survey design, and the fact that in some countries, a large proportion of the population are becoming regular and frequent users of the web, it is important to establish the extent and nature of under-coverage associated with the mode. Table 24 compares the mean age of Internet users and of those who reported either never using the Internet or having no access to it. Perhaps unsurprisingly, in all countries, Internet users are significantly younger than non-users. It is also noteworthy that the differences in age are generally largest in the countries with the highest levels of access – for example, Norway, Sweden, Finland and Estonia (≈25 years), Denmark and Switzerland (20 years). Table 25 compares Internet users with non-users, this time in terms of their level of education. Again, a clear pattern is evident, particularly among those

respondents with primary education or less and those respondents with the highest levels of education (tertiary level): Internet users have higher levels of education than non-users. This time, however, the disparity between users and non-users is greatest in countries with the lowest overall levels of Internet usage.

Table 24 – Mean age of internet users in Europe (2006/2007)

Country	Internet Users	No Access/ Never uses	*t*	*d.f.*
Poland	31.77	50.83	23.73***	1719
Cyprus	32.80	49.47	16.09***	981
Slovakia	33.95	50.57	21.40***	1703
Portugal	34.07	54.65	26.83***	2218
Bulgaria	34.08	51.74	17.70***	1368
Spain	34.30	53.83	25.36***	1873
Slovenia	34.95	58.37	30.25***	1468
Estonia	36.84	61.48	31.63***	1504
Belgium	37.64	59.04	28.74***	1796
France	39.56	53.71	19.60***	1964
Finland	40.27	65.29	33.98***	1893
Great Britain	40.33	59.0	26.45***	2385
Germany	40.35	58.66	31.13***	2863
Norway	40.57	65.45	27.67***	1748
Sweden	41.45	66.08	28.69***	1923
Switzerland	41.59	61.31	24.39***	1798
Denmark	44.15	64.86	23.60***	1491

Source:	ESS Round 3, Edition 1. Data weighted by design weight.
Notes:	*** p<0.001

Summary and Conclusion

Needless to say, Internet penetration is still far too low to contemplate a wholesale switch to web-based data collection for a survey like the ESS, even in countries with relatively high levels of access. Furthermore, Internet users tend to be younger and better educated than non-users/ those with no access, so there would be substantial coverage bias were the mode ever to be used in isolation for a general population survey. However, a substantial (and growing) proportion of the population in some Northern and Western European countries are now frequent users of the Internet, suggesting that the incorporation of web-based questionnaires in the context of a mixed-mode design may present a viable and effective alternative to the current single-mode face-to-face design (indeed, people who do use the Internet regularly tend also to be those who are harder to contact in face-to-face surveys, so introducing this mode may help to increase response rates and sample representativeness). The fact that web data collection is a relatively cost-efficient solution makes the argument in favour of such a switch all the more compelling, for it is generally in countries where face-to-face data collection is most expensive that the Internet is used most extensively. Switching to web-based data collection – even if only for a small

Table 25 – Level of education of Internet users in Europe (2006/2007) (percentages in each group)

Country	Primary education or less		Secondary education or less		Tertiary Education		n	Test statistic
	Internet Users	No Access/ Never uses	Internet Users	No Access/ Never uses	Internet Users	No Access/ Never uses		
Belgium	22.7	56.1	37.8	34	39.6	9.8	1797	272.39***
Bulgaria	16	37.8	47.3	54.3	36.7	7.6	1380	182.94***
Switzerland	13.9	32.7	56.2	61.5	29.9	58.8	1798	164.91***
Cyprus	-	-	-	-	-	-	-	-
Germany	11.2	16.5	55.2	65.2	33.6	18.3	2880	86.56***
Denmark	13.9	41.4	48.4	46.9	37.7	11.7	1479	164.62***
Estonia	19.3	35.1	51.9	53.7	28.8	11.2	1508	88.98***
Spain	31.6	82.3	33.1	13.3	35.3	4.4	1869	524.90***
Finland	19.2	66.5	40.3	25.2	40.5	8.3	1894	438.38***
France	30.9	72.4	30.6	17.5	38.6	10.1	1986	358.17***
Great Britain	33.7	71.8	26.2	19.3	40.2	11.9	2394	339.39***
Norway	10.7	52	46.4	40.4	42.9	47.6	1746	352.52***
Poland	30.2	73.3	44.9	22.7	24.9	3	1710	358.119***
Portugal	34.5	85.9	35.9	7.8	29.5	2.3	219	746.03***
Sweden	21.3	66.6	38.8	22.8	39.8	10.6	1921	325.31***
Slovenia	29	73.5	47.9	22.2	23.1	4.3	1473	306.38***
Slovakia	-	-	-	-	-	-	-	-

Source: ESS Round 3, Edition 1. Data weighted by design weight.
Notes: Test statistic = X^2
*** $p<0.001$
- Data not available due to deviations in the education variable.

proportion of the sample, offers the potential for making substantial cost savings by eliminating the need for personal visits from an interviewer. However, as we saw in section 6.2.1, the relative costs of a mixed-mode strategy compared with the face-to-face version of the ESS have yet to be established. Future research should, therefore, be directed towards field-testing a design incorporating a web version of the survey, in order to explore the feasibility of such a switch (and to test practical solutions to some of the likely challenges), the financial costs involved, as well as the potential disadvantages with respect to data quality.

6.3.1.3 Literacy

Table 26 presents data from the CIA Factbook on levels of literacy across Europe. As we can see, literacy levels are very high with only 3 countries reporting levels of 95% or below: Israel (95%), Portugal (93%) and Turkey (87%). All other countries report 98-100% literacy. This seems to suggest that literacy would not be a significant barrier to the implementation of a self-completion survey across Europe. However, the situation is less straightforward than it first appears. Although the overall literacy levels are high, the aggregate figures mask variation across different sub-groups of the population, and it is likely that particular sub-groups (older people, who may have received less education than is standard today and immigrants, for example) will have much higher levels of illiteracy. Differences of these kinds could mean that the composition of the sample achieved in a postal survey may be biased as a result of combined coverage and nonresponse error: not all sample members are given an equal opportunity to participate in the survey (because the mode precludes the participation of those who are unable to read and fill out the questionnaire), and sample members will also have differing response propensities as a function of the mode because those for whom it is more cognitively challenging to complete the questionnaire are likely to be less motivated to do so.

A further complication stems from the fact that, according to the CIA website from where the data in table 26 were obtained, there is no universal definition or standard measure of literacy and so these data represent the most usual definition: 'the ability to read and write at a specific age'. This suggests that there is likely to be considerable variation in the way that countries define and measure literacy, with some measures being more 'accurate' than others. Nevertheless, even if the data presented could be taken to be functionally equivalent across all countries, overall measures of literacy remain a relatively weak indicator of a potential respondent's level of '*survey* literacy' – in other words, whether or not they possess the range of skills needed to navigate and respond to a survey questionnaire (Blyth, 2007), which in almost all cases are likely to exceed simply being able to read and write to a certain standard. Of course, some of these skills will be generic to all surveys (e.g. reading, comprehension, some degree of numeracy and the ability to navigate skip patterns, etc.), while others will be survey specific, requiring the respondent to possess a certain level of topic-relevant knowledge to be able to understand and respond to the questions. While it is not possible (or at least not straightforward) to measure the extent to which survey literacy poses potential problems with respect to coverage in the case of a survey like the ESS, it is worth noting that as a relatively complex and long questionnaire (covering a number of issues some people may not have previously considered), the barrier posed by overall literacy is likely to be compounded by the

requirement for a certain level of survey literacy and topic-relevant knowledge, making self-completion a particularly unsuitable choice of mode for certain members of the population.

Table 26 – Literacy levels

Country	Literacy level (%)
Finland	100
Luxembourg	100
Norway	100
Estonia	99.8
Latvia	99.8
Poland	99.8
Slovenia	99.7
Ukraine	99.7
Russia	99.6
Slovakia	99.6
Hungary	99.4
Belgium	99
Czech Republic	99
Denmark	99
France	99
Germany	99
Iceland	99
Ireland	99
Netherlands	99
Sweden	99
Switzerland	99
United Kingdom	99
Bulgaria	98.6
Italy	98.6
Romania	98.4
Austria	98
Spain	97.9
Cyprus	97.6
Greece	97.5
Israel	95.4
Portugal	93.3
Turkey	86.5

Sources: Survey Sampling International
http://www.surveysampling.com/products_sample_region.php
CIA World Factbook 2005 (ISSN1553-8133)
https://www.cia.gov/cia/publications/factbook/index.html

6.3.2 Availability of suitable sampling frames

The preceding discussion of mode penetration and coverage issues touched briefly on some of the challenges involved in sampling for other modes, and the availability of suitable frames for drawing random probability samples of the general population

(which adhere to ESS specifications). In this section, we briefly extend this discussion, by considering what the options are for sampling in other modes in different countries. To begin with, table 27 summarises the sampling frames currently used on ESS (based on information provided by NCs in the ESS Data Documentation Report).

As stated earlier, in no ESS country is there a list containing individual email addresses that would enable the selection of a random sample of the population for a web-based survey (if this were ever feasible or desired). However, in a number of countries, there are comprehensive sampling frames available that could be used for telephone survey research, without the need for RDD methods. Of the 31 countries listed in table 27, 12 are able to make use of lists of individuals for sampling purposes. Of these, 6 contain contact telephone numbers (Denmark, Estonia, Finland, Iceland, Norway and Sweden). In Germany, telephone numbers can be matched to the local residents register (though of course this would be a time-consuming and costly procedure). In the remainder of countries using lists of individuals (Belgium, Luxembourg, Poland, Slovakia and Slovenia) it is has not been specified in the ESS Data Documentation Report whether or not telephone numbers are available. For those countries where the information is available, it would be relatively straightforward to incorporate telephone interviewing alongside face-to-face interviewing (or even introduce it as an alternative to face-to-face, assuming levels of coverage were acceptable). Two countries (Austria and Switzerland) using samples of addresses use telephone books with relatively high levels of coverage, so these countries would also be able to accommodate telephone interviewing alongside face-to-face interviewing, without having to change their sampling procedures or specifically develop new contact procedures.

As was discussed in section 6.3.1.1, however, the real challenges involved in telephone interviewing have arisen as a result of the rapid increase in the number of households abandoning fixed-line telephone subscriptions in favour of mobile phones. It is not clear the extent to which this problem would negatively impact on the accuracy of the contact number information already present on population registers and the lists of individuals in the countries discussed, but it *is* likely to influence the level of coverage offered by phone book frames, and as mentioned, would be likely to hinder efforts to use RDD methods to access a probability sample of the population. In Finland, two different organisations have worked to overcome this issue. During 2002, Statistics Finland switched from using fixed-line telephones solely for their CATI interviews to include mobile as well and 'roughly 50% of the CATI interviews at Statistics Finland [were] conducted over the mobile phone by the end of that year' (Kuusela and Simpanen, 2002). In addition, the team responsible for conducting the fieldwork in Finland for the 2005 European Crime and Safety Survey (EU ICS) decided to include a sub sample of 500 respondents – who were interviewed via mobile phone rather than by fixed (land) line telephones. However, we do not know how survey organisations in other European countries are tackling the problem of mobile-only households. For this reason, we asked ESS fieldwork directors who participated in our consultation exercise, whether or not their agency already conducts survey interviews by mobile telephone, and if so, how they obtained mobile numbers for the purpose. The results are shown in table 28.

Table 27 – Sampling frames used in latest round of ESS

Country	Individuals			Household/Address				
	National Population Register	Local residents registers	Census	Electoral Register	Address register	Postcode address file/ postal list	Area-based (using census data)	Telephone book
Austria								✓
Belgium	✓							
Bulgaria				✓				
Cyprus							✓	
Czech Republic					✓			
Denmark	✓							
Estonia	✓							
Finland	✓							
France							✓	
Germany		✓						
Greece							✓	
Hungary	✓			✓				
Iceland	✓							
Ireland				✓				
Luxembourg	✓							
Netherlands						✓		
Norway	✓							
Poland	✓							
Portugal							✓[1]	
Russia							✓[1]	
Slovakia	✓							
Slovenia	✓							
Spain			✓[2]					
Sweden	✓							
Switzerland								✓
Turkey							✓	
Ukraine							✓[3]	
United Kingdom						✓		

Notes: [1] Source not identified in Data Documentation Report.
[2] List contains all citizens registered on municipal rolls, regardless of their voting rights.
[3] Sampling Units taken from register of streets.

With the exception of two agencies (in Poland and Ukraine) that do not offer telephone interviewing, only one ESS fieldwork agency (the Economic and Social Research Institute in Ireland) reported not conducting telephone interviews on mobile telephones. For the remainder, mobile telephone numbers were available from a variety of sources, including the sampling frame (though note that these are survey specific, and not necessarily frames for general population samples) and most commonly, from previous contacts with the respondent via a different mode. In only five countries Belgium, Czech Republic, France, Germany and Slovakia, were mobile telephone numbers accessed via RDD methods. If the ESS were to consider a large-scale switch to telephone interviewing (including the use of RDD) across many countries, we would need to collect further information on the nature of the sampling method used in each country, the structure of mobile telephone numbers and the available methods of sampling mobile numbers alongside fixed-line numbers.

Table 28 – Source of mobile phone numbers used in surveys (ESS fieldwork agencies)

Country	ESS fieldwork agency (R3 or R2)	Conducts surveys on mobile phones	Mobile numbers available from sampling frame	Numbers obtained from previous contact with respondent	Random digit dialing	Publicly available databases / central register of tel. nos.	Automatic telematch from telecom company registers	Lists supplied by client
Belgium	TNS Dimarso	✓		✓	✓			
Cyprus	Cyprus College	✓	✓					
Czech Republic	SC&C	✓	✓	✓	✓			
Denmark	SFI Survey	✓	✓	✓				
Finland	Statistics Finland	✓		✓		✓		
France	Institut de Sondage Lavialle (GfK)	✓		✓	✓	✓		
Germany	INFAS	✓		✓	✓			
Hungary	Gallup Hungary	✓	✓	✓				
Iceland	University of Iceland	✓	✓					
Ireland	ESRI	×						
Italy	DOXA S.p.a	✓						✓
Norway	Statistics Norway	✓	✓					
Poland	IFISPAN	N/A						
Portugal	TNS-Euroteste	✓						✓
Russia	CESSI	✓	✓					
Slovakia	GfK	✓	✓	✓	✓	✓		
Slovenia	University of Ljubljana	✓		✓				
Spain	Metroscopia	✓		✓				
Sweden	Statistics Sweden	✓		✓			✓	
Switzerland	MIS	✓	✓	✓				
Ukraine 1[1]	SOCIS	N/A						
Ukraine 2	TNS	✓		✓				
United Kingdom	BMRB	✓	✓	✓				

Notes: [1]SOCIS conduct ESS fieldwork in the Ukraine but do not carry out telephone surveys. Data on mobile phone interviews were provided by TNS Ukraine.

6.3.3 Mode availability and experience of using different modes

Different survey organisations are able to offer clients different choices between data collection modes. In some cases the services available will depend on experience and 'organisational habit', but they also relate to the availability of the necessary infrastructure to implement a survey in a given mode, including suitably-qualified staff (e.g. interviewers) and technology (e.g. software for programming web-based questionnaires; web servers for hosting the survey, and so on). To the extent that the survey industry in different countries may develop 'preferences' over time for working with particular modes (that may then be reinforced by public preferences for being asked to participate in research by different modes of contact), the availability of different modes (and the infrastructure needed to implement them) is likely to vary cross-nationally. For example, as Skjåk and Harkness (2003) have noted, face-to-face surveys "have become the exception in some countries, such as Sweden and Switzerland, and are expensive there by national standards. In Sweden, nationwide face-to-face representative sample surveys are currently conducted by virtually only one agency. In Switzerland, only about 15% of survey work is conducted as face-to-face interviews." (p.191) Exploring the variability across countries in the availability of data collection modes and infrastructure, therefore, is an important element of establishing the capacity for mixed mode data collection on a survey like the ESS.

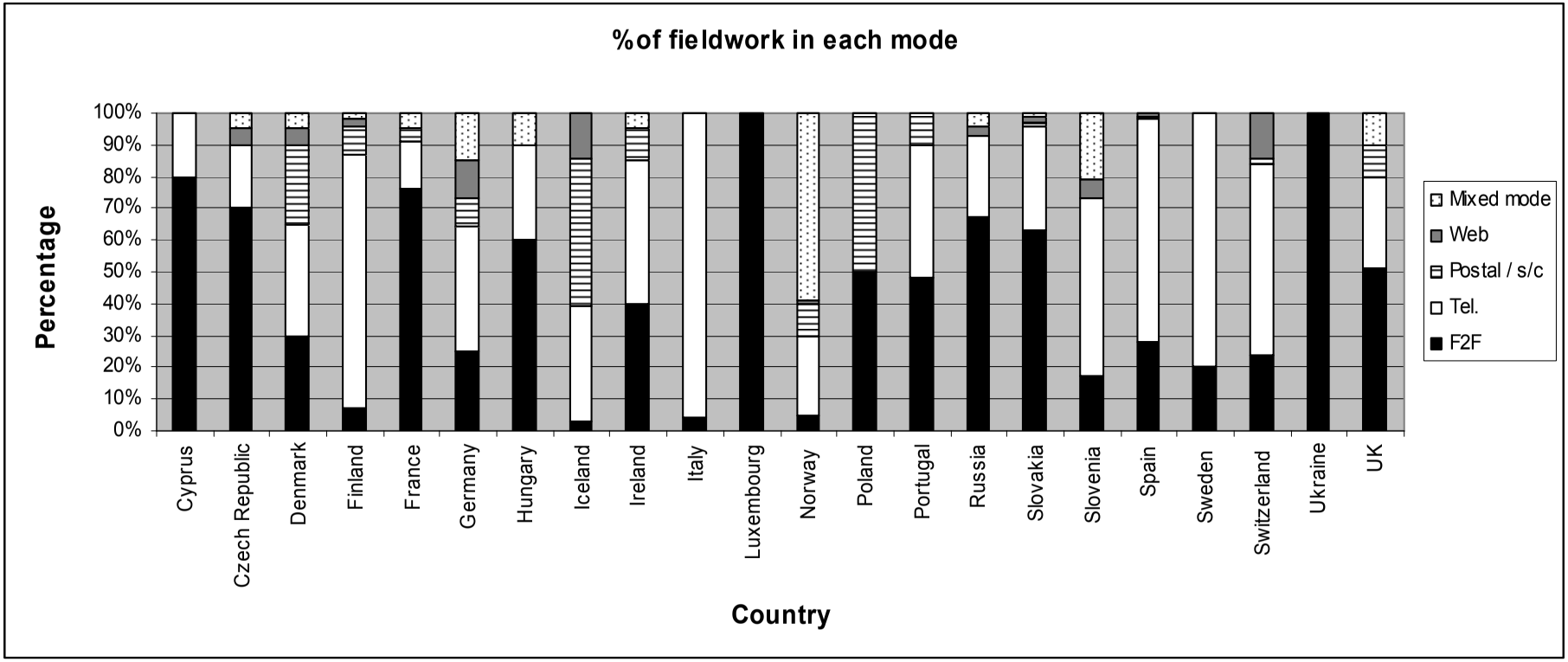
Establishing the 'availability' of different modes in different countries – or rather, the availability of research agencies operating in different countries that are able to carry out survey data collection in different modes is harder to establish than might be expected. This is because it depends entirely on the specification of the survey to be carried out, including factors such as the population to be sampled, the method of sampling to be used, the fieldwork protocol and the actual design of the questionnaire. ESOMAR provides a directory of over 1800 research organisations operating world-wide, listing the services each offers, together with details about their areas of speciality and size of field force, etc. A cursory search through this directory does not reveal any particular shortage of agencies operating in ESS countries (the industry is, of course, dominated by a relatively small number of international agencies with outfits in most countries, or links with local organisations), nor do there appear to be particular shortages with respect to the modes of data collection on offer. However, the ESOMAR database is not really suitable for our needs, because many not-for-profit research agencies specialising in social research (as well as NSIs) are not listed. Similarly, a database of this kind is unable to provide information about the number of survey agencies that are suitably qualified – and *willing* – to conduct fieldwork for a survey like the ESS (or indeed, whether they have the capacity to do so during the designated field period), whether in its current face-to-face design, or in any other mode.

Table 29 – Percentage (%) of total survey fieldwork carried out in 2006

Country	ESS Field Agencies						National Statistical Institute					
	F2F	Tel.	Postal / s/c	Web	Other	Mixed mode	F2F	Tel.	Postal	Web	Other	Mixed mode
Austria	-	-	-	-	-	-	15	81	0	0	0	4
Belgium	9	70	1	11	9[1]	11	40	0	0	0	0	60
Cyprus	80	20	0	0	0	0	55	0	0	0	0	45
Czech Republic	70	20	0	5	0	5	-	-	-	-	-	-
Denmark	30	35	25	5	0	5	0	75	20	5	0	50
Finland*	6	74	8	2	9[2]	2	6	74	8	2	9[2]	2
France	75	15	4	0	1[3]	5	-	-	-	-	-	-
Germany	25	39	9	12	0	15	-	-	-	-	-	-
Hungary	60	30	0	0	0	10	80	0	0	0	0	20
Iceland	3	36	47	14	0	0	35	60	0	5	0	0
Ireland	40	45	10	0	0	5	20	0	80	0	0	0
Italy	4	86	0	0	1[4]	0	-	-	-	-	-	-
Luxembourg	100	0	0	0	0	0	-	-	-	-	-	-
Norway*	5	25	10	1	0	59	5	25	10	1	0	59
Poland	50	0	50	0	0	0	*	*	*	*	*	*
Portugal	48	42	10	0	0	0	-	-	-	-	-	-
Romania	-	-	-	-	-	-	45	0	45	0	0	10
Russia	67	26	0	3	0	4	-	-	-	-	-	-
Slovakia	63	33	1	2	0	1	-	-	-	-	-	-
Slovenia**	17	56	0	6	0	21	6	43	0	0	0	51
Spain	25	63	1	1	10[5]	0	-	-	-	-	-	-
Sweden	20	80	0	0	0	0	-	-	-	-	-	-
Switzerland	24	60	2	14	0	0	3	32	13	6	29	16
Ukraine	90	0	0	0	10[6]	0	-	-	-	-	-	-
UK	50	28	10	0	2[7]	10	-	-	-	-	-	-

Source: Consultation exercise. Figures included as provided by fieldwork agency
Notes: *=item non-response
- = no response received
1= Panel research (CAWI/Postal); 2= Border interviews; 3= Data entry/treatment; 4= mystery shopping and in-depth interviews ; 5= Qualitative; 6= focus-group interviews in-depth interviews ; 7= mystery shopping
*= NSI and ESS fieldwork agency are the same
**= Slovenian NSI information relates to social surveys only

Figure 4 – Percentage of survey fieldwork conducted in different modes by ESS fieldwork agencies



Notes: 'Other' category has been excluded from the chart. Belgium is not included as percentages provided did not add up to 100%.

Unfortunately, this means that we do not have any reliable sources of data on mode availability (except some anecdotal evidence from our consultation with NCs, already discussed in section 6.2.3). We know that all the organisations that have participated in the ESS to date had experience in conducting face-to-face interviews prior to participation – some more than others – and whereas most continue to use PAPI (15 countries in round 3 (round 1 and 2 countries are shown in table 9a), the remainder are using CAPI (10 countries in round 3). However, we know less about the extent to which other modes are used across Europe. To find out more about this, we use data gathered from the consultation exercise concerning ESS fieldwork agencies' (and NSIs') experience of using different modes. We asked participants in the consultation exercise to estimate what percentage of the total survey fieldwork carried out by their organisation during 2006 was carried out using the following methods: face-to-face interviews only, telephone interviews only, postal/ self-completion only, web/ internet only, other modes, and mixed modes (including the above and other modes of data collection). The results are shown in table 29 and, for ESS field agencies only, are illustrated in figure 4.

Looking at the bar chart in figure 4, it is clear that face-to-face and telephone interviewing are by far the most widely-used methods of conducting surveys across each of the organisations consulted (with just a few exceptions). All but three of the organisations carried out over 70% of their 2006 surveys in one or other of these modes. Almost two thirds of the organisations carried out some postal or self-completion surveys, although this represented just a small proportion of their total fieldwork (10% or less), except in Iceland (47%) and Poland (50%). Around half of the organisations carried out some web/internet fieldwork, although again, the proportion was low. Only five agencies (in Belgium, Germany, Iceland, Slovenia and Switzerland) carried out more than 5% of their fieldwork via the web, and none more than 15%.

Perhaps the most interesting observation to be made is by comparing the relative sizes of the black and the white bars, which represent face-to-face and telephone interviewing respectively. In five countries less than 10% of the survey organisations' 2006 fieldwork was carried out using face-to-face interviews (Belgium, Finland, Iceland, Italy, and Norway). In three of those countries (Belgium, Finland and Italy), telephone interviewing was the most commonly-used mode, while the Icelandic agency more often used postal self-completion methods, and the Norwegian fieldwork organisation (Statistics Norway) conducted mainly mixed mode surveys. In a further five countries (Germany, Slovenia, Spain, Sweden and Switzerland), face-to-face interviews constituted less than a quarter of the total survey fieldwork in 2006, and in all cases, the majority of surveys were carried out by telephone. The same is also true in Denmark and Ireland, though these agencies carried out a slightly larger proportion of their surveys by face-to-face interview. With the exception of the Polish ESS fieldwork agency, which conducted around half of its total fieldwork in 2006 using postal methods, in the remaining nine countries, the majority of survey fieldwork carried out in the ESS fieldwork agencies was conducted face to face.

Also of interest in these data is the proportion of fieldwork conducted by these survey organisations using mixed mode data collection. Over half the organisations consulted reported carrying out some mixed mode fieldwork in 2006. With the exception of the Norwegian agency (Statistics Norway), where almost 60% of surveys

were mixed mode, survey organisations using this approach did so in only a small proportion of their total survey fieldwork (no more than 5%, except in the German and Slovenian agencies, where mixed mode surveys constituted 15% and 22% of their total fieldwork respectively). Mixed mode methods had not been used during 2006 in the survey organisations consulted in Cyprus, Iceland, Italy, Luxembourg, Poland, Portugal, Spain, Sweden and Ukraine.

All participants in the consultation exercise were also asked which types of mixed mode survey design (from the options listed below), if any, have been used by their survey organization:

a) Part of the questionnaire was administered in a different mode to the rest (e.g. to ask sensitive questions)
b) Sample members were offered their own choice of mode at the start of the survey
c) Different modes were used for different stages of data collection (e.g. for follow-ups, or in a panel survey)
d) Non-respondents were re-contacted in a different mode to try to encourage them to participate
e) Other (please specify)
f) Never used mixed mode survey designs

The results obtained from ESS fieldwork directors are shown in table 30. Among those agencies that had carried out mixed mode surveys, the most commonly-used design was option (a), to administer part of the questionnaire in a different mode (for example, in order to ask sensitive questions in modes offering more privacy for the respondent). The second most commonly-used approach was the use of different modes at different stages of data collection (option c). Least commonly-used were concurrent mixed mode designs (option b), where sample members are offered a choice of modes and sequential mixed mode designs (option d), where non-respondents are followed-up with an alternative mode. Nevertheless, both of these types of design had been attempted in over half of the responding survey organizations. Participants in the consultation were also asked to comment on which modes they had combined, and many provided additional details about their reasons for mixing modes. These included using telephone interviews for screening purposes, before following up with face-to-face interviews, conducting telephone follow-ups to serve as reminders to participate in postal and face-to-face surveys, or to ask additional questions following an interview in another mode. Some agencies had used different modes to target specific population groups, while others had mixed modes specifically to try to reduce survey costs. Thus, although mixed mode surveys constituted only a minority of the total fieldwork carried out by each organization, agencies appear to have considerable experience of carrying out mixed mode data collection for a range of different purposes. Note that at Statistics Norway, where the majority of surveys are mixed mode, all types of design had been used, with face-to-face and telephone modes often combined in household surveys, and paper and web modes often used in combination for business surveys.

Table 30 – Types of mixed mode designed used by ESS field agencies

Country	ESS Field Agencies					
	Part of questionnaire asked in different mode	**Sampled members offered choice**	**Different mode at different stages of data collection**	**Non-respondents followed up in different mode**	**Other**	**Never used MM design**
Belgium	✓	✓	✓			
Cyprus						✓
Czech Republic	✓	✓	✓			
Denmark		✓	✓	✓		
Finland	✓		✓	✓		
France	✓		✓	✓		
Germany	✓	✓	✓	✓		
Hungary	✓			✓	✓[1]	
Iceland	✓	✓	✓	✓		
Ireland	✓			✓		
Italy	✓		✓	✓		
Luxembourg						✓
Norway	✓	✓	✓	✓		
Poland	✓					
Portugal						✓
Russia	✓	✓	✓	✓	✓[2]	
Slovakia	✓	✓	✓	✓		
Slovenia		✓	✓	✓		
Spain		✓		✓		
Sweden	✓	✓	✓	✓		
Switzerland	✓	✓	✓	✓		
Ukraine 1						✓
UK	✓		✓	✓		

Notes:	[1] For different part of the sample, different method was used during the same data collection
	[2] Respondents recruited and asked screening questions by phone (person interviews) and then asked to complete web-interview

While the capacity to conduct surveys using different modes, or indeed, mixed mode data collection, depends on the availability of alternative modes and the infrastructure needed to implement them, as well as the extent of experience among survey agencies with using different approaches, capacity is also determined by the specification of the survey in question. As we have seen, the ESS appears to place considerable demands on capacity that are not typically felt on other studies. One reason for this is the length of the questionnaire (ESS face-to-face interviews typically last around one hour), which in its current format is not well-suited to administration in other modes. Setting aside the problems involved with making a long questionnaire suitable for self-completion, we were interested in finding out whether there were cross-national differences in the practice of telephone interviewing, in terms of acceptable interview lengths. To find out more about this, we asked participants in our consultation exercise whether their organization set either a formal or informal limit on the

duration of the telephone survey interviews it conducts, and if yes, what the limit was. The results are shown in table 31. Of the 19 ESS fieldwork directors who participated in the consultation exercise, 11 reported that their survey organization limited the length of the telephone interviews. Limits were typically set at around 30 minutes, but in a small number of countries the limit was lower, including in Cyprus (8 minutes), Slovenia (15 minutes), France and Italy (20 minutes). Thus, attempting to conduct the ESS in its present format by telephone in countries with restrictions on telephone interview length is likely to be particularly challenging, which is why recent ESS research has been investigating the optimal length and questionnaire design for a telephone version of the survey.

Table 31 – Maximum length of telephone interviews (ESS Fieldwork Agencies)

	Limit?	**How long? (minutes)**
Belgium	y	25-30
Cyprus	y	8
Czech Republic	n	-
Denmark	y	30
Finland	y	30
France	y	20
Germany	n	-
Hungary	y	25
Iceland	n	-
Ireland	y	30
Italy	y	20
Luxembourg		
Norway	y	30
Poland	*	*
Portugal	n	-
Russia	y	30
Slovakia	y	30
Slovenia	y	15
Spain	n	-
Sweden	n	-
Switzerland	n	-
Ukraine 1[1]	*	*
Ukraine 2[1]	y	20
United Kingdom	y	25-30

Source: Consulation exercise
Notes: * Agency does not carry out telephone surveys
- Agency does carry out telephone surveys but does not set a limit
[1] ESS agency (Ukraine 1) uses TNS (Ukraine 2) to carry out telephone surveys.

Summary and conclusion

This section presented data relating to mode availability and the experience of using different modes among fieldwork agencies operating in ESS participating countries.

In particular, we examined the modes of data collection used for survey fieldwork in 2006 and experience of using mixed modes. Face-to-face and telephone interviewing were by far the most widely-used modes, but in around half the ESS field agencies consulted (in particular, Belgium, Finland, Iceland, Italy and Norway), face-to-face surveys constituted a minority of the total fieldwork conducted. This is particularly noteworthy given that the agencies represented in the consultation are often in a minority in each country of organisations suitably-qualified and equipped to undertake survey fieldwork on the ESS. Most agencies consulted had experience of mixing modes, but mixed mode surveys constituted only a small proportion of the total survey fieldwork. We also presented data on the limits set by agencies (if indeed they exist) on the length of telephone interviews. Around one half of the participants reported limits, with the maximum length of telephone interviews around half-an-hour.

The findings reported here are limited to the extent that they relate only to a small number of fieldwork agencies and can in no way be seen as representative of survey practice in general across ESS participating countries. Nevertheless, to the extent that not all research agencies are suitably qualified or willing to conduct ESS fieldwork, learning something about the types of surveys typically undertaken by existing *ESS* field agencies (and other organizations, such as NSIs, that might be likely to undertake ESS data collection) provides some insight into the capacity for conducting the survey in different types of data collection mode. Having experience of conducting surveys in different modes is not only indicative of mode availability (and the availability of the infrastructure needed to carry out surveys using different methods) it also provides some insight into the likely practical challenges that would arise if the ESS were to move to a mixed mode design. Mixing modes carries with it a range of practical implementation issues, which for survey organizations inexperienced with the type of fieldwork design under consideration, would be likely to present significant barriers to a smooth transition from face-to-face.

7 DISCUSSION

The purpose of the mapping exercise was to gather together evidence from a range of sources to inform our understanding of a) the demand for alternatives to face-to-face interviewing on the ESS, and b) the capacity for using alternatives in different ESS countries. In this section, we summarise the main findings of this exercise, consider some of the limitations of our study and identify areas where more research is needed. We also attempt to draw out some recommendations for the future of the ESS.

As part of the wider programme of ESS research exploring the feasibility of mixing modes of data collection on the ESS, the mapping exercise shared a broader aim to assess whether and/ or how the ESS might be adapted from a single-mode face-to-face survey into a mixed mode survey. As discussed in the introduction, a mixed mode ESS could take a variety of forms. The most elaborate scenarios involve either combining modes in a sequential design, whereby non-respondents to the survey are re-contacted in alternative modes to try to motivate them to participate, or combining modes concurrently, whereby sample members are offered their own choice of participation mode. The resulting data collection designs would be mixed mode within – and possibly also between – countries. A far less ambitious mixed mode

scenario under consideration for the survey in the immediate term, however, involves allowing certain countries to switch to telephone interviewing as their preferred single mode alternative to face-to-face. The resulting data collection design would essentially be 'single mode within country', but 'mixed mode between countries'.

In our discussion of the findings of the mapping exercise, we consider both the more ambitious and the more modest mixed mode scenarios, focusing in particular on the possibility of simply allowing certain countries to switch from face-to-face to telephone. We assess the extent to which there is a demand for telephone interviewing on the ESS in different countries and the capacity to switch to that alternative. However, the issues involved in mixing modes are, in principle, the same in both types of scenario (though admittedly, more complex, the greater the combination of modes considered) and so we also discuss the demand and capacity for adopting more elaborate data collection designs and additional alternative modes in the survey's future round.

7.1 What is the demand for alternative data collection strategies on the ESS?

In order to assess the demand for alternative data collection strategies on the ESS, we focused on three main indicators: the cost of data collection using different modes, the effectiveness of different modes with respect to reaching the ESS target response rate of 70% and characteristics of the survey climate in different countries. To summarise the main findings from the mapping and consultation exercise, we consider these three indicators separately.

Data collection costs

Data collection costs on the ESS using face-to-face interviewing vary widely across each of the participating countries. Despite the wide variation *across* countries, however, face-to-face remains the most expensive survey method in *all* countries, with telephone interviewing, postal and web methods typically offering more cost-effective alternatives (mainly in that order). The potential savings to be made by switching to an alternative mode appeared to be greatest in countries where fieldwork costs are especially high. For example, in Denmark, Germany, Finland, Norway and Switzerland (all among the top third of countries in terms of costs), the price of a telephone survey was estimated to be around half that of a survey of the same specification carried out using face-to-face interviewing, whereas in countries where face-to-face costs are lower (typically located in Eastern and Southern Europe) the relative differences in the cost of alternative modes were smaller. These findings would suggest that a change in data collection strategy might be most beneficial in high-cost countries, where the price differential between different modes is greatest.

Regrettably, in the present study we were only able to make use of relatively crude measures of the relative costs of fieldwork in different locations (the planned per interview cost, derived from the overall fieldwork budget in each country and the issued sample size). Consequently, we should be cautious in the conclusions we draw from our data (though our findings are broadly consistent with those of the ESOMAR Prices Study, which provides a more formal assessment of the relative costs of survey

research in different countries). In particular, it should be recognised that the *affordability* of fieldwork depends entirely on the availability of resources in different countries (presently a function of the level of support for the ESS offered by national research councils and other funding bodies), about which we did not gather information. In this respect, looking at the relative costs of interviews provides us with no indication of whether or not the price of the ESS is sustainable in the future across all countries, nor of whether national levels of financial support are sufficient to guarantee future participation in the survey, if fieldwork carried out by face-to-face interview continues to be insisted upon for all countries. Nevertheless, information about the relative cost of the survey in different countries is relevant to current debates about the most appropriate future funding arrangements for the ESS, because wide variation in national fieldwork costs (and differential levels of investment in different countries) becomes harder to justify in the context of a centralised funding model (see Blyth, 2007).

It is often argued that mixed mode designs have the potential to reduce overall survey costs, because by combining modes sequentially, it may be possible to gather the majority of data using the more cost efficient self-administered modes, while reserving the more expensive interviewer-administered modes for sample members who are more reluctant to participate. In the present study, it was not possible to establish whether a mixed mode design would offer a more economic alternative compared to any of the individual modes, because the costs involved would depend so much on the type of mixed mode design undertaken. Further research is, therefore, necessary to establish the relative costs of different mixed mode designs compared with the standard face-to-face survey, before strategic decisions about changes in fieldwork practice can be made on the ESS. One possibility, for example, would be to obtain formal quotes from fieldwork agencies for the cost of conducting the survey using alternative single mode and mixed mode designs at the same time as tendering for the face-to-face survey fieldwork in rounds 4 and 5. This would also offer the advantage of providing more accurate estimates of the relative difference in the cost of face-to-face interviewing compared with the other modes, taking into account the precise specification of the survey, and the fact that the ESS fieldwork protocol is generally more demanding than that of many other surveys.

Response rates

Assessments of the relative costs of carrying out a survey using different data collection modes cannot be made without also taking into consideration how 'successful' a particular fieldwork strategy is. For this reason, we examined national variations in non-response on the ESS (including non-contact and refusal rates) to try to assess how effective face-to-face interviewing is in different countries at achieving the survey's 70% target response rate. The majority of participating countries are facing challenges with respect to ensuring high levels of participation in the ESS, but in a number of countries, response rates have been considerably below target at each round (e.g. France, Luxembourg (rounds 1 and 2 only) and Switzerland). In some countries (including Switzerland, Germany, Iceland and the UK), response rates remain low despite the fact that a range of (often expensive) strategies are used to try to encourage participation. We also compared the socio-demographic composition of the achieved samples on the ESS with national population statistics, to see how

effective face-to-face data collection is at reaching a representative sample. This identified a number of countries with samples deviating from the population distributions on a number of variables, and analysis carried out by e.g. Billiet and his colleagues (2007) and Vehovar (2007) confirms that a number of ESS variables are affected by non-response bias. These findings raise doubts about the adequacy of using face-to-face interviewing as the sole mode of data collection in certain locations and the question of whether a change in data collection strategy might provide a remedy.

As well as focusing on the effectiveness of the current face-to-face approach with respect to response, we were also interested in how effective other modes might be at reaching the ESS response target. We asked participants in our consultation exercise to rank the four main data collection modes, along with mixed mode approaches, according to which approach would be likely to obtain the highest response rates in a survey of a given specification in their country. Though face-to-face interviewing is often judged as the 'gold standard' with respect to response rates, it was not judged by all ESS fieldwork directors and NSI representatives to be the mode most likely to get the highest response rate in all participating countries. On the contrary, in a number of countries, both telephone interviewing and mixed mode strategies were seen to be more effective than face-to-face. In particular, fieldwork directors in the following countries all rated telephone interviewing as more likely than face-to-face interviewing to get the highest response rate: Denmark, Finland, France, Iceland, Norway, Sweden and Switzerland. It is noteworthy that these countries were also those where face-to-face interviewing costs were especially high (and where the potential savings to be made by switching to telephone were greatest), and in some cases (e.g. France and Switzerland), those where ESS response rates have been lowest.

National survey climates

The responses we obtained from fieldwork directors and NSI representatives in the consultation exercise can be seen as indicative of variations in national preferences for particular ways of carrying out surveys. Further evidence of mode preferences was obtained by looking at the mode of data collection used on other large-scale comparative surveys, where countries are given some flexibility in designing their fieldwork protocol (unlike on the ESS, where mode and other aspects of the data collection procedure are fixed). Face-to-face interviewing is not the preferred mode in all European countries on other comparative surveys, and in fact, in those countries where ESS fieldwork directors claimed telephone or mixed mode approaches would be more effective (and cheaper) than face-to-face interviewing – notably, in Denmark, Finland, Iceland, Norway Sweden and Switzerland (and also Luxembourg) – telephone interviewing was the principal mode used on the EU Labour Force Survey. These countries were also more likely to use postal self-completion questionnaires to collect data on the ISSP, as opposed to face-to-face interviewing. Although naturally we should be cautious in making comparisons across surveys with very different specifications to the ESS, these findings lend further support to the conclusion that face-to-face interviewing may not be the preferred mode for conducting surveys in all countries.

National mode preferences reflect in part the state of the survey infrastructure in different countries (such as the availability of experienced interviewers and certain types of technology), but they also reflect public preferences for participating in surveys in particular ways. In fact, the two are likely to be inter-linked. If people become used to being contacted by telephone to provide information in surveys, they may be unused to inviting a stranger into their home to provide the same information in person (and also unwilling to do so). In this respect, public mode preferences can have implications for survey outcomes. Though we were unable to directly measure public mode preferences as part of the mapping exercise, we considered them as an element of the so-called 'survey climate' (Lyberg and Dean, 1992), which is likely to be reflected in noncontact and refusal rates on the ESS. Contactability, for example, tells us something about how effective a mode of data collection is at gaining access to the population of interest. Similarly, refusal rates are indicative of the extent of public willingness to participate in surveys generally, and as noted, this may vary by mode of data collection.

High non-contact rates continue to be a problem on the ESS in a number of countries (despite efforts to keep them to a minimum on the survey). It is noteworthy that in a number of countries where telephone contacts are permitted, these are proving an effective means of keeping non-contacts to a minimum, though there is some evidence to suggest that this multimode strategy may not be very effective at promoting cooperation among sample members (e.g. see Blom and Blohm, 2007). Nonetheless, high refusal rates remain the principal cause of non-response on the ESS. The highest refusal rates have been observed in countries already noted in this report for having a preference for telephone over face-to-face interviewing – e.g. France, Luxembourg, Switzerland – suggesting that the mode of data collection may well be a contributing factor. Of course, our observations would benefit from more detailed investigation – in particular, to test whether other modes would indeed be more successful than face-to-face, or whether the survey climate in these countries is simply not amenable to obtaining high levels of response (on surveys like the ESS) irrespective of mode. A recent feasibility study conducted by the CCT in Switzerland to test the effectiveness of telephone interviewing for the ESS will shed further light on this.

Conclusions

Based on the analysis of our various indicators of demand, we can conclude that there is a set of countries where face-to-face interviewing does not appear to be the optimal mode of survey data collection – either because it is very expensive, because it is not proving effective in terms of reaching the ESS response rate target, or because it is not the preferred mode in that particular country (i.e. for a variety of reasons it is not widely practiced). This set of countries includes: Finland, France, Iceland, Luxembourg, Norway, Sweden and Switzerland. In almost all cases, our research produced evidence that telephone interviewing was more widely practiced there, more cost efficient and likely to obtain a better response rate. There was also evidence of a move towards using a mix of data collection modes in these countries, suggesting that either a single-mode telephone strategy or a mixed-mode approach might offer a beneficial alternative to face-to-face interviewing on the ESS. In the remaining countries, however, the pattern of findings was less clear-cut. Face-to-face interviewing represents the most expensive survey method in all countries and in a

number of countries, survey agencies are facing challenges with respect to persuading sample members to participate in the ESS using face-to-face interviews alone. The extent to which these factors pose serious problems for the continuation of the survey will be borne out over time and will need further assessment in future. However, for now, it seems reasonable to conclude that there is less compelling evidence of a demand for an alternative to the current face-to-face approach to ESS data collection outside of the countries listed above.

One of the weaknesses of the research undertaken here was that it was difficult to disentangle country-specific factors (e.g. local fieldwork costs, survey climate, etc.) influencing the choice of data collection mode used in surveys from survey-specific factors (e.g. sample designs, questionnaire length, topic, etc). Thus, although we attempted to make comparisons between the ESS and other comparative surveys and asked participants in the consultation exercise to compare the cost and effectiveness of different modes for surveys of the same specification, we could not control for the fact that the ESS itself has a relatively unique specification compared with most international – and for that matter - most national studies. Indeed, one important finding that emerged from our consultation with ESS National Coordinators was the widespread agreement that given the present design of the survey, face-to-face interviewing represents the *only viable* means of administering the questionnaire, irrespective of variation in national survey practice. If the ESS were to allow a switch to an alternative mode of data collection or mixed mode data collection, serious consideration would need to be given to the necessary adaptation of the questionnaire design to ensure alternative modes could be successfully employed alongside face-to-face.

7.2 What is the capacity for switching or mixing modes on the ESS?

In order to assess the capacity for carrying out the ESS in different modes in different countries, we focused on the following indicators: the extent of penetration and coverage of the ESS population provided by different modes (including levels of literacy), the availability of suitable sampling frames and mode availability, and survey agencies' experience of using different modes.

Mode penetration and coverage

Our analysis of mode penetration was perhaps the most illuminating of our investigation into capacity. We first looked at telephone coverage across all ESS participating countries, looking at overall access to telephones, then focusing on the distinction between households with fixed-line telephone subscriptions and households with mobile-only telephone access. Overall levels of telephone penetration (taking into account both fixed-line and mobile telephone access) were high across most countries, offering close to 100% coverage except in a small number of Eastern European countries (notably both Bulgaria and Slovakia had levels of telephone coverage below 90%). However, this overall level of coverage masked a large proportion of households across Europe with no *fixed-line* telephone, but with mobile phone access. Though the highest proportion of mobile-only households (around 50% of all households) was found in Finland, other countries with high

proportions of mobile-only households tended to be located in Eastern and Southern Europe, where levels of fixed-line telephone penetration had never reached 100% (or close to 100%).

Levels of telephone penetration are of interest to survey methodologists because they indicate the level of coverage of the population that could be achieved in a telephone survey (based on a sample of telephone numbers). As a national population survey (of adults aged 15 and over), it is important that any method of sampling or data collection used in isolation on the ESS provides adequate coverage of that population. In this context, the proportion of households that are mobile-only is of particular interest because in most countries they pose problems for sampling: mobile telephone numbers are not usually listed, they are assigned to individuals not households, and in terms of their structure, they cannot always be selected using standard RDD sampling methods (though there are cross-national differences in what is and is not feasible). Across almost all ESS countries, the proportion of households that are 'mobile-only' now exceeds 5%. In only seven of the twenty round 3 countries whose data were included in the first release was the proportion of mobile-only households below 10%. In other words, levels of fixed line telephone penetration are now too low in *almost all* countries to ensure adequate coverage of the survey population if the ESS were to be fielded as a full telephone survey. This applies to almost all the countries listed earlier as countries where there is a known preference for telephone interviewing (exceptions include Switzerland where the proportion of mobile-only households is currently only around 1% and possibly Sweden, though the evidence we have about the latter is inconclusive[18]). This means that an ESS conducted by fixed-line telephone would in all countries (except Switzerland) have to be supplemented by interviews carried out either by mobile phone (assuming the sampling methods available permitted it) and/ or an alternative data collection mode. In other words, a switch to telephone data collection on the ESS would necessarily entail a switch to mixed-mode data collection.

The question of telephone coverage is especially important given that mobile-only households differ from households with fixed-line telephones along a number of different dimensions. Thus any survey that was unable to include these households would be likely to achieve a systematically biased sample.

As well as looking at levels of telephone penetration, we also considered the extent to which the Internet currently provides access to the ESS population. As yet, levels of Internet coverage are clearly too low in all countries to permit a wholesale switch to web-based data collection on the survey, but a substantial proportion of the population in some Northern and Western European countries are now regular and frequent users of the Internet, suggesting that this mode might be a suitable alternative to face-to-face for a certain subgroup of sample members. However, it is noteworthy that this subgroup is quite distinctive in terms of its socio-demographic characteristics – regular internet users are significantly younger in all countries than those who do not use or who have no access to the Internet, and they tend to be better educated – and so it would be important to take this factor into account if the Internet was used on the ESS as part of a mixed mode data collection design. Nevertheless, given the potential cost savings to be made by making use of alternatives to face-to-face (and especially

[1818] Note that no data were available for Iceland.

by switching to the web), exploring the capabilities of the Internet as a data collection tool and ways of incorporating it within a mixed mode data collection strategy would appear to be a fruitful direction for future methodological research on the ESS.

Incorporating any self-completion mode into the ESS would also need to take into consideration levels of literacy. Literacy is generally quite high across all ESS countries, but there is some variation between countries, and of course, considerable variation within countries, which is often masked by national statistics. Furthermore, data on overall levels of literacy tell us little about the capacity of individual sample members to participate in survey by self-completion modes (particularly using a computer). It remains the case that a self-completion version of the survey questionnaire would not be a suitable alternative to interviewer-administration for *all* sample members. In this respect, neither Internet nor paper self-administered questionnaires can realistically be considered as single mode alternatives to face-to-face on the ESS (especially given the present design of the questionnaire), but there do seem to be some compelling grounds for exploring their value in a mixed mode context. In particular, they are both considerably cheaper than face-to-face and telephone interviewing, they have certain known advantages over interviewer-administered modes (e.g. they are associated with less social desirability bias, and web questionnaires can be designed to minimise data entry errors) and may provide a solution to the problem that any switch to telephone would be likely to require supplementary data collection in a different mode for certain sample members. On the downside, it is unlikely that self-administered modes would necessarily resolve the problem of under-coverage posed by mobile-only households. Nevertheless, there is clearly a need to investigate further ways in which self-completion modes might be usefully employed alongside interviewer-administered modes on the ESS.

Availability of sampling frames

Our brief research into the availability of sampling frames for conducting surveys in different modes highlighted a pressing need for close consideration to be paid to sample design were the ESS to become a mixed mode survey. RDD methods can be used in most countries for sampling telephone numbers, but as noted, they may not be able to handle the ever-increasing number of households that are switching to mobile-phone (and similarly, the likely-to-increase number of households switching to VOIP telecommunication). Were the CCT to decide to permit RDD methods in the context of such rapid change, where levels of coverage will become increasingly difficult to determine, the onus would be on the survey's sampling panel to ensure that the sample designs in telephone-fielding countries met the strict ESS specification (and permitted transparent calculations of final response rates and analyses of nonresponse equivalent to those currently carried out on the face-to-face survey). Although almost all the survey agencies we consulted were already carrying out interviews with respondents on mobile telephones and some were able to obtain mobile numbers from the sampling frame or through random digit dialling, it was not clear from the data we collected, whether this would be possible in the context of a general population survey. More research is needed to find out about the precise nature of the sampling challenges posed by mobile-only households in different countries and the ways in which different survey organisations have managed to overcome them.

Permitting a switch to telephone interviewing on the ESS in a limited number of countries need not, however, entail radical changes to existing sample designs. In fact, of the countries that have taken part in the ESS to date around a third sample from lists of individuals (national population registers), and in at least half of these, contact telephone numbers are already available on the sampling frame. These countries include Denmark, Finland, Iceland, Norway and Sweden, all of which were identified earlier as possible candidates for a switch to telephone, and also Estonia; all already use the information for contacting sample members by phone to arrange interviews. In a further two countries (Switzerland and Austria), the sample frame used for the ESS is the telephone book, which in both cases provide exceptionally high levels of coverage. In short, the availability of sampling frames in our candidate countries need not act as a barrier to switching to telephone, though it would need to be assessed how comprehensive and up-to-date the contact information available on registers in each country is (e.g. are individuals' mobile phone numbers listed?). A further potential barrier to a switch to telephone, however, stems from the fact that increasingly, people are choosing not to list their telephone number or to explicitly sign-up to so-called 'Do not call' registers (or similar), that prevent their contact information being made available for purposes such as survey research. Indeed, this has recently become a problem in Denmark, where in ESS round 3 a substantial proportion of the overall nonresponse on the survey was attributed to citizens opting not to have their contact details released for research purposes. Based on these observations, it is clear that any switch to telephone interviewing for ESS data collection purposes would require careful assessment of all potential impediments on a country-by-country basis.

In order to minimise the potential complexity of a mixed-mode ESS, it would be prudent to avoid having to make substantial changes to existing sampling methods used on the survey in each country. As noted, this may be achievable in relation to a switch to telephone by only allowing countries to use telephone where numbers are already available on the sampling frame. The same principle applies to the introduction of any other mode on the ESS and given the absence of suitable frames of email addresses to sample the general population for a web survey, there is in fact no alternative. Thus, for the time-being at least, the introduction of mixed mode data collection on the ESS would be restricted to the modes of contact already available in each country: advance letters, in-person visits from an interviewer and/ or telephone calls. Given these constraints, it would be important to conduct feasibility studies to ensure that the contact attempts made to different sample members in different modes could be carefully documented and to evaluate the overall costs involved – both financial as well as in terms of any detrimental impact on response.

Mode availability and experience in survey agencies

The final indicator of capacity that we assessed was the availability of different modes in different countries and the extent of experience in fieldwork organisations of conducting surveys in different (or mixed modes). The rationale behind this was two-fold. First, to the extent that there may be national preferences for particular modes of data collection, this may impact on the survey research infrastructure in different countries, affecting the availability of different options because of e.g. the absence of a skilled field force or the technology required to field a survey in a particular mode.

We have some prior evidence of this (e.g. see Skjåk and Harkness, 2003), as well as anecdotal evidence from our consultation with national coordinators. Second, the experience of using particular modes among the research staff in a fieldwork organisation is a critical element of this infrastructure, especially where mixed-mode surveys are concerned due to the additional complexity involved in supervising fieldwork and documenting the contact process and so on.

Unsurprisingly, among those agencies already carrying out ESS fieldwork, face-to-face and telephone interviewing were by far the most widely-used data collection modes. However, in around half (including three of our candidates for switching or mixing modes: Finland, Iceland and Norway), face-to-face interviewing constituted only a minority of the total survey fieldwork conducted in the year prior to the consultation. In these countries, telephone interviews dominated the overall data collection carried out by the organisation. Though these agencies can in no way be seen as representative of other survey agencies operating in those countries, it is still noteworthy for the purposes of our assessment of capacity that face-to-face interviewing is not more widely used. In many cases the agency responsible for ESS fieldwork is either the *only* suitable organisation in that country, or perhaps one of just a small number of suitable organisations that are willing and able to take on ESS fieldwork (during the designated fieldwork period). To the extent that this may impact on how the survey is implemented and ultimately, on data quality, this finding may well prove to be an important factor in the CCT's assessment of the suitability of the current ESS data collection strategy (though again, any assessment would need to be made on a country-by-country basis).

Most of the organisations consulted had previously carried out some mixed mode surveys, but in almost all cases (the exception being the Norwegian NSI, which is also responsible for the ESS) they constituted only a small minority of the organisations' total fieldwork load, suggesting that experience of mixing modes in the kinds of more complex designs proposed for the ESS may well be limited in some countries. Of course, other organisations not included in our consultation may be better equipped to handle a mixed mode ESS in this regard. Finally, our assessment of experience also looked at agencies' experiences of carrying out long telephone interviews. Around half the agencies that conduct telephone survey fieldwork reported in-house limits on interview length, and the maximum length of telephone interviews reported by our participants was around 30 minutes. Based on these findings, we conclude that while capacity for conducting face-to-face interviewing may well be limited in certain countries, the practical challenges involved in trying to implement a telephone or mixed-mode ESS may well be further exacerbated by the level of experience of carrying out surveys in these modes with the strict specifications demanded on the ESS.

Conclusions

Our assessment of the capacity in different countries for switching or mixing modes identified a number of potential barriers. In particular, despite the apparent demand for telephone interviewing identified in certain countries, it was not clear whether this mode presented a viable *single* mode alternative to face-to-face. The problem stems from declining levels of fixed-line telephone penetration and a rising number of

mobile-only households, which may pose challenges with respect to ensuring adequate levels of coverage in a telephone ESS. The extent to which this would be a problem, however, depends on the availability of sampling frames. In most of the candidate countries identified earlier, national population registers containing individuals' contact telephone numbers (in some cases, mobile numbers) mean that many of the problems associated with sampling mobile-only households that are facing survey methodologists elsewhere are avoidable. Nevertheless, the fact remains that in almost all countries (including our telephone candidates) a switch to telephone would mean using either a mix of fixed line and mobile interviews, or a mix of telephone plus one other mode of data collection. Though some of the methodological research on the ESS has begun to explore the issues involved in conducting survey interviews by mobile phone, more research is needed to assess the extent to which fixed and mobile telephones constitute the same mode.

Incorporating self-completion modes into ESS data collection (in the context of mixed mode designs) holds considerable appeal, mainly because of their potential to reduce overall data collection costs. However, more research is needed to establish this empirically, as well as to assess the impact of their use on levels of participation, data quality, and the practical implementation and documentation of fieldwork. Given that there is comparatively little experience of carrying out mixed mode surveys in many of the organisations already responsible for ESS fieldwork, it is likely that additional support would need to be provided to fieldwork directors and national coordinators to ensure a smooth transition from the current data collection approach.

7.3 Summary and conclusions

Based on the above findings, there does appear to be some evidence that the current single-mode face-to-face data collection design on the ESS may not necessarily be the most suitable strategy in all countries. In particular, our research highlights a number of potential barriers to the continued use of this approach in future rounds of the survey: namely, high costs, a lack of survey agencies with the capacity to take on the fieldwork, as well challenges in reaching 'adequate' levels of response (factors that are all inter-related). Nevertheless, because the survey was originally conceived and designed as a face-to-face survey, there is widespread acceptance among participants that other modes would be unsuitable for collecting ESS data. Any decision to mix modes, therefore, would require a careful re-assessment of the present design of the survey (and particularly, the questionnaire) to ensure the viability of using different modes and to minimise the impact on data comparability between modes.

Even in our simple mixed mode scenario – where certain countries are permitted to switch to telephone interviewing – there are a range of barriers to a smooth transition. Perhaps of most concern is the finding that few countries could carry out the ESS using telephone interviewing alone because of the problem of under-coverage. If a telephone ESS ends up being a mixed mode ESS (in order to ensure full coverage of the population), then our distinction between simple and more complex mixed mode designs is no longer appropriate. Recognition of this does, however, allow us to begin to explore the potential advantages for the survey of employing different modes for different sub-groups of respondents – in terms of reducing fieldwork costs, and possibly improving response rates (and perhaps also the representativeness of

achieved samples). More research is urgently needed to investigate these types of survey design.

Any decision to mix modes on a survey requires a careful assessment of the likely advantages and disadvantages involved. In order to make such an assessment, it is critical that the motivations for contemplating a change in data collection strategy are transparent. Only by clarifying the motivations for change on the ESS can we ensure that we are adequately prepared and that the transition from face-to-face interviewing to a mixed mode future is a smooth one.

8 REFERENCES

Atanasov A et al. (2001) *Public Opinion Polls in Bulgaria – State, Problems and Prospects*, Institute of Sociology of the Bulgarian Academy of Sciences and National Public Opinion Center, Sofia.

Billiet J and Meuleman B (2004) *Corrections for non-response in the ESS round 1*. ESS manuscript.

Billiet J and Phillipens M (2004) Data Quality Assessment in ESS Round I: Between Wishes and Reality. *In*: Van Dijkum C, Blasius J and Durand C (*eds*.) *Recent Developments and Applications in Social Research Methodology.* Barbara Budrich Pub. Proceedings of the Sixth International Conference on Social Science Methodology. August 16-20, 2004 Amsterdam.

Billiet J and Pleysier S (2007) *Response based quality assessment in the ESS - Round 2. An update for 26 countries.* Working Paper, Centre for Sociological Research (CeSO), University of Leuven.

Billiet J, Koch A and Philippens M (2007) Understanding and improving response rates. *In* R Jowell et al (*eds*), *Measuring attitudes cross-nationally.* London:Sage Publications

Billiet J, Philippens M, Fitzgerald R and Stoop I (2007) Estimation of nonresponse bias in the European Social Survey: using information from reluctant respondents, *Journal of Official Statistics* **23**(2): 135-162

Blom, A. and Blohm, M. (2007) *The influence of first contact by telephone on the cooperation in the ESS.* Paper presented at the 18th International Workshop on Household Survey Nonresponse, Southampton, UK, 3rd-5th September 2007.

Blumberg, SJ, Luke, JV and Cynamon, ML (2004) Has cord-cutting cut into random digit dialled health surveys? The prevalence and impact of wireless substitution. In S.B. Cohen and J.M. Leprowski (eds.) *Eighth conference on Health survey Research Methods* pp.137-142 Hyattsville, MD: National Centre for Health Statistics.

Blyth, B. (2007) *Mixed mode: the only fitness regime?* Paper presented at the Market Research Society, Annual Conference, 2007.

Callegaro, M and Poggio, T (2004) *Where can I call you? The 'Mobile phone revolution' and its impact on Survey research and coverage error: A Discussion of the Italian case*, paper presented at the 6th International Conference on Social Science Methodology: Recent Developments and Applications in Social Research Methodology, Amsterdam, 17-24 August 2004.

Collins, M, Sykes, W, Wilson, P and Blackshaw, N (1988) 'Nonresponse: The UK experience' in: RM Groves, PP Biemer, LE Lyberg et al. (eds), *Telephone survey methodology,* New York: Wiley

Couper, MP (2002) *New Technologies and Survey Data Collection: Challenges and Opportunities*, paper presented at the International Conference on Improving Surveys, University of Copenhagen, Denmark, 25-28 August 2002.

Couper, MP (2005) "Technology trends in Survey Data Collection". *Social Science Computer Review* **23**(4): 486-501

Couper, M and de Leeuw, E (2003) *Cross-cultural survey methods*, New Jersey: John Wiley

Czaja, R and Blair, J (2005) *Designing Surveys: A Guide to Decisions and Procedures.* (2nd ed.) Pine Forge Press.

de Heer, W (1996), 'International Response Trends', *Paper presented at the 4th International Social Science Methodology Conference, July 1996, University of Essex*

de Heer, W (1999) International Response Trends: Results of an International Survey. *Journal of Official Statistics* **15**(2): 129-142

de Heer, W (2000) Survey practices in European countries. *In*: S. Carey (ed), *Measuring Adult Literacy: The International Adult Literacy Survey in the European context,* London: Office for National Statistics

de Heer, W and de Leeuw, E (2002) Trends in Household Survey Non-response: A Longitudinal and International Comparison. *In*: Groves, R et al. (*eds.*) *Survey non-response*. New York: John Wiley

de Heer, W and Israëls, A.Z. (1992) *Response trends in Europe.* Paper presented at the Survey Research Methods Section, American Statistical Association

de Heer, W and Moritz, G (1997) Data Quality Problems in Travel Surveys. An International Overview. Paper presented at the Workshop on Respondent Issues: Sampling, Weighting and Nonresponse.

de Leeuw, E (1992) *Data quality in mail, telephone, and face-to-face surveys*. Amsterdam: TT Publications.

de Leeuw, E (2005) To Mix or Not to Mix Data Collection Modes in Surveys. *Journal of Official Statistics.* **21**(2): 233-255

de Leeuw E, Dillman D and Hox J (2008) Mixed Mode Surveys: When and Why. *In:* de Leeuw E, Dillman D and Hox J (*eds.*) *International Handbook of Survey Methodology*. New Jersey: Lawrence Erlbaum Associates.

Dillman, D (2000) *Mail and Internet Surveys: The Tailored Design Method* 2nd edition New York: Wiley

Goyder, J (1987) *The silent minority. Nonrespondents on sample surveys.* Cambridge: Polity Press.

Groves, R (1979) Actors and Questions in Telephone and Personal Interview Surveys. *Public Opinion Quarterly*, **43**(2): 190-205

Groves, R (2006) Nonresponse rates and nonresponse bias in household surveys. *Public Opinion Quarterly*. **70**(5), Special Issue 2006: 646-675

Groves, R and Kahn, R (1979) *Surveys by Telephone: A National Comparison with Personal Interviews.* New York: Academic Press

Groves R, Presser S and Dipko S (2004) The Role of Topic Interest in Survey Participation Decisions. *Public Opinion Quarterly.* **68**(1): 2-31

Groves R, Singer E and Corning A (2000) Leverage-Saliency Theory of Survey Participation: Description and an Illustration *Public Opinion Quarterly* 64: 299-308

Häder S and Lynn P (2007), How representative can a multi-nation survey be? *In* R Jowell *et al* (eds)*, Measuring attitudes cross-nationally.* London:Sage Publications

Holbrook, A. L., Green, M.C and Krosnick, J. A. (2003) Telephone vs. Face-to-Face Interviewing of National Probability Samples With Long Questionnaires: Comparisons of Respondent Satisficing and Social Desirability Response Bias, *Public Opinion Quarterly*, **67**: 79-125.

Hox, J and de Leeuw, E (1994) A comparison of non-response in mail, telephone and face-to-face surveys, *Quality and Quantity*, **28**: 329-344

Jäckle, A, Roberts, C and Lynn, P (August 2006) 'Telephone versus Face-to-Face Interviewing: Mode Effects on Data Quality and Likely Causes. Report on Phase II of the ESS-Gallup Mixed Mode Methodology Project.' *ISER Working Paper* 2006-41. Colchester:University of Essex.

Johnson, TP and van de Vijver, FJR (2003) Cross-Cultural Survey Methods. *In*: JA Harkness, F van de Vijver and P Mohler (eds.) *Cross-Cultural Survey Methods*, New York: John Wiley and Sons.

Jowell, R (1998) How comparative is comparative research?, *American Behavioural Scientist*, **42** (2): 168-177.

Kuusela, V and Simpanen, M (2002) *Effects of Mobile Phones on Telephone Survey Practises and Results.* International Conference on Improving Surveys, University of Copenhagen, Denmark, 25-28 August 2002.

Lyberg, L and Dean, P (1992) *Methods for reducing nonresponse rates. A review.* Paper presented at the annual meeting of the American Association for Public Opinion Research, St. Petersburg, FL.

Lynn P, Beerten R, Laiho, J and Martin J (2001) Recommended Standard Final Outcome Categories and Standard Definitions of Response Rate for Social Surveys. *ISER Working Papers* Number 2001-23 (Revised 2005).

Maas, C and de Heer, W (1995) Response developments and fieldwork strategy. *Bulletin de méthodologie sociologique*. 48:36-51

Nicolas, JD (2005) *Modes of Data Gathering in International Survey Research*. WAPOR/ISSC Conference "Conducting International Social Surveys", Ljubljana, Slovenia, November 9-11 2005.

Nicoletti, C and Peracchi, F (2005) 'Survey response and survey characteristics: microlevel evidence from the European Community Household Panel', *Journal of the Royal Statistical Society Series A* **168**(4): 1-19

Roberts, C.E. (2007) *Mixing modes of data collection in surveys: A methodological review*. Methods Review Papers, NCRM/008, ESRC National Centre for Research Methods

Saris, WE (1997) Adjustment for differences between face to face and telephone interviews. *In*: WE Saris and M Kaase (eds.) *Eurobarometer - Measurement instruments for opinions in Europe.* Mannheim: ZUMA

Saris, WE and Hagenaars, JA (1997) Mode effects in the standard Eurobarometer questions. *In*: WE Saris, and M Kaase (eds.) *Eurobarometer - Measurement instruments for opinions in Europe*. Mannheim: ZUMA

Schmitt, H, Schrott, P and Thoma, M (1997) Mode Effects on Open-ended Agenda Questions. *In*: WE Saris and M Kaaase (eds). *Eurobarometer - Measurement Instruments for Opinions in Europe*, Mannheim: ZUMA

Skjåk, KK and Harkness, J (2003) Data Collection Methods. *In*: JA Harkness, FJR van de Vijver, P Mohler (eds.) *Cross-Cultural Survey Methods*, New York: Wiley

Smith, T (2005) A Report on the 2005 ISSP Non-Response Survey, *GSS Cross-National Report* No. 24, Chicago: NORC

Special Eurobarometer 249 Wave 64.4 TNS Opinion and Social (2006) *E-communications household survey,* Eurobaromter, Brussels.

Srivastava, L (2005) Mobile phones and the evolution of social behaviour. *Behaviour and Information Technology* **24**(2): 111-129

Stoop, I (2005) *The Hunt for the Last Respondent. Nonresponse in sample surveys.* Den Haag, Sociaal en Cultureel Planbureau.

Sturgis, P and Campanelli, P (1998) The Scope for Reducing Refusals in Household Surveys: An Investigation Based on Transcripts of Tape-Recorded Doorsetp Ineractions. *Journalof the Market Research Society* **40**(2): 121-139

Van Dijk, JJM, Manchin, R, van Kesteren, J, Nevala, S and Hideg, G (2005) The Burden of Crime in the EU. *Research Report: A comparative analysis of the European Survey of Crime and Safety (EU ICS)*

Vehovar, V and Zaletel, M (1995) Non-response Trends in Slovenia, *Statistics in Transition*, **2** (5): 775-788.

Vehovar V, Zaletel M, Novak T, Arnez M and Rutar K (2002) Household Sample Surveys in Slovenia. *Statistics in Transition* **5**(4):671-685

Vehovar, V and Zupanič, T (2007) *Weighting in the ESS Round 2.* ESS manuscript.

Vehovar, V (2007) Non-response bias in the European Social Survey. In G. Loosveldt, M. Swyngedouw and B. Cambré (Eds.) *Measuring meaningful data in social research*. Leuven: Uitgeverij Acco.

9 APPENDIX

Table A1 Survey organisations responsible for fieldwork on major comparative surveys

Country	NSI (responsible for EU LFS in EU countries)	ESS Round 1	ESS Round 2	ESS Round 3	ISSP (2003)	Standard EB 65.2 (Spring 2006)	Flash EB 93 (Nov 2006)	Flash Eurobarometer 188 (July 2006)	EVS 1999	WVS 90-93	WVS 95
Austria	Statistics Austria	Institute for Panel Research	Institute for Panel Research	Institute for Panel Research	Institute for Empirical Social Research (IFES),	Austrian Gallup	Spectra	Spectra	Fessel - GFK Austria	Fessel - GFK Austria	
Belgium	Statistics Belgium	Institute for Social and Political Opinion Research (ISPO) KUL Centre for Public Opinion Research (CLEO) University of Liege	Significant Gfk, Leuven	TNS Dimarso (R3)		TNS Dimarso	Gallup Europe	Gallup- Europe	NID (Nationaal Institut voor Dataverzamelin g/ Institut National pour la collecte des Donnees) and Dimarso	Dimarso-Gallup	
Bulgaria	National Statistical Institute of the Republic of Bulgaria			Vitosha Research EOOD		TNS BBSS Gallup International			Institute of Sociology, Bulgarian Academy of Sciences	National Public Opinion Center	Ivan Hartikiisky Institute for Social Values and Structures (BBSS Gallup International)
Cyprus	Statistical Service of Cyprus (CYSTAT)(for merly Department of Statistics and Research)			Cyprus College (R3) (Centre for applied research)		Synovate [Republic of cyprus] and KADEM [Turkish Cypriot Comm]		CYMAR			
Czech Republic	Czech Statistical Office	STEM Centre for Empirical Research	SC&C Marketing and Social Research		SC&C	TNS Asia		Focus Agency	SC&C Ltd. (Statistical Consultations and Computing).	AISA (Association for Independent Social Analysis)	AISA (Association for Independent Social Analysis)

Denmark	Statistics Denmark	SFI (Danish National Institute of Social Research)	SFI (Danish National Institute of Social Research)	SFI (Danish National Institute of Social Research)	SFI SURVEY	TNS Gallup DK		Hermelin	SFI (Danish National Institute of Social Research)	SFI (Danish National Institute of Social Research)	
Estonia	Statistical Office of Estonia		Statistical Office of Estonia	OU Saar Poll		Emor		Saar Poll	Saar Poll	Mass Communication Research and Information Center	Center for Social Studies in Eastern Europe
Finland	Statistics Finland	Statistics Finland	Statistics Finland	Statistics Finland	Statistics Finland	TNS Gallup Oy	Hermelin	Hermelin	Gallup Finland	Gallup Finland	Gallup Finland
France	Institut National de la Statistique et des Etudes Economiques (INSEE)	Institut de Sondage Lavialle (ISL)	Institut de Sondage Lavialle (ISL)	Institut de Sondage Lavialle (ISL)	France-ISSP	TNS Sofres	Efficience3	Efficience3	Research International	Faits et Opinions [Facts and Opinions]	
Germany	Federal Statistical Office	Institut für Angewandte Sozialforschung (INFAS)	Institut für Angewandte Sozialforschung (INFAS)	Institut für Angewandte Sozialforschung (INFAS)	TNS Infratest Sozialforschung	TNS Infratest	IFAK	IFAK	INFAS	Institut fuer Demoskopie	FORSA
Greece	National Statistical Service of Greece	OPINION - High Technology Market Research Agency MRB Hellas	OPINION - High Technology Market Research Agency			TNS Icap	Metroanalysis	Metroanalysis	Dept of Psychology, University of Athens		
Hungary	Hungarian Central Statistical Office	Social Research Centre (TARKI)	Social Research Centre (TARKI)	Gallup Hungary	TÁRKI RT Social Research Centre	TNS Hungary		Gallup Hungary	Szonda-Ipsos Média-, Vélemény – és Piackutató Intézet (Budapest)	Gallup Hungary	
Iceland	Statistics Iceland		Social Science Research Institute, University of Iceland						The Institute of Social Resarch, University of Iceland		
Ireland	Central Statistical Office	Economic and Social Research Institute (ESRI)	Economic and Social Research Institute (ESRI)	Economic and Social Research Institute (ESRI)	Economic and Social Research Institute (ESRI),	TNS MRBI	Gallup UK	Gallup UK	The Survey Unit, ESRI (Economic and Social Research	The Survey Unit, ESRI (Economic and Social Research	

								Institute)	Institute)	
Israel	Central Bureau of Statistics	B.I. Cohen Institute for Public Opinion Research			B.I. and L. Cohen				B.I.Cohen Institute for Public Opinion Research (in 2001)	
Italy	National Institute of Statistics	ABACUS	DOXA S.p.A.			TNS Abacus	Demoskopia	Demoskopia	Centro Ricerche Sociali di Moncommo G. e C.SaS [CERIS]	Centro internazionale di recerche sociali sulle aree montane
Latvia	Central Statistical Bureau					TNS Latvia		Latvian Facts	Latvia Social Research Centre	Public Opinion Research Group, Latvian Sociological Association	Foundation for the Advancement of Sociological Studies
Luxembourg	STATEC (Service central de la statistique et des études économiques) [Central Service for Statistics and Economic Studies]	CEPS/INSTEAD	CEPS/INSTEAD			TNS ILReS	Gallup Europe	Gallup Europe	ILRES Market Research		
Netherlands	Statistics Netherlands	GfK Panel Services Benelux	GfK Panel Services Benelux	GfK Panel Services Benelux		TNS NIPO	Telder	Telder	Survey Data (Tilburg)	Institut voor Sociaal-Wetenschappelijk Onderzoek	
Norway	Statistics Norway	Statistics Norway	Statistics Norway	Statistics Norway	TNS Gallup				Norwegian Central Bureau of Statistics	Norwegian Central Bureau of Statistics	Norwegian Central Bureau of Statistics
Poland	Central Statistical Office	Centre for Social Survey Research, Institute of Philosophy and Sociology, Polish Academy of Sciences	Centre for Social Survey Research, Institute of Philosophy and Sociology, Polish Academy of Sciences	Centre for Social Survey Research, Institute of Philosophy and Sociology, Polish Academy of Sciences	Public Opinion Research Center (CBOS)	TNS OBOP		Gallup Poland	CBOS – Public Opinion Research Centre		

Portugal	Instituto Nacional de Estatistica	TNS Euroteste	TNS Euroteste	TNS Euroteste	TNS-Euroteste	TNS EUROTESTE	Consulmark	Consulmark	Euroteste-Marketing E Opinião	EuroExpansao	
Romania	National Institute of Statistics			Centre for Urban and Regional Sociology (CURS)		TNS CSOP			Research Institute for the Quality of Life, Romanian Academy of Sciences	Research Institute for the Quality of Life, Romanian Academy of Sciences	BBSS-Gallup
Russia	State committee of the Russian Federation on Statistics			The Institute for Comparative Socail Research (CESSI)	Levada-Center				ROMIR (Russian Public Opinion and Market Research)	Institute for Social and Political Research, Soviet Academy of Sciences	
Slovakia	Statistical Office of the Slovak Republic		MARKWIN Ltd	GfK Slovakia, institute for Market Researach, Ltd	ASA	TNS ASIA SK		Focus Agency	Agentúra MVK	AISA (Association for Independent Social Analysis)	AISA (Association for Independent Social Analysis)
Slovenia	Statistical Office of the Republic of Slovenia	Public Opinion and Mass Communication Research Centre (CJMMK), Institute of Social Sciences, Ljubljana Universit	Public Opinion and Mass Communication Research Centre (CJMMK), Institute of Social Sciences, Ljubljana Universit	Public Opinion and Mass Communication Research Centre (CJMMK), Institute of Social Sciences, Ljubljana Universit	Public Opinion and Mass Communication Research Centre (CJMMK)	RM PLUS		Cati d.o.o	Public Opinion and Mass Communications Research Center, University of Ljubljana		
Spain	Instituto Nacional de Edtadistica	TNS-Demoscopia	TNS-Demoscopia	Metroscopia	ASEP, S.A.	TNS Demoscopia	Gallup Spain	Gallup Spain	Data SA		ASEP (Analysis Sociologicas, Economicos Y Politicos)
Sweden	Statistics Sweden	Statistics Sweden	Statistics Sweden	Statistics Sweden	SIFO	TNS Gallup	Hermelin	Hermelin	ARS – Research AB	SIFO (Svenska Institutet for Opinionsundersokingar)	TEMO (Solna)
Switzerland	Swiss Federal Statistical Office	MIS-Trend	MIS-Trend	MIS-Trend	Institut SIDOS				Geselleschaft fuer Socialforschung	ISOPUBLIC (Institut Suisse d'Opinion Publique)	
Turkey	Turkish State Institute of statistics (TURKSTAT)		Frekans Arastirma; Saha ve Bilgi Islem Hizmetleri Ltd			TNS PIAR			Survey Research Center, Bogazici	Survey Research Center, Bogazici	Survey Research Center, Bogazici

			Sti. & Birim Arastirma ve Danismanlik Ltd Sti; S.A.M. Arastirma, Danismanlik ve Tanitim Hizmetleri A.S						University Birim Arastirma	University Birim Arastirma	University Birim Arastirma
Ukraine	State Statistics Committee of Ukraine		Centre for Social & Expert Investigations, Institute of Sociology, National Academy of Sciences	Center for Social and Political institutions (SOCIS)					Social Monitoring Centre (NGO) Ukrainian Institute for Social Research		Social Monitoring Center, National Institute for Strategic Studies
United Kingdom	Office for National Statistics	National Centre for Social Research	British Market Research Bureau (BMRB)	British Market Research Bureau (BMRB)	National Centre for Social Research	TNS Opinion and Social UK [consortium of Taylor Nelson Sofrs & EOS Gallup Europe]		Gallup UK	Quality Fieldwork and Research Services	Gallup	IPSOS MORI

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7th March 2007

Dear ESS Field Director,

We are conducting some research in connection with the European Social Survey (ESS) at City University, London. The research addresses a range of issues concerned with carrying out surveys using a mix of data collection modes. In common with other surveys, the ESS – which is currently carried out solely by face-to-face interview – faces the problem of rising fieldwork costs and falling response rates. As a cross-national survey, it also faces pressure to accommodate local preferences for particular methods of data collection. For these reasons, we have begun to explore the feasibility of moving to a mixed mode data collection strategy in future rounds. To do this, we not only need to look into the effects of mixing modes on data quality, but we also need to find out more about the *demand* for changing the data collection strategy on the survey in different countries, and the *capacity* for doing so.

As part of this research, we are contacting survey organisations in the different countries that participate in the ESS, in order to find out more about which survey methods are most commonly used in each country and to gather information from expert practitioners across Europe about survey practice. To help us with this research, we would be very grateful if you could spare the time to answer the questions in the questionnaire below.

We appreciate how busy you are, so we have tried to keep the questionnaire as brief as possible. You can complete the questionnaire in Word and return it to us by email (to g.eva@city.ac.uk), or alternatively, you can print it out and return the completed form to us by fax or post (details at top of page). Whichever you prefer, we would be grateful if you could return the completed questionnaire to us by 23rd March 2007.

Thank you very much in advance for taking the time to help us with our research.

Yours faithfully,

Gillian Eva
Researcher
Centre for Comparative Social Surveys

European Social Survey

Consultation with ESS Field Directors

This questionnaire has been designed to collect information about the use of different modes of data collection for surveys in different European countries. Please answer the following questions about survey practice in your organisation.

1. Approximately what percentage of the total survey fieldwork carried out by your organisation during 2006 was conducted using the following methods? Please write in.

   a. Face-to-face interviews only _____%

   b. Telephone interviews only _____%

   c. Postal / self-completion surveys only _____%

   d. Web / internet surveys only _____%

   e. Other – Please specify _____%

   f. Mixed modes* (including the above and other data collection modes) _____%

   *By *mixed modes* we mean the use of more than one method of administering questionnaires in a single survey, whether for different respondents or for different questions.

2. To help give us an idea of the *relative costs* of fieldwork using different modes of data collection, please estimate the average cost of conducting a survey of a random probability sample of the population using the modes listed below. (Assume 1,000 achieved interviews and a 20 minute questionnaire).

   You do not need to give the *actual* cost estimate. Simply describe the *relative* costs of modes **b**, **c**, and **d** (below) as a percentage of the cost of mode **a** (a survey using face-to-face interviewing). Please enter your answers below.

   a. Face-to-face interviews = 100%

   b. Telephone interviews = _____%

   c. Postal questionnaires = _____%

   d. Web-based questionnaires = _____%

3. Based on your experience, which of the following data collection methods do you think would achieve the highest level of response in a national population survey (given the usual efforts, as well as the practical and cost constraints)?

   Please rank the methods below from 1 to 5 in terms of the typical response rates you would expect to achieve with each, where 1 = the highest response rate and 5 = the lowest response rate.

   a. Face-to-face interviews _____
   b. Telephone interviews _____
   c. Postal / self-completion surveys _____
   d. Web / internet surveys _____
   e. Mixed modes (including the above and other data collection modes) _____

4. Which types of mixed mode survey design, *if any*, have been used by your survey organisation? Please check <u>all</u> that apply:

   a. Part of the questionnaire was administered in a different mode to the rest (e.g. to ask sensitive questions) ☐
   b. Sample members were offered their own choice of mode at the start of the survey ☐
   c. Different modes were used for different stages of data collection (e.g. for follow ups, or in a panel survey) ☐
   d. Non-respondents were re-contacted in a different mode to try to encourage them to participate. ☐
   e. Other – please specify: _____
   f. Never used mixed mode survey designs ☐

5. If your organisation has carried out surveys using mixed mode data collection, what combinations of modes have you used? Please give details in the space provided.

6. Which of the following <u>best</u> describes the type of survey organisation you work for? Please select <u>one</u> only.

a. Private, commercial survey organisation ☐
b. National Statistical Office ☐
c. Survey organisation based in a University ☐
d. Not-for-profit survey organisation ☐
e. Other – Please specify_____

7. In which country is this survey organisation based? _____

8. What type of surveys does your organisation conduct? Check all that apply.

a. Social surveys ☐
b. Business surveys ☐
c. Employee surveys ☐
d. Opinion polls ☐
e. Marketing research ☐
f. Media and audience research ☐
g. Other – Please specify _____

Please answer the remaining questions if your survey organisation conducts surveys using telephone interviewing.

9. Does your organisation set a formal or informal limit on the duration of the telephone survey interviews it conducts?

Yes ☐ / No ☐

If yes, what is the limit? _____ minutes

10. Does your organisation ever carry out telephone survey interviews with respondents on their mobile or cell phone?

Yes ☐ / No ☐

11. If yes, how do you obtain respondents' mobile/cell phone numbers? Please check all that apply.

a. Mobile/ cell phone numbers are/were available from the ☐

sampling frame

b. Mobile/ cell phone numbers are/were obtained from previous contact with the respondent ☐

c. Random Digit Dialling ☐

d. Other – Please specify _____

_____

We would be interested in any additional comments you may have about the topics covered, or about challenges to survey data collection in your country. Please use the space provided.

Thank you for taking the time to answer our questions.

Please return the completed questionnaire by email, fax or post to:

Gillian Eva, Researcher, Centre for Comparative Social Surveys, City University, Northampton Square, London EC1V 0HB.

Email: g.eva@city.ac.uk
Fax: +44 (0)20 7040 4900
Tel: +44 (0) 20 7040 4902

Please do not hesitate to contact us if you have any queries about this research.
