

life quality
of senior citizens



in relation to
mobility conditions

Research Summary N° 2

Workpackage 2: State of the Art

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The project

SIZE – "Life quality of senior citizens in relation to mobility conditions" (project number QLK6-CT-2002-02399) is a project in the framework of the specific research and technological development programme "Quality of life and management of living resources", key action 6 "The ageing population and disabilities" in EU's Fifth Framework Programme.

European policy regarding the elderly aims at maintaining their mobility. This is a central element of their integration in society. Senior citizens want to stay autonomous and independent as far as possible. Without the possibility to maintain mobility, senior citizens cannot lead an independent life, with many other problems such as isolation and health problems as a consequence.

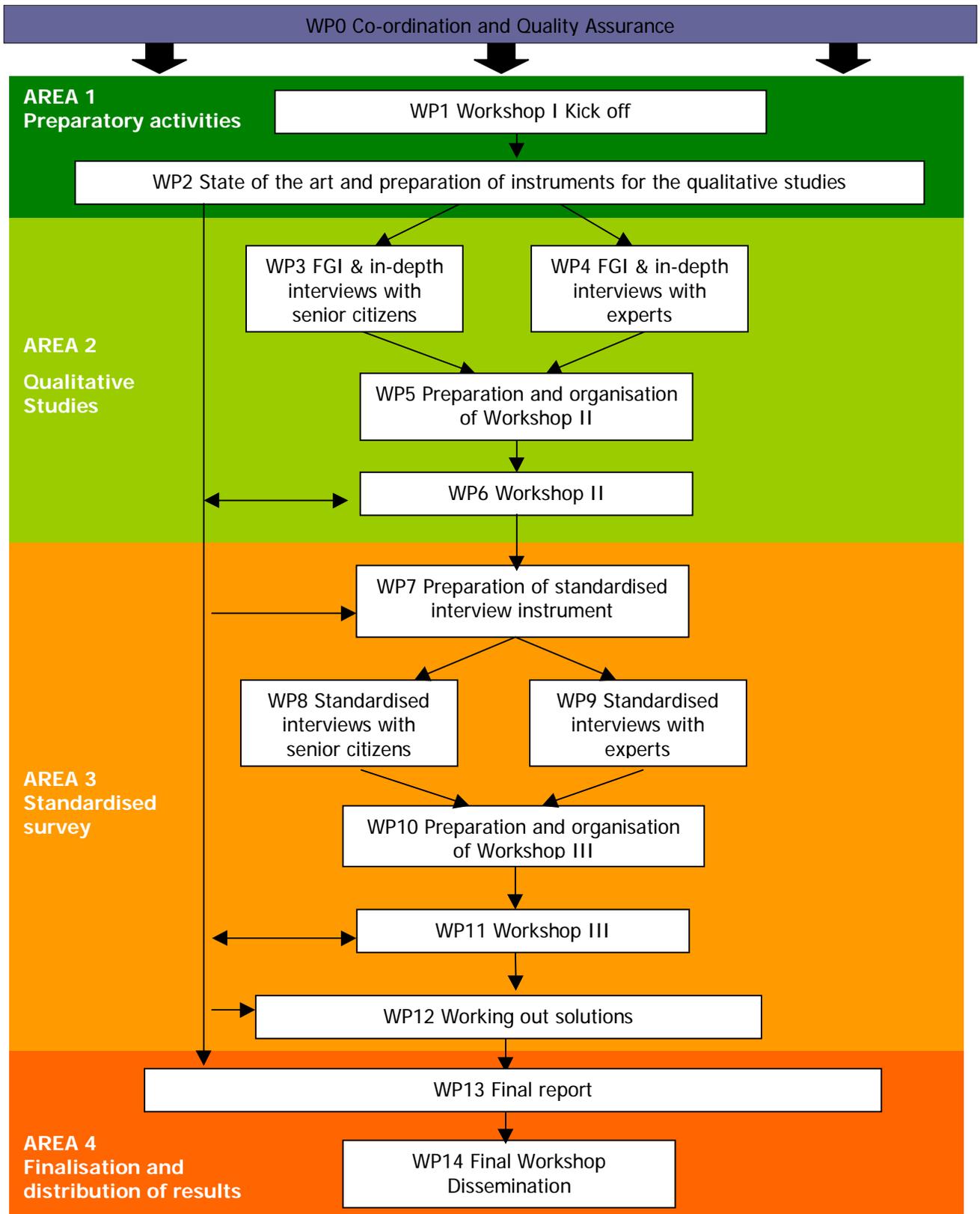
The project **SIZE** has a life-span of 3 years and is divided into 4 research areas: State-of-the-art & preparatory activities, qualitative studies, standardised survey and finalisation & distribution of results.

The general objectives of **SIZE** are:

- To explain and describe the present mobility and transport situation, the problems, needs and wishes of different groups of senior citizens from their own perspective compared with experts' points of view ("experts" being sociologists, psychologists, traffic experts, experts on gerontology, politicians, policy makers, experts of other related EU projects, etc.);
- To motivate action by the authorities and other relevant groups in society who are, or feel, responsible in this area, by making discrepancies in problem identification transparent;
- To identify relevant solutions for existing problems and to provide guidance for setting up and implementing policies aimed at "keeping the elderly mobile".

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Structure of the project SIZE



WORKPACKAGE 2: STATE OF THE ART

State of the Art Report – Deliverable D3

Several closely co-operating European research institutions working in the area of gerontology and social care, urban planning and design, transport and sociological surveys have created in the frame of Workpackage 2 the SIZE State-of-the-Art Report. The methodology of this part was developed at the beginning of 2003; it was presented and approved, with some partial alterations, at the first SIZE workshop held in Cork in Ireland. The involvement of specific scientific institutions in definite chapters depends on the sphere of their authority and on their future role in the research program.

Objectives

This Report provides the overview of the issue, of the literature and knowledge existing in this area. Following the processing of the greatest possible amount of sources in literature, it systematically classifies knowledge, empirical data as well as scientific conceptions and hypotheses. In the case of the SIZE project, this includes the life conditions and quality of elderly people especially regarding their mobility and their subjective satisfaction with it; the influence of mobility on satisfying other life needs of old people is looked for. Apart from this, the monitoring has been done of the conditions provided to the old people by the society, what conditions of the mobility there are and how experts

and people with executive powers view the mobility of senior citizens.

The findings are based on the assumption that dealing with the mobility of senior citizens is not only a technical issue and cannot be therefore merely solved by technical means. Far from all needs of senior citizens concerning the transport have been considered and followed in the past. The development of survey procedures and techniques in the last decades has provided the tools of sufficient quality and strength that can give us a good image of the issue and materials for preparing proposals for solutions.

Methodology

As to the methodology of the survey, materials/documents for the construction of survey tools have been prepared. They particularly include: Listing, evaluation and assessment of literature related to the senior citizens, their quality of life, subjective satisfaction and relation to the mobility in different parts of Europe. An important part of the report is the evaluation of existing concepts and empirical data concerning interests and needs of senior citizens and their satisfaction - always in relation to mobility. Deficiencies of the current status are stated. As the next step follows the analysis of measures to increase mobility of elderly and research projects related to this issue.

The **preparation of instruments for all instruments of interviewing** includes guidelines for creating survey tools by means of qualitative

and quantitative techniques (inquiries, focus group interviews, narrative interviews, standardised interviews).

The instruments for senior citizens will focus on the understanding of mobility problems of elderly citizens as road users and users of public transport on their subjective feelings regarding their own quality of life and on thereto related needs for mobility.

The survey tools will also be used when analysing opinions, regarding the mobility of senior citizens, of experts in transport, of urban developers and of people who work at municipal bodies, including those who have a decision-making authority. The instrument for decision makers and experts will focus on checking opinions towards the needs and demands of elderly and identifying motivation to support the target group.

Results

Reviews of mobility of the elderly in the scientific studies (relevant literature and the state of gerontological traffic research or mobility oriented gerontological research) were made in involved countries. The analysis of literature resources, empirical data, scientific conceptions and frequently expressed hypotheses led to the conclusion that generally older people represent a significant and permanent growing part of the population, and there has been an increase over

the past decade in the social awareness of the requirements for older and disabled people throughout Europe and other parts of world.

The review of literature on mobility of senior citizens as an important part of quality of life also led to the conclusion that this topic is only partly present in scientific studies in the scope of sociology, psychology, gerontology, architecture and town planning, and engineering sciences (infrastructure design, traffic and transportation, road safety). As a result of the literature search, few papers dealing with the senior citizens mobility problems were found and most of the literature concerns various problem aspects. The affected senior citizens' point of view is not reflected very often in the studies that we have found, and literature gives also the impression that promising measures are not implemented.

This may also be due to the fact that experts do not know well enough what the affected citizens' needs are. This was in fact One assumption in the SIZE-proposal; that the experts often have erroneous hypotheses about facts, and especially about what the elderly want and need. In this way, solutions that could improve mobility preconditions of the elderly, and thereby their QoL, are not implemented (see table below).

Table: **Examples of detected discrepancies between experts and senior citizens**

Experts:	Senior citizens:
It is difficult and dangerous for senior citizens to move in a dynamic environment = a special environment should be created for them	They do not want to be isolated; they want to be involved in activities in the society, they want to be among other people.
Senior citizens need to be driven/transported.	They need to reach targets within their surroundings, they do not hesitate to walk.
The senior population is a minor social group requiring special measures.	The trend of population ageing is going to result in the seniors becoming a major social group; the measures adopted should take this into consideration and have a wider scope of action and impact.
The older generation is taken as a homogenous group requiring homogenous solutions.	The senior generation is heterogeneous in terms of age, sex, health and overall physical conditions, working activities, out-of-work activities and interests, family life, active participation in traffic in different modes, economic situation, domicile (city - countryside).
Measures to get things that are needed for everyday life from outside through an external help (to have things brought, passed, carried).	Efforts to ensure things one needs by oneself, to be self-sufficient (this is a special problem of old people's homes when everything is 'under one roof' and the inhabitants do not have to go anywhere).
Availability of public transport (or its modifications) as a motivating element for stopping the driving of one's own car. A myth about the voluntary giving up of one's own car.	Non-critical approach to risky driving even in the case of dramatic decrease or loss of capability to drive. Holding the driving license is often taken as a last thing one has before being totally excluded from society and from life.
Research and the subsequent proposals of measures are implemented for the current senior generation; however, the situation is dramatically developing in accordance with the dynamics of social and technical progress.	The population of future senior citizens will be different. Today's younger generations, which are adjusted to the dynamics of the development, which are familiar with technical matters and computers, have the need to travel and see places, friends or family outside their country, will get old. Good physical and mental well-being is expected up to higher ages as a result of quality health care, good nourishment and low wear caused by physical work. An issue of civilisation diseases and deteriorated living environment remains open. Greatest changes should be probably expected in the group of women who are today more educated, economically active, open to technology, paying more attention to their physical condition, most of whom hold a driver's license.
Special transport systems exclusively dedicated to senior citizens (micro-buses operating on a special line); prohibited use by other passengers.	These attempts usually fail; they are economically unbearable and deepen the separation of senior citizens from the rest of the society. This status is remedied by shared transport and a possibility of its using for all other passengers (more frequent stops, operation at hospital premises, shopping centres, general focus on accessibility and usability issues, etc.).

How do elderly people cope with the limitations of old age?

According to relevant literature elderly people are most often walking, followed by car driving. These are the two most important forms of locomotion, especially for shopping, visiting friends and relatives, and recreation. The possession of a driving licence decreases with increasing age, but in the future this trend will not be that strong because of a changed socialisation in traffic nowadays. Elderly people bear an extremely high risk of being involved or even killed in an accident, especially as pedestrians. They also feel overtaxed by the speedy and complex traffic environment, feel insecure and therefore often avoid being on the road under difficult conditions, which means decreased mobility. It can be concluded that not age itself is the reason for decreasing mobility but external factors concerning traffic environment. According to empirical investigations, one of the main strategies of older people to cope with pressing conditions in traffic is, therefore, withdrawal from the process in connection with reduced mobility and, probably, reduced quality of life. Thus, "limitations of old age" appear as limitations in the interrelationship between individual abilities on the one side and limiting external factors on the other side.

What are the positive and negative sides of today's situation? What should be kept as it is?

One problem is that elderly people, whose abilities that are relevant for traffic participation are decreasing with age, are often forced to choose between two alternatives: either to

decisively reduce their mobility, or to endanger themselves or other road users. However, there is no proof of a linear reduction of abilities. Although abilities concerning sight, reaction and decision-making are decreasing with age, 'traffic performance' does not go down significantly, which indicates that senior citizens would have far less difficulties in the frame of a slower and less dynamic traffic system. One positive dimension is to be seen, therefore, in the willingness and ability of older people to remain mobile if only the most limiting factors can be changed. The following problems are mentioned by

- a) pedestrians: ruthless other road users (car drivers and cyclists), too short green phases at traffic lights, too few traffic lights, obstacles on sidewalks (e.g. parked cars), cyclists on sidewalks, badly cleaned sidewalks (especially ice and snow in winter);
- b) public-transport users: too long intervals, problems in getting on and off, dangerous walks to stops, overcrowded means of transport, ruthless drivers (especially of busses).
- c) car drivers: heavy traffic, small sized parking, unreadable signs, ruthless other drivers.

Generally, elderly people experience too little respect and consideration from others. Thus, the improvement of the situation of the elderly must be seen from a wider perspective, which also includes improving awareness of the public, information campaigns and traffic education for all participants.

Which measures have the potential and which measures are necessary to improve the situation? Would these measures be feasible and realistic?

Basically measures can be differentiated into two groups:

- a) addressing human beings themselves (elderly themselves; other road users, especially younger ones)
- b) improvement of general conditions (legislation, vehicles, road design and public places design, other constructional measures, town and traffic planning).

Generally the motto has to be introduced that traffic has to be adapted to people and not the other way round, and that the weakest among them have to be used as a yardstick for further measures (the lower-pace non-aggressive driving style of the elderly could serve as a standard). A positive attitude towards the elderly from other road users has to be induced; this is only possible through increased communication (also between age groups). Elderly themselves have to be sensitised with regard to assessing their own abilities realistically. Basically, they are willing to take compensation measures but the problem is that they often overestimate themselves and think that such measures are not necessary, yet. They also have to be informed about the changing versions of the road traffic laws, and about other changes of formal and informal norms.

Speed limits have to be lowered and/or the respect of existing limits has to be enforced. Cars should be better adapted to the needs of elderly.

Low floor busses should be introduced. Constructional measures are necessary: reconstruction of roads and pavements in certain respects (roundabouts, broader pavements, etc.), improved and even more (electronically) "intelligent" pedestrian crossings. Implementing a tight and safe network of footpaths has to be considered, as well as the creation of more pedestrian areas. In connection with public transport, a better design of vehicles and stops is advised, as well as the adaptation of schedules (which are now oriented on rush-hour traffic), the training of employees of public transport regarding the needs of the elderly. Legislation should be adapted in such a way that each road user is guaranteed the same rights; at the moment, individual motorised traffic is preferred. Generally speaking, a traffic system has to be established which allows human failure without death toll, which is an especially relevant demand in connection with the elderly, in view of their fragility.

What prevents measures that are considered useful either by senior citizens, or by experts, or by both groups, from being implemented?

One reported opinion is that elderly people do not assess their abilities realistically and therefore do not make adjustments or participate in training or other offered measures. However, another position points out that senior citizens are a weak group in society with an essential lack of lobbying so that they are not taken into consideration throughout the planning process. Therefore, associations of elderly should work together in order to create a strong force. Generally, well known and positive

measures seem to be prevented from implementation because the technical dimensions and drivers' interests are given emphasis over the needs of pedestrians, bicycle riders, and physically weaker or even impaired persons.

The state-of-the-art analysis provided some information that would be relevant for the empirical studies to be carried out in the frame of SIZE; methodology of interviewing, in-depth interviews, interview data analysis, focus group – the definition, the use, the features and data analysis etc.. Especially the question list for the in-depth interviews will be developed on the basis of the state-of-the-art analysis, completed by the experiences derived from focus-group interviews that would be carried out in parallel to the state of the art.

Frame of Reference – Deliverable D4

A research project aiming at the improvement of theoretical and empirical knowledge in the field under investigation needs a guiding concept. We call it "frame of reference". This frame of reference is intended to serve as a general guideline for all research activities within the SIZE work packages. It is not a summary of main results, but the outcome of trying to find out the basic dimensions and categories and the relations between them in the interplay between mobility and life quality of elderly citizens. Within this frame most of the topics taken up in SIZE can be placed and related to each other systematically. Furthermore, this frame of reference is intended and treated as "work-in-progress", which means that starting from the results of the State of the Art Report (study of literature, Deliverable 3) it will be discussed and elaborated on throughout the course of the project, as well as enlarged and upgraded according to the respective findings, with the objective to enter the final report as a sound piece of research work.

The function of the frame of reference is to guide the interpretation of research material, to help formulating hypotheses in order to achieve more codification of knowledge in this field. It is intended to contribute to the establishment of a methodology viz. a concept for research work within the project SIZE, especially for the purpose of interpreting data which represent empirically the relations of factors that are crucial for the understanding of mobility in old age. This methodology exhibits three major

functions: 1) It supports the systematic organisation of our existing knowledge. 2) It is a general guide to the ongoing research. 3) It is a point of departure for specialised investigation in the field under observation.

Our considerations start from the fact that mobility is vital for maintaining personal independence and social integration, which implies two consequences:

- a) Maintaining mobility can remarkably contribute to good quality of life; whereas,
- b) lack of mobility can prevent older people from social and societal participation and it can lead to low morale, depression and loneliness.

Taking into account the prospect of "environmental gerontology" three dimensions influencing experience and behaviour of individuals can be singled out:

- 1) to have control: to be able to lead one's life independently;
- 2) psychological ability of resistance: the ability to cope with unexpected experiences and losses successfully;
- 3) competence in connection with everyday life: ability to fulfil activities of daily life even under restrictions and impairment. But mobility depends not only on physical conditions and psychic orientations of individuals but also on the physical and social environment, both of which influence each other reciprocally.

The fundamental idea is the relation between the individual and the environment. The respective basic categories are:

On the side of the individual: Orientations (cognitive and emotional); competence; needs; communication; understanding; mobility; fear and anxiety; learning and compensation.

On the side of the environment one has to distinguish the material-technical, which is subject to human action, from the social environment, which can act, have intentions or can change conditions.

Material-technical objects; They are only elements of a system, and in order to understand the complex processes of mobility, they have to be combined with the perception and behaviour of people. These combinations lead to a set of goals of mobility, connected with respective effects, although there is to say that those are not unilateral and one-dimensionally directed but rather manifold and mutually interacting:

- 1) *safety*: the effect of which should be maintenance of life and health;
- 2) *accessibility*: aiming at successful coping;
- 3) *comfort*: contributes to well-being;
- 4) *attractiveness*: for satisfaction of (aesthetic) needs;
- 5) *intermodality*: should enable full use of space; and
- 6) *technological fit*: reduction of costs in problem solving.

The social environment consists of actors, groups and institutions. Reference points are: knowledge; interests; power; responsibility.

THE SIZE CONSORTIUM

14 SIZE Partners from 8 different countries:

Psychologists (specialised in the methodology of behavioural sciences, gerontology), sociologists (gerontology, life-quality, traffic and transport research – traffic safety, mobility, sustainability), and civil engineers and architects (specialised in urban research - sustainable urban development, road design, pedestrian mobility, vulnerable road users).

The researchers are supported by 5 national senior citizens associations.

Project co-ordination

University of Vienna, Institute of Sociology • Anton Amann • Austria

contact: anton.amann@univie.ac.at

FACTUM OHG • Ralf Risser • Austria

contact: ralf.risser@factum.at

Partners

University of Erlangen – Nuremberg, Institute for Psychogerontology • Heinz Jürgen Kaiser • Germany

contact: kaiser@geronto.uni-erlangen.de

National University of Ireland - Traffic Research Unit / Counselling & Health Studies Unit • Donncha O' Cinneide / Eleanor O'Leary • Ireland

contact: d.ocinneide@ucc.ie

Università degli Studi Roma Tre – Dipartimento di Progettazione e Studio dell'Architettura (Di.P.S.A.) • Lucia Martincigh • Italy

contact: size@uniroma3.it

Lund University – Department of Technology and Society • Agneta Ståhl • Sweden

contact: agneta.stahl@tft.lth.se

Cracow University of Technology – Department of Architecture • Lidia Żakowska • Poland

contact: lzakowsk@usk.pk.edu.pl

Centrum Dopravního Výzkumu (CDV) – Transport Research Centre • Karel Schmeidler • Czech Republic

contact: schmeidler@cdv.cz

Universitat de València, Facultat de Psicologia, Dpmt. Metodologia de les Ciències del Comportament, Psychonomy Research Unit • Hector Monterde i Bort • Spain

contact: Hector.Monterde@uv.es

Senior citizens associations

Stowarzyszenie Wychowanków Politechniki Krakowskiej im. Tadeusza Kosciuszki • Wladyslaw Muszynski • Poland

contact: noworyta@omega.put.pl

Asociacion de amas de casa TYRIUS de Betera • Amparo Sancho Piera • Spain

contact: mocanu@telefonica.net

Associazione Abitare e Anziani (AeA) • Assunta D'Innocenzo • Italy

contact: aea@uni.net

Pro Skåne • Karin Wegestål • Sweden

contact: pro-skane@skane.pro.se

Stadtseniorenrat der Stadt Nürnberg • Helga Appel / Karl-Heinz Ludwig • Germany

contact:

helga_appel@sena.stadt.nuernberg.de