Final Report Summary - TRACY (Transport needs for an ageing society)

Executive Summary:
The FP7 funded research project TRACY systematically reviews the extent to which current national transport policymaking and practice across the EU (and beyond) caters for transport needs of an ageing society. In 33 countries 174 policies were identified and analysed against “quality features of an age friendly transport system”, defined on discussion of needs in literature, interviews with policy makers, profiles of older people and their behaviour. In the assessment process, policies supporting travel across different modes and mitigating a range of barriers possibly existing for older people´s mobility were identified. While some of the system qualities were only addressed to a minimal degree or not at all (e.g. comfort, friendliness, reliability), other potentially more tangible qualities (as affordability, barrier freedom, safety) were very clearly being understood and addressed in many countries.

The most commonly implemented type of transport safety policies was that related to driver licensing, training and information schemes (sometimes also age friendly road design). Thus, while the issue of older
car drivers was found to be a prominent area in most countries studied, in comparison the issue of older people safely using other transport modes, respective risks and potentials, accidents and their causes and the design of adequate solutions to this seems an area much less understood and approached by current policymaking. Generally, the findings led to the conclusion that while some effort is made to improve transport systems in terms of “age friendliness”, a more holistic design for all-approach might help to develop systems which adequately consider all qualities people require fulfilling their basic and lifestyle needs at a higher age. The TRACY action plan reflects this ambition, bringing together all findings and providing recommendations at EU level for future research as well as for targeted policymaking catering for adequate transport options for all potential users. The final recommendations as documented in the final report are the following:

Research recommendations – better understanding of problems and needs
I. Harmonisation of travel surveys to establish an European overview on transport needs
II. Statistics and information about accidents and risks in relation to all modes
III. Improving knowledge about individual transport means for older people
IV. Research on virtual mobility and complementary mobile services
V. Assessing driver training programmes and preparing the transition from car to other transport modes
VI. Establishing an overview of best practices from the local level and their lessons for EU-policies

Policy recommendations – tackling of problems and needs
VII. Promotion of an all mode approach, including walking and cycling
VIII. Encouraging policy evaluation and impact assessment (in certain fields)
IX. Developing European guidance on age friendly road and street design
X. Developing European guidance on less frequently considered qualities of an age friendly transport system

Project Context and Objectives:
Addressing the needs of older people in the development of future transportation concepts in Europe is an important issue. However, there are no systematic studies available, which provide a complete picture of what has already been done to address the mobility-related needs of the elderly. Such a systematic study could be used to create an Action Plan for future steps in addressing the needs of an ageing society in mobility and transportation. This Action Plan will include guidelines, requirements and specifications to promote safe and adequate usage of all passenger land transport modes for older people. Recommendations will be made in the form of specific research topics for European and national RTD programmes. In our concept we pay special attention to the gendered nature of the issue at hand, as well as to human factors such as geographical and cultural or welfare differences, and possible conflicts between social and other aspects of sustainability (e.g. environmental). These objectives have been achieved by document review and synthesis completed by Interviews with European national transport authorities, followed by a critical analysis of the mobility needs and practices of elderly people and the assessment of the effectiveness of current policies. One significant output is the ‘bigger picture’ of transport in an ageing society.

Addressing the needs of older people in the development of future transportation concepts in Europe is a very important issue for securing independent mobility and an autonomous lifestyle for all citizens. Nevertheless, systematic studies are missing which provide a complete picture of what has already been
undertaken to address the mobility-related needs of the elderly. Such a systematic review of the current state of the art might provide the basis for creating an Action Plan for future steps in addressing the transport needs of an ageing society.

Intention of the TRACY project is to undertake and provide a systematic and comprehensive study of the current policies and programmes, in order to use the results of this study to analyse the present situation, identify knowledge gaps and recommendations for future action and thus contribute towards a strategy to tackle the challenge of transport in an ageing society. In the context of the need “to contribute to a better understanding of the requirements to properly address elderly mobility” (work programme 2011 cooperation theme 7 transport (including aeronautics) p. 101), the overarching project aim is to develop an Action Plan outlining means of proceeding to achieve excellence in transport for an ageing society, on the basis of analysing in detail a comprehensive dataset. This Action Plan shall include requirements and specifications to better understand and promote a safe and adequate usage of all passenger land transport modes for older people. Recommendations also encompass specific research topics for European and national RTD programmes.

In the project process special attention is paid to human factors such as geographical and cultural or welfare differences, possible conflicts between social and other aspects of sustainability (e.g. environmental) as well as to the gendered nature of the issue at hand. These project objectives are achieved by document review and synthesis combined with interviews with European national transport authorities, followed by a critical analysis of the mobility needs and practices of elderly people and the assessment of the effectiveness of current policies. These steps lead to the outlining of the ‘bigger picture’ of transport in an ageing society, providing the framework for the final recommendations in the TRACY action plan.

According to the Work packages the following project objectives had to be reached:
• WP2: Provision of a comprehensive overview of information about policies and practice designed to address the transport needs of an ageing society for all 27 EU member states, 2 Associated Countries (Norway and Switzerland) and other comparator countries including Australia, New Zealand, Japan and the USA.
• WP3: Critical analysis of current policies and practice dealing with the mobility needs of older people to provide a detailed interrogation and assessment of existing approaches and consideration of these approaches in the context of broader social, economic and environmental contexts. International conference “state-of-the-art transport for an ageing European society” to present and discuss WP2 results.
• WP4: Development of an Action Plan to inform current and future policy and practice in transport and mobility needs in an ageing society with focus on the effective delivery of innovative solutions in relation to all land-based passenger transport modes; definition of research topics and strategic issues relating to specific modes and series of focus groups with key stakeholders to ‘road test’ and assure draft recommendations.
• WP5: Wide und useful dissemination of the information produced and the conclusions by production of user friendly summaries of the WP reports and recommendations/Action Plan, publication of project findings and outputs via project website and international conference with presentation and discussion of findings of the whole project.
• WP6: The scientific guidance includes assistance with the preparation of the large progress reports as well as with summary versions, the thematic preparation of all meetings, events and conferences and
cooperation with projects and partners beyond the project consortium.

Project Results:
To provide a comprehensive overview of information about policies and practice designed to address the transport needs of an ageing society the TRACY-team collected data from all 27 EU member states, 2 Associated Countries (Norway and Switzerland) and Japan, Australia, New Zealand and the USA. We structured the analysis under the roof of sustainability (social, environmental and economic issues) around the following themes:
- Technical issues: safety, infrastructure needs and transport systems
- Human factors: gender aspects, special needs and human-machine-interfaces
- Diversity: cultural / welfare / political / geographical / regional differences
- Alternative approaches: accessibility, virtual mobility, mobile services, etc.
These four themes formed an analytical framework for the remainder of the work within the project. However, this very broad attempt was condensed to about 20 concrete criteria and indicators for document analysis which was developed at the beginning of the project.

Work Package (WP) 2: Determining the state of the art
As a result of our work a large report providing a comprehensive picture of activities addressing the mobility needs of an ageing society has been produced (WP2 report with nearly 600 pages). This summary report provides an overview of the work completed to date on the TRACY project. Apart from a description of to the project’s approach (see above 3.1.1) this reports consist of following main lines:
Firstly the main demographic changes were briefly described. This section has provided an overview of the demographic trends and forecasts in the countries under consideration in this project. Alongside this it has offered a summary of the key transport characteristics of these countries. It has shown that populations in the majority of these countries are ageing and that this will lead to a change in the demands that are placed on the transport system. It has also provided evidence of the changing balance between the number of economically active people, and those who will be retired. Furthermore it provided an overview of the areas where there is a prevalence of poverty among the ageing society and where older people are more likely to live alone (and therefore potentially more likely to experience social isolation). Finally it provided an overview of modal split and car ownership which offers an insight into the countries where older people are more likely to be car dependent, and those where they are more likely to use public transport. This is important because it offers insight into the likely future transport trends in these countries (although only at a very high level). Subsequently a description of the demographic changes predicted to take place until 2050 was offered, alongside an overview of the European policies in the field. A second part of the report is concerned with a literature review of the main recent literature relating to transport and older people. In this section of the report we have reviewed the available literature relating to older people across a variety of transport modes. It highlighted the positive and negative aspects of each mode from a variety of perspectives and provided a valuable resource to provide input into WP3. In terms of the findings, the review highlighted the importance of considering the whole journey (travel chain), from the home to the destination as any obstacle can make an older person unlikely or unable to complete a journey. This may go some way towards helping older people to use transport to enhance their mobility, and to make the process of driving cessation more palatable and practical. Overall the current situation is summed up well by Rosenbloom (2011) who highlights based on research from the UK and the USA how, at the present time it is very important to ensure drivers can remain on the roads safely for as long as
possible while improving mobility in other ways such as through public transport, community transport, volunteer driver schemes and more effectively linking transport, land use and housing policies. She says that “a failure to do so is to doom a generation of older people to staggering mobility losses when they can no longer drive” (p.174). While in much of Europe car-dependence is lower than in the USA, we still need to consider this sentiment as the policies of the future are developed. Subsequently interviews with European national transport authorities in 21 European countries were held to supplement and discuss the literature search. The concrete interview structure, guidelines and the procedure were developed during the project.

Work Package 3: Evaluation of state of the art
The subsequent WP3 aimed at “Evaluation of state of the art” to establish how mobility needs of older people are understood and catered for across Europe and further afield. It focused on a detailed critical analysis of the identified transport policies and to consider these approaches in the context of broader social, economic and environmental imperatives to result in a comprehensive overview of the mobility needs and practices of older people, an assessment of the effectiveness of current policies and to provide the basis for the intended identification of research gaps and recommendations for action. The 1st International TRACY Conference (MS2) “Transport and ageing research summit” was held in November 2012 in Brussels. The results of WP2 were presented and keynote speakers from Australia, New Zealand, Japan and the USA provided their perspectives on the issue from outside Europe. Invited attendees were inter alia the interviewees from WP2. Breakout sessions were organised to discuss the results and, importantly, to raise key points to inform the above tasks. The principal outcomes of the conference served as a foundation for a more robust analysis of the issues at hand to come up and the establishment of a network of practitioners from across Europe for future work.

Catalogue of the mobility needs of elderly people
In order to carry on at that point with the analysis of the current practice, an overview of the mobility needs of older people needed to be established. Based on consideration of various sources such as a literature review, profiles of the sister project GOAL etc. it was identified that the concept of the “transport needs of older people” is complex and that older people may not have transport needs as such, rather they have needs (such as to obtain fresh food) that are met through the transport system. Nevertheless these needs may not be universal and may differ due to the heterogeneous nature of older people. Furthermore they may exhibit different barriers, opportunities and travel patterns or have distinct requirements according to the mode of transport that they wish to use. Ultimately therefore it seemed sensible to investigate each of these areas in turn and use this analysis to come up with a list of the important qualities that mobility and transport systems must have so that they are capable of meeting the barriers, opportunities and travel patterns - and therefore corresponding to the resulting needs - typically associated with older people. These “qualities of an age friendly transport system” were main result of output D3.1 the Catalogue of the mobility needs of elderly people (January 2013). The following list represents the final system qualities, as they have been refined and further developed throughout the project process:

• Affordable
• Available
• Barrier free
• Comfortable
Comprehensible
Efficient
Friendly
Reliable
Safe
Secure
Transparent
Complementary

WP3 Report - Evaluation of state of the art
In the following project stage the system qualities were used to provide the framework for analysing the identified transport policies with focus on older people. Several internal working meetings between project partners were helpful means to support the realisation of this complex element within the overall project structure.

The large WP3 report D3.2 (May 2013) summarises the results of the analysis:
After setting out the methodological approach applied for this TRACY working stage, reference is made again to the issue of the mobility needs of older and the system qualities (s. above) are introduced. This is followed by an assessment of the perceptions of government interviewees (cf. WP2) on the issue of older people and mobility in relation to the process of policy development (specifically comprising: problem identification), implementation and evaluation. This step delivered important information regarding the context and framework in which policy development is usually carried out at the national level, potentially also useful to consider at the supra-national level when developing programmes, directives etc. to be implemented following the principle of subsidiarity. Important issues in the process of formulating adequate solutions against the background of demographic change were revealed, e.g. that in some cases up to now different barriers could not be tackled in a sufficiently adequate way for different reasons. These barriers have mainly to do with budgeting issues, determination of responsibilities at and between the spatial scales and the availability of reliable data. Furthermore, in general the lack of older people’s organisations at the national level was seen as a major obstacle to their involvement in formulating policies that really focus on their mobility demands, capabilities and aspirations. Moreover options for improvement were observed regarding the approaches used for monitoring the performance of policies and the evaluation of their outcomes. Although the final steps of the overall process represent decisive elements of quality control they are barely undertaken, due to reasons such as lack of funding, lack of staff and also an insufficient definition of the targets to be achieved. Therefore there may be an opportunity for adaptations to the whole process which could lead to a more effective and adequate use of funds.

The following main part of the report provides analysis of the identified transport policies and assesses the extent to which they meet the needs of older people and governments by evaluating each policy against the essential system qualities. After providing an overview of the 174 policies identified within the review, it looks at the distribution of the policies across the countries, addressed modes of transport, types of policies existing and the overall distribution of the policies across the system qualities. Subsequently this chapter looks at each of them as they are deemed to be important factors in helping the transport system meet the needs of the ageing society in turn. This ensures that findings reflect the types of policies that countries should consider within their own unique contexts. The chapter summary states that
- There is a varying distribution of very focussed, medium focussed and not focussed policies in each
system quality. Affordability, barrier freedom and safety all had a large number of very focussed policies.
• Some qualities (efficient and reliable) have no focussed policies, indicating that some qualities are not currently at the forefront of national government policy.
• The majority of policies identified were “action” policies, with some strategy policies and very few research policies. This shows that policies were more likely to be orientated towards delivering changes to help older people, as opposed to high level strategies. Qualities with a high number of strategies included road safety and barrier freedom.
• Very few research documents were identified. This may be because research had been undertaken to support the policy development, but it was not identified as a separate policy within this review.
• 60% of all policies identified focussed on older people, this split was also reflected in the high scoring policies for many of the system qualities. Especially availability and affordability had the most very focussed policies for older people. This indicates that older people are considered as a group on their own with particular needs, but also as part of the wider population.
• Overall the policies were most likely to focus on public transport or the car. Focussed policies for each system quality were most likely to be linked to the car, followed by public transport, while some focussed policies were linked to walking or cycling and those exploring virtual mobility were very rare.
• In terms of geographical patterns, focussed policies were more likely to come from westerly or centrally located countries, Scandinavia and the none-EU countries. Eastern Europe, Southern Europe, and the Baltic countries had fewer high scoring policies.
• In general the policies were not focussed on either rural or urban areas, although a few examples of policies were intended specifically for these geographical types. It shows that countries are considering the needs of all older people regardless of where they live. However without taking particular needs associated with rural or urban geography into account the relative impact on different areas might be overlooked.
• Links to sustainability are fairly general. Many policies are likely to have a wider impact on social or economic sustainability, but these are not particularly strong or direct. In general policies that help older people travel could contribute to social sustainability by helping people remain mobile and thus contributing to improved quality of life. However there is a cost associated with implementing these policies and in some cases ongoing maintenance (although this may be offset by increased economic activity of older people). There are weak links with environmental sustainability in some areas, although only where older people may be encouraged to walk, cycle or use public transport rather than driving.
• Many policy areas will have benefits for the health and social care sector through helping people to remain mobile, active and independent. They may also have wider benefits for other users of transport services who are able to benefit from any improvements made.

The results from each system quality analysis generated a number of wider findings that relate to older people and governments more generally. There is a general pattern of many of the qualities not appearing to be comprehensively considered at the national level (although they may be adequately dealt with at the local level). Furthermore the ease with which policies tackling each system quality could be implemented was variable. For example:
• Some system qualities were more tangible and measurable (e.g. safety and affordability can be tackled with relatively simple policies).
• Some policies would be much cheaper to implement than others.
• Some of the system qualities currently refer mainly to one mode of transport, and other modes of
transport would benefit from being considered in the same way so that they are also adapted to meet the needs of older people (e.g. availability can relate to the existence of walking and cycling infrastructure as well as public transport services).

• Many of the system qualities would be best tackled at the local level, but national government can have a valuable role both in providing research about the needs of older people, and providing guidance to local governments regarding how these needs can best be tackled.

• More knowledge is needed in many areas to deepen understanding of the issues and aid policy development.

The next chapter draws together these findings with those from WP2 to complete and provide an overview - the “bigger picture” - in terms of current state of the art in the field of policy making, practice and research under consideration of broader economic, social and environmental aspects and linked to sectors other than transport. These issues also provided the basis for the identification of research gaps as well as for the delineation of actions for national governments in the next project stage. Main points raised in this context were:

• Countries and older people are heterogeneous. This means that what works in some countries for some older people will not necessarily be appropriate in other countries or for other older people.

• The fact that some system qualities are less well understood does not necessarily mean that they are not being addressed, it could just mean that they are being addressed at a lower level.

• Nevertheless, national governments should endeavour to understand the role of all system qualities so that they can work with local governments to ensure that they are being addressed.

• National governments should consider how best they can work in this area. Potential actions include making legislation, providing funding, offering guidance, undertaking research, putting in place pilot projects and evaluating current activities.

• Understanding the local context within each country is important. Governments at all levels should develop their understanding of their own local contexts so that they can identify and implement suitable solutions.

• The “travel chain” from door to door is a useful basis on which to assess what the issues are for older people within the transport and mobility network. Using this concept as a basis should help governments to address the current deficits in the transport and mobility system in a systematic way.

• Improving the transport and mobility system will have both benefits and costs in terms of sustainability. One of the main benefits will be improved wellbeing and quality of life for older people which should help them remain independent and active for as long as possible.

• Finally, governments need to take action to monitor the impact of their policies. This is an area where currently very little activity seems to take place. If more evaluation was undertaken, governments would be better able to change and adjust their policies to ensure they are performing as well as possible.

In order to provide a user friendly synthesis of the findings of WP3 the Second Summary Paper (D5.3) was elaborated, it contains the basic conclusions from the focussed sections of the large WP3 report.

Work Package 4: Action plan: Guidelines and recommendations for research topics and future transport strategy

The next stage of the TRACY project was WP4, which aimed at turning the main findings from WP2 and WP3 into an action plan containing suggestions and recommendations for future policy making and specific research topics for European and national RTD programmes in order to promote safe and
adequate usage of all passenger land transport modes for older people.

Draft guidelines
The final sections of the WP3 report provided the basis for this working step, as it started to translate the findings and evaluation of current government activities into guidance and potential actions which national authorities might take in order to meet the transport needs in an ageing society. These were drawn upon and expanded throughout WP4, at a first stage this was done during the development of the output D4.1 Draft guidelines (July 2013). This document starts with pointing out the background for the TRACY project ("The ageing society", "The policy context", "The role of transport in an ageing society"), before outlining the identified research gaps and recommended policy actions on a general basis as well as in relation to every single transport mode considered. Guiding aspects for approaching and structuring these issues were always:

• What does the literature tell us? (Summary of academic literature review)
• What did we find? (Description of the main types of policy found in relation to each mode, system qualities tackled, other aspects of sustainability considered, cross sector linkages)
• Are the current policies meeting the needs of the ageing society?
• Research Gap, Action, Potential Impact

Appendices at the end of this report provide some background information to support what is included in each sub-section. They show the policy type, give a brief description, list the main variations between the policies that fit into each category, show the qualities and other considerations affected by each category and finally reference some example policies that can be found in the WP2 report.

Final report/Action Plan
The draft recommendations were "road-tested" and fine-tuned by critically discussing them during 2 focus groups (MS3) with key stakeholders (Oslo/September 2013, Barcelona/October 2013) and at the final International conference (MS4) with an international audience and representatives of the EC in November 2013 in Brussels.

The final recommendations as documented in the final report (D4.2 November 2013) and the Third summary paper (the "Action Plan", D5.4 December 2013) are the following:

Research recommendations – better understanding of problems and needs
XI. Harmonisation of travel surveys to establish an European overview on transport needs
XII. Statistics and information about accidents and risks in relation to all modes
XIII. Improving knowledge about individual transport means for older people
XIV. Research on virtual mobility and complementary mobile services
XV. Assessing driver training programmes and preparing the transition from car to other transport modes
XVI. Establishing an overview of best practices from the local level and their lessons for EU-policies

Policy recommendations – tackling of problems and needs
XVII. Promotion of an all mode approach, including walking and cycling
XVIII. Encouraging policy evaluation and impact assessment (in certain fields)
XIX. Developing European guidance on age friendly road and street design
XX. Developing European guidance on less frequently considered qualities of an age friendly transport system
Potential Impact:
Dissemination activities encompassed the elaboration and finalisation of the following summary versions of the corresponding large reports:

- **D5.2** First summary paper: user friendly summary of WP2 report [finalised in month 14, November 2013]
- **D5.3** Second summary paper: user friendly summary of WP3 report [finalised in month 21, June 2013]
- **D5.4** Third summary paper: user friendly summary of final report [finalised in month 27, December 2013 as accessible version]

To disseminate as widely and as usefully as possible the information produced and the conclusions and recommendations of TRACY, the project website with a homepage in 7 languages (founded in November 2011, s. D5.1; [www.tracy-project.eu](http://www.tracy-project.eu)) was regularly updated in the ‘News’ section. The produced reports were all made available for free download via the project website in the section ‘Project outputs’.

The first conference Transport and ageing research summit held on November 14, 2012 in Brussels brought together members of the European Parliament, representatives of Governmental Organisations from European member states, researchers from European, Australian and Japanese universities, representatives of European institutions and business organisations as well as NGOs. Under the patronage of Dr. Dieter-L. Koch (Member of the European Parliament) the conference provided a forum for constructive exchange on the following topics: the political challenge and opportunities of an ageing European society, state of the art and analyses in EU27 and international sectors, preparatory steps for the development of an action plan including guidelines and recommendations for specific research topics and future transport strategies.

The final conference European transport policies for an ageing society held on November 07, 2013 in Brussels was a very important activity since the findings of the project could be shared with representatives of the intended target groups and critically discussed. This served a lot to the project’s conclusion in order that the findings received at the conference could be considered in the final report (cf. above WP4).

Furthermore results of TRACY were presented at international and regional events, e.g. at the workshops of the sister project “GOAL – Growing Older stAying mobiLe: Transport needs for an ageing society” (February and June 2013).

The production of a project flyer with the main results presented in a concise form as well as the production of the Action Plan in an accessible Pdf and printed version will contribute to further effectively disseminate the TRACY findings after the project closure.

List of Websites:

The project public website can be found by [www.tracy-project.eu](http://www.tracy-project.eu) and will be kept alive until 2015.

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