



International Support of a Common Awareness and
Knowledge Platform for Studying and
Enabling Independent Living

Summary

The CAPSIL Coordinating Support Action (CSA) team is a strategic international coalition of University and Industrial partners that already have extensive teams developing hardware/software/knowledge solutions to independent living based on user requirements. All partners of CAPSIL are already members of regional and national centres on aging engaged in the process of helping to establish public policy and international standards. This support action is to launch initiatives, coordinated and disseminated by a series of workshops in the US, EU, and Japan (two per year for two years), with three fundamental goals:

- * to develop a detailed CAPSIL Roadmap for EU research to achieve effective and sustainable solutions to independent living based on an in-depth analysis of independent living requirements and the ICT scenarios developed or under development in the EU, as well as the US and Japan (societies where the aging of the population are currently on par or exceeding the challenges that will be found within the EU).

- * to support aging research by proposing procedures to incorporate all of these diverse solutions into WiKi entries (CAPSIL WiKi). These CAPSILs will enable researchers and the ICT industry to get the information they need to quickly and easily test solutions for prolonging independent living within the many and various heterogeneous communities. Only with this knowledge will the relevance and efficacy of technological solutions be maintained and be empowered with the capability to be adapted for various cultures.

- * to use the CAPSIL Roadmap and the CAPSIL Workshops to help policy makers in the US and Japan coordinate research agendas and funding efforts across the three continents.

The CAPSIL consortium have carried out an extensive (and on-going) baseline analysis of the state-of-the-art with regards to gerontechnology, healthcare and public policy for enabling Independent Living for older adults.

This baseline analysis allowed us to identify gaps in the state-of-the-art (SOA) and recommend research directions to fill those gaps.

A visioning scenario (Toms Story) was created to show how these technologies and practices might impact on the everyday life of an older adult in the year 2020.

Initial drafts of roadmaps, broken down by workpackage, were created and internally reviewed by the other workpackages.

Project Objectives for Period

Establish baseline state-of-the-art for gerontechnology and Independent Living.

Establish appropriate directions for research into sustainable and effective social, technology and policy solutions to enable extended independence for older adults.

Create an initial visioning scenario of a day in the life of an older adult in the year 2020 as an ideal to work towards.

Identify current gaps in policy and technology research towards effective delivery of Independent Living systems and practices.

Each workpackage to create a first draft of a roadmap for their area of responsibility.

Create a 'Template' for the Roadmap & individual chapters to ensure a consistent style and logical flow.

CAPSIL Integrated Roadmap:

Work Progress and Achievements during the Period

The first months of the project were spent conducting an extensive literature review and baseline analysis to establish what the current state-of-the-art in the field of Independent Living is. This spanned across many areas, from technology to policy to healthcare practice. The results of this review were shared among the group using an internal private Twiki, which allowed cross-workpackage input. This baseline analysis was then refined by workpackage to hone in on each workpackages area of responsibility and identify key themes and research directions within each field.

This analysis highlighted some gaps in the current knowledge and missing components necessary for effective implementation.

In order to get a better idea of what might be other 'gap' areas we created a visioning scenario of a day in the life of 'Tom', an older adult with various morbidities and needs in the year 2020. We were then able to compare this scenario with the current SOA and research directions and identify further areas of missing or limited knowledge. This visioning scenario was published on the CAPSIL Wiki with others to follow.

It is important to stress that this gap analysis does not just concern technology but also public policy and practice.

Each workpackage also created a first draft of a roadmap for their individual workpackage with baseline analysis, gap analysis and implementation recommendations. These draft roadmaps are

currently under internal review by the other workpackage members. These will then be amalgamated into the overall CAPSIL roadmap.

A 'Template' for the roadmap and individual chapters was created and divided into 3 key sections:

Developing the Vision – to include background information, requirements and methodologies for intervention and visioning stories projecting 'ideal' scenarios of life for older adults in the near future.

The Supportive Technologies – detailing the current State of the Art with regard to hardware and software, the current gaps in the technologies required to realise these scenarios and recommended solutions.

The Strategy – summarising the gaps and challenges across the different areas, recommended courses of action and the potential impacts these might have.

A fuller outline is provided below:

Roadmap Template

- *Across all chapters make sure references are made to situation in USA, EU, Japan – each has some unique considerations and challenges.*
- *Instead of creating new text (e.g. background/baseline) refer to other chapters where possible*
- *Common style and format for each chapter*

Developing the Vision:

Chapter 1 – Background and Problem Definition

Summarize ageing problem

Main driver is promotion of QOL and maintenance of independence.

Wellness – quality of life. Physical (ADL), emotional and social. Independence

Diseases – High level incidence and impact comparison.

Lifestyle behaviours – Exercise, Nutrition, Smoking, Drinking

Assessment of potential role of home & mobile monitoring. Prioritization of conditions, ADLs, social issues of ageing

Individual perspective from different regions

Financial Imperative and Economic Issues – including models for financing of healthcare in various regions

Chapter 2 - Intervention

Scope/Background

Analytic Framework

Put in requirements to intervention including Disease, Wellness, ADL

- Generalised model of intervention systems
- Structures of intervention systems for specific conditions
- Why, How, Result

Table summarising diseases and appropriate interventions

Chapter 3 - Visioning

Scenarios exemplifying clinical requirements and interventions

Gaps at the end of each scenario – what is missing from current SOA to achieve vision?

To be referred to in subsequent chapters gaps/challenges

The Supportive Technologies:

Chapter 4 – Home and Mobile

Ensure that other technical chapters are referenced.

Ensure that scenarios are referenced

Ensure chapter 1+2 are referenced

Background

- minimal and topic focused

Gap Analysis

- Broad (probably mostly cross cutting)
- Specific (issues relating only to chapter or low-level problems)
- relate to visioning/scenarios

Recommendations

- High level → low level
- suggested sequence of obstacles/priorities (as per cost/quality road/bridge diagram)

Chapter 5 – Wireless Sensor Networks

Ensure that other technical chapters are referenced.

Ensure that scenarios are referenced

Ensure chapter 1+2 are referenced

Background

- minimal and topic focused

Gap Analysis

- Broad (probably mostly cross cutting)
- Specific (issues relating only to chapter or low-level problems)
- relate to visioning/scenarios

Recommendations

- High level → low level
- suggested sequence of obstacles/priorities (as per cost/quality road/bridge diagram)

Chapter 6 – Software

Ensure that other technical chapters are referenced.

Ensure that scenarios are referenced

Ensure chapter 1+2 are referenced

Background

- minimal and topic focused

Gap Analysis

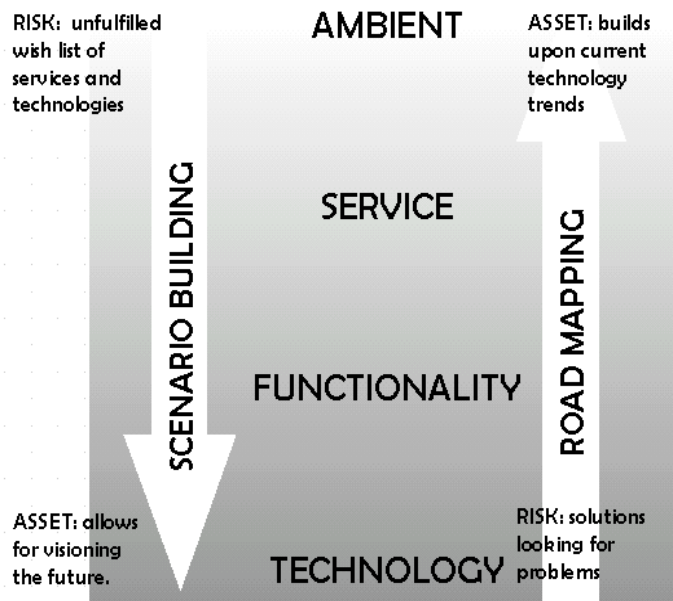
- Broad (probably mostly cross cutting)
- Specific (issues relating only to chapter or low-level problems)
- relate to visioning/scenarios

Recommendations

- High level → low level
- suggested sequence of obstacles/priorities (as per cost/quality road/bridge diagram)

The Strategy:

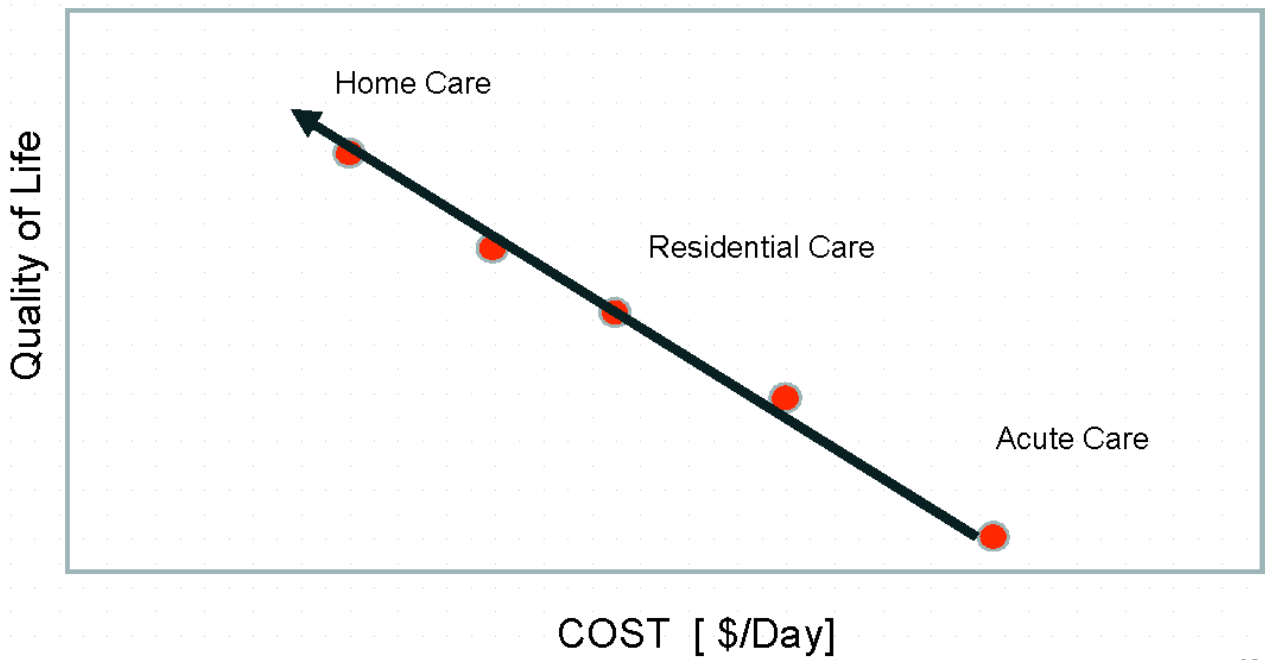
Chapter 7 – Roadmap



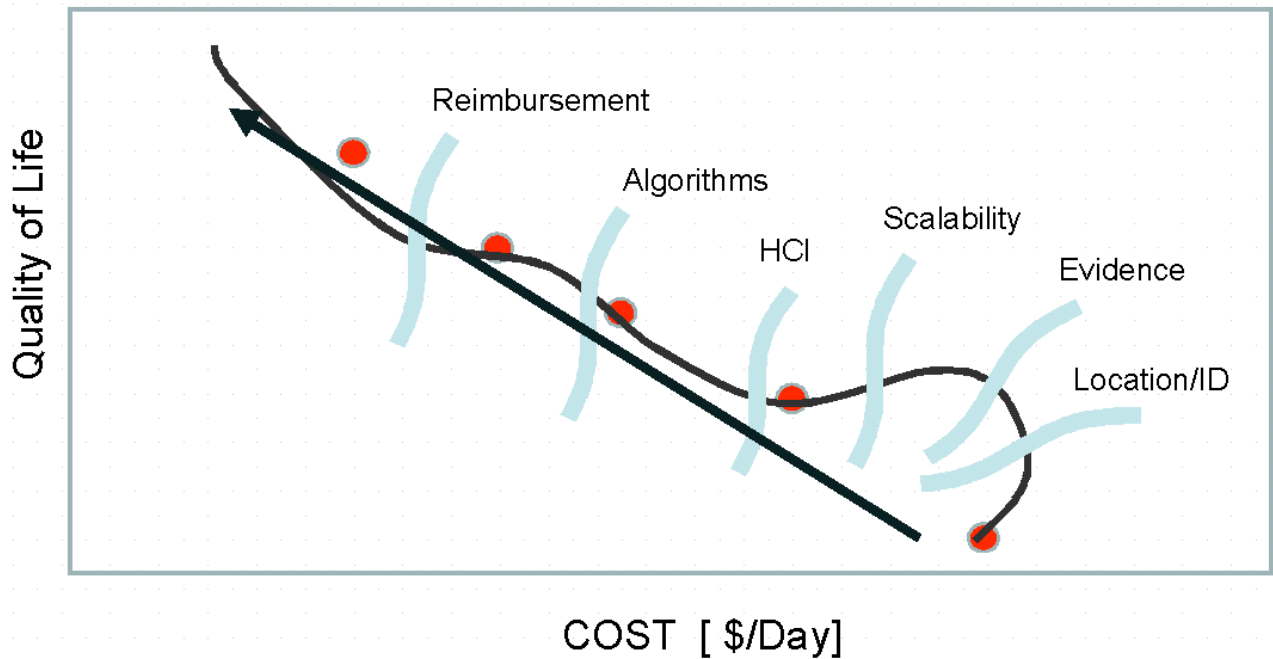
Summary of document

(from EU roadmap doc, supplied by Rodd Bond)

CAPSIL roadmap figures:



(© Eric Dishman)



(N.B. gaps indicated are placeholders for gaps identified in final roadmapping stages)

Outline indirect nature of path; at times technologies may be cheap & plentiful, but not necessarily add to QOL (e.g. 3 remotes to watch TV)

Common Gaps (cross cutting)

- recommendations
- challenges
- sequence/priorities

Specific Gaps

- recommendations
- challenges
- sequence/priorities

Why should the EU act on these gaps & challenges?

Stakeholders

Impacts

- local
- global

Final Thoughts

Deliverables

A table is provided for this section on the next page.

Please list all the deliverables associated with your work package due in this reporting period, as indicated in Annex I of the Grant Agreement.