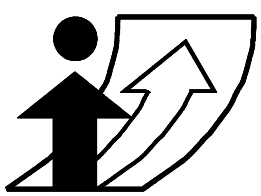
DATELINE

DATELINE – Design and Application of a Travel Survey for Long-distance Trips Based on an International Network of Expertise – Concept and Methodology

Werner Brög, Socialdata Munich
Erhard Erl, Socialdata Munich
Gerd Sammer, Universität für Bodenkultur Vienna
Brian Schulze, Socialdata Munich

Conference paper
Session XXX



Moving through nets:
The physical and social dimensions of travel
10th International Conference on Travel Behaviour Research
Lucerne, 10-14. August 2003

DATELINE – Concept and Methodology

Werner Brög, Erhard Erl, Brian Schulze

Socialdata – Institut für Verkehrs- und Infrastrukturforschung GmbH

Hans-Grässel-Weg 1

D – 81375 München

GERMANY

Phone: +49 (0)89 7108 1
Fax: +49 (0)89 71 64 20
eMail: socialdata@socialdata.de

Gerd Sammer

Universität für Bodenkultur – Institut für Verkehrswesen

Peter Jordan-Str.82

A – 1190 Wien

AUSTRIA

Phone: +43 1 47654 5301
Fax: +43 1 47654 5344
eMail: sammer@mail.boku.ac.at

Abstract

For the very first time, a Europe-wide long-distance survey has been realised by the European Commission in form of the *DATELINE* project. Being part of the *Competitive and Sustainable Growth* programme embedded in the 5th Framework Programme, the **D**esign and **A**pplication of a **T**ravel Survey for **E**uropean **L**ong-distance Trips Based on an **I**nternational **N**etwork of **E**xpertise was concerned with the development and implementation of a homogenous long-distance mobility survey in the 15 Member States of the European Union and in Switzerland. The project began in April 2000 and finished in June 2003. Its attempt to bring together experiences from various cultures and mould them into one single survey design applicable to all participating countries proved successful. An overall response rate of 66% sufficiently attests to this. The rate also shows that the European people are very interested in long-distance travel and its improvement. Respondent Friendliness, flexibility and harmonisation were the most important factors in designing the survey system, its instruments and ultimately the database and its online retrieval system that has been installed. Now the results are being reviewed by the Commission so that it remains to be seen if the system will become part of Europe's future long-distance survey practice.

Keywords

Dateline, travel, long-distance, survey, data quality, behaviour, transport, passenger, mobility, Europe, International Conference on Travel Behaviour Research, IATBR

Preferred citation

Brög, Werner, Erl , Erhard, Sammer, Gerd and Schulze, Brian (2003) Dateline: concept and methodology, 10th International Conference on Travel Behaviour Research, Lucerne, August 2003.

1. Introduction

Conceived in April 2000 as part of the European Commission's *Competitive and Sustainable Growth* programme embedded in the 5th Framework Programme, *DATELINE* (Design and Application of a Travel Survey for European Long-distance Trips Based on an International Network of Expertise) is concerned with European long-distance travel. A specifically designed survey was carried out in the 15 Member States of the European Union (EU) and in Switzerland, following a carefully devised methodology that had the aim to create one single harmonised long-distance travel database covering all 16 countries. The project was funded by the European Commission (EC) and executed by an interdisciplinary research team of twelve experienced consortium partners from various parts of Europe. Within the consortium, a combination of competencies from the field of theoretical and applied transportation and social market research came together to meet the challenge.

This paper sets out to describe the three-year long effort that went into the project. It discusses primarily concepts, methodology and the survey design developed during the first year and continues with a sketch of the implementation and data treatment process that occurred during the second and third year. Finally, a few words are spent on the database building and analysis process. Long-distance mobility results derived from the analysis have not been included in this paper, as the EC has not yet given their official seal of approval.[1]

2. Methodology

Before going into the details of the methodological aspects behind the survey, it is necessary to say something about the objectives of *DATELINE* so as to be able to better understand the choices made by the consortium.[2]

[1] Results are currently being reviewed by the EC. They are expected to be publicly available in August 2003 through the project website at: http://cgi.fg.uni-mb.si/elmis, where raw data will be made available to the public for download.

[2] Full documentation of the *DATELINE* methodology can be found in Deliverable 2 "Final Survey Design". It is available for download on the project website.

2.1 Objectives and Principles

The overriding goal of the project was to systematically survey long-distance journeys made mainly within the EU, but also beyond. Four main objectives formed the framework, which helped the project reach its goal. These were,

(1) to design a complete survey for European long-distance travel;
(2) to implement this survey in all 15 EU Member States;
(3) to build up a valid long-distance mobility database;
(4) to integrate this database into the EUROSTAT statistical programme.

These four objectives did not stand by themselves. They came with four guiding principles, which guaranteed a survey of high quality. These principles were,

(1) to develop a respondent friendly questionnaire;
(2) to devise a flexible methodology;
(3) to create a valid database;
(4) to harmonise all the collected data.

The first principle aimed at the design of a questionnaire that does not inundate the respondent with unnecessary information and confusing definitions. It was made a priority by the consortium to meet the respondent not only half way, but to actively unburden him as much as possible.

The second principle related to the fact that the survey involved many different countries with distinctive cultures and needs. Survey traditions differ across Europe, so that precautions had to be taken that would allow the use of survey methods and procedures appropriate to the country or region concerned.

The third principle ensured collected data was checked for consistency, completeness and plausibility. An additional validation survey searching for any travel information that may have been missed was carried out to verify and enhance data quality.

And finally the fourth principle; one may say that it formed the pinnacle of the project work in that all collected and analysed data, regardless of its origin, had to be comparable in order to be of use to future European planning efforts.

All eight items – objectives and principles – were critical to the success of the project and had to be acknowledged and strictly adhered to by all members of the consortium and their affiliates, i.e., subcontractors.

But not only that. A number of definitions, some of which had already been used by EUROSTAT in previous long-distance surveys, were formulated to contribute to the building of a solid foundation for the survey design. These definitions are discussed in the next section.

2.2 Concept and Definitions

It is impossible to construct a harmonised database without maintaining consistency in the empirical phase of a project. To obtain consistency, it is imperative for project participants to reach consensus on the main issues during the conceptual phase. Notions about basic mobility concepts such as *journey* and *trip* often differ between survey organisations and their experts, depending on the traditions and philosophies advocated. So for *DATELINE* a minimal set of definitions had to be found to which all participants could agree.

The first step was to find the appropriate cut-off distance separating the shorter from the longer journeys. A minimum distance of 100 km (crow-fly) to the farthest destination was imposed by the European Commission. This means that all journeys of 100 or more kilometres (one-way) qualified as long-distance travel. Compared to other common definitions for long-distance travel, the crow-fly distance applied in *DATELINE* is extremely rigid.

The next step was to be clear on concepts of long-distance *journeys* and *trips*. The following definitions were used:

(1) A journey is a series of trips starting and ending at home or a temporary location. Journeys that include a destination more than 100 km away from the reference location are long-distance journeys. Journeys can consist of many trips.
(2) A trip connects two activities. Trips can begin and end at any location (home city, overnight location, temporary stop).

Thirdly, a working classification of journey types had to be found, as people travel for many different reasons and thus behave in a certain way. In order to facilitate subsequent analysis and also to reduce the burden on the respondent, four journey types were distinguished.

(1) Holiday Journey: a journey that lasts for four or more days and is made for holiday purposes.
(2) Other Private Journey: a journey made for any reason but holiday or business, the exception being a short holiday lasting for up to three days.
(3) Business Journey: a journey made for business purposes. Professional travel undertaken by pilots, truck drivers and the like are excluded.

(4) Commuter Journey: a journey regularly made to or from work / school / university. It includes daily and weekend commuters.

But a classification into journey types alone was not enough. It is a well-known fact among travel specialists that people behave differently depending on not only the distance of a journey but also its duration. For this reason a second classification was needed. For *DATELINE* journeys were broken down into *one-day* and *multi-day* journeys (see Figures 2.1 and 2.2).

(1) A one-day journey is defined by the trip to and from the farthest destination, including main stops on the way and major changes of transport modes. The return trip may end at any location.
(2) With respect to multi-day journeys, a trip begins at a reference location (home city, overnight stay or temporary location) and ends with the next overnight stay. It includes main stops on the way and major changes of transport modes. Each overnight stay of a multi-day journey can mark the beginning of a one-day excursion, which is defined by the trip to the farthest destination from an overnight stay and back, including any intermediate stops on the way.

Figure 2.1 One-Day Journey

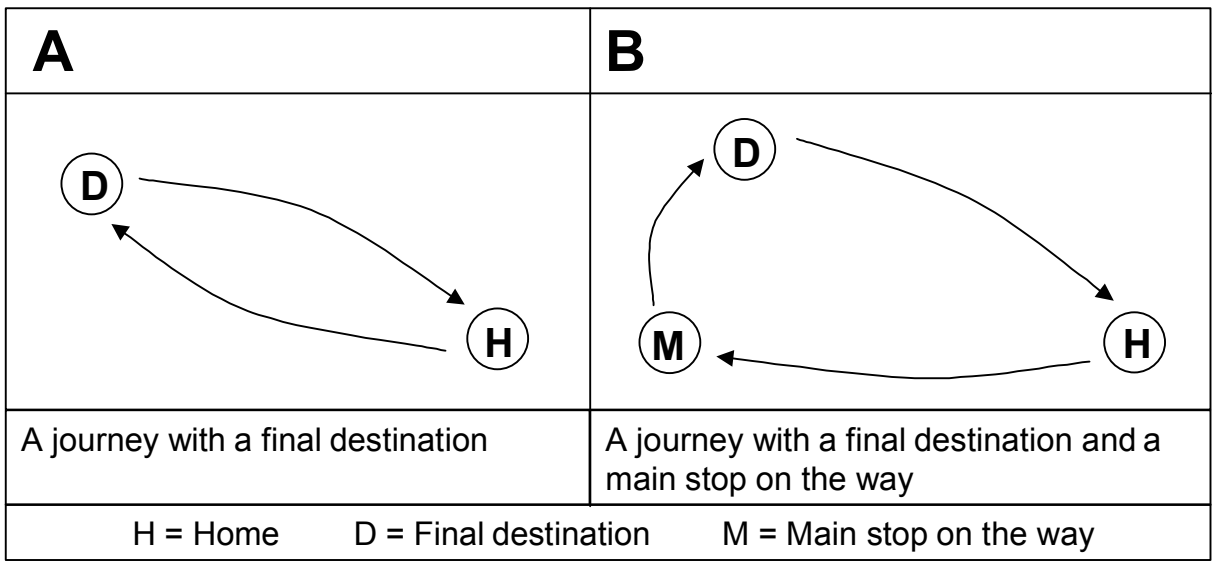
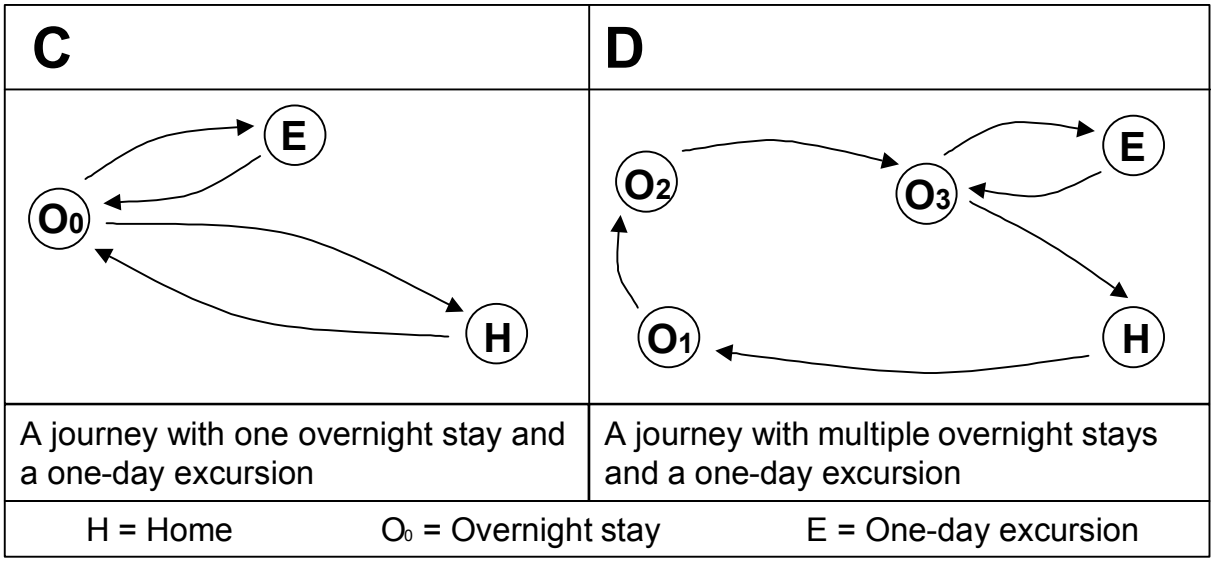


Figure 2.2 Multi-Day Journey



2.3 Survey Design

Concepts and definitions only formed the basis of the survey system. In order to make it complete, a survey design had to be developed that would take account of other important aspects such as survey method, unit, timeframe, reporting period, etc., all of which have an influence on the final mobility results.

2.3.1 Methodological Considerations

The first consideration related to the second principle – "flexibility". National peculiarities and the prevailing cultural context called for concessions to individual survey organisations. Years of practical experience and intimate knowledge of their own country necessitated a flexibility concerning the choice of the most suitable survey method and unit. In the end, three different methods were employed in the survey – postal, telephone and face-to-face. The latter two methods mainly used "person" as the survey unit whereas the postal method always addressed the entire household.

The second consideration pertained to the length of time the survey should cover. In order to avoid any seasonal impact, the survey was carried out over a total of twelve consecutive months. This means that for each month a new sample was drawn.

Thirdly, a closely defined system of regular motivations and reminders was built into the survey design, bringing a number of advantages. It enabled the field personnel to offer additional advice to the respondent, clarify any misunderstandings that may exist or retrieve missing information. The effect was twofold; first, data quality improved and second, the response rate increased.

Finally, thought had to be given to the appropriate reference frame for journeys. Due to the fact that journey classification has to do with the character of a journey (some journeys tend to be forgotten more easily than others – "recall effect"), different reporting frames or periods were in order. Drawing from previous EU projects such as MEST (Mest Consortium, 1999), the following reporting periods were assigned:

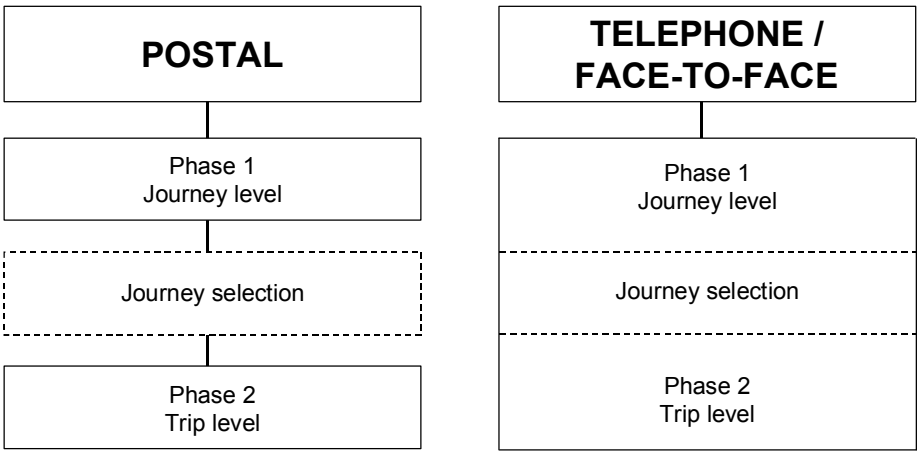
(1) Holiday Journeys: *twelve* months
(2) Other Private Journeys: *three* months
(3) Business Journeys: *three* months
(4) Commuter Journeys: *one* month

2.3.2 A Two-Phase-System

The idea goes back to the first *DATELINE* principle – respondent friendliness. One essential aspect often overlooked in surveys is that the respondent is the "customer" and that he needs to be treated accordingly. This means that the burden placed on him by the survey needs to be kept to a minimum level. It was predominantly this reason which led the project consortium to the decision to carry out the survey in two separate phases (see Figure 2.3). It should be noted, however, that in the telephone and face-to-face surveys both phases were made in just one phase with instantaneous journey selection and instantaneous geocoding (when CATI was used).

The split also brought other important advantages with it. In Phase 2, a person could be addressed personally, journeys could be selected using a predefined rule permitting an oversampling of longer long-distance journeys, and the overall response rate increased.

Figure 2.3 Two-Phase-System



2.3.2.1 Phase 1: Journey Level

Phase 1 asked for socio-economic background information about the household (e.g. number of persons in the household, age, gender, employment status). It then continued capturing basic travel data for the main three journey types, including origin and destination, duration, number of participants, journey date etc.. At this point, commuter journeys were only registered with regard to their travel distance.

The number of journeys to be reported in the postal survey was limited to three in the case of holiday journeys and six if the journey fell into the other two main categories. For practical reasons, the limit for the latter two categories was lowered to five journeys in the telephone / face-to-face surveys.

2.3.2.2 Phase 2: Trip Level

Phase 2 was more complicated. The idea was to obtain additional information about the journeys reported in Phase 1 without overwhelming the respondent. Most journeys have a simple make-up (one destination, two trips) and were not worth being inspected further as no new information would be revealed. Thus, journeys that were more complex and interesting in terms of long-distance travel were selected using a special rule (see Figure 2.4).

The rule clearly shows that journeys with specific characteristics took priority over others. The first priority was to make sure all journey types are covered. The second priority was

given to "long journeys" (more than 500 km), and last but not least, the third priority went to time, i.e., journeys were selected in chronological order, beginning with the most recent.

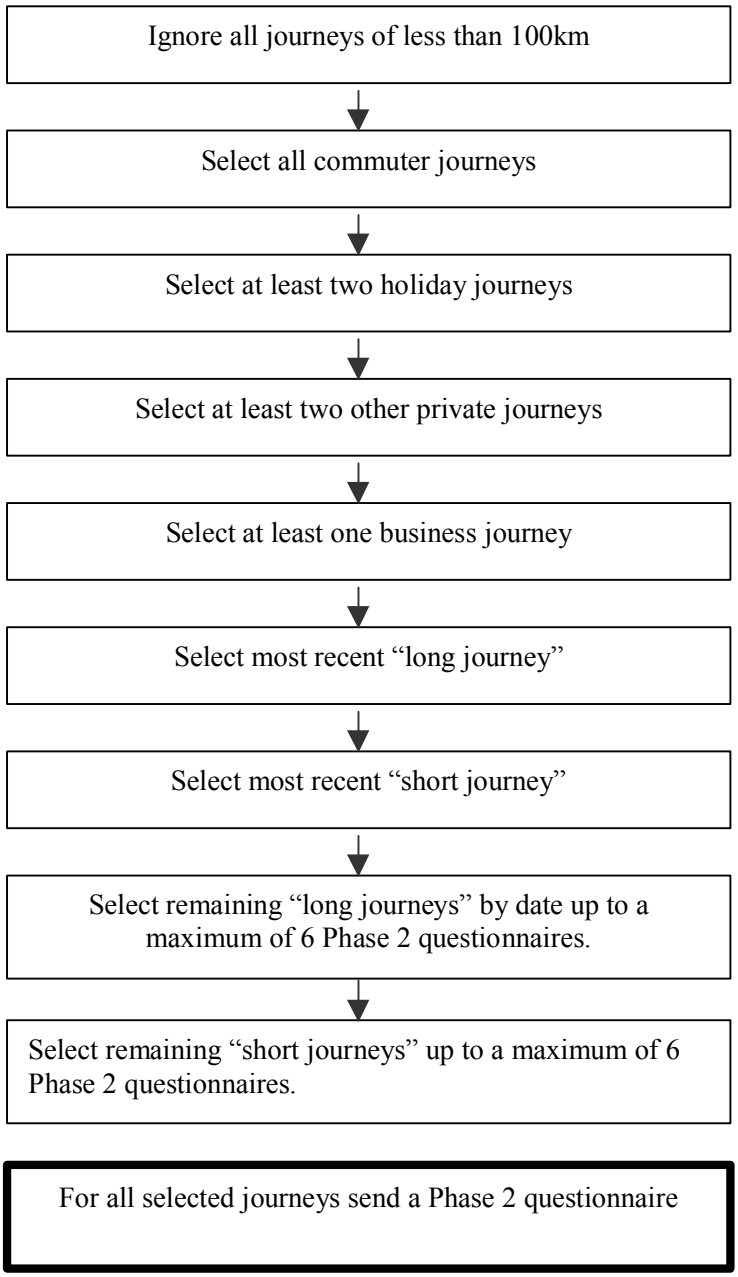
Just as was done in Phase 1, an upper limit of journeys was fixed to reduce the burden on the respondent. In the postal survey the limit was set to six journeys, in the telephone and face-to-face survey it was four.

However, the rule by itself did not pay respect to the complexities of certain journeys. Therefore, a set of additional criteria had to be found and applied in combination with the rule. These criteria are listed below:

(1) To qualify for selection, a journey had to have been made within Europe.
(2) It had to be a multi-day journey, or
(3) If a one-day journey, it had to have been made with at least two different modes of transport or have one additional destination

Using these criteria together with the established rule, it was possible to make the appropriate selection of journeys.

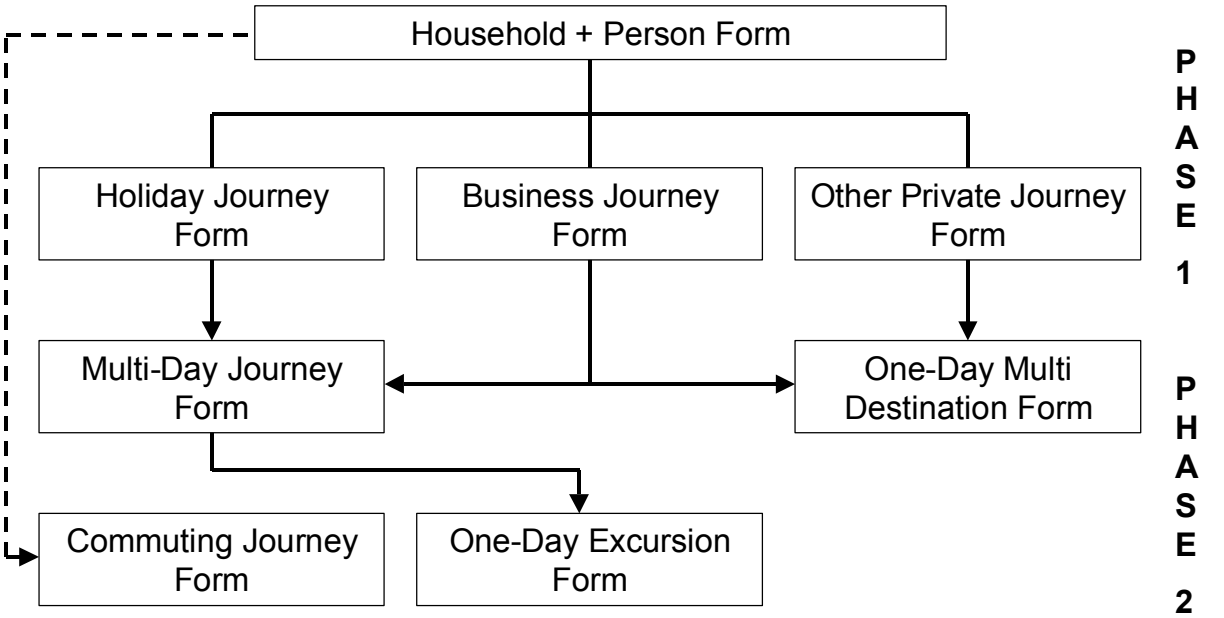
Figure 2.4 Phase 2 Selection Rule



2.4 The Questionnaire

In order to accommodate the methodological considerations, the questionnaire developed for the two-phase survey system was divided into individual forms (see Figure 2.5). The scheme below shows the relation between these forms and to which phase they belong. All forms of the questionnaire were translated into eleven different languages and were used with all three methods. Some minor adjustments had to be made in order to make the questionnaire suitable to the employed method as well as the surveyed country or region.

Figure 2.5 The Questionnaire



3. Sampling

The total sample size funded by the European Commission was about 60,000 persons (net). But it was deemed necessary to try and get extra funding for an extended sample which would lead to more reliable results. For this reason various national institutions concerned with mobility were approached in each country. In the end, it were the transport ministries in Germany, the Netherlands, Portugal and Spain who agreed to extend the sample for their country, increasing the total sample size by approximately 30% to about 80,000 persons (net).

The sampling method that was chosen was *random sampling*, calculating individual samples for NUTS 1 zones,[3] which is the regional system of geographical differentiation used by the EU. The range of regional sample sizes stretched from 500 to 1,000 persons, Luxembourg representing the lower end of the spectrum. Table 3.1 gives an overview of the net sample size calculated for each country, including national extensions in parentheses.[4] In the end, a total of 86,969 persons (net) were surveyed.

Table 3.1 Net Sample Size (persons)

Country	Sample Size
Austria	2,205
Belgium	2,205
Denmark	1,470
Finland	1,470
France	7,350
Germany	11,760 (18,260)
Greece	2,940
Ireland, Republic of	735
Italy	8,085
Luxembourg	500
Netherlands	2,940 (6,690)
Portugal	2,205 (5,000)
Spain	5,145 (12,000)
Sweden	2,205
Switzerland	718
United Kingdom	8,820
TOTAL	60,753 (80,653)

[3] Nomenclature of Territorial Units for Statistics (NUTS)

[4] A full documentation of the complete sampling methodology is given in Deliverable 3 "Sampling Methodology" available for download on the project website.

4. Data Collection

June 2001 marked the official beginning of the survey in all EU countries and Switzerland. At the end of August 2002 the last country finished its obligatory 12 month survey period, closing a vital chapter of the project.[5]

4.1 Survey Preparation

The logistical processes and requirements that were necessary to prepare the Europe-wide survey were of considerable magnitude. Questionnaires had to be printed and Computer Assisted Telephone Interview (CATI) systems programmed. In addition, each country agreed to use its own customised announcement letter, bearing the official signature and logo of its national ministry of transport or statistical office. In some instances, the letter was tailored to accommodate regional variation.[6] This task alone, winning over the support from each of these national bodies, was an extremely challenging.

Preparation also included hiring the appropriate staff who then had to receive the necessary training to carry out the strictly defined survey procedures. People had to learn the concepts, definitions and rules of the project, many of which are unique to *DATELINE*. The existing office equipment had to be made suitable to the needs of the project. One of the major accomplishments in this respect was the development and subsequent use of the project's own coding software *Collect IT*, which was used by most organisations conducting postal surveys. The organisations who decided not to use the programme had to be provided with precise instructions on how to handle their collected data in order to ensure compatibility with the data coded via the software.[7]

[5] Full documentation of survey implementation is found in Deliverable 5 "Final Report on Data Collection" on the project website.

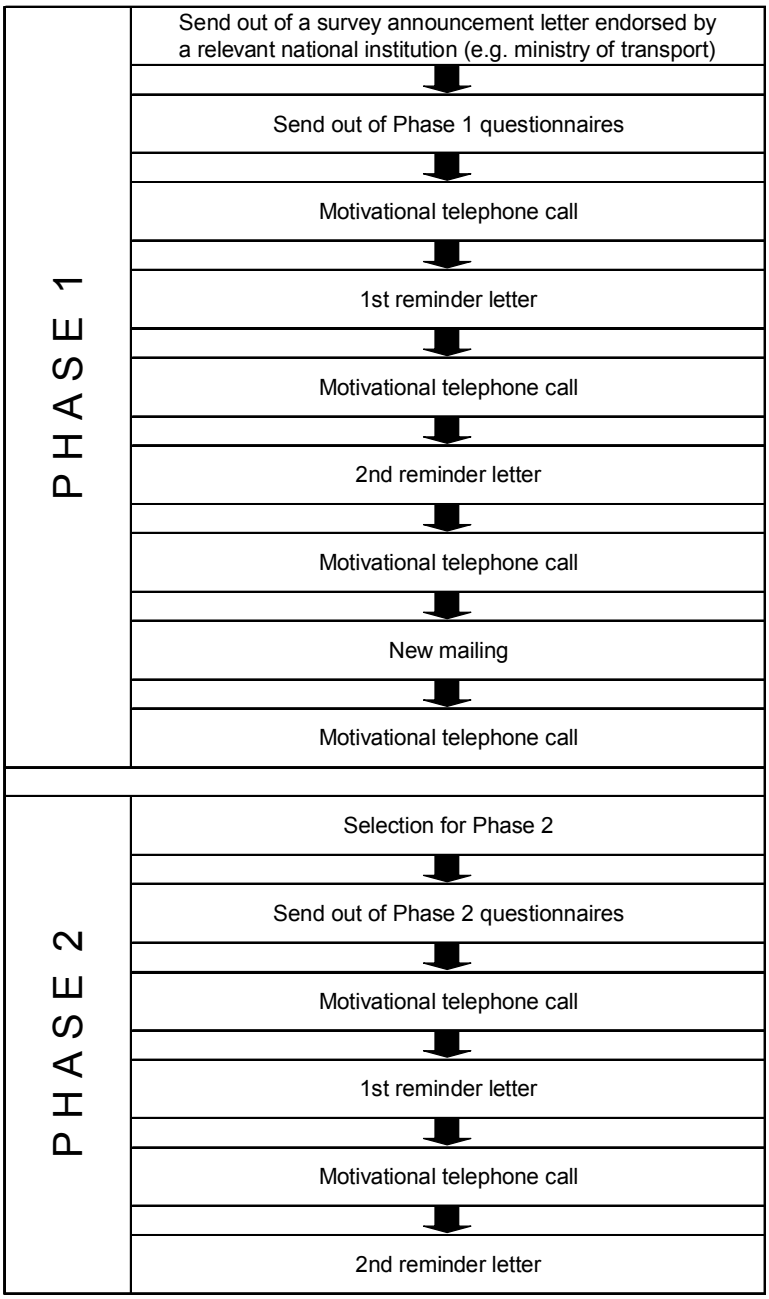
[6] For the United Kingdom, four different letters had to be produces and provided with an official signature, i.e., for England, Scotland, Wales and Northern Ireland.

[7] Within the project, a coding manual was produced for the survey organisation. This manual is found on the project website as Deliverable 6 "European Coding Book".

4.2 Survey Implementation

Already alluded to in Section 2.3.1, contact with respondents was established differently depending on the method used. For the postal survey, a system of reminder letters combined with motivational telephone calls was set up. The procedure is shown in Figure 4.1.

Figure 4.1 Sending and Reminder System



The main mailing for Phase 1 was accompanied by two items, a note on data protection and a leaflet giving answers to important questions. The note explained to the respondent how reported information is treated and made anonymous. The leaflet contains a number of answers to obvious questions the respondent may have, avoiding misunderstandings from the start.

The new mailing of Phase 1 was tried out and monitored for the first few months of the survey. As the number of respondents gained through this action was negligible, the action was abolished.

For the telephone and face-to-face method the procedure differed slightly in that motivational telephone calls and reminders were omitted so that only announcement letters were sent. In order to reduce the burden on the respondent, both phases were conducted in one attempt. The minimum number of attempts to reach a household or person was fixed at five. But to increase chances of a obtaining a positive response, most survey organisations made between five and ten attempts before a potential respondent was considered a non-respondent. Telephone calls were made on a daily basis at various times.

4.3 Validation Surveys

In order to enhance data quality and results, two additional surveys were carried out over a period of six months. One verified the information reported / forgotten by respondents, the other tried to find out why some people did not respond. The latter asked for fundamental information which made it possible to construct a basic non-respondent behavioural profile (e.g. did a person not respond because he is a frequent traveller and thus difficult to reach?).

4.3.1 Exploration Survey

The exploration survey was entirely done over the telephone for 5% of all respondents of the main survey. The questions that were asked confirmed reported travel information and probed for any information that may have been missed. In rare cases, journeys and individual travel items such as journey date or mode of transport had been forgotten. The information was collected and helped complete the travel configuration of respondents. The percentage of forgotten journeys in relation to all reported journeys was in the majority of cases below 5%.

4.3.2 Non-Response Survey

The non-response survey was conducted for 10% of all non-respondents of the main survey. Analysis revealed a proportion of new sample loss as well as remaining non-respondents. Long-time survey experience has shown that the latter category can safely be assumed to be sample loss. The new sample loss was thus considered for the re-calculation of response rates and has consequently led to an increase of up to 13%.

4.4 Survey Results

After twelve months of intensive fieldwork in each of the 16 countries, one can say that the implementation of the survey system was successful. The overview of response rates in Table 4.4 confirms this assertion. Both phases managed to produce an average rate exceeding 65%, which leads to two conclusions:

(1) Respondents were interested in the subject matter; and
(2) Respondents were receptive to the survey design and the questionnaire

The average response rate for Phase 1 across all 16 countries was 66%, which is higher than was expected at the beginning of the project. Even in countries such as Great Britain, where postal surveys are generally regarded as being ineffective, a highly satisfactory rate was reached.

Phase 2 fared even better. With an average response rate of 85%, the positive advantage of using a two-phase-system became more apparent.

Table 4.4 Survey Results

Country	Method	Net Sample (persons)	Response Rate Phase I (%)	Response Rate Phase II (%)
Austria	Postal	2.305	68	79
Belgium (Flanders)	Postal	1.023	80	87
Belgium (Wallonia + Brussels)	Telephone	1.255	41	100
Denmark	Telephone	1.595	73	100
Finland	Telephone	1.797	75	100
France	Telephone	7.379	55	100
Germany	Postal	18.613	70	82
Great Britain	Postal	8.465	63	84
Greece	Telephone	2.993	60	100
Ireland, Republic of	Telephone	794	77	99
Italy	Postal	11.183	46	44
Luxembourg	Telephone	549	82	100
Netherlands	Postal	7.460	69	82
Northern Ireland	Telephone	592	74	99
Portugal	Face-to-face	5.501	76	100
Spain	Telephone	12.320	81	100
Sweden	Postal	2.427	71	83
Switzerland	Telephone	718	65	100
TOTAL	-	86.969	66	85

5. Data Preparation and Processing

Once travel information was collected, it needed to be coded and processed properly for subsequent weighting and analysis. Briefly mentioned in Section 4.1, a software tool going by the name of *Collect IT* was developed specifically for *DATELINE* and used by survey organisations in various countries. The tool came with a comprehensive manual and independent geo-coding functionality which allowed for precise geo-referencing of reported locations via geographical co-ordinates.

Following a strict data sending schedule, each survey organisation was obliged to send a pre-defined amount of coded data to the data processing plant at the University of Maribor in Slovenia, where it was checked for errors and plausibility. The error checking and correction procedures were then put into operation for data finalisation, which meant an electronic communication network between survey organisations, project co-ordinator and the university was established. All journeys with a destination below 100 km (crow-fly) were excluded from the final dataset.

Alongside data processing, a complete build-up of a data retrieval system for online users took place gradually using existing tools from other European projects.[8] The system is called European Long-distance Mobility information System (ELMIS) and has been recently combined with other project material to form the new project website at: http://cgi.fg.uni-mb.si/elmis.[9] As soon as the European Commission approves the mobility results derived from the survey, all data will be available for download from the ELMIS site.

6. Weighting and Grossing Up

Following the error correction procedure, data was sent to the University for Bodenkultur in Vienna, where it was checked a second time before it was weighted. Weighting occurred on four different levels:

(1) Household
(2) Person
(3) Journey
(4) Trip

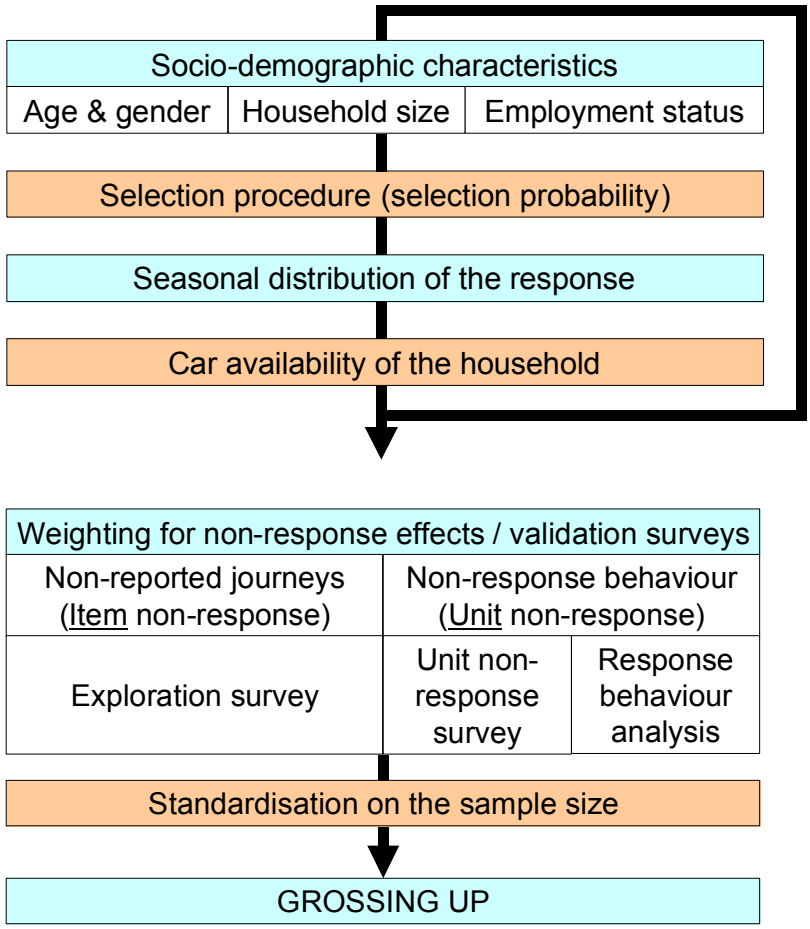
While existing national statistics were used as a reference for the weighting done on household and person level, the exploration and non-response surveys supplied the necessary input for the weighting on journey and trip level.

[8] For example, the NESSTAR Consortium developed an Internet data retrieval application which is now being utilised by *DATELINE*, albeit slightly modified.

[9] The full documentation of the building of the database and the retrieval system is found in Deliverable 10a "Data in Digital Form" and Deliverable 9 "ELMIS", both of which will be available on the project website, including a user manual in English, French and German.

Various significant factors were taken into account in the weighting procedure (e.g. recall and non-response effects, seasonal variation, etc.). Because the complexity of the whole weighting scheme, only a small fraction from it has been included here (see Figure 6.1).[10]

Figure 6.1 The Weighting Scheme (partial)



[10] For a comprehensive documentation of the weighting procedure turn Deliverable 10b "Weighting and Gr oss-ing Up Report", which will be available on the project website.

7. Data Analysis

The main goal of the final analysis was to take the collected and weighted data and interpret it in a way that would draw a picture of current travel patterns in Europe. The task included calculating journey rates as well as determining the volume of long-distance travel on various geographical levels. Travel between regions or across national borders were as much a part of the analysis as travel between individual countries.

Results were not just produced in table format, but also as diagrams and charts. Furthermore, an origin-destination matrix was produced documenting travel routes and frequencies between countries and regions (NUTS 1). The analytical tools that were used have led to simple basic counts of journeys, trips and modes but, more importantly, they were utilised to create central mobility indicators.[11]

As of yet, results have not been approved by the Commission. They are currently under review and will be publicly accessible through the project website, so that everyone who has an interest in long-distance mobility can make use of them. Data may be downloaded or used to conduct simple online analyses.

8. Conclusion

After three years of preparation, co-ordination and implementation, the first collective attempt of a long-distance mobility survey for the whole EU has come to an end. The effectiveness of the survey system proved high as indicated by an overall response rate of 66% across all 16 countries. People showed much interest in the subject matter and were overwhelmingly satisfied with the survey.

The project has shown that it is possible to develop and implement a long-distance travel survey standard that satisfies distinct cultural and institutional needs of the different countries in Europe. Predicated on a critical project analysis, the rich reservoir of accumulated experience will allow to establish a permanent European monitoring system for high quality long-distance travel surveys.

[11] The full documentation of the analysis process is found in Deliverable 7 “Data Analysis and Macro Results”, which will be available on the project website.

Once the Commission approves the *DATELINE* mobility results, it is left to be seen how they compare to other long-distance surveys in Europe and the rest of the world. In particular, the EC and the National Transport Ministries and Statistical Offices will be interested in the data, which will play its role in the formulation of future European transport policy.

Even though *DATELINE* merely represents the beginning of a series of collaborative efforts to bring about harmonisation, it has already contributed inevitably to the shaping of a sustainable future for Europe and possibly the world. Already in the making, ideas are being exchanged as to the possibility of a Euro-American collaboration on long-distance travel.

9. References

Dateline Consortium (2001) Deliverable 3: Sampling methodology, *Project Report*, Brussels, European Commission.

Dateline Consortium (2002) Deliverable 5: Final report on data collection, *Project Report*, Brussels: European Commission.

Dateline Consortium (2002) Deliverable 6: European coding book, *Project Report*, Brussels, European Commission.

Mest Consortium (1999) Methods for European surveys of travel behaviour, *Project Report*, Brussels, European Commission.

Socialdata und Tis.pt (2003) Long-distance travel in Europe: final results from surveys in the member states, handout paper, EUROSTAT Passenger Mobility Working Group Meeting, Luxembourg, April 2003.

Test Consortium (2000) Technologies for European surveys of travel behaviour, *Project Report*, Brussels, European Commission.

Appendix A: The DATELINE Consortium

Project Co-ordinator:

SOCIALDATA – Institut für
Verkehrs- und Infrastrukturforschung GmbH
Postfach 70 16 29
D – 81316 München
GERMANY
E-Mail: dateline@socialdata.de

Project Participants:

Universitaet für Bodenkultur, Wien
Institute for Transport Studies
Peter Jordan Str. 82
A – 1190 Wien
AUSTRIA
E-mail: dateline@mail.boku.ac.at

Peter Davidson Consultancy
Brownlow House
Raven's Lane
UK – Berkhamsted Herts.
HP4 2DX
UNITED KINGDOM
E-mail: mail@peter-davidson.com

TRIAS SA
39 G.Seferi Str.
GR – 54250 Thessaloniki
GREECE
E-Mail: dateline@trias.gr

Statistics Netherlands
Kloosterweg 1, P.O. Box 4481
NL – 6401 CZ Heerlen
NETHERLANDS
E-mail: hbns@cbs.nl

POLIEDRA – Politecnico di Milano, Centre in Environmental Economics and Management
Via Fucini 2
I – 20133 Milano
ITALY
E-Mail: diguardo@poliedra.polimi.it

University of Newcastle upon Tyne, Transport Operations Research Group
Claremont Tower,
Claremont Road
Newcastle Upon Tyne, NE1 7RU
UNITED KINGDOM
E-mail: neil.thorpe@ncl.ac.uk

Helsinki University of Technology, Transportation Engineering
Rakentajanaukio4a,
P.O. Box 2100
FIN – 02015 HUT, Espoo
FINLAND
E-mail: nina.karasmaa@hut.fi

Institut Socialdata i Sverige AB
Kungsgatan 47 A
S – 75321 Uppsala
SWEDEN
E-mail: christine@socialdata.se

University of Maribor, Civil Engineering Informatics Centre
Smetanova 17
SLO – 2000 Maribor
SLOVENIA
E-mail: nenad@computer.org

Ministry of Transport, AVV
Transport Research Centre
Boompjes 200, P.O. Box 1031
NL – 3000 BA Rotterdam
THE NETHERLANDS
E-Mail:
h.c.vevert@avv.rws.minvenw.nl

TIS.PT Transportes, Inovação e Sistemas
Av.5 de Outubro
N° 75 – 7^0
P – 1050 Lisboa
PORTUGAL
E-Mail: faustino.gomes@tis.pt

Eidgenössische Technische Hochschule Zürich, IVT
ETH (Hönggerberg)
CH – 8093 Zürich
SWITZERLAND
E-mail:
axhausen@ivt.baug.ethz.ch