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Abstract:

The ICT for Ageing Society Strategic Agenda aims at providing a study on options for future structure and implementation of EU innovation funding. The Ageing Society Strategic Agenda aims to inform policy makers (national and European level) and influence their strategies, measures and initiatives regarding ICT for Ageing, by identifying and sharing key issues that already emerged or are likely to emerge. Special emphasis will be made on the connection between ICT Innovation policies and those addressing the issue of healthcare/quality of life and ageing.

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**Statement of Originality**

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

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## 1 Introduction

### 1.1 Background

The aim of the **AgeingWell** Network is to build and animate a European network focused on improving the quality of life of Elderly People by promoting the market uptake of ICT solutions for Ageing.

To achieve its aim, the following five **main objectives** of the AgeingWell project are:

- **Develop** guidelines for deployment and sharing of best practice between key competence centres;
- **Build** an ICT for Ageing Knowledge Centre with the aim to share the results with the Ageing Well Community;
- **Develop** an ICT for Ageing Society Strategic Agenda, with the aim of providing a study on options for future structure and implementation of EU innovation funding;
- **Promote** the European innovation reinforcement between innovative ICT industries & Ageing (in particular SMEs) and Venture Capital firms, Business Angels and other;
- **Raise awareness** within the European community of ICT & Ageing stakeholders through web-based communication and the organization of 3 international events and 11 national events.

### 1.2 Summary

The ICT for Ageing Society Strategic Agenda aims at providing a study on options for future structure and implementation of EU innovation funding. The Ageing Society Strategic Agenda aims to inform policy makers (national and European level) and influence their strategies, measures and initiatives regarding ICT for Ageing, by identifying and sharing key issues that already emerged or are likely to emerge. Special emphasis will be made on the connection between ICT Innovation policies and those addressing the issue of healthcare/quality of life and ageing.

## 2 The Rationale

Over the next 40 years European societies will change substantially. Firstly, societies are ageing at an unprecedented rate. At the same time, Europe is experiencing rapid urbanisation and expansion of online services. These trends will have a substantial impact on the way we live, particularly on the elderly.

The number of people aged over 65 will treble over the next thirty years – the number aged over 80 will quadruple. These changes present significant opportunities for ICT solutions, but they also pose serious and potentially very costly challenges.

The combination of a dispersed and rapidly ageing population with increasing health and other care needs has potential negative impacts on the population as whole, but especially on the older population. Coordinated physical, spatial and service forward planning can do much to improve health and well-being outcomes for the older population and avoid costly health and care costs (both for individuals and public sector organisations).

It is clear that the growing numbers of older people in our society will create an additional demand for health and care in later life. This in turn will require a re-examination of existing systems and structures to ensure that resources are used efficiently and that these systems and structures are prepared to respond to an increasing demand. Planning for this new future and developing policies which can transform the challenge of ageing societies into an opportunity, can contribute for economic growth and for improving well-being for all people, not just for older people. However “the window of opportunity to plan and prepare is, quickly closing” (World Economic Forum, 2009).

### 2.1 EU Societal Challenges

The framework of Horizon 2020 of the European Commission intends to contribute for a higher synergy and involvement between different areas of knowledge as an answer to major challenges concerning EU society and citizens<sup>1</sup>. Two of the six challenges identified are directly related to the activities promoted under the **AgeingWell** Network and provide inputs on the importance of developing new ICT solutions for Ageing well:

- **Health, demographic change and wellbeing:** By addressing this challenge, the EU aims to deliver better health and wellbeing for all by coordinating national efforts and expanding global cooperation. This intention is in line with an ageing EU population which brings new demands on health and care sectors. Innovation in this field needs to be considered in terms of solutions for e-health, self management of health, improved diagnostics, improved surveillance, health data collection, active ageing, assisted living, among other areas that can contribute for empowering older persons to remain active and independent for longer time;
- **Inclusive, innovative and secure societies:** The answer to this challenge shall lead EU to become a distinctive model of inclusive, innovative and secure society compared to other

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<sup>1</sup> Commission Communications: “Horizon 2020 - The Framework Programme for Research and Innovation” COM(2011) 808 final of 30.11.2011

world regions. Innovation in this field needs to be considered in terms of solutions for digital inclusion; social innovation platforms; e-government services; e-skills and e-learning; e-culture; cyber security; ensuring privacy and protection of human rights on-line.

## 2.2 ICT for Ageing Well

Older people make a financial contribution to society in a variety of ways. They remain consumers throughout their later lives; they contribute with their time as volunteers, as carers for spouses, grandchildren and other family and friends, and as important sources of advice and moral support. They continue to participate in the workforce through employment, entrepreneurship or self-employment. They also contribute financially to their families through transfers of money or other assets passed through the generations, during life and as legacies. As such, the ageing of the population brings significant economic benefits and opportunities for ICT solutions providers, investors, user organizations, housing and insurance companies, etc., since *ICT has a central role in supporting inter-connectedness, access to information and services, control over living space and of wider environments*<sup>2</sup>, and therefore can contribute to turn the daily routine of older population easier.

Equally, concerns have been expressed about the consequences of population ageing which fall into a number of areas, to which ICT can contribute to mitigate, in particular:

- increasing numbers of older people, needing (but not always getting) more health care than younger people, can create an unsustainable demand for costly medical services, although current evidence suggests that this trend is not as marked as may be imagined, particularly with good health promotion (Spillman, 2000; Lubitz, 2003);
- there may be insufficient people available to provide care and assistance with daily activities;
- reduced participation in the workforce and an older workforce, may have a negative impact on macroeconomic performance in the absence of an age-attuned work environment (O'Neill, 2010).

**Ageing Well** is a comprehensive concept that comprises multiple aspects. It is related to the concept of Active Ageing which, according to the World Health Organization, *is the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age. It applies to both individuals and population groups*<sup>3</sup>. In addition, the ageing process is transversal in terms of contexts and influences people life towards themselves, their relation to others and to the surrounding environment. In other words the Ageing process needs to be analysed in three domains<sup>4</sup>: home, community and work (Figure 1).

<sup>2</sup> Interim Evaluation of the Ambient Assisted Living Joint Programme, Independent Panel Report, December 2010. Retrieved on December 2012 from <http://www.aal-europe.eu/documents-ressources>

<sup>3</sup> World Health Organization: [http://www.who.int/ageing/active\\_ageing/en/index.html](http://www.who.int/ageing/active_ageing/en/index.html)

<sup>4</sup> Commission Communications: "Ageing well in the Information Society. An i2010 Initiative. Action Plan on Information and Communication Technologies and Ageing" COM(2007) 332 final of 14.06.2007



**Figure 1 – Ageing Well Domains**

ICT Solutions for Ageing address daily and independent living activities, such as:

- Social communication: easy access to phone and video conversation, notably if enabled by broadband to stay in touch with family and friends, overcoming social isolation (in several countries over half of the 65+ are living alone);
- Daily shopping, travel, social life, public services: easy access over the internet to order goods online e.g. when reduced mobility makes physical shopping more difficult;
- Safety (making sure entrance doors and windows are locked/closed when leaving the house or sleeping; checking for water or gas leaks; and turning all but one light off when going to bed, etc.);
- Reminders (memory problems tend to be associated to ageing and thus support may be needed in taking medication and fulfilling household tasks);
- User-friendly interfaces (for all sorts of equipment in the home and outside, taking into account that many elderly people have impairments in vision, hearing, mobility or dexterity);
- Telecare and telemedicine opens up new opportunities for providing medical care to the home and there are many new developments in ICT-based home care, including ways of monitoring wellbeing and providing a secure home environment 1 European Commission's preliminary own estimates based on EUROSTAT and OECD data. Overview of European strategy in ICT for Ageing Well - October 2010;
- Personal health systems include wearable and portable systems for monitoring and diagnosis, therapy, repairing/substitution of functionality and supporting treatment plans for individuals with a chronic disease – (e.g. heart disease and diabetes), complemented by telemonitoring and telecare, thus avoiding hospitalization;
- Support for people with cognitive problems and their carers to stay at home for longer and remain active for as long as possible, e.g. through cognitive training, reminders, GPS tracking EU Societal Challenges, etc;



- Support for more efficient workflows in care, by integrating health and social care through sharing information, monitoring and follow-up to interventions across different organisational and physical boundaries.

### 3 AgeingWell Network: Vision and Strategy

#### 3.1 Vision

The **AgeingWell** Members aims at building and animating a European network focused on improving the quality of life of Elderly People by promoting the market uptake of ICT solutions for Ageing Well. Through its web portal (<http://ict-ageingwell.net>) the **AgeingWell** Network wants to become the **reference point** for key stakeholders in the ICT & Ageing Sector and create a Community of Actors interested in improving the life of older persons by promoting ICT solutions for challenges regarding ageing.

Dialogue between industry, user organizations, public authorities, investors, housing, insurance companies and ICT solutions providers' needs to be push forward and fostered, in order to contribute for the emergence of ICT solutions developed by multidisciplinary stakeholders that bring together different perspectives and allow a more holistic approach to current challenges. The **AgeingWell** Network aspires to connect these stakeholders and provide them a common platform where diverse interests can be met.

#### 3.2 Strategy

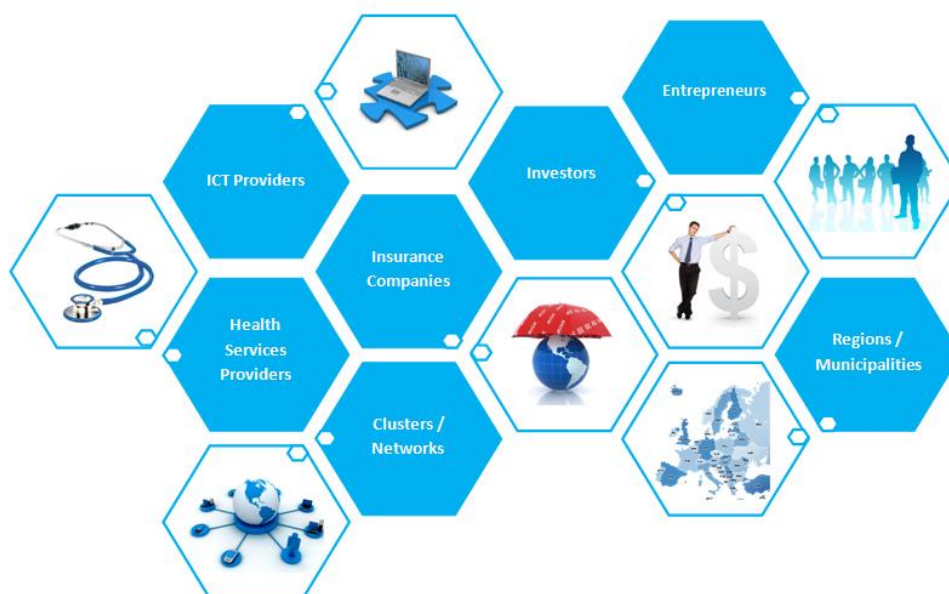
To realise its vision the **AgeingWell** Network has a work plan with various activities which are meant for:

- Gathering relevant information about ICT and Ageing sectors (e.g. market barriers, user needs, technological evolution);
- Promoting events where representatives of the whole supply chain of ICT for Ageing can meet other stakeholders and discuss interesting topics;
- Increasing awareness for existent projects and initiatives, as well as stakeholders within ICT and Ageing areas, from different countries;
- Formulate documents that can contribute to influence policies and strategies lead by public authorities.

#### 3.3 AgeingWell Network and Societal Challenges

As mentioned in section 2.1 of this document, the **AgeingWell** Network relates directly with two of the societal challenges Europe is facing: "Health, demographic change and wellbeing" and "Inclusive, innovative and secure societies" for which a strong ICT for Ageing sector can contribute positively.

The network intends to generate a closer dialogue among the economic actors operating in ICT for Ageing fields, from organisations and centres involved in research in these areas, industry and solutions providers that develop and commercialize products/services for ageing well, investors looking for innovative projects, entrepreneurs willing to start a venture in this sector, and users organisations that can benefit from the ICT for Ageing products/services and that can provide, to researchers and industry, useful information about older adults needs and requirements (Figure 2).



**Figure 2 – Type of actors engaged in the AgeingWell Network**

Analysis on current barriers for the market uptake of ICT solutions for ageing well have highlighted the importance of a closer relationship among the various stakeholders involved in this sector. Issues as having a wider knowledge about older population needs or promoting interoperability of ICT solutions require a higher collaboration among the different actors. In this sense, the **AgeingWell** Network objectives were defined to address this need, as follows:

- Making the business community aware of the rapidly growing global and changing global market of older consumers and giving them an understanding of their changing behaviours and attitudes;
- Broadening the business community's understanding of the diversity of older consumers' needs, both current and emerging;
- Transferring knowledge on how businesses might develop products and services to best meet these needs;
- Fostering confidence in the venture capital firms, business angels and other financial-service sectors to take advantage of the enormous investment opportunity presented by the older consumer.

The achievement of these objectives, besides bring ICT for Ageing players closer together, will contribute for developing the market which is still in an early stage of maturation. Additionally, it can lead to the development and deployment of innovative solutions contributing for a healthier ageing and a more inclusive society.

## 4 ICT for Ageing Well Priorities

Several initiatives of transnational nature have been discussing and identified the priority fields for ICT for Ageing Well in terms of research areas, as well as, investment and development of products and solutions. In this section, findings of some of those initiatives are presented.

Table 1: ICT for Ageing Well Priorities

Initiative	Description of Priorities
European Innovation Partnership on Active and Healthy Ageing / Strategic Implementation Plan <sup>5</sup>	<p>A Strategic Implementation Plan has been defined approaching six areas of priority intervention:</p> <ul style="list-style-type: none"> <li>• <b>Prescription and adherence action at regional level:</b> defines key areas that need to be addressed in order to improve adherence, such as the lack of health literacy, lack of training GPs to monitoring adherence and product innovation;</li> <li>• <b>Personalised health management - Falls prevention:</b> priority is on assessing the measures that can be taken to reduce the risk of falling, and then set up a number of initiatives to improve self-management among older people and restore confidence and independence;</li> <li>• <b>Prevention of functional decline and frailty</b> focus on the relevance of prevention, screening and early diagnosis;</li> <li>• <b>Integrated care for chronic diseases, including remote monitoring at regional level:</b> in order to reduce avoidable/unnecessary hospitalisation of older people with chronic conditions, through the effective implementation of integrated care programmes and chronic disease management models;</li> <li>• <b>Interoperable independent living solutions:</b> for promoting the deployment of open and personalised solutions for active and independent living supported by global standards, validated interoperable platforms and new evidence on the return of investment;</li> <li>• <b>Age friendly buildings, cities and environments:</b> it aims at fostering and encouraging cross-sector cooperation to generate age friendly environments.</li> </ul>
AALIANCE Project / Ambient Assisted Living Strategic Research Agenda	<p>It defines R&amp;D priorities in order to substantiate the success of AAL:</p> <ul style="list-style-type: none"> <li>• New AAL devices need sensors, processors and actuators with high(er) capabilities in terms of intelligence, ubiquitous wireless network capacity, energy consumption and energy scavenging,</li> <li>• Embedded and autonomous systems provide the infrastructure for new Internet-of-Things applications,</li> <li>• Smart robotic platforms must be able to share intelligence with the environment and interface seamlessly with users,</li> </ul>

<sup>5</sup> European Innovation Partnership on Active and Healthy Ageing website: <https://webgate.ec.europa.eu/eipaha/>

Initiative	Description of Priorities
	<ul style="list-style-type: none"> <li>• New paradigms of human' environment cooperation (interfaces, cognitive and physical models) are to be tested,</li> <li>• ICT solutions have to be “green” and sustainable with lowest possible energy consumption,</li> <li>• Interoperability and standardisation processes are of crucial importance for AAL technologies and need more attention,</li> <li>• Legal and ethical consequences have to be considered in the design process of new AAL technologies (i.e. robotics), with direct participation and involvement of end' users, horizontal services, based on new AAL technologies and oriented to a wide variety of end' user solutions should be tested in deployment projects.</li> </ul>
<b>BRAID Project / Consolidated Vision of ICT and Ageing<sup>6</sup></b>	<p>The Core BRAID Vision includes the following priorities:</p> <ol style="list-style-type: none"> <li><b>1. Foundational technological infrastructure:</b> Usable, accessible, and affordable technological infrastructure, with ICT applications, devices, tools &amp; services to adapt to the population's changing needs and support the quality of life whilst ageing;</li> <li><b>2. Enhanced awareness and training:</b> Good understanding of a life course perspective on ageing, allowing a more effective intergenerational linkage and a better preparation of individuals for this process by providing appropriate information, education, and training, promoting life-long-learning and increased technology awareness and acceptance;</li> <li><b>3. Mechanisms to promote active life:</b> Positive, cross-societal attitude towards ageing, activating support mechanisms to motivate and empower seniors, taking into account social, functional and cultural differences, and offering a rich variety of choices and opportunities for continued active life;</li> <li><b>4. Regulatory framework and principles:</b> Policies and regulatory framework regionally, nationally, and across Europe - to provide an underpinning approach to support the rights of the elderly and particularly vulnerable older people and simultaneously recognize, motivate, promote, and support the continued involvement and contribution of senior citizens to society;</li> <li><b>5. Implemented ethical principles:</b> Established mechanisms to ensure security, safety, ethics, and privacy on data, and services, therefore accessing and using ICT safely (free from harm) and with security (free from threat or intrusion);</li> <li><b>6. Organizational infrastructure:</b> Organizational infrastructures and appropriate business models that facilitate the interaction between seniors and society, as well as the organized provision of all required services and support, especially supporting the collaboration of stakeholders;</li> <li><b>7. Economic and employment practices:</b> Economic system and employment practices, allowing the choice of active involvement of seniors by continuing their occupation (if desired), furthering social and economic value creation;</li> <li><b>8. Models of engagement:</b> New models of social and societal engagement and collaboration for care, support, occupation, and recreation of senior citizens, ensuring the autonomy and dignity of the individual.</li> </ol>

<sup>6</sup> Consolidated Vision of ICT and Ageing - BRAID Project (FP7)

Initiative	Description of Priorities
<b>CAPSIL Project / Roadmap<sup>7</sup></b>	<p>Priorities to be considered to promote a widespread adoption or development of ICT for ageing solutions are divided in primary and secondary priority issues.</p> <ul style="list-style-type: none"> <li> <b>Primary priority issues</b> <ul style="list-style-type: none"> <li><b>Evidence based research, large scale deployments:</b> to overcome the difficulty of demonstrating both economic and medical viability of projects and technologies;</li> <li><b>Awareness of business models and the economics of ageing:</b> to demonstrate financial benefits to industry, investors and consumers;</li> <li><b>Development of ontologies, knowledge models and algorithms for data reduction/retrieval/mining:</b> to better understand the historical and situational awareness about the complex AAL environments;</li> <li><b>Context awareness that includes location, behaviour, emotion and health:</b> includes a cross-analysis system to allow accurate information about a person current state and potential reasons for it;</li> <li><b>Focus on QoL and mood:</b> integrating in new solutions and technologies those factors that contribute to promote Quality of Life of its users;</li> <li><b>Privacy, security and access:</b> this is a key factor for user's acceptance of technologies for supporting and monitoring their health condition.</li> </ul> </li> <li> <b>Secondary priority issues</b> <ul style="list-style-type: none"> <li><b>Evolution of standards and interoperability:</b> this is a key factor for user's acceptance of technologies for supporting and monitoring their health condition;</li> <li><b>Lowering of trans-jurisdictional barriers:</b> by clarifying issues related to licensure and accountability across borders;</li> <li><b>Solutions that adapt with ageing (person centred) and place (home vs. mobile vs. workplace):</b> by providing flexible, modular and interoperable solutions that can be modified according to users' needs;</li> <li><b>Shared technology that facilitates a new model of healthcare:</b> by deploying solutions to be used by informal and formal caregivers to allow a timely and proactive health problems detection and early intervention;</li> <li><b>Holistic (across all aspects of ageing), but heterogeneous (specific to regions and cultures) approach:</b> to promote the adaptability of technologies and solutions to different cultures around the globe.</li> </ul> </li> </ul>
<b>ePAL Project / A Roadmap towards</b>	<p>ePAL roadmap actions under the technological perspective include the following priority areas:</p> <ol style="list-style-type: none"> <li> <b>1. Developing conceptual models:</b> Establish formal conceptual models for people's professional life cycle and the support </li> </ol>

<sup>7</sup> International Support of a Common Awareness & Knowledge Platform for Studying & Enabling Independent Living Roadmap – CAPSIL Project (FP7)

Initiative	Description of Priorities
Extension of Professional Active Life <sup>8</sup>	<p>environment for active ageing;</p> <p><b>2. Generating adaptive solutions:</b> Develop and integrate self-adaptive and configurable technology solutions in ICT collaboration environments facilitating technology acceptance and enabling customization for/by seniors;</p> <p><b>3. Building collaboration platforms:</b> Develop open ICT collaboration platforms for communities of senior professionals that promote human interaction and socialization and are enhanced by affective computing, context awareness, and trust establishment;</p> <p><b>4. Building collaboration tools:</b> Design and develop collaboration support tools and systems to facilitate value creation, considering the specific needs of senior professionals;</p> <p><b>5. Leveraging legacy:</b> Develop environments that empower seniors to leave a legacy capitalizing on their valuable and transferable personal / professional experience;</p> <p><b>6. Elaborating behavioural models:</b> Develop approaches that discover patterns and model “the evolution of senior professionals’ interests and their involvement in the socio-economic system” and “the behaviour and emotional health of senior professional networks”.</p>
FUTURAGE / A Road Map for European Ageing Research <sup>9</sup>	<p>FUTURAGE roadmap defines the Major Priorities Themes for European Ageing Research:</p> <ul style="list-style-type: none"> <li>• <b>Healthy Ageing for More Life in Years</b> focusing on the following key topics: a) Healthy ageing and frailty – understanding the process and defining the concepts; b) Organising and delivering interventions for health promotion; c) The ageing process and early markers of ill health; d) Modelling links between disease and functioning over the life course; e) Effectiveness and efficiency of clinical care and social care; and f) Education and lifelong learning; g) Environmental conditions for ageing well.</li> <li>• <b>Maintaining and Regaining Mental Capacity</b> focusing on the following key topics: a) Research on the outcome of cognitive training and physical exercise; b) Role of context for enhancing cognitive engagement; c) Role of the motivational-emotional, personality and self-related system for the development and maintenance of mental capacity; d) Better considerations of life course dynamics of mental capacity; e) Research on how societies are dealing with mental capacity; f) Research on challenges related to mental capacity in advanced old age; and g) Better consideration of multi- and inter-disciplinary synergies.</li> <li>• <b>Inclusion and Participation in the Community and in the Labour Market</b> focusing on the following key topics: a) Ageism; b) Lifelong learning; c) Migration; d) Overcoming the digital divide; e) Mobility and accessibility; f) Ageing and spirituality; g) Volunteering; h) Participation as consumer or user; i) Discrimination in the labour market; j) Enabling a longer working life; and k) Reconciliation of</li> </ul>

<sup>8</sup> A Roadmap towards Extension of Professional Active Life – ePAL Project (FP7)

<sup>9</sup> FUTURAGE. 2011. A Road Map for European Ageing Research. Retrieved on December 2012 from <http://futurage.group.shef.ac.uk/roadmap.html>

Initiative	Description of Priorities
	<p>paid work and informal care.</p> <ul style="list-style-type: none"> <li> <b>Guaranteeing the Quality and Sustainability of Social Protection Systems</b> focusing on the following key topics: a) Sustainability of social security and social care systems; b) Supporting informal carers; c) Improving access to services; d) Efficiency, cost-effectiveness and quality of interventions; e) ICT-supported informal caregiving; and f) Reviewing and strengthening intergenerational solidarity and cooperation.         </li> <li> <b>Ageing Well at Home and in Community Environments</b> focusing on the following key topics: a) Generation of differentiated knowledge on the enabling and constraining characteristics of PST environments at the home and community level; b) Better understanding of the meanings of PST environments of older adults' lives; c) More research on the relationship between transport and ageing well; d) Work environments as key PST environments for ageing societies; e) Long-term care environments for vulnerable and frail older adults; f) PST environments as supporting healthy ageing and increased life expectancy; and g) Healthy home and community environments for very old age.         </li> <li> <b>Unequal Ageing and Age-Related Inequalities</b> focusing on the following key topics: a) Monitoring inequalities; b) Health in work and retirement; c) Inequalities and discrimination in the labour market; d) Inequalities and discrimination on health; e) Ageing and migration; and f) Focus on the very old.         </li> <li> <b>Biogerontology: from Mechanisms to Interventions</b> focusing on the following key topics: a) Biomarkers of ageing; b) Telomere erosion, DNA damage and mitochondrial dysfunction; c) Oxidative stress, protein damage and protein maintenance; d) Systems biology of ageing; e) Inflammation and impaired immune functions; f) Metabolic factors; g) Nuclear receptors; h) Age-related disorders of blood circulatory (vascular) system; i) Muscle weakness, sarcopenia and physical exercise; j) Age-related modifications of skin and elastic tissues; and k) Connecting biogerontology with clinical ageing research.         </li> </ul>



## 5 Options for the Future

Considering the current situation in Europe and the stage of development of the ICT for Ageing market, there are some priorities that need to be addressed by future funding mechanisms and schemes to leverage all the potential of this market and to contribute for a positive ageing process of the European older population. The **AgeingWell** Network considers four high priorities to be considered by policy-makers:

- Create a regulatory framework;
- Enhancing synergies in research and development areas;
- Establishing business models for ICT and Ageing sector;
- Promote awareness and training initiatives.

Each of these priorities is described next.

Firstly, it is important to promote a framework in which rules and regulations are well defined and can be common between the various EU countries. The existence of a **regulatory framework** would contribute for tackling one of the main barriers in the ICT for Ageing market which related to the interoperability and standardization of ICT solutions. When defining this framework several aspects will need to be considered to cover all relevant factors involved in this field, such as technology safety, privacy rights, data protection, ethics in the usage of technology and available information, etc.

Another fundamental area in which investment needs to be made is on **research and development** in ICT and Ageing. Multidisciplinary research must be carried out as a way of understanding the relevant aspects of the ageing process and its implications at individual, social, cultural and economic levels. In this sense, it is important to increase synergies between different research fields (e.g. internet of things, mobile applications, embedded systems, energy, sociology, etc) in order to provide valuable and more-oriented results that can be used by industry and solutions providers in development processes. Within the development stage it is essential to promote large-scale demonstrations to test and validate the usefulness, efficiency and viability of solutions created. Involving older adults and other stakeholders (e.g. formal and informal care givers) in development process is important to ensure solutions are addressing their needs, attitudes and behaviors, as well as to foster future adoption of such technologies once they are placed on the market.

Then, in order to support market growth and competitiveness it is important to establish **business models** which have into consideration the various perspectives within ICT for Ageing market (e.g. economic, social and cultural) and which allow relevant stakeholders to understand the financial and personal benefits of ICT for Ageing products and services. Business models have to help investors, industry and user's organizations foresee the return on investment and the added-value of developing and/or adopting these types of solutions.

Finally, the fourth area considered as a priority for the future is **awareness and training**. Investment in this area can bring advantages for market operators and older adults. Raising awareness about market opportunities can lead to a higher level of technology adoption and a more intense collaboration between ICT solutions providers resulting in more viable and advanced products and services. Also, informing and clarifying the benefits these solutions can bring in terms of enhancing

daily routine, personal health and quality of life of older adults, but also of formal and informal care givers, can contribute for leading consumers to adopt new ICT for Ageing products and services. In addition, preparing and equipping people with the necessary knowledge and skills to efficiently use and deal with the products and services is an important priority for the success of this sector. Therefore, promotion of training initiatives is crucial to enhance health and digital literacy among older population as a strategy to foster technology acceptance, as well as among health care providers as the adoption of this solutions brings change to their daily routine and work procedures and they need to be trained on how to use these technologies to be at easy using them to perform their job and ensure a quality care treatment.

In general, these priorities are considered under the Horizon 2020 - Framework Programme for Research and Innovation<sup>10</sup> to be launched in 2014, as it focus on societal challenges Europe is facing, namely “Health, demographic change and wellbeing” and “Inclusive, innovative and secure societies” to which the ICT for Ageing sector relates.

The **AgeingWell** Network will be promoting, during 2013-2014, a consultation among its members and relevant stakeholders in order to collect their opinion regarding future challenges for the ICT for Ageing market and the necessary measures and policies to be promoted in order to leverage the competitiveness of this market. Results of this consultation will be presented on the second version of this deliverable to be produced at the final stage of the project on month 36.

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<sup>10</sup> Horizon 2020 website: <http://ec.europa.eu/research/horizon2020>

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