Final Report of WP 1
ICT-DEVELOPMENTS IMPACTING ON DIGNITY AND NON-DISCRIMINATION OF OLDER CITIZENS

VALUE AGEING

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WP1

FINAL REPORT OF WP1

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EXECUTIVE SUMMARY

Value Aging Work Package One

ICT-developments impacting on dignity and non-discrimination of older citizens

This report provides a comprehensive analysis of the the impact of ICT on dignity and non-discrimination of older citizens. It includes an analysis of EU policies on elclusion and eAccessibility. The substantive part of the report locates dignity within a human rights framework, and the Capabilities Approach and Jacobson’s Dignity Encounters model are identified as being valuable tools to promote inclusion and dignity for older people. The Technical Acceptance Model (TAM) is used as a frame for contextualising individual experience with technologies. The report concludes with a meta-analysis of 10 selected cases of good practice in ICT use, in the context of expert and community validation, and with consideration other emerging technologies. The key findings of Value Ageing Work Package One include:

- ICT development can produce conditions that risk indignity and discrimination for older people, but they can also provide solutions to those risks. Value Ageing Work Package One suggests that it is generally not ICT developments per se that threaten dignity and inclusion, but the ways that specific ICTs and services are conceived, designed, promoted, introduced, used, supported, and monitored. Therefore an essential underlying principle in all of these actions and stages should be the conscious support of dignity and non-discrimination as a guiding principle.
- ICTs can support independence through smart interventions to support physical, cognitive, emotional, social and cultural aspects of daily life, and safety in the environment; increase participation in the Information Society and in social and civic life; mitigate practical barriers to social inclusion; support good and appropriate care and health monitoring; encourage self-fulfillment and self expression; and mitigate incapacities, offering more self-control over encounters with other people and objects.
- Risks to the dignity and social inclusion of older people arise when ageist attitudes treat ‘older people’ as a homogenous group, ignoring different needs; when older people are not in control or in a position to make informed choices; when issues of affordability, local access, and cultural practices are ignored; when older people are not considered and involved in the processes of design, development and use of ICTs; when the dignity of older people, especially those with impaired mental capacity, is not respected and promoted by others.
- Economic forces and the rapid pace of technological development threatens to create further divides between the technologically included and those excluded across Europe and within nation states. Diversity in infrastructures, assets, markets and socio-cultural expectations make likely continued uneven introduction of ICTs that promote respect and inclusion for older people. Dissemination of evaluated good practice examples may help to accelerate the adoption of effective solutions.

Recommendations for EU Policy:

- EU policy must explicitly address and promote action upon issues of inequality that include: dealing with the pace of change in ICT; the context of the life-long need for inclusion; the cumulative effects of deprivation at earlier stages of life.
- For effective delivery of dignity and non-discrimination, interventions need to be owned by high-level authorities, at all other appropriate levels, and between levels of implementation and governance. EU policy needs to promote and support effective integration across these levels of governance and the capabilities of communities.
- There is a need for shared frames of reference and common language with respect to the guidance in ICT for older people such that they reflect EU principles and priorities in non-discrimination and equality of treatment for all.
• Strengthening the involvement of older people and people with disabilities at all levels in the design and development of technologies and services will produce more effective outcomes by facilitating a closer fit between the heterogenous requirements of users and the specifics of provision, with the potential to decrease the wastefulness of non-use or abandonment of inappropriate technologies. For economic as well as non-discrimination reasons, future EU policy should incentivise user involvement.

• To support dignity and non-discrimination, the effectiveness of ICT initiatives should be evaluated by considering the processes involved as well as the impact of use/non-use of technological solutions to challenges faced by Europeans of all ages. The impact on older people should be considered across the broad spectrum of technological development and not just in relation to age-related assistive technologies. To support dignity in the use of ICTs, EU policy should establish protocols for the evaluation of EU-funded ICT projects regarding both impact and processes.

Value Ageing is a Marie Curie Industry-Academia Partnerships and Pathways Action. It comprises nine European partners from a range of sectors and disciplines: the Centre for Science Society and Citizenship (CSSC) in Rome (co-ordinator); The Austrian Academy of sciences, Institute for technology assessment; Technalia, Spain; the Free University of Brussels; Frontida Zois Ltd, Greece; INNOVA SPA, Italy; the Netwell Centre, Ireland; Queen’s University Belfast, UK and Vegan Solutions SRL, Italy.

Value Ageing’s goal was to foster co-operation between non-commercial and commercial organisations on a joint research project aimed at the incorporation of Fundamental Values of the EU in Info-Communication Technology (ICT) for Ageing. The project consists of seven inter-related work packages. Capacity development of Early Stage Researchers (ESRs) across different sectors within the partnership was a key component of the project.

The Netwell Centre in Dundalk led the delivery of Work Package One, which addressed five questions:

1. To what extent is ICT development threatening older people’s dignity and putting them at risk of discrimination?
2. To what extent can ICT become a resource to prevent offences to older people’s dignity and to prevent ageism and exclusion?
3. To what extent are eInclusion and eAccessibility policies effective to prevent offences to older people’s dignity and to prevent ageism and exclusion?
4. To what extent are current EC policies in this field effective to promote respect for older people’s dignity and eInclusion?
5. What are (if any) the main policy gaps to be filled?

These questions were addressed over four years (2010 – 2014) in a series of four incremental research projects delivered by the Netwell Centre, CSSC and QUB. (1) The Netwell centre developed the workplan for the whole package with the involvements of an Early Stage researcher (ESR) seconded from Frontida; (2) an ESR was seconded from Netwell to CSSC to carry out an analysis of EU policies on eInclusion and eAccessibility; (3) QUB compiled ten business cases illustrative of best practice in eInclusion and eAccessibility for older people: an ESR from INNOVA contributed to this task. (4) a composite report providing a comprehensive analysis of the contribution of ICT to dignity and nondiscrimination of older people was carried out by the Netwell Centre by two consecutive Experienced Researchers (ER). The findings of this research have been subjected to to an external review and validation process.
1. Introduction

“Dignity is promoted by a society that supports civic standing by providing adequate income, decent housing, and access to a range of other necessities of life, including education and health care. Such social orders ‘invest in their citizens,’ providing the underpinnings of a dignified existence not out of pity or charity, but to answer the demands of fairness and equity. Just as with vulnerability, antipathy, asymmetry, harshness, and inequality, the contextual conditions of dignity promotion are intertwined and mutually reinforcing. A social order of justice and humane circumstances have a reciprocal relationship with one another and with the other conditions of dignity promotion. Humane circumstances place actors in positions of confidence and compassion. Solidarity commands a social order of justice. A just society provides the tangible elements that constitute a dignified life. Compassion, demonstrated through processes like courtesy, acceptance, and love, creates the humane environments in which dignity thrives. From positions of confidence, individual and collective actors may have the security to interpret gestures in ways that lead their responses to be characterised by resistance rather than shame.”

(Professor Nora Jacobson, 2012: p150)

1.1 Value Ageing

Value Ageing was a 48-month Marie Curie Industry-Academia Partnerships and Pathways Action which aimed to foster co-operation between non-commercial and commercial organisations on a joint research project. The focus of the research is the incorporation of Fundamental Values of the EU in Info-Communication Technology (ICT) for Ageing. Co-ordinated by the Centre for Science Society and Citizenship (CSSC) in Rome and subsequently by the Vrije Universiteit Brussels, Value Ageing comprises nine European partners from a range of sectors and disciplines. The eight partners working alongside CSSC are The Austrian Academy of sciences, Institute for technology assessment; Technalia, Spain; the Free University of Brussels; Frontida Zois Ltd, Greece; INNOVA SPA, Italy; the Netwell Centre, Ireland; Queen’s University Belfast, UK and Vegan Solutions SRL, Italy.

The overall goal of the Value Ageing IAPP Action is to create the opportune framework for inter-sectoral mobility and knowledge sharing through non-commercial research centres and industry on the way to better address social, ethical and value implications of ICT for Ageing. It is envisaged that this framework will pave the way for longer term co-operation programmes based on joint research partnerships between academia and industry. This goal is underpinned by
overarching set of objectives: 1) to carry out a comprehensive fact finding exercise; 2) to develop specific metrics, and creating a database of best practices; 3) to identify, evaluate, display and distinguish alternative policies. These objectives are pursued using a pathway approach which employs multiple, co-ordinated, projects embedded within the seven inter-related Value Ageing work packages.

WP1 ICT-developments impacting on dignity and non-discrimination of older citizens
WP2 ICT-developments impacting on freedom and autonomy of older citizens
WP3 ICT-developments impacting on Older People’s Living Conditions and Environment
WP4 Corporate Social Responsibility (CSR) and Ethical Codes in ICT for ageing industry
WP5 Technology Trends and Emerging ELSHI Scenarios
WP6 Best Practices Identification, Analysis and Collection
WP7 Governance Issues and Policy Options

1.2 Value Ageing Work Package 1

The overall objective for Value Ageing Work Package 1 was:

To carry out a comprehensive, interdisciplinary, and inter-sectoral analysis of the main ICT developments which impact on the dignity and non-discrimination issues of older EU citizens. This objective was broken down into four separate, incremental actions.

Action (1) completed in May 2011, was an overall definition of the problem and WP implementation plan. This work was led by the Netwell Centre in Ireland with input from an Early Stage Researcher (ESR) seconded from Frontida, Greece for six months and is reported in D1.1.

Action (2) completed in February 2012 focused on an analysis of EU policies on eInclusion and eAccessibility. This action was led by CSSC in Italy with input from an ESR seconded from the Netwell Centre and is reported in D1.2.

Action (3) completed in September 2012 was a collection of 10 Business Cases highlighting good practice in ICT. This action was led by Queen’s University Belfast with input from an ESR seconded for six months from Frontida, Italy and is reported in D1.3.

This report (D1.4.1) constitutes the fourth action in Value Ageing Work Package (1) and was written by the Netwell Centre in Dundalk Institute of Technology, Ireland. An Experienced researcher (ER) was recruited for two years to work on D1.4.1 and D1.4.2 (report on dissemination activities associated with WP1). Following the mid-term resignation of the ER, a second ER was recruited to complete the work on D1.4.1 and D1.4.2. This work was completed in June 2014.

Work Package (1) is explicitly focused on the dignity and non-discrimination of older citizens and along with Work Package (2) ICT-developments impacting on freedom and autonomy of older citizens provides a theoretical basis for much of the work

D1.4.1 is divided into three parts. The first part (A) contains Chapter One (introduction) and Chapter Two which provides a review of the three reports that contain the foundational basis for D1.4.1. The review in Chapter 2 includes: a summative analysis of the objectives for each of the three deliverables including key findings and results (Jacobson’s model is outlined in chapter 2 and a more detailed analysis is provided in Chapter 3); a description of the activities and resources associated with each deliverable and an analysis of the Transfer of Knowledge (ToK) component associated with each secondment. Part B of the report contains Chapters Three and Four and constitutes the main body of D1.4. Chapter Three builds on the foundational work described in Chapter Two to address the five questions at the heart of Work Package (1):

1. To what extent is ICT development threatening older people’s dignity and putting them at risk of discrimination?
2. To what extent can ICT become a resource to prevent offences to older people’s dignity and to prevent ageism and exclusion?
3. To what extent are eInclusion and eAccessibility policies effective to prevent offences to older people’s dignity and to prevent ageism and exclusion?
4. To what extent are current EC policies in this field effective to promote respect for older people’s dignity and eInclusion?
5. What are (if any) the main policy gaps to be filled?

Chapter Three of the report has been subjected to an external review and validation process. This process included interviews with five European specialists, a review by primary, secondary and tertiary stakeholder groups and an online public consultation. Chapter Four sets out the recommendations and conclusions from WP1 and Part C, Chapter Five provides a description of the validation process. A summary report for D1.4.1 ICT-developments impacting on dignity and non-discrimination of older citizens is available in Annex 1.

2. Review of WP1 Reports – Partnerships and Pathways

The three reports (D1.2, D1.3 and D1.4) which form the substance of the work package each contribute to the outcomes of WP1. D1.2 provides and analysis of eInclusion and eAccessibility policies in the EU. This knowledge is taken further by D1.3 which sets out 10 best practice case studies. The findings from both reports are expanded in D1.4, which provides a detailed analysis of the meaning of dignity and nondiscrimination for older people and provides a meta-analysis of the good practice cases, in the wider context of expert and community validation and with consideration of the context of emerging technologies.
A major strength in the VA project has been the synergy and cross fertilisation of ideas that resulted from the ESR secondments, and exchanges across sectors and organisations. These exchanges have helped to build shared knowledge and strengthen the philosophical basis for the Value Project. For example the ESR researcher from Frontida who worked with the Netwell Centre in early 2011 on Work Package (1) definition and plan subsequently hosted an ESR from Queen’s University Belfast for three months (autumn 2011) to work on Value Ageing WP2 ICT-developments impacting on freedom and autonomy of older citizens and WP3 ICT-developments impacting on older people’s living conditions and environment. In the summer of 2011, Netwell hosted an ESR from INNOVA (Italy) to work on WP 3 (ICT-developments impacting on older people’s living conditions and environment) and in September 2011 an ESR from Netwell was seconded to CSSC (Italy) for three months to work on D1.2. In early 2012 Netwell hosted a second ESR from Frontida this time working on WP 2 (ICT-developments impacting on freedom and autonomy of older citizens) the report for this work package (D2.3) was completed with input from an ESR at Netwell who subsequently (September 2012) was seconded to work with CSSC (12 months). The relevance, impact and key outputs of the Value Ageing secondments and associated activities are examined in chapter two.

2.1 Overall Problem definition and Work Package Implementation plans: D1.1

The NETWELL Centre in Dundalk, Ireland was the partner with overall responsibility for Value Ageing Work Package One: “ICT-developments impacting on dignity and non-discrimination of older citizens.” D1.2 sets out the work plan for the whole work package and consequently NETWELL was the partner responsible for it. An ESR from Frontida, Greece was seconded to NETWELL for six months to contribute to this work.

2.1.1 Review of Objectives D1.1

The purpose of the WP implementation plan D1.1 was to ensure that all activities in WP1 were correctly aligned with VALUE-AGEING goals and objectives, and also that accountability and ownership (by specific partner) for associated activities was explicitly stated and endorsed. The objective for D1.1 was to write a detailed plan for implementation of the work package, which included:

1. An operational definition of notions of respect for human dignity and non-discrimination of the older people.
2. A statement of goals and objectives
3. A description of deliverables
4. A description of human resource allocation
5. Development of a dissemination plan for findings from WP1
6. A plan to support transfer of knowledge within WP1
7. Identification of stakeholders to be involved in the study
2.1.2 Work Carried out D1.1

All of the objectives above were completed on time. An exploratory review of the literature on dignity and non-discrimination ageing and technology was carried out, using the online library facilities at Dundalk Institute of Technology. The literature review was used to identify theoretical frameworks and definitions to guide the other WP1 activities and outputs. Stakeholders willing to support WP1 were identified in collaboration with other Value Ageing Partners.

Resources used: internal resources at Netwell Centre and 1 seconded ESR from FRONTIDA for six months

Transfer of Knowledge Frontida and Netwell

The ESR seconded from Frontida to Netwell was Georgio Koumanakos executive manager at Frontida. Georgio has a BSc in Physical Education and a MSc in Telematics Management.

Activities performed and followed

The task of Georgio Koumanakos, agreed in the cooperation plan between him and Dr. O’ Hanlon was in the A1.1 deliverable with title “Overall problem definition and WP implementation plans” and more specifically the subtask “WP Overview and problem definition, which should include an operational definition of notions of respect for human dignity and non discrimination of older population” - also focusing on the dignity issues regarding the carers of elderly people.

An induction week was prepared by Netwell, regarding the ESR's orientation in the new environment. Visits to older people experiencing problems related to the research scope were also scheduled. In addition several parallel actions were prepared within the hosting Institution, that concerned technology oriented projects similar in tone to Value Ageing (Home Sweet Home ICT-PSP project), in order for the ESR to gain further experience regarding new technologies and ageing. Additional meetings were also regularly held between the ESR and Dr. O’ Hanlon for exchange of know-how, experiences and opinions upon the subject of dignity. Georgio was instructed to prepare a literature review concerning dignity and ageing and for this purpose he constantly used the infrastructure of the Netwell Centre and had regular meetings also with Dr. Una Lynch who gave further guidelines during the progress of the research.

Knowledge and skills acquired from the collaboration:

Georgio Koumanakos came to the research organisation Netwell centre from a senior management position at a private organization providing primary care at home. For him the most significant outcome of the secondment to Netwell was gaining the thorough and detailed knowledge and know-how to conduct a literature review. The whole procedure was analyzed and explained and he had the opportunity to get
familiar with the methodology and practice of such a task. In addition, he had the opportunity to get familiar with state-of-the-art technology concerning assisted living for elderly people. He was able to visit and see the living conditions of older people living in specifically designed apartment complex, with many innovative applications concerning the monitoring and assistance of elderly people.

Georio reflected that the transfer of knowledge and constant communication with the scientific supervisor of his secondment was crucial to achieving the aims of the secondment.

**Overall impressions of collaboration in Value Ageing**

Georio found the experience of working in a heterogeneous environment to be very useful. There was an exchange of valuable information concerning methods and practices, and different approaches to common issues and problems. He found that presenting and explaining his tasks, experiences and field of acting as the seconded person improved his synthetic skills and analytic abilities. At the same time he found great benefit from getting to know a new environment within the EU with a different mentality and way of acting, and also the volume of knowledge involved in an Industry- Academia exchange. He found that the biggest challenge was ensuring the success of the common effort to find a mutually acceptable way of working. In this challenge it was of the first priority all matters concerning the research should be explained in detail and understood by both parties.

**2.1.3 Key findings and significance of the results of D1.1 for WP (1)**

The lack of clear, robust definition for dignity was identified as a major weakness in identifying the impact of ICT on older people’s dignity: and this was reflected in different responses within the validation process to the concept of ‘dignity’. Reflecting the Value Ageing goal of strengthening the potential of ICT to promote and protect dignity and non-discrimination of older people, Nora Jacobson’s model of dignity was chosen as the theoretical framework underpinning the workpackage. The model is grounded in a human rights approach and was used in conjunction with the Capability Approach developed particularly in work by Amartya Sen and Martha Nussbaum. The Value Ageing context of ICT implementation in the lives of older Europeans presents new challenges in dignity encounters between older people and those who introduce them to technologies or assist in their use, requiring a sensitivity to practical ethics.

**2.1.4 Research problem/question**

The umbilical link between human rights, health and dignity has been recognised by The Committee Social Economic Social Rights’ (CSES, 2000). More recently the Marmot Commission on health equity (CSDH, 2008) emphasized the central role of the social and economic determinants of health in enabling individuals and communities to achieve their full potential. The WHO identifies three key areas related to the determinants of health (1) the social and economic environment, (2) the physical environment, and (3) a person’s individual characteristics and
behaviours. Although not yet explicitly recognised as a determinant of health and wellbeing, ICT has the potential to make a major contribution, particularly with regards to promoting dignity and equality of opportunity for older people. It also has the potential to produce harm. Yet the notion of dignity is shrouded in ambiguity (Macklin, 2003) and this reality combined with a lack of tangible measurements (Nordenfelt, 2004) have, it is argued, made dignity a difficult concept to actualize. The VA Work Package 1 team sought to address these deficits by carrying out a comprehensive, interdisciplinary, and inter-sectoral analysis of the main ICT-developments impacting on dignity and non-discrimination issues of older EU citizens.

2.1.5 Theoretical framework

The definition of dignity and non-discrimination guiding WP1 reflects the symbiotic connection between three elements the person, environment and the wider social and political context in which interactions take place. Nora Jacobson’s work on dignity and the capability approach (Sen and Nussbaum) provide the theoretical framework underpinning WP1. These approaches were used (in conjunction with the technology acceptance model, TAM) to assess the impact of technology on dignity and equality. WP1 identifies autonomy and respect as concepts integral to the realisation of dignity and nondiscrimination for older people. Jacobson argues that all encounters either promote or violate dignity. Her theory focuses on three separate but interrelated dimensions to ‘dignity encounters’: the actors, the setting in which encounters take place and the wider social and political context. The VA definition of dignity builds on Jacobson’s work which identifies two types of dignity ‘human dignity’ and ‘social dignity’: “Human dignity is a principle, the value that belongs to every human being simply by virtue of being human. Social Dignity is generated in the interaction between and among individuals, collectives, and societies.” (Jacobson, 2009b: 1538)

Of particular relevance to Value Ageing is the fact that Jacobson’s work is grounded in human rights and promotion of equality. Human rights, equity and health are interdependent and key drivers for the Value Ageing project. Equity is focussed on the distribution of resources in society, governed by human rights and the concept of social justice (Rawls, 1985). It has a moral and ethical dimension and is concerned with preventing or ameliorating differences that are unnecessary and avoidable or in other words those elements that are deemed to be unfair and unjust. Consequently in the promotion of non-discrimination of people on the basis of age, it is important not to treat ‘older people’ as a homogeneous group, or to loose sight of other potentially discriminatory factors such as education, disibility and geographical location.

The use of a human rights framework has a capacity to reverse the culture of ‘welfare dependency’ and ageism that characterizes services focused on older people: “Human rights offer a framework of rigorous analysis and anti-discriminatory work. Success depends on good monitoring progress – and the incorporation nationally and
internationally of institutions and policies that reflect those rights. Human rights instruments offer the hope of breaking down blanket discrimination.” (Townsend, 2006:175). Hence a violation of human rights is also a violation of dignity (Jacobson, 2009), and dignity has the potential to serve as a powerful vehicle in the pursuit of equalities including health equity. Of particular relevance to the VA work is De Hert’s argument that Rawlsian theory of political justice may be seriously compromised (if not completely violated) by a consensus driven interpretation of the EU values. “It is highly unlikely that having to choose between a small common core or a larger common core, that he [Rawls] would choose the latter.” (De Hert, 2005: 227). To ensure that social justice was a driver for Value Ageing WP1 all work was guided by the capability approach (Nussbaum and Sen).

2.1.6 Discussion

The demographic profile of the world’s population is changing rapidly. “Older persons are the world’s fastest growing population group. During 2010-2015, the annual growth rate for the population aged 60 years or over was 3.2 per cent - almost three times that recorded for the total population (1.1 per cent)”. (Beales, 2012). Despite the growth in numbers of older people the voices of older people are seldom heard in political discourse. Of course it is also risky to generalise and as there is no real agreement on what is meant by the term ‘older people’ and the voice of some older people is very well represented. Within Value Ageing the UN definition of ‘older’ as people aged over 60 years is used. That is not to say that Value Ageing treats older people as a ‘homogeneous’ group. In fact the whole VA project is underpinned by an understanding of the heterogeneity of old age and the huge inequalities of opportunities that exists amongst older people within the European Union. One of the intentions of VA work package one was to find ways in which the ‘voices’ of traditionally excluded older people might be strengthened through the use of technology.

2.2 Analysis of EU policies on eInclusion and eAccessibility: D1.2

Activities associated with the D1.2 report was led by CSSC. Activity commenced in month six and was completed by Month 12. An ESR was seconded from Netwell to CSSC to contribute to this work.

The ESR seconded from Netwell to CSSC was Verity Faith, Centre for Science, Society and Citizenship (CSSC), currently a PhD candidate at Queen’s University Belfast whose research include design for dementia. Verity’s background is in architecture, with BSc Hons architecture (Part I RIBA) and a distinction in BArch architecture (Part II RIBA).

2.2.1 Review of Objectives of D1.2

The purpose of D1.2 was to collect, compare and discuss the main EC policy documents in the areas of eInclusion and eAccessibility of the older population, with a special focus on the issues of respect for human dignity and non-discrimination.
The objectives for D1.2 relate to a review of the e-inclusion and eAccessibility policy cycle and included discussion of:

1. The agenda: how has EC agenda been set? What are EC policy priorities in these areas?
2. Policy Formulation: what parties have been and are involved in policy formulation? What policy options have been considered?
3. Adoption: when and by whom eInclusion and eAccessibility policies have been adopted? What are their sources of legitimation?
4. Implementation: have stakeholders been involved in policy implementation? to what extent these policies have been implemented in the whole EU 27 and in MSs?
5. Evaluation: are there mechanisms of formal or informal review of these policies? did these policies achieve expected results?
6.

2.2.2 Work carried out D1.2

All of the above objectives were completed on time. The tasks were accomplished using desk-based research, which was carried out in the CSSC offices in Rome. The research reported in D1.2 included an analysis of EU policy development and implementation in the area of e-inclusion and e-accessibility.

Transfer of Knowledge between CSSC and Netwell.

The ESR seconded from Netwell to CSSC was Verity Faith a final year PhD student (architecture). Ms Faith’s doctoral research is focused on way finding for people with dementia living in residential care. Since completing the secondment Ms Faith has shared the findings of her research and her experience at CSSC at two Value Ageing events. The first was a conference hosted by Value Ageing partner QUB in Belfast in March 2012. Delegates at the conference included Value Ageing partners and stakeholders (academics, carers, older people, policy makers, practitioners and SMEs) from across the island of Ireland, England and Scotland. The second event was the Value Ageing interim review meeting with the EU commission, which was held in Rome in June 2012. All Value Ageing partners participated in this meeting.

Resources used: Internal resources at CSSC + 1 seconded ESR from NETWELL for three months

The primary role of at Verity faith during her ESR placement at CSSC was to analyse the extent to which EU policy considers the dignity and non-discrimination of older people in relation to the development of technologies. The outcome of this was deliverable D1.2. ‘EU Policies on eInclusion and eAccessibility’. Verity’s further roles included involvement in regular theoretical discussions, meetings and delivering verbal presentations within the office of CSSC. She also participated in a Value Ageing tele-conference, and in connection with her work on the project she reviewed an academic paper on bioethics. The focus of Verity’s secondment was to define dignity in relation to older people and the degree to which these were considered during the development of technologies and ICT. Dignity was determined to be applicable to all, regardless of their age or impairment, and it was therefore deemed that this was
important to be included within EU agendas for eInclusion and eAccessibility. However from carrying out this work it was found that the concept of dignity was often minimal, concealed, or even absent from the policies. This was found to be particularly the case post 2008, following the commencement of the Global economic crisis. The focus of EU policy on eInclusion and eInclusion seemed to then shift focus to “stimulating the European market” rather than instilling principles of ensuring the dignity of older people when developing new technologies and ICT interventions.

For Verity, the secondment in Rome at the private research centre CSSC allowed her to acquire research skills in completing reports and deliverables required for an EU funded project. The multidisciplinary team at CSSC offered insight from their various perspectives and this was useful in answering the research question. Verity reflected that she developed critical skills in reading and reviewing articles, and in developing theories on dignity and ethics. She has subsequently been able to adopt many of these skills and make use of them in her PhD programme. The ESR experience provided Verity with an insight to working on a large scale research project funded by the European Union and Marie Curie. She found CSSC to be welcoming and helpful to her, which provided her with support and enabled a smooth delivery of deliverable D1.2. Verity reflected that she thoroughly enjoyed the collaboration and learned much from it, which she has applied to her own PhD thesis.

For Verity, finding accommodation was the greatest challenge encountered in the secondment, since it was for a relatively short period of three months. Although She was assisted by CSSC, Verity experienced the upheaval of moving and finding somewhere to live. However she felt fortunate in being able to find somewhere within three days.

2.2.3 Key findings and significance of the results for the WP (1)

eAccessibility is intended to overcome technical difficulties experienced when participating in the information society, this is particularly important for older people and those with disabilities which correlate strongly with ageing. The quest for eAccessibility raises a number of issues. As noted in a report produced within the scope of the FP6 project 'eInclusion@EU', the goal of eAccessibility is essentially unbounded, in that it can never be fully achieved. With this in mind, it is essential that practical and realistic milestones are laid out as benchmarks for the movement toward an information society. The goal of eAccessibility is also somewhat paradoxical in that, in order to be truly inclusive, it must be possible for an individual to be able to choose to what degree they wish to engage with the information society, even if they wish to absent themselves from it, and not be denied access to essential services. It is here that the issues of preferences are key, and the need to avoid homogenous labelling is highlighted. The goal of creating a more inclusive society for the aged is beneficial only as part of a broader framework of ICT for all, as attempting to create a blanket framework for all members of an “aged society” may inadvertently reinforce the separation attempting
to be healed. With this in mind it is necessary to recognise the gap between disadvantaged and differentiated, both of which apply to the aged in society. Two people may share the same age, even possess the same capabilities, yet have an entirely different presence in the information society due to differing preferences. Regardless, they should both have control over the level at which they are part of the society and the degree to which their personal information is publicly accessible. Promoting recognition of the heterogeneous nature of what it means to be “aged” is a key part of Value Ageing. It must also be remembered that the goal of the information society is not the increased presence of technology in everyday life, but rather the increased efficiency of daily tasks and essential services aided by conscientious adoption and refinement of technology where appropriate.
The main sources of EU legal framework for eInclusion are within human rights law, considered to be the most important large body of soft law on ‘international framework on ageing,’ which covers provisions on equality and the information society, relevant to older persons and eInclusion. In the European context, the European Convention of Human Rights (1950) revised European Social Charter (1996) and the EU Charter of the Fundamental Rights of the European Union (2000) provides the most detailed information on human rights. The Treaty of Lisbon (2009) is also concerned with equality, under article 9 which is against social exclusion and for education, health and training. Age discrimination in employment is forbidden in the EU aquis (Mordini & De Hert, 2010). There is a growing body of rules to regulate the information society. Mordini and De Hert (2010) explain that the evolution and widespread application of rights for all during the 20th Century has continued placing an impetus on duties of persons, actors and states to respect status (specific capabilities), gender, ethnicity, culture and basic rights for health, education and income. This is manifested in the introduction of human rights conventions for women (1979), children (1989) and disabilities (2006).

1 This explanatory diagram was developed by Value Ageing ESR Verity Faith as part of her work on D1.2 (p.)
2.2.5 Dignity

Value Ageing is concerned with the link between ethics and dignity of older people in relation to research and development of new technologies. EU policy has a role to play in this, ensuring that dignity of older people is upheld. The modern meaning of dignity is that is inherent, inviolable and inalienable to all. This is the basis of human rights which is at the core of the values of Europe. Dignity empowers humans and as moral beings we should not violate this through humiliation, threat, degradation or demeaning others. D1.2 argues that we are all vulnerable to some extent and recognition of the fragility of all human life is significant in ensuring our dignity and worthiness. The report cautions against the ageist attitudes behind labels such as ‘older people’ and the inherent risks of treating ‘older people’ as a homogenous group. It argues that such practices deny dignity by going against our innate humanity and affinity for the rights of all people, regardless of their physical or cognitive decline. The importance therefore of engagement with a very broad spectrum of older people in technology related R&D is highlighted as an important means to safeguard and promote their dignity. Reflective of Sen’s work on descissive decision making, D1.2 also highlighted that older people’s previous roles should be acknowledged and there is a need to consider dignity for older people in the research and development of technologies. Cultural or social changes which have been felt by older adults may affect their perception of and attitudes to technologies and it is the responsibility of EC policy to prevent exclusion and eliminate disadvantages or inequalities consequent upon introducing new technology.

One of the most important steps toward an inclusive European information society identified by D1.2 was the Riga declaration of 2006. This defined Member States and EFTA country priorities as follows:

- Needs of older workers and older people
- Geographical digital divides
- eAccessibility and usability
- Digital literacy and competences
- Cultural diversity in relation to inclusion
- Inclusive eGovernment

The risk of disability increases with increasing age, and disability as one of the key factors identified in the digital divide. Furthermore people with disability often experience humiliation or prejudice, which undermines individual dignity and sometimes causes physical or mental harm. The World Health Organisation (WHO) has identified that dignity is also offended when a person is, on the grounds of disability, denied autonomy or refused access, equality or respect for personal capacities. Some older people often have proportionally higher levels of poor e-literacy and are more likely not to engage with ICT.

2.2.6 eInclusion

Digital services as well as technological devices need to be accessible, and the simplest switch over from traditional technologies to digital ones can prove problematic if information and support is not adequate. Yet technologies can relieve burdens and promote autonomy, stimulating the economy through more
participation by older people. ICT can bridge distances and reduce loneliness, enabling older people to achieve a better quality of life.

E inclusion stems from the concept that ICT should be enjoyed by all. The role of the digital society is to enhance ICT use in relation to work, social (communication), culture, entertainment and leisure and political dialogues. The aim is to reduce the gaps in ICT use and by promoting ICT, it is intended that exclusion may be overcome. This has the potential to improve economic performance, quality of life, social participation and cohesion. ICT can enable older people in daily activities such as monitoring health, creating social networks, increasing participation in the information society and augmenting safety. However, technological advancements are also frequently linked with delivering care, moral and ethical questions relating to risk, choice and respect for human rights arise. In this context it is imperative that human rights are not compromised. Age Platform has identifies key principles to support ethical practice to maintain the end-users human rights. These are:

- upholding autonomy and consent,
- assessing benefice (balancing risk, aversion, safety and independence),
- avoiding harm,
- respecting decisions (dignity, integrity and personal preferences) and
- maintaining justice.

There is currently no uniform situation with regards to e inclusion, and only a small amount of ‘best practice’ understood. Whitney et al. (2010) suggest that the role of the academic world is to create mainstream awareness through University courses relating to ICT and design. These should address social and ethical issues leading to an awareness of the needs, opportunities and challenges of including all. In industry principles need to be applied to remove the ‘lack of knowledge’ which was seen as a main barrier in a study of Germany and Ireland (Whitney et al., 2010). The specialist element in mainstreaming will benefit stakeholders and older users of technology who will enjoy better engagement in society, improvement to health services, a better quality of life and remaining active for longer.

The D1.2 analysis of EC policy on E inclusion and E accessibility in relation to dignity and non-discrimination concluded that there is generally a lack of consistent reference throughout EU policy to human rights, dignity and equality. These concepts may be mentioned briefly at the start of a document but the focus often shifts (without contextualising the relevance of dignity) elsewhere, particularly to the need to address the broadband gap; to promote eGovernance (especially for those who are housebound to promote participation in the modern society); and to avoid isolation and deliver training in ICT skills where appropriate. These are matters where issues of dignity are implied, hence this is an area which could be better addressed in future policies, explicitly placing the emphasis back on issues of dignity of older people. In terms of legitimisation, it is important to bear in mind threats to human rights posed by highly modern technological societies. This perspective features
prominently in the EU Charter of Fundamental Human Rights (2000) but is absent from the revised European Social Charter, 1996 (Mordini & De Hert, 2010).

The analysis in D1.2 reveals that EU policy on eInclusion and eAccessibility is focused on matters relating to the economy. Analysis of policy documents post 2007 suggests that the global economic downturn appears to have exacerbated the focus on economics, and it is argued that if left unchecked this trend will result in a widening of access and greater inequality. An analysis of the context of reports made before and after the economic downturn reveals how the focus has become less concerned with upholding dignity and non-discrimination of older people and more centred on economic growth.

2.2.7 Discussion D1.2

The Value Ageing report D1.2 sets the definition of dignity within a historical context and human rights context. It suggests that in principle dignity is inherent and for all, irrespective or state of mental or physical wellbeing, gender, sex, religious beliefs or race and should therefore be explicit within contemporary European policy. The definitions of dignity highlighted in D1.2 are expanded further in D1.4, with a consideration of dignity in practice.

D1.2 suggests that for eInclusion and eAccessibility to become a reality it is imperative to understand the user’s needs. To this end it calls for better engagement with older people in research and the development of technologies. Issues are identified that still tend to show a lag on eGovernment. These include digital literacy, the notion of active ageing, supportive infrastructure and services and targeting of remote areas (Gheorgiu and Unguru, 2009). The increasing pace of technological development is characterised as adding more frequent challenges to eInclusion and eAccessibility policy, with this pace of development set against a backdrop of current non-discrimination and dignity related policies. Analysis of these policies “feel like token matters which are mentioned as another benefice in employing the policy to stimulate the markets and economy” (VA D.1.2 p39). This observation is echoed in a detailed analysis of the economy (Codagnone, 2009) which also shows the neglect of dignity and non-discrimination issues with preference given to motivating the economy.

D1.2 highlights factors that can reduce or remove respect for dignity, the influence of the media towards attitudes on older people among them. It acknowledges the repeated mention of ‘user-rights’ in EU eAccessibility and eInclusion policy, but argues that policy needs to be enhanced to reflect the unique needs and heterogeneity of older people. Mordini and De Hert (2010) describe eAccessibility as an important element to make plans for the information society more viable and include people who experience disabilities. While the EU lacks a specific piece of legislation on eAccessibility, EU directives on Electronic Communication provide the current legal framework, based within fixed telephony services. Its purpose it to
promote choice, price, quality and access. The evidence is that the majority of companies held online accessibility (addressing visual, dexterity and literacy issues which are particularly relevant for older people) as a low priority issue. This is somewhat problematic since there needs to be coordination and implementation of policy within industry for successful eInclusion and eAccessibility. Technologies should not be forced on older people, meaning an artificial ‘need’ is created where there was never really one. Advocating dignity in EC policy and successfully implementing it should mitigate other intentions, which may be purely orientated around the economy. This premise comes from technology which has been developed and is inappropriate (overcomplicated or too simple, maybe even patronising) in some instances.

The diversity of Member States in Europe was judged to be significant. It is evident that the prevailing inequalities in eAccessibility and eInclusion are related to the wide range of capacities or intentions of implementing policy. Culture, economy, political and social responses, specific to each country can be influential in this case. A fact illustrated by the priority which some countries have given to improving broadband speeds to ‘ultra-fast or high-speed’ while others were still struggling with more basic infrastructure and obtaining 100% broadband coverage. Europe 2020 is recognised as a visionary document and as an important driver for developments in policy across the region. It argues that actions to support the dignity of older people in terms of eAccessibility and eInclusion needs to be embedded within these developments. “The current economic climate may be untimely and inconvenient for the market; however, this application should make more suitable and feasible options” (VA D.1.2 p40).

The D1.2 process of evaluating and benchmarking the success of the various EC policies showed that there are still gaps and targets that have not been met. For example the target of 100% broadband coverage in Europe (i2010) has not been met, nor the access to public websites. The effectiveness of the policies must therefore be questioned. The authors of D1.2 suggest that there is much scope for enhancing the role of stakeholders and potentially the media in raising awareness, coordinating efforts for eAccessibility and eInclusion. The media (as a stakeholder) is potentially powerful (potentially because they may or may not have an interest in the issues) in influencing other stakeholders, the government and raising awareness of issues experienced by older people. This they suggest could improve the efficiency of the transfer of ideas, providing an up-to-date platform, bridging the gap between the industry and end-users.

Advances in technology make it unclear how far technology can go. This uncertainty raises issues of privacy and data protection, blurring and making it unclear what the boundaries are in preventing intrusion. This is especially relevant since older people are often considered vulnerable. This vulnerability may make them more accepting of invasion of their own privacy through the use of technologies in return for sense of
better personal safety or security. It is also the case that people who are excluded from access to, for example, digital information, social media and citizen journalism are less likely to be informed about developments that might impinge upon their interests or privacy. It is therefore pertinent for older people to become more effectively involved in the research and development within the technology industry, and EU policy makers to ensure that fundamental values such as dignity and non-discrimination are always respected and are at the heart of research and technological development.

2.3 Collection of Business Cases: D1.3

Queen’s University Belfast (QUB) was the partner responsible for this Value Ageing report. The timeframe for the work was month 12 to month 24, and an ESR was seconded to QUB from INNOVA for six months to work on the report.

2.3.1 Review of Objectives

The purpose of D1.3 was to collect and compare 10 business cases concerning public and private sector projects in the field of eInclusion and eAccessibility. The business cases were to be geographically balanced and covering different policy targets. This desk based research was to be carried out by using Internet search and direct contacts (i.e. via email and phone calls) with people involved in the selected projects. Data was to be collected according to the following grid:

1. What are the specific problems addressed by the project?
2. What are the strategic goals of the project?
3. What are the project’s basic requirements?
4. Cost/benefit justification of the project, which should include both financial and non-financial cost and benefits, in order to take into account also societal benefits and costs.
5. How does the project protect human dignity of elderly people?
6. How does the project oppose discrimination against older people?
7. Lessons learned from the project

2.3.2 Work Carried out

All of the above objectives were completed on time and were accomplished using desk based research, which was carried out in Belfast. There were three key tasks associated with D1.3: development of clear definitions for e-inclusion and e-accessibility; identification of 50 potential business cases which use ICT to the needs of older people, and a detailed analysis of 10 business cases using the Value Ageing grid (above) and the Jacobson’s model of dignity.

Transfer of Knowledge. The ESR seconded from INNOVA to Queen’s University Belfast was Domenico Ferulli an electrical engineer.
Resources used Internal resources at Queen’s University Belfast + 1 seconded ESR from INNOVA

2.3.3 Key findings and significance of the results for WP (1)

The actions associated with D1.3 resulted in three key outputs: development of robust definitions of e-inclusion and e-accessibility, compilation of a database of 50 potential business cases which use ICT to the needs of older people and analysis of ten business cases illustrative of good practice with respect to e-inclusion and e-accessibility. The business cases were anlaysed according to the VA grid and Jacobson’s ‘dignity encounters’ model.

2.3.4 Definitions of Einclusion and Eaccessiblity

The definitions of e-inclusion and e-accessibility underpinning the Value Ageing project are set out in full in Annex 3.

“Age” is not always a specified ground in the various EU treaties and laws. Nevertheless it is clear that older people are recognized as a vulnerable group who are entitled to enjoy equality and non-discrimination just like everyone else. Overall this means that they have the right to be integrated and be an active part of society, of which democratic participation is a key element. “To be a real success, the Information Society must share its benefits with the whole society, including people who find it more difficult to use new technologies, such as those with a disability and the elderly. The European Commission is promoting “eAccessibility” aimed at ensuring people with disabilities and elderly people access ICTs on an equal basis with others. This includes removing the barriers encountered when trying to access and use ICT products, services and applications.” (Europe’s Information Society, Thematic Portal, 2013)

The EU treaties recognize that differential treatment is sometimes necessary to ensure equal outcomes and also recognize that inequality can result from direct and indirect discrimination. It is therefore incumbent on States to take a proactive role in identifying and addressing discrimination and discriminatory practices. The EU directives designed to enable Member states to incorporate these principles into their national laws were initially directed at racial and ethnic minorities and discrimination in relation to work. The latest directive, which was still under discussion, aimed to tackle discrimination on a range of factors including age and disability outside of the employment sphere. The recognition of direct as well as indirect discrimination is significant for older people’s access and inclusion to ICT because equal treatment (ignoring older people’s special needs) is likely to result in exclusion, which constitutes indirect discrimination. Older people and people with disabilities have to be involved in identifying, monitoring and evaluating eAccessibility and eInclusion challenges that they experience. The policies on eAccessibility and eInclusion focus on enabling active participation in the digital world. EAccessibility and eInclusion are not only seen as benefitting older people and
people with disabilities: they also have the potential to ease the administration (and cost) of public service delivery. As such they represent a considerable gap in the market which could drive demand for more and improved services. The Europe 2020 Strategy was designed to help Europe out of the economic recession and foresees the digital world as contributing to economic growth and social inclusion. Older people’s access and inclusion in ICT are an integral part of the Digital Agenda of the EU 2020 strategy. These priorities are particularly evident in relation to research and innovation; the improvement of digital literacy and the development of sustainable health care.

2.3.5 Business cases

The primary purpose of D1.3 was to explore the ways in which technology could be influential and enhance inclusion and eAccessibility for older people. To this end 10 business cases in the field of eInclusion and eAccessibility were analysed in depth. The first stage in this analysis was the creation of a database of ‘potential cases studies’. The database is comprised of 50 EU projects spread across the public and private sector (Annex 3). The 10 business cases that were analysed in-depth were selected from this database on the grounds that they demonstrated effectiveness, impact and innovation. The 10 case studies highlight a range of innovative approaches that are being used to promote the inclusion of older people within the digital environment. The selected business cases are listed in figure 2. This diagram also sets out the chronological order and duration of the business cases.

<table>
<thead>
<tr>
<th>1. Good Morning Project (UK)</th>
<th>Friendly call center</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Netti-Nysse (Finland)</td>
<td>Trining ICT in an internet bus</td>
</tr>
<tr>
<td>3. MediAbility (Sweden)</td>
<td>Digital storytelling</td>
</tr>
<tr>
<td>4. Seniornett (Norway)</td>
<td>Internet training sessions in clubs</td>
</tr>
<tr>
<td>5. Inforum GG Competitions (Hungary)</td>
<td>ICT supported intergenerational competition</td>
</tr>
<tr>
<td>6. FRR (Austria/Hungary)</td>
<td>Smart accessible restroom</td>
</tr>
<tr>
<td>7. User Centre Group of Dundee (UK)</td>
<td>Social network involving older people in research</td>
</tr>
<tr>
<td>8. COGKNOW DayNavigator (EU 8 Countries)</td>
<td>ICT solution to support dementia sufferers</td>
</tr>
<tr>
<td>9. PICAV (EU 6 Countries)</td>
<td>Smart personal vehicle</td>
</tr>
<tr>
<td>10. REACH112 (EU 9 countries)</td>
<td>Total conversation</td>
</tr>
</tbody>
</table>

Figure 2 : Business Cases Timeline

(Source: Ferulli, D., Gamal, M. and Hadjri, K. 2012 p.143)

Value Ageing WP1 D1.3 briefly outlines the 50 business cases from which the selection was made, and goes into more detail and analysis of these 10 selected cases. They ten include government and private initiates, a forum and EU consortia, providing a rich insight into how technology is being used in ways that promote dignity and enhance the lives of older people across Europe.

2.3.5.1 Good Morning (UK)  http://www.goodmorning.org.uk

The Good Morning project started in Glasgow (Scotland) in 2000, subsequently spreading to numerous sites in Scotland and Northern Ireland, and is on-going in 2014. Good Morning consists of a call centre, mainly staffed by volunteers and part-
time staff. The technology used is basic, comprising PCs, phones and software to enable regular scheduled friendly calls to older people living in the community. The Good Morning project’s main focus is to enable older people to retain independence as long as possible by improving life in their own home and community, and to:

- reduce isolation and exclusion – encouraging dialoguing social engagement
- improve emotional well-being via regular friendly and positive phone calls
- improve feelings of being safe - the phone calls allow a periodic check on the health status of the older person at home, and can be used to remind people both to follow their prescribed therapy and to practice safe and healthy behaviours.
- alert to potential health problems – when an older person refers to a health problem or if a call remains unanswered, the operator alerts nominated contact persons or the emergency services
- connect people into their community – the operators stimulate the older people to join in a community and to enjoy the advantage this brings in their social life.

2.3.5.2. Netti-Nysse (Finland)  http://kirjasto.tampere.fi/index.php/kirjastot-ja-aukiolot/netti-nysse/
Netti-Nysse began in 2001 and is on-going in 2014, based in Tampere, Finland. The Netti-Nysse concept is a bus equipped with ICT technology including interconnected computers and internet access, which can deliver free training courses in basic computer and internet skills to digitally excluded people in their local communities. The bus also includes a 10-seater auditorium with a projector and audio-video equipment. The service has five full-time staff and is funded by a consortium of public and commercial organisations.

The main goal of Netti-Nysse is to help people to see the possibilities and benefits of Internet use and to enable them to make their own choices concerning their role within the Information Society. The bus is intentionally painted with bright colours to create a friendly non-threatening environment and to generate interest amongst people who see it out and about. The Netti-Nysse service is available for groups of people, clubs and societies. The official website gives people the chance to find out when the bus will be travelling to their neighbourhoods and to book a course.

2.3.5.3. MediAbility (Sweden)  http://mediability.wordpress.com
The MediAbility project took place in Sweden from February 2006 to June 2009, inspired by an idea of digital storytelling developed in California and modified in order to make it easy and inexpensive for excluded people. The project in Sweden was initiated by the Swedish Disability Federation.

MediAbility had two aims:

- to empower e-excluded people by providing them with the tools to make their own digital video stories.
- to get the media to focus its attention on eInclusion, and to use it as a voice for the e-excluded to the rest of the world.

Twenty-five 2-day workshops were organized, starting with oral story telling in small groups with peer-to-peer discussions and coaching in “story-telling and technology”.

http://mediability.wordpress.com
Participants were taught how to use video-making software programs such as MovieMaker for PCs and iMovie for Macs. Each video, typically 2 minutes long, was mastered to CD and was shown to the other participants.

2.3.5.4. Seniornett (Norway)  http://www.seniornett.no/
Seniornett is a voluntary organisation encouraging seniors (55+) to try the Internet. It receives annual funding from The Ministry of Education and Research and the Ministry of Government Administration and Reform, and some funding from industry and local authorities, as well as from club member fees. Seniornett teaches people how to use the internet in local public places such as clubs, libraries, senior citizen centres, social organisations and voluntary centres.
The Seniornett objective is to encourage people to try the Internet experience by delivering it in public places near their homes where they are used to meeting other people and where they can learn from each other. By attending Seniornett courses older people can develop their learning skills and have the opportunity to develop cognitive functions and to keep their brain active for longer. In addition, the ‘Senior-surf day’ is an annual open house event held at libraries and community centres nationwide for older adults to learn about ICT.

2.3.5.5. Inforum Grandparents/Grandchildren Informatics Competition (Hungary) 
Inforum was initiated in December 2003 and is on-going in 2014: during this period the competition has become a tradition, involving 1350 families, with media coverage and followed by decision makers. In this way it has promoted the elderly agenda as a political, welfare, quality of life and eInclusion issue. Inforum aims to highlight the importance of including older people in the Information Society. The annual competition joins families, seniors, children, decision makers and other organizations together to create a synergy to activate a change in society regarding discrimination towards the older generation. The competition uses the stimulating influence that children can have on their grandparents in order to motivate people to use ICTs. The will to win the competition with their grandchildren is strong and encourages grandparents to learn how to interact with technology. Inforum aims to be a reference point for the information society in Hungary, and lead the eInclusion movement in the country, fighting the digital divide and defending the user’s interest.

2.3.5.6. Friendly Rest Room (FRR) (Austria/Hungary)  
http://www.is.tuwein.ac.at/fortec/reha.e/projects/frr/frr_reallife.html
Friendly Rest Room is a consortium project which was partly funded by the European Commission in 2002 with the aim to carry out a study in several European countries in order to develop a more user-friendly toilet system for older and disabled people, thus increasing their independence, self-esteem and dignity. The project developed several prototypes of smart toilets and tested them with end users, and is on-going in 2014. The FRR project carried out the research into the
design, the engineering and the evaluation of prototypes. By involving people from the target group in the design phase, the project aimed to respond to the needs of a large number of older and disabled people. The user centred approach of the project began with the analysis of 316 toilet sessions involving 255 people of different ages and disabilities, analysing their behaviours, preferences and needs as well as the impact that product specification has on disabled people. A questionnaire was produced in five different European countries to investigate the need for innovative toilet design across a variety of geographical, cultural or gender differences and to evidence the main difficulties found by people using a normal restroom.

2.3.5.7. Centre Group of Dundee (Scotland)  http://usercentre.ning.com/
The User Centre was established at the University of Dundee in Scotland in 2005 and is on-going in 2014. The main goal of the User Centre is to provide a space for older people to become familiar with technology and benefit from learning opportunities, social interaction and research. Training courses can overcome the lack of computer skills among older people and encourage their participation in the digital world. Courses can take the form of formal class based training, or informal training by friends and family who act as “coaches”. Meeting spaces can be both physical, represented by the classrooms where lessons are held, and virtual, represented by the online social network embedded in the official website. In these spaces older people can meet up and teach each other or follow lessons provided by the trainers. Another objective of the User Centre Group is to involve older people as reviewers of some software, projects and initiatives which have older users as their target group. The project aim in this way to make the registered members of the group became potential protagonists in removing discrimination of older people in the Information Society.

2.3.5.8. CogKnow Day Navigator (EU, 8 Countries)  http://www.cogknow.eu/
The Cogknow project began in 2006 as an EU funded 36 month IST-FP6, and follow up projects are on-going in 2014. The Cogknow DayNavigator is a holistic embedded solution, which emerged from the original project. Designed to assist persons with mild dementia to take care of themselves within their own homes and outdoors, it includes a stationary touch screen, a mobile device, home-based sensors and actuators. Devices are networked together with the Cogknow server: a home based device through a home hub, and a mobile device through a broadband connection (or the home wireless when it is at home). The server has the capacity to relay information between people and carers through a dedicated web interface. The aim is to improve quality of life by promoting independence, safety and social interaction. The project aimed to:

- break through with research that addresses the daily needs of people with mild dementia, in order to address the most frequently identified neglected needs in the areas of information (on treatment, care and support, appointments); memory problems; communication; and psychological distress.
- prototype a portable, remotely-configurable, user-validated cognitive assistive technology to help people with the initial symptoms of dementia (including
memory loss) - to remember, maintain social contact, perform activities of daily living and enhance their feelings of safety for longer.

- promote associated services which are intended to interact with people who have mild dementia through the developed prototype. These should be unobtrusive in the provision of information, further support and reassurance and in the reinforcement of their cognitive functions.

### 2.3.5.9. Intelligent City Accessible Vehicle System (Picav) (EU, 6 Countries)

http://ec.europa.eu/research/innovation-ubion/ic2011/index_en.cfm?pg=project_detsails&project=picav

The strategic goals of the project were:

- to provide accessibility for all in urban pedestrian environments, creating a new mobility concept for passengers.
- to create an example of clean energy, efficiency, safety and Personal Intelligent City Accessible Vehicle (PICAV)
- to integrate into the existing urban transport system a fleet of PICAV units acting as a smooth link between walking, bicycle and conventional public transport.
- to develop PICAV units with a number of features including ergonomics, comfort, stability, small size, mobility, dexterity, step overcoming, onboard intelligence, assisted driving, eco-sustainability, parking in narrow places, vehicle/infrastructures intelligent networking, specifically designed for people with restricted strength or mobility, but enjoyable for all.

### 2.3.5.10. Reach 112 (EU, 9 Countries)

http://www.reach112eu/view/en/project.html

Responding to All Citizens needing Help. REACH 112 was a three-year EU-funded consortium project, which started in 2009 and aimed to implement more accessible person-to-person communications as well a person-to-emergency-service 112 communications. It was based on the concept of 'Total Conversation', consisting of simultaneous combination of voice, video (including sign language or lip reading communications) and real time text forms of communication. The target group was individuals for whom visual communication represents a significant improvement respecting voice-only communications: in particular deaf people and people with hearing impairments, including older adults suffering from hearing loss, people with speech impairments, and deafblind people. The strategic goals of the REACH 112 project were to:

- demonstrate that 112 emergency call centres could be more accessible if they were supported by more technologies
- demonstrate that the next generation of communication solutions can allow the deaf community access to emergency services which are currently inaccessible to them
- represent a flagship project for the EC in promoting the accessibility of the 112 emergency service
- promote the extension of IP-based communication and Total Conversation
• implement an accessible alternative to traditional voice telephony based on the concept of Total Conversation, that can be applied to all situations
• guide improvements in communication between citizens, in particular those with disabilities.

2.3.6 Dignity in the use of ICT

Taking dignity and non-discrimination as the cornerstone of Value Ageing WP1, the initial analysis of the 10 business cases in D1.3 looked at the extent to which each of them could claim to support dignity and non-discrimination of older people in the context of an ICT application or service. Reflecting Jacobson’s model with the person at the centre of dignity encounters, each case was illustrated to draw out what aspects of the case addressed individual encounters, the wider environment, and the policy context – for example figure ##

Figure 3 is an illustration of the dignity analysis of Cogknow using the Jacobson model.

The Cogknow tests done in Northern Ireland, Sweden and the Netherland reported a positive satisfaction rate from both the people with mild form of dementia and users and their careers.

The Cogknow mobile device supports the person with dementia to have independence inside and outside of the home and thus enables them to enjoy the benefit of walks in the surrounding environment and the beauty of nature.

The Cogknow project was acknowledged as a success case within the eInclusion policy in terms of addressing the needs of the ageing population. It started in 2006 as an FP6 European project and in 2009 was awarded the ACCESS-IT Best Practice label. Capitalising on the foundations laid by Cogknow, the EU approved two follow-up projects: MemoryLane and Rosetta.

Figure 3: The Cogknow project analysis in accordance with Jacobson’s model

2.3.7 Discussion

The findings of D1.3 are limited by the fact that they are based on analysis of published reports. Nevertheless the case studies presented in the report provide some rich insights into the possibilities and opportunities to promote eInclusion and eAccessibility for older people, and they have provided a basis for a contextualised discussion of how it is possible to translate theoretical concepts and ideals into practice affecting the experience of ICT by older people.

Through their promotion of eAccessibility and eInclusion, each of the selected business cases has contributed in different ways to developing more ICT-integrated living environments for older people. Giving older people access to these technologies has proved effective in many ways in improving their attitudes towards interactions and taking on new challenges, and helped to support social lives on daily basis. In each case, feedback from older people and others involved in these initiatives tended to be positive. Projects that focused on supporting older people
through online technology, network, media recording and communications, have substantially contributed to the increase in older individuals’ awareness of technology and facilitated an improvement in communications within wider social networks. Other projects used technology devices and services to help older people to safely and independently reach places and people and to fulfill aspirations that were previously beyond reach. The specific findings from the business cases demonstrated impact on individuals and communities in relation to: psychosocial benefits; health benefits; physical range and mobility; civic engagement; impact on others; and effectiveness in increasing older people’s engagement with technologies.

2.3.8 Lessons learned from the selected business cases

Comparing the lessons learned from the individual business cases revealed comonalities of good practice which have the capacity for impact on dignity and non-discrimination if they are carried forward into other projects of ICT aimed at improving the lives of older EU citizens. There relate to the design of physical technologies, services, and training initiatives; the design of research projects to inform the provision of technologies, services and training; the involvement of older people in design and research; engaging with media to inform on good practice; and understanding the basic principles of good practice.
PART B


3.1 Introduction

We are living at a privileged time in human history. Life expectancy in Europe is 79.7 years (Eurostat, 2013), and is increasingly rapidly. Improvements in healthy life expectancy mean that increasing numbers of people are reaching their three score and ten years, fit and well with aspirations, dreams and goals. Old age is however a socially constructed concept (Barrs et al. 2006) making definition of old age notoriously difficult,2 consequently there is dissonance between the reality of ageing in 2013, and societal perceptions of older people. Despite the improvements in health and independence of older people ageist stereotypes persist and as a result the discourse on ageing remains dominated by images of older people as a drain on society.

Paralleling the growth in numbers of older people are the rapid advances in the area of Information Communication Technology (ICT). The potential of these advances to enhance the lives of older people has been acknowledged: “ICT can help elderly individuals to improve their quality of life, stay healthier, live independently for longer, and counteract reduced capabilities which are more prevalent with age. ICT can enable them to remain active at work or in their community.” (EU Commission, 2010: 2). There is however a dearth of research on the impact of ICT as a tool for improving the lives of older people. It has been suggested that lack of evidence “may simply provide an excuse for governments not to pay for potentially useful interventions that have no ‘established’ evidence base.” (Blaschke et al, 2009:651). In their Value Ageing related research, Thompson et al (2012) highlight the ethical issues associated with the digital divide and the associated barriers of access to technology including the internet and deficits in capability to use technology that is available.

Although there have been major advances in life expectancy across Europe, behind the macro statistics there is a hidden picture of inequality for citizens in the region. “A major success for the European Region is that life expectancy at birth has increased by 5 years since 1980, reaching 76 years in 2010. This translates to an average annual gain of 0.17 years for the period and, except for two dips around 1984 and 1993, a steady upward increase. Nevertheless, average life expectancy at birth differs across countries, ranging from 82.2 years to 68.7 years, giving a gap of 13.5 years for 2010.” (WHO, 2013:5)

This powerful statistic is mirrored within European countries, with a nonrandom distribution of increased risk of morbidity and mortality borne by poorer citizens. These different outcomes are a reflection of the different individual and collective capacity of people, in general, to benefit from given resources. Capacity to benefit

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2 Within Value Ageing the UN definition of ‘older’ as people aged over 60 years is used.
from services and resources, including technology, is mediated by a myriad of factors including gender, educational background, geographical location, religion and health. For example it has been argued that policy aimed at ensuring equitable opportunity for people with disabilities has unwittingly caused even greater inequity: by failing to recognise the invisible disabilities *inter-alia* gender, ethnicity and geographical location (Morris, 1992 and Wendell, 1998).

“The recognition of direct as well as indirect discrimination is significant for older people’s access and inclusion to ICT because equal treatment (ignoring older people’s special needs) is likely to result in exclusion, which constitutes indirect discrimination. Older people and people with disabilities have to be involved in identifying, monitoring and evaluating eAccessibility and eInclusion challenges that they experience” (VA D.1.2; p15)

Treating ‘older people’ as a homogenous group fails to take account of the myriad of factors that impact people’s ability to benefit from or participate in services or innovations including technology. For example, Mold et al. (2005) highlighted that whilst UK policy was directed towards “providing the best quality of care that includes promoting choice, autonomy and dignity.” (112). there were significant lacunae in the UK research and evidence base regarding the needs of ‘ethnic elders’. Similarly although increasing age is the primary risk factor for developing dementia and Alzheimer’s disease the views and experiences of people living with these conditions are rarely taken into account (Jacelon et al, 2004). Drawing on Kirkwood and Pullman’s work on person centred care and dementia Mc Intyre (2003) argues that “research that asks the question ‘what is working here and why?’ can help us understand the unique potential that dementia has for advancing humankind’s capacity for being in a relationship.” (483). In their study of ethnic elders and care homes, Mold et al (2005) illustrate the racial disparities which prevail in access to and services available in care settings for older people from minority ethnic groups. Recognizing the mediating impact of cultural settings Agich (2007) cautions against studies of dignity and the care of older people in different countries which focus on commonalities such as demographic and health trends but neglects the differences inherent in culture, economic, social and political contexts. Recognising that tacit understanding of dignity may be shared by people from different countries he advises that unless examined within respective contexts the implications of their beliefs may be vary hugely. The nebulous nature of dignity is, Agich argues, a great weakness, but one that can be turned into a strength when combined with more concrete concepts such as rights and equality.

“The vagueness of dignity is thus an asset since it can garner a broad and intuitively-based endorsement while leaving open the complex and controversial task of defining its practical meaning and implications. These features suggest that, unless the concept of dignity is grounded within a specific cultural, political, religious or social context that gives it specificity, and which is intuitively relied on when the term is endorsed, it will give only an amorphous intuitive basis for framing the care of older people.” (Agich, 2007:489)
Placing human rights at the heart of age related policy and services delivery will enhance the potential of ‘dignity for all’. Violation of human rights is also a violation of dignity (Jacobson, 2009) and consequently dignity has the potential to serve as a powerful vehicle in the pursuit of the ‘right to health’ and that as such should be an explicit in discussions related to health equity (Jacobson, 2007). Of particular relevance to this study is De Hert’s argument that Rawlsian theory of political justice may be seriously compromised (if not completely violated) by a consensus driven interpretation of the EU values. “It is highly unlikely that having to choose between a small common core or a larger common core, that he [Rawls] would choose the latter.” (De Hert, 2005: 227).

The Value Ageing project seeks to inform and support strategic policy and practice. It does this by harnessing knowledge and expertise from across a wide range of sectors and disciplines to address the deficits in the current evidence base of the impact of with regards ICT and ageing. Value Ageing is founded on the premise that ICT gives individuals as well as societies the possibility to improve lives and to free people from certain constraints. Technology, used appropriately, has capacity to alleviate the tyranny of human material constitution, its physical limitations, its spatiotemporal constraints, and its limited capacity to perform actions. This holds particularly true for ICT for in support of ageing, provided that technology is respectful of values such as human dignity, autonomy, respect for privacy, family life, data protection and non-discrimination. Good technology is not just about making something better; it is about doing something different and consequently making people think differently. Fundamental values should be built into the design stage of ICT from the outset, including into the ontology of systems and programmes. Value Ageing WP1 contributes to overall project goal by providing an analysis of the impact of ICT developments on dignity and non-discrimination of older citizens.

It addresses the following questions:

1. To what extent is ICT development threatening older people’s dignity and putting them at risk of discrimination?
2. To what extent can ICT become a resource to prevent offences to older people’s dignity and to prevent ageism and exclusion?
3. To what extent are Inclusion and eAccessibility policies effective to prevent offences to older people’s dignity and to prevent ageism and exclusion?
4. To what extent are current EC policies in this field effective to promote respect for older people’s dignity and eInclusion?
5. What are (if any) the main policy gaps to be filled?

3.2 Capability approach

“The idea of ‘capability’ (i.e. the opportunity to achieve valuable combinations of human functionings – what a person is able to do or be) can be very helpful in understanding the opportunity aspect of freedom and human rights. Indeed even though the concept of opportunity is often invoked, it does require considerable
elaboration, and capability can help in this elucidation. For example, seeing opportunity in terms of capability allows us to distinguish appropriately between
(i) whether a person is actually able to do things she would value doing, and (ii) whether she possesses the means or instruments or permissions to pursue what she would like to do (her actual ability to do that pursuing may depend on contingent circumstances). By shifting attention, in particular towards the former, the capability-based approach resists an over-concentration on means (such as incomes and primary goods) that can be found in some theories of justice." (Sen, 2005: 153-54)

The Capability approach advocated by Amartya Sen and Martha Nussbaum is aimed at promoting citizenship, and is premised on the question what is a person able to do and to be. It is grounded in the ideals of social justice and seeks to combat discrimination, by focussing on notions of choice making and freedom. The capability approach is directed at the creation of a good (i.e., in this context, age friendly) society that promotes a set of opportunities or ‘substantial freedoms’, which people may choose to exercise. Choice is at the core of the capability approach and the act of choosing is sometimes described as ‘decisive decision making’, whereby the concepts of human rights and capabilities compliment and support each other. The term decisive decision making encapsulates the idea that the choice that a person makes is freely made and not the result of inadequate resources (including skills and knowledge). Sen illustrates the difference by comparing the person who is voluntarily fasting, with a person who is starving. The person who is starving has no choice or control over their situation, while the person who is fasting does. Within the context of Value Ageing the difference might be evident in the case of two 75 year old women whose children and grandchildren live on the otherside of the world. Woman A has Skype on her ‘tablet’, is comfortable with using it, and communicates regularly with her children and grandchildren. Woman B does not have a computer and doesn’t know about Skype. Telephone calls are expensive, so she only talks with her family for five minutes twice a month though she would like to talk with them more often.

Quality of life is assessed in terms of a person’s capability to achieve “valuable functionings” (Sen, 1993:31), which is also taken as an indication of the degree of equity in society (Sen, 2001a). Functionnings are defined in terms of ‘patterns of being’ and ‘patterns of doing’. The former include the basic pre-requisites for health being adequately fed, being free from illness, being housed and being connected to other people (family/friends). The ‘patterns of doing’, reflect a (older) person’s connection into society and include: communicating with others, being informed about what is happening in public life and having access to services and opportunities for employment, leisure and other related activities.
Although Nussbaum and Sen worked closely together to advance the capabilities approach. Sen’s work tends to be applied or directed at developing world countries\(^3\): for the purpose of Value Ageing, Nussbaum’s interpretation is particularly useful because of her explicit focus on ‘human dignity’. Informed by the philosophical ideas of ‘flourishing’ Nussbaum work concentrates on the interplay between basic, internal and combined capabilities. Basic capabilities are immutable, they are the things that we are born with such as sex and genetic makeup, but they also include latent potential that may or may not be unleashed depending on wider environmental influences. Internal capabilities are the personal characteristics of an individual (e.g. personality, intellectual and emotional capacities, physical health, internalised learning, skills of perception and movement). These traits are dynamic and as such ‘internal capabilities’ can be developed through investment in training and education. In older people internal capabilities are heavily influenced by earlier life experiences and opportunities. For example a person’s ability to use technologies may be influenced by previous work and/or educational experiences. Combined capabilities or ‘substantial freedoms’ are the totality of the opportunities which a person has when environmental/contextual factors are taken into account. The environmental factors include the physical, social and political conditions that may prevent people from choosing to live the life that they are capable of. Supportive environment is key to the capabilities approach. Nussbaum identifies 10 capabilities central to human dignity. The protection of these areas of freedom are, she suggests, a prerequisite for a life lived with dignity, though crucially she regards this list as open to development.

### Ten Central Capabilities

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td><em>Life.</em> Being able to live to the end of a human life of normal length; not dying prematurely, or before one’s life is so reduced as to be not worth living.</td>
</tr>
<tr>
<td>2</td>
<td><em>Bodily health.</em> Being able to have good health, including reproductive health; to be adequately nourished; to have adequate shelter.</td>
</tr>
<tr>
<td>3</td>
<td><em>Bodily integrity.</em> Being able to move freely from place to place; to be secure against violent assault, including sexual assault and domestic violence; having opportunities for sexual satisfaction and for choice in matters of reproduction.</td>
</tr>
<tr>
<td>4</td>
<td><em>Senses, imagination and thought.</em> Being able to use the senses, to imagine, think, and reason – and to do these things in a truly human way, a way informed and cultivated by an adequate education, including but by no means limited to, literacy, musical, and so forth. Being able to use one’s mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech, and freedom of religious exercise. Being able to have pleasurable experiences and to avoid nonbeneficial pain.</td>
</tr>
<tr>
<td>5</td>
<td><em>Emotions.</em> Being able to have attachments to things and people outside ourselves; to love those who love and care for us, to grieve at their absence; in general, to love, to grieve, to experience longing, gratitude, and…</td>
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\(^3\) Developing world is used here as a short hand for countries that fall primarily into the Low Middle Income (LMIC) category, it also includes India which features prominently in Sen’s work.
justified anger. Not having one’s emotional development blighted by fear and anxiety. (supporting this capability means supporting forms of human association that can be shown to be crucial in their development.)

6. **Practical reason.** Being able to form a conception of the good and to engage in critical reflection about the planning of one’s life. (This entails the protection for the liberty of conscience and religious observance.)

7. **Affiliation.** (a) Being able to live with and toward others, to recognise and show concern for other human beings, to engage in various forms of social interaction: to be able to imagine the situation of another. (protecting this capability means protecting institutions that constitute and nourish such forms of affiliation, and also protecting the freedom of assembly and political speech.) (B) having the social bases of self respect and non-humiliation; being able to be treated as a dignified being whose worth is equal to that of others. This entails provisions of nondiscrimination on the basis of race, sex, sexual orientation, ethnicity, caste, religion, national origin.⁴

8. **Other species.** Being able to live with concern for and in relation to animals, plants and the world of nature

9. **Play.** Being able to laugh, to play, to enjoy recreational activities

10. **Control over one’s environment.** (A) **Political** Being able to participate effectively in political choices that govern one’s life; having the right of political participation, protections of free speech and association. (B) **Material.** Being able to hold property rights on an equal basis with others; having freedom from unwarranted search and seizure. In work, being able to work as a human being, exercising practical reason and entering into meaningful relationships of mutual recognition with other workers.

*Figure 4: Ten Central Capabilities*

(Source: Nussbaum, 2011: 33-34)

Drawing on Martha Nussbaum’s earlier work, Peter Lloyd-Sherlock (2002) identified four key policy challenges in maximising capabilities for older people. Although his work was also focused on the developing world the challenges identified have direct relevance to the goals of Value Ageing.

- Develop a better understanding about older peoples’ values and preferences, and provide them opportunities to articulate these. **User centred design**
- Develop a better understanding about the real extent of internal capabilities of many older people, and how these vary. **Skills and competencies in use of technology**
- Reduce structural constraints, and thus promote combined capabilities. **Access (broad band & financial)**
- Improve internal capability in later life, by improving combined capabilities through the life course. **Futurage and BRAID – lifecourse approach**

Lloyd-Sherlock emphasised the importance of changing the external environment to compensate for ageing relate decline internal capacities, just as Nussbaum had emphasised the negative impact of ‘bad conditions’ in hampering the development of internal capabilities. Here ICT can be crucial: reflections on the draft version of this report demonstrate an increasing recognition of the roles of technologies across

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⁴ Age is not included in Nussbaum’s list
many environments and activities affecting older people. The approach of respecting the role of environments as a significant factor in how people experience and act upon capabilities bears some similarities with concepts in environmental gerontology concerning the ecology of ageing, and notably Lawton and Nahemow’s (1973) canonical model of Environmental Press, in which ‘competence’ is a person’s ability – including physical and mental health, intellectual capacity, and ego strength - which can range from low to high. Characteristics of the environment interacting with the person’s own competence level produces ‘environmental press’ (interaction with the environment) which can be positive, neutral or negative. Poor physical or mental health, or age-related losses, may result in lowered competence so that the individual becomes less tolerant of the demands imposed by the environment. This may require changes to re-balance to recreate a comfortable level of environmental press. Yet as with most models of the ecology of ageing, in the the Lawton and Nahemow model dignity is implied in the maintenance of equilibrium rather than specified as an objective or outcome. Furthermore, most of the influential conceptual models both of person-environment interactions and of capabilities give scant regard to technologies, pre-dating as they do the spread of digital technologies to the point where they are a ubiquitous component of modern environments. Value Ageing presented an opportunity to explore further the relationship between the Sen/Nussbaum approach and the development of the Information Society.

We considered where ICT as such might fit within Nussbaum’s description of Capabilities. Clearly technologies have the potential to enhance people’s lives across most of her 10 categories by supporting health, enhancing affiliation and social and civic connectedness, and so on. However a consequence of the Information Society is that for full engagement in almost all aspects of contemporary life in Europe (and increasingly, world-wide) ICTs are an essential component of how people can control their environments. For this reason we suggest that to Nussbaum’s tenth category, ‘Control over one’s environment’ should be added (C) Technological Being able to access, on an equal basis, the essential technologies of civic and social engagement and personal support.

Livability and the capability of communities

Originating in a 2006 project to help determine the key elements of urban environment that might support active and health ageing, the World Health Organisation’s Age-friendly Environments Programme is an international effort to address the environmental and social factors that contribute to those aims, with older people involved with the assessment of age-friendliness. The programme’s purpose is to help cities and communities become more supportive of older people by addressing their needs across eight dimensions: the built environment, transport, housing, social participation, respect and social inclusion, civic participation and employment, communication, and community support and health services. The European Commission’s European Innovation Partnership Action Group in Innovation for age friendly building, cities and environments (Action Group D4) was brought together for partners from across Europe to implement age-friendly strategies for the
European population, producing a compilation of good practices in 2013 (AGIABCE, 2013). The good practices cited included applications of ICTs for across the range from security and assisted living to social interactions and entertainment.

Related and parallel initiatives include activities to foster the concept of intergenerational communities or communities for all ages – in contrast to age-specific ones like retirement villages - where multiple generations reside with individuals of all ages regarded as integral and valued. At the same time various countries are also working towards dementia- or memory-friendly communities, within which people in general will be more aware and understanding of dementia so that people living with dementia and their carers will feel enabled to seek help and get it with the community, giving them more choice and control.

All of these initiatives are aimed at creating communities that are more livable for everyone across a range of domains such as transportation; accessibility; safety and security; housing; health services; recreation and cultural activities; and other community services. Within these considerations ICTs sometimes feature specifically as integral to the infrastructure, but are often taken for granted and not discussed in detail.

In contrast, the concept of the digital city, smart community, or information city is based on technologies. It refers to cities or communities that are connected by a service-oriented computing infrastructure (for example currently, via broadband) along with various services to residents and businesses within the area. As with the Age-friendly, intergenerational, and dementia-friendly concepts, the emphasis and language has focused on metropolitan and urban centres because these are the hubs of growing population density and economic activity. However many the issues and proposed solutions can also apply in rural areas, although some can not, and this is important because in many parts of Europe the populations living in rural areas contain a high proportion of older people.

All of these initiatives reflect in one way or another the desire to invigorate and animate communities in geographical areas to build local capacity to make the environment better and more livable across various dimensions. In the context of social inclusion and the concept of capabilities, this raises questions about whether and how communities as well as individuals have capabilities and what they might look like. Clearly Sen’s and Nussbaums’s conceptualisations relate very much to individuals and people’s ability to live a life they have reason to value, and not to communities, but in his analysis of adaptive preferences and intra-household distribution Sen did at least make an approach towards a situated and sociological analysis. While there can be no equivalence between the capabilities of individual humans the putative ones of communities, it is arguable the lens of a capabilities-like approach may have value in helping to consider the ability of communities to support the well-being of those who live and work there. For example, to extrapolate from Nussbaum’s 10 Central Capabilities (figure 4), it would be possible to envisage how communities might be assessed by their capacity to provide the means by which
individuals could realise their own capabilities 5.

<table>
<thead>
<tr>
<th>Ten ‘Community Capabilities’ for livability</th>
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<tbody>
<tr>
<td><strong>Life.</strong> Supporting as far as the ability of people to live to the end of a human life of normal length. (And, in context, supporting the extension of that length)</td>
</tr>
<tr>
<td><strong>Bodily health.</strong> Providing the means for people to access the means to good health, including reproductive health; and adequately nourishment and shelter</td>
</tr>
<tr>
<td><strong>Bodily integrity.</strong> Making it possible for people to be able to move freely from place to place and to be secure against violent assault, including sexual assault and domestic violence</td>
</tr>
<tr>
<td><strong>Senses, imagination and thought.</strong> Providing adequate opportunities for all to become educated and to have opportunities to use the senses, to imagine, think, and reason. Ensuring freedom of expression with respect to both political and artistic speech, and freedom of religious exercise.</td>
</tr>
<tr>
<td><strong>Emotions.</strong> Providing structures and organisations that support people’s emotional development and human associations.</td>
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<tr>
<td><strong>Practical reason.</strong> Allowing opportunities for public discourse about matters of concern and impact.</td>
</tr>
<tr>
<td><strong>Affiliation.</strong> Protecting institutions that constitute and nourish forms of affiliation, and protecting freedom of assembly and political speech; guaranteeing the right to non-humiliation and dignified treatment by public institutions; the legal right to nondiscrimination on the basis of race, sex, sexual orientation, ethnicity, caste, religion, national origin, or age.</td>
</tr>
<tr>
<td><strong>Other species.</strong> Providing public access to animals, plants and the world of nature</td>
</tr>
<tr>
<td><strong>Play.</strong> Providing access to play and recreational activities</td>
</tr>
<tr>
<td><strong>Control over one’s environment.</strong> (A) Political Upholding right to political participation, free speech and association. (B) Material. Incorporating property rights on an equal basis; ensuring freedom from unwarranted search and seizure. In workplaces, allowing the formation of mutual unions. (C)Technological Ensuring that the essential technologies of civic and social engagement and personal support can be accessed on an equal basis</td>
</tr>
</tbody>
</table>

In addition to the technical access guarantee element of ‘control over one’s environment’, within this description of how communities might demonstrate capabilities for creating livability, ICTs would have potential roles in various ways at least in practically all of these domains. Communities would vary, as people do, in the extent to which they approach the idea (however conceived, and by whom) but individuals living and working within those communities would have their own various capabilities of making use of what the community was able and willing to offer.

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5 To quote Charusheela (2008, p3): ‘The purpose of public policy is to secure and extend entitlements so that everyone’s set of capabilities includes such basic functionings as health, good nutrition, adequate shelter and dignity’. 
3.3 Dignity and non-discrimination

This section builds on the analysis of dignity carried out in Value Ageing D1.2, and reflections on dignity contributed by people who responded to the pre-validation draft version of this report. It draws on other conceptual analyses, systematic reviews and empirical studies to provide a robust understanding of dignity. Beginning with a short historical overview of the theories of dignity, it moves on to a review of literature on dignity including work that emerged from the Dignity and Older Europeans project, and an exploration of Jacobson’s (2012) model of dignity encounters.

Although widely accepted as a desirable outcome, dignity as a concept has been criticised as being subjective and difficult to operationalise (Nordenfelt, 2004). In the literature dignity has largely been used as a stand-alone concept, ill-defined, or not defined at all. The highly respected medical ethicist Professor Ruth Macklin was scathing of the careless and random use of dignity within medicine, which she argued rendered it a useless concept, and no different from autonomy. “Dignity is a useless concept in medical ethics and can be eliminated without any loss of content.” (Macklin, 2003:1420). The wider literature on dignity lends support to Macklin’s observation with many writers using the term in an unqualified and cavalier manner. Value Ageing seeks to address the ambiguity by providing a definition of dignity that can be used to underpin developments in ICT and ageing within the EU. Given that the EU is founded on the values “of respect for human dignity, liberty, democracy, equality, the rule of law and respect for human rights” (Europa, 2013) our definition of dignity builds on Nora Jacobson’s work, which is firmly grounded in notions of equality and human rights.

3.3.1 Defining dignity

Definitions and understanding of dignity were traditionally located in one of three key relationships: between humanity and God; between the individual and society and between determination and freedom. Kant’s writing in the 18th century on dignity served to integrate these relationships. His work, widely quoted today, argues that dignity belongs to human beings because of their capacity for rationality and moral freedom. “This dignity carried with it the obligation that human beings be treated with respect – as reflected in the well-known Kantian dictum that people should be regarded as ends in themselves and never just as means” (Jacobson, 2007:293). In her study of long term care for older people in Hong Kong, Wah (2007) provides a Confusian perspective on dignity:

“The first sense of dignity (i.e. inherent dignity originates in Mencius’s theory of human nature. According to Mencius, Heaven confers on every human being four moral seeds or sprouts which make him/her a moral being different from beasts or other animals. These four sprouts are feelings of compassion, feelings of shame, feelings of modesty and feelings of right and wrong. They are the ‘four beginnings’
of humanness, justice, propriety and moral knowledge. These four seeds or sprouts are possessed equally by every human being. They are his/her moral possibilities, which make him/her a being capable of living a good life different from that of other beasts. These possibilities constitute the foundation of our humanity. This explains why the source of our human worth and dignity is inherent in human nature.” (p 469).

Wah uses this Confusian understanding of dignity as a lens to study the care of older people. Employing vignette/case studies to great effect she illustrates the absence of dignity especially in the care of vulnerable older people whom she characterises as those losing their ‘rationality or autonomy’. Locating her definition of dignity within a human rights context she argues the need for coherent policy to support and promote autonomy and dignity for older people. “It expresses an attitude of ‘respect’ and ‘value’ towards its object at the same time that it is being identified. Its demands are directed to the dead, the living and those who are yet to come.” (Wah, 2007: 479).

In a concept analysis of dignity for older people definitions of dignity were grouped into four themes: philosophical dignity, attribution, behavioural and developmental (Jacelon, et al. 2004) Attribution dignity was characterized as dignity that was defined in terms of a self concept and was associated with feelings of self worth and individuality. The reciprocal nature of behaviour dignity is emphasized and the centrality of respect for the humanity in each person. Jacelon et al. subdivide behavioural dignity into ‘behaviour of older adults and behaviour of others towards older adults. Drawing on research with people with dementia they highlighted the innate power that human beings have to ‘make or unmake’ dignity in others and concluded “that learning about dignity was an antecedent to behaving with dignity.” (Jacelon, et al. 2004:81).

The definition of dignity proffered by the Jacelon and her colleagues was “Dignity is an inherent characteristic of being human, it can be felt as an attribute of the self, and is made manifest through behaviour that demonstrates respect for self and others.” (p81). On one level this reads like a fair enough description, but the challenge lies in applying this definition to a real situation. Likewise the definition used by the DoH in England links dignity with respect but is equally ambiguous: “Our definition of dignity is based on the moral requirement to respect all human beings, irrespective of any conditions they may suffer from.” (Philip, 2006:4).

These definitions and understanding of dignity find resonance in Michael Rosen’s work (2012), in which he places duty (and respect) at the heart of his exploration of the meaning dignity. Drawing on the Kant’s work on human dignity and the notion of personhood [Persönlichkeit], Rosen advocates a theory of dignity based on duty, which unlike a rights based approach, does not require beneficiaries. Rosen uses this theory to argue that personhood exists independent of its attributes and that humanity is a complex web of interdependence between all human beings. “In failing to respect the humanity of others we actually undermine humanity in ourselves” (Rosen, 2012, p.137). For example although someone with dementia may appear to
have lost all of their rational attributes, and the ‘person’ that was can no longer be perceived, the essence of their humanity can still be reasoned and merits to be treated with respect.

Acknowledging that a definition of dignity is problematic, in a systematic review of dignity and care of older people, Gallagher et al. (2008) suggest that: “A minimal account would suggest that it draws attention to a kind of value or worth that is part of our normative account that should shape our relations with and our treatment of other people. At the very least, the concept of dignity calls for an acknowledgement of worth and a concomitant expectation that we should treat people appropriately, with respect for their worth as people.”(p9). Gallagher and her colleagues concluded that realization of dignity is best served by focusing on care of older people within four areas: environment of care, staff attitudes and behaviour, culture of care and specific care activities. The study finds echoes in work by Mann (1998) who classified dignity violation into four types: not being seen; being seen but only as a member of a group; violations of personal space; and humiliation.

One of the problems about dignity as a concept is the issue of how it is achieved in practice. Seedhouse and Gallagher (2002) commented that while declarations of the importance of dignity in health care are commonplace in codes of practice and other mission statements, these documents never clarify dignity’s meaning, and indeed despite the stated intentions to promote dignity, some institutions emerge instead as “undignifying institutions”. Following a series of scandals of poor treatment in hospitals, the UK’s Royal College of Nursing established in 2008 a definition of Dignity:

‘Dignity is concerned with how people feel, think and behave in relation to the worth or value of themselves and others. To treat someone with dignity is to treat them as being of worth, in a way that is respectful of them as valued individuals.

- In care situations, dignity may be promoted or diminished by:
  - the physical environment
  - organisational culture
  - the attitudes and behaviour of the nursing team and others
  - the way in which care activities are carried out.

Dignity applies equally to those who have capacity and to those who lack it. Everyone has equal worth as human beings and must be treated as if they are able to feel, think and behave in relation to their own worth or value’ (RCN 2008)

In practice this is described as requiring:

- respecting patients' and clients' diversity and cultural needs; their privacy - including protecting it as much as possible in large, open-plan hospital wards; and the decisions they make
- being compassionate when a patient or client and/or their relatives need
emotional support, rather than just delivering technical nursing care
• demonstrating sensitivity to patients’ and clients’ needs, ensuring their comfort.

However in practice this approach still requires and even finer-grained understanding of interactions that affect the patient’s sense of dignity. For example in a small study of the experience of four surgical patients at a hospital in Denmark, researchers identified tensions between patients’ demand for privacy and sense of violation of dignity when privacy is compromised, while at the same time to be supported through the hospital process and to engage in discussions with medical staff about treatments, the boundaries of privacy would often be pushed or breached because of the physical intimacy, vulnerability and need involved in surgical procedures. The researchers concluded that ‘Nurses should constantly be concerned with balancing expectations, values, and opinions to maintain dignity in nursing and create a common platform for collaboration. (Rasmussen and Delmar, 2014, p11).

3.3.2 Dignity and Older Europeans Project (DOE)

Over the course of three years (2001-4) the Dignity and Older Europeans Project\textsuperscript{6} (DOE) (EU Commission V framework Quality of Life) research team held focus group interviews with older people, young people and middle aged people and professionals in each of the participating countries to explore their understanding of the concept of dignity. The theoretical model of dignity which emerged from the study identified four types of dignity: merit, moral status, identity and Menschenwürde (Nordenfelt and Edgar, 2005).

1. **Dignity of merit:** With echoes of Greek philosophy and understanding of dignity as rigidly hierarchical, dignity of merit is associated with a person’s position or role in society. Reflecting the concept of social dignity some people will be judged either by themselves or others as having greater or less dignity of merit. The merit may stem from formal source (position or office) or informal (achievement artists, scientists, sports...). Dignity of merit was seen as transitory (positions may come and go) and as being associated with hierarchical structure. Dignity of merit implies that dignity is not genitive worth but is by its nature ascribed and social. The Older European researchers posit the view that dignity of merit is associated with ‘old age’ and the inherent wisdom of elders (Tadd, 2004). “There are many kinds of this kind of dignity and it is very unevenly distributed among human beings.” (Nordenfelt and Edgar, 2005:17)

2. **Dignity of moral status** was associated with “the person’s moral autonomy or integrity” ... “is the result of the moral deeds of the subject” (Nordenfelt and Edgar, 2005:17) and can be diminished or lost through ‘immoral deeds’. This type of dignity is described as unequally distributed in society and was also the type of dignity which professionals argued was affected when they

\textsuperscript{6} Six European countries participated in the Older Europeans Study: France, Ireland, UK, Slovakia, Spain and Sweden
were prevented from providing optimum care due to lack of resources (Tadd, 2004).

3. **Dignity of identity** was deemed to be the most important type of dignity in the context of older people (Tadd, 2004). Associated with self respect and reflects the individual’s sense of personhood, dignity of identity is dependent on relationships with others and sense of inclusion in society. It can be violated by physical interference and emotional insults/humiliation and may be affected by physical and/or mental change. Like the previous two types ‘dignity of identity’ is unequally distributed in society.

4. **Menschenwürde** differs from the other three types in that it is the universal dignity. Menschenwürde has much in common with Kant’s notion of human dignity that requires human beings to be treated with respect as the ‘inalienable value of human beings’ and cannot be lost as long as the person exists. “Our Menschenwürde provides the basis or grounds of our equal human rights. No body may be treated with less respect than anyone else with regard to basic human rights.” (Nordenfelt and Edgar, 2005:20).

Echoing the experience of Jacobson and others, Woolhead et al. (2004) describe the challenge of getting study participants to describe ‘dignity promoting’ encounters. The Woolhead paper is based on the UK arm of the *Dignity and Older European Project* and draws on findings from 15 focus group interviews with over 70 older people. “it was easier for people to talk about its [dignity] absence, or about being treated in an undignified manner”. (Woolhead et. Al, 2004:166). Three interrelated categories emerged from the Older European study: dignity of identity, human rights, and autonomy. Dignity of identity related to self perception and was associated with experience in health care settings and with people from younger generations. The context of the health care setting appeared to dis-empower older people and decrease their likelihood to complain about treatment. Older people cited the use of ‘first name’ or patronizing language such as ‘pet, love and dear’ as examples of how they felt ‘disrespected’. The wider context and domination by young people appeared to exacerbate feelings of being ‘old fashioned’ and vulnerable. Powerful quotations were used to illustrate how people’s dignity was violated in hospital, for example: “…on the hoist and I used to say ‘can I cover myself up’ and they just pull your nightie down over you but the back view was wide open to anybody.” (Woolhead et. Al, 2004:167).

The human rights category brought together interrelated concepts of human rights, dignity and equality. Ageism, and the sense that older people were being treated differently than other patients solely because of their age, was a recurring theme.

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7 Menschenwürde is used by Jacobson to describe ‘human dignity’. Her theory of dignity encounters focuses on social dignity – which has its basis in human dignity and is contingent on behaviour and judgement.
The reluctance on the part of older people to question, was also a feature of this category. The final category ‘autonomy’ captured the older peoples’ desire for independence and to have control over their lives. The Woolhead paper provides a poignant glimpse into how older people in residential care relinquish their autonomy “Participants in nursing homes stated that they had accepted the lack of autonomy associated with their changed situation and their priority was to be kept clean and tidy to retain their dignity this might be: This may represent an adaptation or acceptance of their changed life situation.” (Woolhead et. al. 2004:168). In a study of medication in nursing homes Goldie and Hughes (2007) illustrated how the environment and actions of the nurses and doctors served to disempowered residents and impede their autonomy. The wider social and political contexts in which encounters take place are central to Jacobson’s model of dignity. The older European study certainly lends credence to this approach. Gillian Woolhead and her colleagues comment specifically on the impact of health care environment: “The participants believed younger people are more willing to question and exercise their rights to be heard whereas older people are reluctant to assert their views. This may represent an inherent passivity in older people when in health care settings” (Woolhead et. Al, 2004:168)

The Dignity and Older Europeans study resulted in 15 broad policy recommendations including those, which are at the heart of good governance, such as citizenship rights and the need for a cross cutting approach to policy aimed at older people. Although technology was conspicuously absent from the study, the recommendations below have direct relevance to the Value Ageing project.

1. The culture of ageism must be combated in all its forms, if necessary by the use of legal sanctions, in order to facilitate the inclusion and participation of the older citizen in society.

2. Care for the elderly must be adequately resources to ensure that professionals are able to carry out their work without compromising their moral integrity and responsibilities for those under their care.

3. Equitable access to health care should be guaranteed for all, regardless of age.

4. The development of dementia care services and palliative care services for older Europeans should be given urgent priority.

5. Member states should establish Quality standards that take account of the experience of dignity in all its forms, for services for older people in all care settings. Such standards should include the comprehensive state regulation of those working with (especially vulnerable) older citizens.

6. Institutions providing care for older people should develop guidelines for the promotion and maintenance of dignity as part of a charter of rights for older Europeans and their families.
7. Member states should develop support packages to address the needs of informal carers, (who are largely women) including flexible working, working from home, financial incentives, day care support, respite services and proper education for those providing informal care

3.3.3 Human Rights

The Dignity and Older Europeans project has provided an interesting analysis and has helped to raise the issue of ‘dignity’ for older people. Nevertheless the subjectivity and variance within the taxonomy of dignity means that there is still a way to go in developing a robust understanding of what is meant by dignity for older people. George Agich suggests that pursuing a tight definition of ‘dignity’ may well undermine the potential of dignity to achieve its goal. In fact Agich (2007) suggests that ‘vagueness’ that shrouds dignity may well be ‘advantageous’. “The broad beliefs and values implicit in the understanding of dignity are beyond question just because they are tacit and accepted intuitively. They are tacitly accepted, in part, because they do not have analytical rigor” (p486). He cautions against an understanding of dignity for older people that is embedded in the idea of promoting independence on the basis that such an approach is driven by individualistic ideals. Instead he argues that placing dignity within a human rights context serves to strengthen the power of policy and legislation to protect older citizens. Describing something as a violation of the dignity of an older person, is he suggests, a powerful way to engender solidarity and mobilise support from younger people. The potential of for dignity as a concept to become operative is therefore enhanced when it is combined with other more objective, and measurable concepts, such as equality. The impact is synergistic with dignity serving to enhance the moral and ethical dimension of the ‘right’ to equality.

“An affronted dignity provides a clarion call to action to refuse to tolerate such practices, and this call seems stronger than simply claiming the wrong to be a violation of someone’s individual right... Dignity may thus be more practically useful when it provides this persuasive function of ethically condemning a particular action or policy.” (Agich, 2007:490).

The symbiotic relationship between dignity and rights is evident in the UN Universal Declaration of Human Rights (1948) and in the report on the International Covenant on Economic, Social and Cultural Rights which characterizes the right to health as a means to achieving dignity:

“Health is a fundamental human right indispensable for the exercise of other human rights. Every human being is entitled to the enjoyment of the highest attainable standard of health conducive to living a life in dignity.” (CESCR, 2000: para 1). The CSES link between human rights, health and dignity is reflected in the findings of the Marmot Commission on health equity (CDH, 2008).

The CSDH places the social and economic determinants of health centre stage in enabling individuals and communities to achieve their full potential. The WHO identifies three key areas related to the determinants of health the social and
economic environment, the physical environment, and the person’s individual characteristics and behaviours. Although ICT is not explicitly mentioned as a determinant it clearly cuts across the three areas and has therefore the potential to make a major contribution to the ‘ageing well’ agenda. Value Ageing seeks to enhance this potential by focusing on the contribution of ICT in supporting and enabling older people to age with dignity.

Human rights, equity and health are closely intertwined. The realisation of health is dependent on the other two. Equity is focussed on the distribution of resources in society, governed by human rights and the concept of social justice (Rawls, 1985). Equity is concerned with preventing or ameliorating differences that are unnecessary and avoidable or in other words those elements that deemed to be unfair and unjust. Governance that is focused on equity is therefore dependent on a human rights based approach and associated core principles, such as citizenship. Consequently in the promotion of non-discrimination of people on the basis of age, it is important not to lose sight of other potentially discriminatory factors. Significantly, Peter Townsend argued for the use of a human rights framework to reverse the culture of welfare dependency and ageism that characterizes services focused on older people. “Human rights offer a framework of rigorous analysis and anti-discriminatory work. Success depends on good monitoring progress – and the incorporation nationally and internationally of institutions and policies that reflect those rights. Human rights instruments offer the hope of breaking down blanket discrimination.” (Townsend, 2006:175).

3.4 Dignity encounters

This section focuses on Nora Jacobson’s model of dignity encounters. The work is informed by human rights and recognise the contribution and interaction of three factors: actors, settings and the wider social and political context, in influencing the likelihood of dignity being promoted or violated. The Jacobson model although not specifically focused on ‘older people’ is firmly grounded in empirical research and has been applied across a range of settings. In her comprehensive analysis of the literature on dignity Nora Jacobson (2007) developed a taxonomy of dignity comprised of two separate but interrelated concepts ‘human dignity and social dignity’. Human dignity is defined as Menschenwürde relating to human beings both as individuals and as groups it “cannot be measured or weighed or destroyed; nor is it contingent or conditional, contextual or comparative.” Human dignity provides “justification for sociopolitical ideals of equity and justice.” (p.294). Social dignity has its basis in human dignity but is experienced within a social context where it is contingent on behaviour and judgment. The level of social dignity is fluid (may increase or decrease) and conditional (may change within social groups or settings).

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8 This was the universal dignity identified in the Older European Study (Nordenfelt and Edgar, 2004)
Acknowledging that while it is desirous to differentiate between human dignity and social dignity, Jacobson focuses on the use of the concept within the areas of human rights, law, social justice, bio ethics and care to argue that the ways in which ‘dignity’ is used are potentially of even greater importance.

Using a grounded theory approach, Jacobson (2009) conducted 64 interviews with people marginalized due to their health status, people involved in service delivery, and people working in health and human rights. From this she developed a taxonomy in which every human interaction has the potential to be a ‘dignity encounter’. These encounters, she argues, can result in one of two outcomes: the promotion of dignity or the violation of dignity. Figure 6.1 represents a graphical representation of ‘dignity encounters’ and the conditions of the dignity dimension of an interaction. Dignity encounters are characterized by the ‘actors or people’ involved and the relationship between them; the ‘setting’ in which they take place for example home, work, health/social care facilities, prison, street or café all encounters are embedded within a broader social order.

Figure 6: Conditions of the Dignity dimensions of an interaction
(Source: Jacobson 2009)

3.4.1 Dignity violation

“Dignity violation is facilitated when an (individual or collective) actor in a dignity encounter is in a position of vulnerability. Vulnerability may be conferred internally or extrnally, by physical, psychological, or social attributes. The word ‘position’ is important here, because it indicates that the state of being vulnerable is not inherent, nor is it unalteraterable. Rather vulnerability is contingent.”

Jacobson breaks the act of ‘dignity violation’ into several ‘moving parts’ the act, or the process or processes of violation; the actors involved; the context; and the consequence. Dignity violation is more likely to result from an encounter in which there is a power imbalance between the actors with one person/actor placed in a position of vulnerability (figure 6.2). This vulnerability may stem from illness, impaired cognition or social circumstances. Clearly physiological changes associated with ageing such as diminished eye sight, hearing and physical acuity make older people particular susceptible. Similarly, as evidenced in the older European study (Woolhead et al. 2004), the domination of social environment by young people, made residents in care homes feel excluded and vulnerable. Older people who feel excluded and vulnerable are more likely to perceive a ‘relatively minor social slight as a dignity violation’. The impact is worsened where the other actor is antipathetic due to prejudice, personality or ignorance. For example care workers who are not adequately trained are more likely to use the patronizing and diminishing language of ‘pet and love’, which the older people found so offensive. Violation of dignity is much more likely to occur where ageist attitudes persist. The setting in which encounters occur can exacerbate the situation. So-called harsh environments that fail to take account of the diversity of users serve to reinforce distance and power imbalance. For example vulnerable older people will feel excluded and more likely to experience a violation of their dignity if access to communal areas they need to use has been made difficult for people with impaired mobility, for example because of steep stairs or a lack of ramps; or if there is no adequate sound system to compensate for diminished hearing. Jacobson characterizes these settings as “hierarchal and rigid, full of distraction and stress and urgency but lacking in resources.” The people working (staff) in such environments are less likey to be empathetic to others and are also more likely to perceive questioning or non-cooperation as an ‘attack on dignity’.

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9 Negative feeling towards or dislike of something
Being in a ‘position’ of vulnerability is at the core of dignity violation. Jacobson emphasises the importance of the use of the word ‘position’ because of its transitory nature: position is not fixed and is amenable to change and contingent on circumstances.

Vulnerability may stem from internal factors (physical and psychological) and external factors (eg. ageist attitudes, hostile environments). Changes in circumstances, stressful situations and life transitions in particular can exacerbate a person’s vulnerability. Life transitions including loss of employment (retirement), bereavement, serious illness and ‘forced’ home move are all more likely as we grow older, and all increase the risk of a person feeling vulnerable.

3.4.2 Dignity promotion

By comparison with violation, dignity promotion (figure 6.3) is characterized as being the product of an encounter where one actor is in a position of confidence and the other in a position of compassion. A person with confidence is characterized as someone who has a sense of self worth, is optimistic and deserving of good things and a compassionate person as someone who is nonjudgmental, accepting, and empathetic, with positive intentions. The environment/human circumstances is accessible, welcoming, aesthetically pleasing and transparent and the broader context is one grounded in justice “a social order that see the provision of adequate income and housing, access to education and healthcare, and other societal investment in public goods.” (Jacobson:2009a)

“Dignity is promoted in relationships between individual and collective actors that are characterised by … solidarity. Solidarity means shared identification: seeing other people as ‘fellow human beings’ despite all the trappings of invidious distinction, and realizing ‘we’re all in it together and we have to treat each other that way’. Relationships in which there is rapport, familiarity, trust, mutuality, empathy, and reciprocity facilitate the social processes of dignity promotion.” (Jacobson, 2012: 148)
colleagues identified a typology of three types of spaces in which dignity encounters take place.

1. Private space characterized as space which is restricted to those who belong there and included a person’s home;

2. Public space and places are areas that can be accessed by everyone and

3. Quasi-public spaces and places which included libraries, coffee shops transport areas to which access is controlled by a variety of randomly applied criteria are applied. (Jacobson et al 2009).

The Jacobson’s work focused on traditionally excluded populations, including people living with physical and mental health problems. Similar to the capabilities approach, Jacobson’s model recognises that the dignity experience is mediated by the environment in which encounters takes place, and includes the prevailing social and political context. Private space (e.g. home) emerged as the environment most conducive to promotion of dignity, and was linked with an enhanced sense of autonomy and independence. Environments that that protects privacy and confidentiality were also found to the key in the promotion of dignity for older people (Matiti and Trorey, 2008; Webster and Bryan, 2009).

Technology did not feature in Jacobson’s analysis and VA study provides a powerful opportunity to consider the impact of ICT on dignity and non-discrimination of older people. Perhaps inevitably there was no disagreement among the experts consulted for this study that the concept of dignity is fundamental to the ethical treatment of older people both generally and in relation to the use of ICTs. Yet those with experience of close contact with older people and professionals working with older people did not necessarily believe that philosophical statements about the nature of dignity were very helpful in ensuring that people are treated with dignity. Commentators responded most strongly to the concept of Menschenwürde and the innate dignity of all people by virtue of their humanity. However with this as a ‘given’, the challenge they asked of Value Ageing was how this understanding could be translated into practice.

Hence while the Value Ageing D1 study of dignity started with an analysis of understandings and concepts of dignity, the exercise of analysing cases of good practice and subjecting that analysis to expert scrutiny leads us to think about dignity in ICT use in another way, articulating in detail Jackobson’s act of dignity promotion. This does not mean the concept of dignity as a characteristic (and in the case of Menschenwürde, an innate characteristic) of people, is abandoned – far from it, this concept is seen as fundamental. However it is the case that for many people, the process is far from clear whereby accepting the dignity of people translates into the outcome of dignity ensured – this was a key criticism of the initial analysis of the case studies in Value Ageing D1.

Another way to think about Dignity is that is both a process and an outcome. We suggest with Jackobson that Dignity is a relational process, one requiring that personal interactions, particularly those between individuals with asymmetrical
power are conducted with sensitivity both to that power imbalance and with respect towards the innate right to dignity of all people. The person with less power has the right and possibly the capability of claiming respect in their treatment by the more powerful person. However the more powerful agent has an obligation to exercise respect and uphold the other person’s dignity. Where both these conditions pertain, dignity should be the outcome.

However people living with dementia and others with limited mental capacity may have the theoretical right, but not the practical agency, to claim dignified treatment. What then is the outcome? If the person in power strives to ensure the dignity of the person with less power, an assumed dignity results: assumed because while external agents may endorse it, the person without capacity may not be in a position to directly agree. If the person with power does not strive to ensure dignity, it is highly likely that the person without power will suffer a loss of dignity by the omission of conditions that would ensure dignity for them personally. While it is clear that the latter case is objectionable, the position of assumed dignity has its problems because the passage of time may temper ideas about what is considered to be acceptable behavior within societies. Ideas about appropriate professional practice with non-heterosexual people, or with people with learning difficulties, are examples where ideas have changed about what respectful treatment and dignified outcomes look like.

Is it appropriate then for the benchmark to be that if the person with less power feels that their dignity has been maintained, then this is so? History shows that subjected people may well have a have a strong sense of dignity. This may stem from resistance to the status quo and self-recognition as a person of worth. Or it may stem from acceptance of the status quo as appropriate, and their own dignity as contingent on their position within that society. What if the person in power believes that the subjected person has their idea of dignity wrong (false consciousness), or lacks the capacity to reflect on whether or not they are being treated with dignity?

It is here in the translation of principles into action that the difficulty of pinning down the concept of human dignity reveals some of its tensions, an the more so in an international context:

“Despite its prominent status in international law and many domestic constitutions, it does not have a concrete meaning or a consistent way of being defined. This lack of precision often leads judges to introduce their own moral standards amid competing claims of rights each of which has a plausible case of human dignity violation. The elusive nature of human dignity spells even greater challenges when it is evaluated across cultures” (Lee, 2008, P1: cited in Monsalve and Roman, 2009)

Monsalve and Roman (2009) in an analysis of the treatment of Dignity in international human rights law described three areas of contradiction in definition:

‘…..dignity is either natural to human beings, therefore, it antedates
every social, legal, or political act, or, conversely, it is an attribute created by the dynamics of the juridical-political systems of modern societies. On the other hand, the right do human dignity is either an abstract value defined in formal terms and, therefore, ambiguous, or it is a specific value that is embodied in various spheres of human life, such as the right to property, personal integrity, social security, etc. Finally, either there is only one notion of human dignity that applies to all people without distinction of culture, class, gender, or other "accidental" attributes, or, conversely, human dignity is a concept that is necessarily qualified by these individual participation in various different social groups.

For Monsalve and Roman (2009) the abstract idea of dignity is at risk of lacking practical content and it is when this idea is translated into concrete aspects of social and political life (rights and possibilities) that disagreements start to appear. They suggest that behind the idea of human dignity lies is the idea of ‘living well’. However they say that nobody would accept that ‘living well’ should be defined only in formal and abstract terms, and they again quote Lee (2008) as asserting that human dignity becomes a value behind different ways of life as societies describe their own conceptions of human relationships.

Hence in the application of the overarching principle of human dignity in the field of use of ICTs by, on behalf of, and with older people, we identify the essential role of communities of practice in reflecting social mores of dignity and respect (which may differ locally) but also in pulling towards enhanced understandings through reflection on good practice, dignity encounters, and appreciation of capabilities, especially as new and unfamiliar technological possibilities change the human/technology landscape. Damadoran’s invocation of the need to ‘capture hearts and minds’ is essential here.

We turn now to the third conceptual underpinning of the D1 study, the Technology Acceptance Model (TAM) as a means of focussing specifically on the role of technologies in everyday lives.

### 3.5 Technology Acceptance Model

“As the knowledge-based economy develops, the increasing use of leading-edge technologies in all areas of life can present major challenges for some people and introduce new threats to sustained growth and social stability. To reach the goal of a knowledgeable and sustainable society for all, it is essential to make sure new technologies and systems are accessible to all. We have to apply technology to the task of genuinely empowering citizens to play a full role in society.”

(EU Commission, 2006:2)

Laudable as this EU Commission statement is, the business of making ICT accessible to all is not a simple matter, being composed of many component factors any of
which can have an impact on how an individual experiences technologies for himself or herself. The Value Ageing discussion of the nature of Dignity Encounters, and of ideas about of what is meant by Capabilities, points to some of the psychosocial aspects of how people may interact with each other as well as with technologies when they use ICT. These considerations run in parallel with the complex and continuing developments in design and development that are aimed at extending the accessibility of ICT products and services to all people. In the Value Ageing study, the third model used to reflect on dignity and non-discrimination for older people in ICT is the Technology Acceptance model (TAM). This model was introduced by Davis 1989 and Davis et al. 1989, originally to describe and explore technology adoption behaviour in the workplace. Since then it has become a well-established way of exploring variance in user acceptance across a broader range of contexts although Legris et al (2003) have suggested that the model needs to be integrated with wider variables including human and social change processes and the innovation model.

TAM theorises that individuals’ propensity to use a system is determined by perceived usefulness and perceived ease of use, and these tend to mediate the effects of external variables including characteristics of the system itself, and training. Perceived usefulness was originally defined as the extent to which a person believes that using the system will improve job performance, while perceived ease of use was defined as the person’s level of expectation that using the system will be ‘free from effort’ (Venkatesh & Davis, 2000). According to Venkatesh, while research has established that perceived ease of use is an important factor in user acceptance behavior in ICT, less research has been conducted to understand how that changes over time. The TAM model proposes ‘control (internal and external—conceptualized as computer self-efficacy and facilitating conditions, respectively), intrinsic motivation (conceptualized as computer playfulness), and emotion (conceptualized as computer anxiety)’ as anchors for early perceptions about ease of use. While a person’s general beliefs about computers may persist, Venkatesh argues that over time the person’s attitude to a specific technology will adjust to reflect objective usability.

Pan&Jordan-Marsh (2010) have described a body of research which has demonstrated the effectiveness of perceived usefulness and perceived ease of use in predicting user intention and adoption behaviours in cases of - ‘the personal computer (Doll, Hendrickson, & Deng, 1998; Hasan & Ahmed, 2007; Henry & Martinko, 1997), Internet (Lee & Kim, 2009; Moon & Kim, 2001), instant messaging (Lu, Zhou, & Wang, 2009), telemedicine (Hu, Chau, Sheng, & Tam, 1999), e-mail (Karahanna & Straub, 1999), PDA (Arning & Ziefle, 2007), and mobile banking (Luarn & Lin, 2005)” (Pan&Jordan-Marsh, 2010, p.1113). Older people’s attitudes toward computers have been well researched and in general it has been suggested, in line with popular opinion, that as age increases people’s attitudes to ICT are less positive. However reaching for a deeper understanding of this common understanding over time has revealed nuances that may be crucial to understanding how to help older people to engage with ICT. For example Wagener et al’s 2010) search of the
literature revealed that:

‘...attitudes are forming and not yet strong (Festervand & Meinert, 1994); many older adults believe that they will benefit from computer use while others are skeptical about the benefits (Saunders, 2004); older adults may feel alienated by or too old to learn to use computers (Turner, Turner, & Van de Walle, 2007); and older adults have more negative emotional reactions to making computer errors (Birdi & Zapf, 1997; Saunders, 2004)’. (Wagner et al., p872).

Zajicek (2007) related older adult’s interest in specific aspect of technology to the amount of effort they are prepared to put into it. Hanson (2010) used the lens of perceived usefulness and usability and usefulness in experiments to understand the behaviours of younger and older adults in tasks that required them to seek information on the Web, concluding that for older people technologies to be seen to be useful (by them, and in their own lives) in order for them to become users. Hanson took the view that older non-users of technology would not become adopters until either their perceptions about the usefulness of technology changed or a technology itself changed to better address their own needs and interests (Hanson, 2010). However, both the experiences of cohorts of older people and the development new generations of technology mean that utility and perceptions about utility take place within an ever evolving landscape. This means that any perception that getting older people to engage with technology is primarily an issue of training and design for older technology ‘novices’ – who, once introduced to technology, will then become adopters, misses the point of technology experience and technological change:

‘In fact, technological changes are occurring at an accelerating pace, suggesting that technology 20 years from now may little resemble devices and interfaces currently available. While some changes are gradual and may not pose challenges for today’s generations as they age, other changes may be major shifts or breaks with current systems, requiring that users understand completely new procedures for accomplishing currently unforeseen tasks. In such cases, it may be difficult for aging users, despite past technology experience, to use the new systems (Hanson, 2009; Monk, 2009)’ (cited in Hanson 2010, p503).

However age per se may not be the sticking point for many older people. Silver (2014) studied associations between socio-economic status (SES) at different phases in the life course and regular internet use among older adults, looking at a large sample of older people in the USA. Findings from this study suggested that variations among older adults are reflective of cumulative experiences. Specifically, higher SES in childhood increased likelihood of internet use in later life; SES advantages tend to accumulate; and age did not appear to modify this positive relationship. Another of the complicating factors in matching ICT to an individual older person’s capabilities and propensity to accept a given technology as useful, is the impact of physical and cognitive disabilities, some of which may change over time, and which affect how the older person conceptualises their own capabilities,
how useful they perceive the technology to be, and the design elements that need to be in place to make it accessible. The demands of physical/mobility impairments, and of some sensory (sight, hearing) impairments, while a work in progress, have arguably been better addressed to date than those of cognitive impairments, partly because these conditions can affect people right across the age range. The effects of the specific cognitive impairments associated with old age have been less tractable, and this has been attributed to age-related decline in the cognitive attributes that appear to be required in order to learn new technologies (Czaja and Lee, 2007).

While this does not mean that older people are not capable of learning new technologies, it does seem to indicate that they may take a different approach, for example relying more on prior knowledge and experience in online tasks compared to younger learners (Fairweather, 2008).

The salience of age-related cognitive change comes particularly to the fore in the case of progressive cognitive impairments including dementias. Mahoney et al (2007) argued that it is essential for designers to understand the needs of cognitive impairment and show respect for the end-user to avoid technology becoming dehumanising and taking away control. They produced guidelines for gerontechnology research & development for persons with Alzheimer’s disease and their caregivers based on ethical principles. With respect to the TAM model, consideration of significant cognitive impairment raises issues about preserving the dignity of individuals and also of avoiding discriminatory exclusion when both perception of usefulness and ease of use are compromised. The case of severe cognitive impairment similarly calls into question some of the assumptions about informed choice and agency that are inherent in many definitions of ethical, dignified encounters and capabilities.

In the case of people living with dementia, it was suggested during the validation process for this study that ‘dignity’ in this context is about process rather than objects, requiring the step-by-step approach that can take onboard everyone’s viewpoint. (Mathoney et al, 2007; Ward, 2014). This viewpoint reflects other experts’ discussions about the nature of dignity in practice. But in dementia in particular it is suggested, concepts of autonomy, choice and participation do not necessarily apply in the same way and become less useful as guarantors of good outcomes for the individual living with dementia. The route to dignity here lies strongly in relationships and behavior. It was suggested that for ICTs to be used appropriately staff working with people who have cognitive impairment need to be made aware of the ethical issues of the use of technologies as well as being able to understand the purpose of devices and for whom they are intended. However in a period of rapid technological change, guidance or training on specific devices and services is best met on a case-by-case basis, whereas according the Ward (2014) EU-wide guidance is needed for people ‘on the front line’ on the underlying principles that get to the heart of a relational approach to developing, introducing and maintaining the use of ICTs in ways that are appropriate, useful and respectful of people living with dementia. At present practitioners tend not to have robust ideas about how to introduce technologies and to work with them as the condition of a person with dementia.
fluctuates. For example Lim et al (2012) trialed the use of tablet computers with 21 people in early stage dementia, and their carers, over a seven day period, to get a sense of whether the intuitive interface of tablets might assist in daily living and provide users with a source for leisure activities and social networking. They found that approximately half the participants with dementia were able to engage with and use the tablet computer independently. This proved to be helpful to their carers, based on the amount of time participants with dementia spent using the device without supervision. However in this small trial they were not able to identify what traits or characteristics were associated with these people being more or less likely to use a tablet computer.

Value Ageing D1.2 points out that the goal of eAccessibility is somewhat paradoxical in that true inclusivity requires an individual to be able to choose not to get involved with the information society, if that is what they want to do. Expert opinion varies on the extent to which opting out of the Information Society is a realistic possibility in the EU context, let alone on whether it is advisable, for full inclusion in modern society. Our suggestion of an enhancement to Nussbaum’s definitions of capabilities to include *Technological* (Being able to access, on an equal basis, the essential technologies of civic and social engagement and personal support) reflects the view that no individuals or groups should be excluded from access to whatever technologies are currently essential for inclusion (for example, electronic voting if that is the only means of voting), leaving open the possibility for people to choose not to access them. However accessibility itself may require that individuals or groups are given access to information upon which to base their choices regarding inclusion, and in the case of people without mental capacity to take in such information those with a duty of care for them need to have that access.

### 3.6 Exploring Good Practice in Dignity and Non-Discrimination in ICT

The role of EU policy is not just to identify principles and set the tone of actions, but also to create environments in which principles can be translated into action. To explore this translation, the Value Ageing WP1 deliverable D.3 reported on examples of good practice. The purpose of D1.3 was to collect and compare business cases in public and private sector projects in the field of eInclusion and eAccessibility in ICT.

An initial scoping exercise identified 50 potential business cases from which the 10 best cases were selected for further analysis based on the merits of their innovative practices, their effectiveness in using technology to benefit older people's lives, and their capacity for replication.

**Criteria used for selection of good practice business cases**

To determine the successfulness of the business cases within the terms of Value Ageing, WP1 D1.3 looked at the following characteristics, some of which would be evident in each selected case:

- a very simple technology and a very smart use of it
• a very innovative technology able to be easily assimilated by older people
• a new interface of existing technology, or a new user friendly technology working as a gateway to other technologies and services
• a combination of the above aspects, designed to take place in a wider geographical and cultural context
• a new ICT concept in approach to users that encompasses older people and people subject to discrimination
• a technology solution addressing an important issue affecting older population, perhaps previously neglected by the other solutions in the state of the art
• a strategic public help (e.g. a financial support or free training), which even if not innovative in terms of technology, addressed well the issues of the eAccessibility and eInclusion needs of the older population within particular contexts.

The three criteria to determine a successful business case were defined as:

**Impact** – In Value Ageing, Impact is based on analysis of the responses of the final users – in this case, older people – to the ICT-driven solution presented by each business case. The responses include feedback and spontaneous expressions of personal impact. Irrespective of the degree of innovation or the kinds of technology used, significantly impact is often a function of surrounding aspects such as a perfect local context for a particular solution, alongside good design and smart interaction. If there is a solution which achieves a wide spread impact, it deserves to be analysed to allow better understanding of how the same impact could be reproduced elsewhere.

**Effectiveness** – Effectiveness is assessed in Value Ageing from a analysis of the improvements that each ICT-driven solution produces in the lives of older people. This includes direct effects, consequent upon that specific development; and indirect effects arising as a consequence of the added value brought by the solution in context (such as when new eAccessible modules or interfaces have the indirect effect of increasing the number of eAccessible websites and web services). In these terms, the effectiveness of a solution in achieving improvements in the lives of older users may go beyond its original focus. Where an initiative is seen to be very effective, it must be studied to understand why and how its benefits may be extended.

**Innovation** – The third consideration consists in the pure innovative aspect of the technology solution. This may concern the level of technology developed, or how an existing technology is improved to meet the needs of previously discriminated users. Some smart solutions are sufficiently innovative to potentially enhance the paradigms of eAccessibility and eInclusion more generally and pave the way for new, non-discriminatory standards to be adopted. In other cases an existing technology may be adapted to extend its usability to a larger number of user including older
people and people with special needs. Sometimes, a new technology developed using user-centred design becomes the new referencing solution or standard.

3.7 Analysing the 10 business cases

In order to interrogate the 10 business cases and to make comparisons between them, each of the cases was analysed against the same 6 criteria:

1. What were the specific problems addressed by the project?
2. What were the strategic goals of the project?
3. What were the project basis requirements?
4. What was the cost/benefit justification of the project?
5. How did the project protect the human dignity of elderly people?
6. How did the project oppose discrimination against older people?
7. What were the lessons learned from the project?

For criterion (5) – how did the project protect the human dignity of elderly people? – consideration was given to the impact of the project on, centrally, individual encounter (for example reflected in feedback from users); the environment in which the encounters took place; and the policy context particularly with respect to EU policy (see Figure 3).

The initial analysis of the business cases against these criteria was reported, case by case, in WP 1.3. Subsequent thematic analysis for WP1.4, including the considerations raised within the validation process, produced general points relating to the translation of principles of dignity and non-discrimination into good practice in the application of ICT solutions to address some of the challenges of living as an older person in this era.

3.9 Lessons from the analysis of 10 business cases

3.9.1 Psychosocial benefits – to the person’s sense of self, and in their relation to others

The well-being of people in general relates both to how they feel about themselves, and how they relate to others. These aspects matter when it comes to interventions with older people, whether or not ICTs are involved. In many cases one of the effects of the ICT interventions described in the case studies was to reduce feelings of isolation and loneliness, accompanied by a boost of self-confidence and an increase in self-esteem. For example participants in Good Morning reported feeling more secure and motivated thanks to the ‘friend at the end of the phone’ each day: these regular contacts had the effect of reducing feelings of isolation and exclusion and increasing feelings of being cared about and safe at home: this had a beneficial effect on health and well-being. Being a member of the Good Morning community also improved members’ connection with their community and knowledge of community services and events. Good Morning shares characteristics with many such initiatives for brief and reassuring daily contacts with older people living at home either by
phone or intercom, or by TV screen, tablet, PC, smart phone or other means. In all cases it is essential that the technology acts as a portal to human contacts in person, and not as a replacement for them.

The people with dementia who were using the CogKnow system found it easier to cope with their dementia-related difficulties and to navigate through their day. This increased their self-confidence, dignity and quality of life. Expert opinion on the uses of technology to help people with dementia emphasises the need for interactive, iterative, and reflective practice as part of the application of such technologies.

The User Group, Dundee website provides free registration to the group and to classes, and a virtual place for members in the form of a social network, where people may ask for ICT support. In this way the website is a duplex channel, which means that in addition to acting as a source of information (with help available 24 hours) it also promotes communication for older people where they may share issues, knowledge, and information about local news or events. This may assist in reducing feelings of loneliness not only during the face-to-face classes but also when the users are at home and physically alone. Seniornett meetings are a way for members to meet new people of similar ages and to start new friendships: as a result there has also been an increase in the number of older people who have registered to and regularly use Facebook, Twitter and other social network sites to communicate with their friends and family, meet new people, and feel less lonely. Both of these initiatives are examples of how online and offline (in the flesh) communities need not separate or in competition. However people coming into either kind of group may need some guidance or advice about how to stay safe themselves and behave appropriately especially where meetings may take place in both domains.

In Hungary, the older people who took part in Inforum Grandparent-Grandchild Competitions of Informatics had the opportunity to strengthen their relationships with younger people. During the competition, the grandparents learn how to communicate through ICT (by email, chat, social networks or video-communicating software) with their grandchildren, relatives and friends. This helps them and their friends to feel less isolated: it is a social event where old and young people can meet each other to learn about ICT. While commentators have discussed the usefulness of peer-to-peer learning for older people, and learning situations in which older people can take their own pace, it is also very important for many older people that they have opportunities for meaningful interactions with people across the age range, and learning about technologies together is a golden opportunity for this.

3.9.2 Promoting health and safety

Current trends in the development of technologies related to health maintenance and the economics of health support delivery within ageing populations suggest that promoting health and safety for older EU citizens will increasingly involve the use, one way or another, of ICT applications. In addition to the beneficial health effects brought about by a strong sense of self and good social relations, some of the
business cases studied in VA D1 had the potential to directly impact health in this way. Access to the Good Morning service contributed to the health and well-being of older members, from timely responses to serious falls inside the home, to simply warning about impending low temperatures. Such a system might, for example, have altered the outcomes for many older people of the 2003 heatwave in Europe and elsewhere which claimed many lives of older people, especially those living alone and without access to outside help (Robine et al, 2007).

The right to safety and feeling safe is an inviolable human right to which impairments should not present barriers: the service provided by the Reach112 project was aimed at older people with hearing impairments including deaf sign language users, speech impaired people and deaf-blind people. It enables the hearing impaired to access the emergency service 112. This is an important progress in terms of inclusion because it gives the end users both an aid to personal safety and the possibility of helping others in dangerous situations. The Reach122 project improved the routing of emergency calls in the countries where it had been piloted and allowed the users to make direct calls to police and fire service PSAPs, optimising the time required for people with hearing impairments to make emergency calls. This is an example of where an adaptation of a technology can bring it into practical use by sections of society that would otherwise have been excluded from it, and thereby disadvantaged as citizens.

3.9.3 Range and mobility

Social and civic inclusion requires that people can have a visible presence in the communities to which they belong. This includes both a physical presence, such as being able to get out of the house and into the local community, and a effective presence in terms of voice within decision-making communities. The business cases included ways to expand the range of older people – either physically (in space) or virtually (online presence). In terms of mobility, The PICAV prototype (Personal Intelligent City Accessible Vehicle) has been designed small and agile, composed by eco-sustainable materials, and moved by a fully electric engine with zero emission of air pollution and less than 45 dBA of noise emission. For people with little physical strength, including older people and people with disabilities, access to such a technology can enable their (re)engagement in the active life of their town, encouraging them to exit from their home and enjoy possibilities to move independently around their neighbourhood. The project aimed to be fully compatible with the urban environment, especially city centres which are often characterised by very tight street, steps and irregular streets. Older people, particularly those with age related disabilities or weakness, often opt to stay at home instead of going out when they feel unconfident about the risks involved in a long walk – possibly on slippery floors, uneven sidewalks and broken curbs typical of many towns and cities and especially historical centres. Regular public transport vehicles are often not able to circulate in pedestrian-restricted areas, inadvertently discriminating against people who need to go into these areas but are not in a condition to walk safety to get around them. The PICAV project demonstrated an
approach to dealing with this through an ICT solution which provides empowerment and dignity for the user, giving the possibility to go alone to meet friends or go shopping. Similarly, responses to the CogKnow project D8 suggested that the mobile devices used in that project can support the older user outside their home, allowing them to meet friends and establish new friendships.

In the Friendly Rest Room project the involvement of the end user in the design and evaluation during the iterative steps was aimed to create user-centred solutions. The older people involved were reported to have appreciated their experiences in using the developed prototypes. This was demonstrated in the c.80% satisfaction rate in responses to questionnaires. Daily use of the prototypes increased during the test phase. Involvement with this technology expanded the range of older people in two ways. First spatially, by producing a technology to enable individuals to move more independently and safely. Participants had been wary of going out when they knew there were no adequate toilets in the place they want to go to. It was evident that increased availability of facilities such as the toilet prototype tested could overcome many of the issues of safe and convenient use, allowing people to get out and about as they wished to. Secondly, involvement in FRR allowed participants to push their reach into the early design and development stages of a technology so as to have a say in a technology that would directly concern them. A designer commenting on the draft report of D1 emphasised the importance of involving older people at this fundamental level – not for tokenistic reasons or in the belief that older people are pretty much all the same, but because less experienced designers might need to get some awareness of the kinds of detail that can affect usefulness for different people.

3.9.4 Civic engagement

All older Europeans have the right to engage in the civic life of their communities but in order to exercise this right, they may need specific kinds of support. In one way or another all the cases studies gave the older people involved opportunities to feel included in the wider world. This might mean being able physically to get out and about, become involved in online communities, have a voice about personal issues or public matters, become better informed about community services and events, or feel an improved connection with communities of choice or valued as a contributor to research. The City of Tampere is using the Netti-Nysse bus to promote the social inclusion of older people and people from socially deprived areas. The Good Morning Project supports older people in getting access to services in their surrounding environment and updated about any local social initiatives in order to motivate them to get involved. By attracting older people every day to take part in active conversations about certain topics or issues, the Good Morning project acts as an integrative tool, through which members can become involved with the issues and topics that concern society. The daily calls are a very effective mechanism to keep older people engaged with their community and encourage the feeling of being part of general discussion, decision and debate. In return, being aware that their opinion and thoughts count and are sought encourages members to read and listen more about ongoing debates and arguments, with a positive impact on the person’s mood.
and self-esteem. Arguably this has a ‘training’ effect as each member feels him/herself more involved in society and accordingly predisposed to participate more and more actively in group concerns. This is a bilateral mechanism against discrimination: on one hand communities have the opportunity to welcome positive and experienced senior citizens to the debates that concern them; on the other hand old people can retain belief that their views and experience can contribute to a better future and are not ignored.

MediAbility allowed the authors to voice their opinions and describe their life experiences in their own words. The project allowed for individuals who are usually marginalised within the media domain (especially older people) to post their own stories of business, movies, news, and programs to the online public domain. The popularity of a person’s story can be seen online through a ranking system and by the number of views their video receives. This opening up of expression and response is important in terms of dignity and social engagement, and for some older people, it has changed their lives.

The CogKnow solution is intended to alleviate difficulties experienced by people living with mild dementia and thus promote independence and self-confidence. Allowing people with a diagnosis of dementia to continue an active life in the town outside their home and to remain socially active for longer also contributes to reducing the discrimination of ‘invisibility’. Current understanding of dementia takes into account the situatedness of living with dementia, and the tremendous difference that the physical and social environment can make to people’s ability to cope with early stage dementia and, potentially, delay worsening effects of the condition. Ideas about Memory-Friendly communities to support people with dementia include social, organisational and technological elements that can work together to support independence and dignity by underpinning the capabilities and networks of citizens living with dementia.

The Inforum Grandparent-Grandchild Competition became a social movement in 2003. When the initiative started, the number of internet users over 60 in Hungary was 20,000. By 2012 it had reached 300,000. Through its media exposure the competition is contributing to the fight against the digital discrimination of older people and encouraging older people and their friends and family to become involved in the Information Society. While other EU countries do not necessarily have similar public competitions, there are a growing number of initiatives at all levels to encourage interaction within and between generations as part of the push towards greater digital inclusion and the advice of stakeholders consulted for D1 is that this kind of activity needs to be sustained and ongoing to meet the needs of cohorts of ageing people.

3.9.5 Impact on others

The well-being of people is situated within the context of their relationships, and from the D1 discussion of capabilities and dignity it is clear that the effect of interactions with other people is an inescapable component of the impact of
interventions/encounters. Most of this discussion focussed on the effects on older people, but the people with whom they interact are effected too. In the case of family carers or supporters these effects may be part of the reasoning behind decisions about whether and how to use ICTs. Directly or indirectly, the business cases explored in D1 often helped family, friends and neighbours to support older people. This might mean less effort required as a carer, or that family friends of the same and different generations were encouraged to get involved. As well as supporting the older people who directly received their services, the family, neighbours and friends of members of Good Morning were also helped by getting some peace of mind about the well-being of the older person and knowing that they were being regularly contacted. Positive feedback in the CogKnow project was registered among the associated carers of the people living with dementia who were using the devices, as well as from the people living with dementia themselves. Carers reported considerable improvements in terms of independence for the user of the technology, and as a consequence of the support provided by the technology, less effort was required from them as a carer.

The concepts of person-centred and relationship-centred care, drawn upon by commentators to the D1 draft report, emphasise that where older people are not fully independent, it is above all the quality of relationships with carers that will best ensure dignified treatment. Several commentators also drew attention to worries that technological solutions might undermine these relationships, or else that the people involved might be reluctant to use them because of not wanting be seen as implicitly criticising current arrangements by bringing in a technological solution. The TAM approach allows for these sensibilities to be taken into account and become part of the negotiation about whether and how to introduce an ICT and how to monitor its effect and effectiveness in use.

3.9.6 Older persons’ engagement with technology

As predicted by the TAM approach, involvement with technologies had an impact on how the older participants perceived technologies and further engaged with them beyond that specific project. The analysis of business cases was not fine-grained enough to get a sense of the levels of prior engagement with or attitudes to technologies of the older people involved in the initiatives. However it is likely, based on other studies of older people and engagement with ICTs, that there was a least a range of familiarity with a proportion of older people who had little familiarity and confidence. Involvement with technologies was seen to have had an impact on how the older participants perceived technologies and further engaged with them beyond the project. This included extending choices about when, where, how, and if to get involved; increased interest in benefits of technology; and increased confidence and capability in using technologies safely. Through surfing the web and looking for information online, any worries that the older users in Inforum had with regards to the internet and information technology (such as the fear of damaging the PC or getting a virus) were reduced. The Netti-Nysse project discovered that once those older people who had never surfed the web before learned how to use it correctly
and got used to dealing with search engines, they could decide whether or not they wanted to become involved in the Information Society. More than 80 percent of those who took part in the training said that they were going to use computers after the course. Often they became unexpectedly interested in the benefits of technology. These included online banking; customer services; social networks; video communication with relatives and friends; entertainment; and real-time information. Participants in the Netti-Nyss bus project have themselves promoted the project as they often discuss and share their opinions with friends to encourage them to join the Information Society. However there is a lot of difference between having the intention to get involved and having the capability of doing so once active participation in a project has ended. Expert opinion emphasises the need for continuity of support and information about where to easily find it, and access to communities of support - both peer-to-peer and intergenerational.

The User Centre group is strategically located in the Queen Mother Building of Dundee University to allow for mutual cooperation and benefits between the older people who are members and the researchers of the School of Computing. The project contributes to making the Internet and its benefits accessible for older people, and involves them in the design of future innovations. This can improve self esteem and dignity for older participants because as well as learning ICT skills as an older citizen, they are also able to bring their own opinions and values to inform future progress and advancements. By participating in the focus groups and the design phases of innovative technologies, older members have the chance to become protagonists in removing discrimination about themselves and people that they represent in the development of upcoming technologies before they enter the market.

Evidence from the evaluation questionnaires used in MediAbility showed that participants were willing to share their stories with each other, and felt they were learning something together. All the participants evidently enjoyed producing a film in two days to put on a public broadcaster’s web-site. This had been a good experience for all, including those who had no knowledge of computers: developing a story was the motivation for them to use technology as a group. Once they got used to the PC and became interested in its possibilities, some participants started to use computers for other purposes. The FRR project made the experience of using the toilet more accessible, allowing users to feel independent and comfortable and adapt to surrounding environments. Adjustable elements in the prototypes were moved by the end user during the tests, demonstrating that there was a need for such an option, which they had previously been unable to satisfy. The same is true for the grips and the alarm device, which made the users feel safe using the toilet and contributed to their dignity and quality of life. By engaging with the prototyping process, the older participants were able to ratify aspects of the design such as adjustability, and at the same time learn about possible benefits from technology that they might not have previously considered. Both of these cases demonstrate the need for older people to be provided with access to ICT in supportive circumstances and over a long enough period of time for them to be able to gain some familiarity.
with them and a level of comfort and competence in using them. Without this, the capability of being able to access essential technologies may be undermined. However, in order to sustain this growing interest, people need to be supported in dealing with technical problems that might arise, maintenance or renewal of equipment, updates to software and hardware, information about new developments, and associated costs. The D1.3 analysis of the business cases did not pursue these aspects of continuity and there is a strong case for a systematic study of what happens to them after projects are completed.

3.9.7 Design of technology/services/learning

ICT-related activities can enable people to try new experiences, meet new people, and reduce boredom. Tools and ideas need not be complicated: Relatively simple tools (Good Morning) and ideas (Netti-Nysse) can be very effective. Where possible, services should be provided close to people’s homes: equipment should be personalised to fit the individual user’s needs (FRR). These ideas from the business cases are situated within the overall approach to design variously described as universal design, design for all, or eAccessibility/eInclusion. This does not mean one-size-fits all, common denominator design, but designing with the sensibility that people are different and excellent general design needs to take this on board.

The VA D1 business cases suggest that innovation can also usefully build on existing solutions, through the integration of innovative solutions within already existing infrastructures. New technologies and services can empower existing service rather than aim to replace them: or they can make accessible links to join together existing services. In the case of PICAV, sustainability of the project itself is based on the concept of integration. Where projects involve an element of training for older people, it is useful to recognise that older people tend to prefer learning ICT in connection with practical aspects of life rather than, for example, learning a specific software. Participants appreciate time to elaborate doubts, formulate questions. Coffee breaks allow learners to meet and become friends willing to help each other – with the potential to extend this co-operation beyond the classroom e.g. via the web. A familiar learning environment, with a good layout and an informal look to the lesson room contributes to success. Trainers must themselves be continuously taught, to keep them updated and to improve their teaching techniques and approaches. Some of these updates come from their experience of teaching courses, while others are a result of studies and progress in teaching science (Seniornett). Trainers must be able to interpret trainees’ responses, and humour is a useful tool in training (Nett-Nysse).

3.9.8 Design of technology research projects

Results from the business case studies point to the benefits of involving end users in consultation, focus groups and prototype testing, in terms of both the products
produced and encouraging older people into civic engagement (FRR; User Centre Group). Good practice in project design includes:

- Realistic examples can help to clarify concepts (CogKnow)
- Using an iterative process, adding more detail at each stage can be successful (CogKnow)
- Frequent communication is essential (Good Morning)
- ‘Human’ research methods, for example using humour and storytelling to engage participants, including people with dementia (CogKnow).

In MediAbility, the storytelling method allowed mixed groups of people of different ages, gender, disability, ethnic background and prior experience of using computers to develop their skills both individually and as a group.

Benefits for carers can flow from benefits to older person (FRR): and technology can expand useable spaces (PICAV) - these possible outcomes should be taken into account in designing projects.

3.9.9 Participative involvement in design and research

Older people are highly heterogeneous in terms of capacity, social characteristics, and technological experience and perception. Participants in research and users of services often have to overcome a lack of confidence in their abilities, and supporting a sense of worth can help to generate enthusiasm and promote dignity. Good practice points to ways to engage with older people, both individually and in groups.

Useful learning from the business cases includes:

- Where online investigation is involved, it is important for older participants to choose their topics as this was found to be linked to attention, mood and interest in learning (User Centre Group).
- Meeting like-minded people from the same age group can be beneficial (Netti-Nysse; Good Morning), but so too can intergenerational approach (Inforum).
- Beyond lessons/sessions, social networking can help people to overcome problems at home e.g. resolving issues in using different computers, operating systems, applications.
- It is important to make people aware of their valuable input to research. Feedback about the outcomes of projects is an incentive for further involvement in research.

3.9.10 Engagement with media

Engagement with traditional and new media has an essential role in drawing the attention of relevant audiences at various stages of projects, including:

- Making older people aware of projects of interest to them. In the case of Netti-Nysse, this involved painting the computer bus in bright colours to draw the attention of older people.
• Making the general public aware of issues, and fostering anti-discriminatory attitudes to older people
• Drawing the attention of policymakers to good practice for dignity and non-discrimination in ICT

3.9.11 Underpinning principles of good practice

Good practice in ICT begins with respect for the dignity of older persons and with conscious effort to practice non-discrimination. From there, details of project and product design, participative engagement with older people, and engagement with audiences via appropriate media all contribute to successful outcomes. In addition, good practice in ICT is a characterised by recognising that:

• Older people need to be motivated to learn about ICT, to help them take part in the Information Society (Inforum).
• There is no age limit for learning about ICT. In Inforum grandparents were able to teach their grandchildren as well as the other way round.
• The capacity issues in dementia are particularly challenging in the development of ICTs, and it is important to consider that people with dementia may also be affected by other age-related conditions such as mobility and sensory impairments (CogKnow).

Good practice is often transferable. For example for over a decade, Good Morning has set software, procedures and guidelines that have informed standards for a popular concept in social care that have transferred from Scotland to the Northern Ireland with further plans of further spread across Ireland.

Good practice is supported by:

• taking account of Capacity – what a person is able to be and do. This draws attention to the needs of the person, rather than the dictates of the system or technology
• making opportunities for beneficial Dignity Encounters – so that older people are neither excluded nor subject to discriminatory behaviour
• recognising differences in Technology Acceptance - not expecting older people either to automatically accept or reject new ICT solutions on account of their age.

3.10 Discussion

3.10.1. Key questions

Value Ageing Work Package One set out to address five key questions (p.3). In this section we present responses to these questions based on our findings and the input of others via the validation process.

1. To what extent is ICT development threatening older people’s dignity and putting them at risk of discrimination?
The evidence from Value Ageing WP1, corroborated by validation, is that in conditions of good practice many older people have found that ICT developments have supported them in maintaining dignity and independence. However ICTs also have the potential to damage the well-being of older people if used inappropriately, or if not used (for example on the grounds of age) when they could be of benefit. This can be exacerbated by the speed of technological and social change, costs of ICT and support, incompatible systems, inadequate information, and poor design. A commentator on the draft report emphasised that unaffordability of technologies in itself could threaten older people’s dignity by emphasising their lack of resources. Yet technologies should not be forced on older people, or create an artificial ‘need’, or substitute for face-to-face encounters. In the case of ICT solutions for surveillance and monitoring there is potential for older people to be pressurised to accept devices and services primarily to relieve the concerns of someone else. Older people will often, even if somewhat unwillingly, accept the introduction of a device or service from a desire to compromise to keep family relationships happy. It is therefore important that the dignity of the older person is upheld in the process of deciding to use a technology, acquiring it, deciding how it is used, and considering the personal consequences of using it. In the case of people with compromised cognitive ability, this process of decision making will rely more heavily on relationships with carers and supporters and a reflective process of introduction and monitoring of the effects of use. Commentators on the draft report emphasized the importance of the older person staying in control and ‘being able to switch off’. This has implications for applications used for surveillance and data gathering.

The current worldwide economic focus carries a danger of leading to a further divide between the included and the excluded, both within nation states and across Europe. Digital literacy, eGovernment, active ageing, and infrastructure and services in remote areas are issues that have been identified as still tending to show lags (Gheorgiu and Unguru, 2009) and the increasing pace of technological development adds more frequent challenges to policy. Actions and activities likely to support dignity need to be underpinned by EC policy and successfully implementing such an approach may help to mitigate the results of other intentions, including those purely orientated around the economy, which place many older people at risk of discrimination by virtue of deficiencies of wealth, health, and good information. Hence within ICT developments lie both risks of and solutions to discrimination.

Value Ageing cautions against the ageist attitudes, both intentional and unintentional, behind labels such as ‘elderly’ or ‘older people’. In order to talk about and work with sub-groups of the population, such collective identifiers must be used, but we should be aware of the inherent risks of treating ‘older people’ as a homogenous group because they are labeled in this way. Engagement with a broad spectrum of older people in technology related R&D and implementation is therefore essential to safeguard and promote the dignity of individuals. Value Ageing WP1 suggests that it is generally not ICT development per se that threatens dignity and inclusion, but the ways that specific ICTs and services may be conceived, designed, promoted, introduced, used, supported, and monitored, if Dignity is not an
identifiable underlying principle and goal of those working with older people in this field.

The current worldwide economic focus carries a danger of leading to a further divide between the included and the excluded. Digital literacy, eGovernment, active ageing, and infrastructure and services in remote areas are issues that have been identified as still tending to show a lag (Gheorgiu and Unguru, 2009) and the increasing pace of technological development adds more frequent challenges to exclusion and eAccessibility policy. Advocating dignity in EC policy and successfully implementing it may mitigate the results of other intentions, including those purely orientated around the economy, which place many older people at risk of discrimination by virtue of deficiencies of wealth, health, and good information. Hence within ICT developments lie both risks and solutions to discrimination.

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2. To what extent can ICT become a resource to prevent offences to older people’s dignity and to prevent ageism and exclusion?

While they cannot solve all problems, ICT sources if used well can go some way to help prevent offences to dignity and support social inclusion. The United Nations Principles for Older Persons specifies five principles which should inform definitions around eAccessibility for older persons: independence, participation, care, self-fulfillment and dignity. ICT can be a resource to prevent offences to older people’s dignity and the risk of exclusion by upholding these principles. ICT can:

- support independence by smart interventions to support physical, cognitive, emotional, social and cultural aspects of daily life, and safety in the environment.
- increase participation in the Information Society and in social and civic life by opening avenues for older people to have a presence in both physical and online communities, mitigating some of the practical barriers to inclusion.
- support good and appropriate care by making allowance for personal choices, e.g. between intimacy and privacy; time and place of activities; monitoring health.
- encourage self-fulfillment by allowing older people to continue longer with chosen activities (such as reading, of getting out and about), and encouraging self expression to support a sense of identity.
• underpin dignity by supporting, and mitigating incapacities; giving more control over Dignity Encounters.

3. To what extent are eInclusion and eAccessibility policies effective to prevent offences to older people dignity and to prevent ageism and exclusion?

ICT, used appropriately, is a powerful resource to defend older people’s dignity and foster social inclusion by making it possible for individuals to become, or remain, engaged in physical and online communities. eInclusion and eAccessibility policies have a significant role to play by directing effort and supporting initiatives to include older people as engaged citizens, whatever their individual capacity. Initiatives to support the dignity of older people and counter ageism and exclusion can be based on local, regional, national and European-wide policies. For example from the business cases, the City of Tampere is using the Netti-Nysse bus to promote social inclusion of older people and people from socially deprived areas: here there is strong political commitment, with funding provided by the regional government and ministry of education.

Evidence from WP1 is that policies on eInclusion and eAccessibility can be effective insofar as local environments, including financial, structural and cultural aspects, allow the policies to effectively be put into practice and their impact to be monitored. Current policies appear to be having some impact for some people, but the reality of indignity and exclusion persists for many thousands of older EU citizens. WP1 suggests more emphasis on co-creation with older people and more integration of effort between different levels of governance and implementation, to help move policy into action. In addition attention needs to be paid to issues of affordability and inequalities of access on financial grounds. Here Solutions being trialled in parts of the world where few people have access to a computer or the internet may also be applicable for using with older people in Europe who are similarly disadvantaged in terms of costs. An example of this is the idea of a USB stick loaded with software that will allow old PCs to be revived and shared. The USB stick would allow each user their ‘own PC’ (desktop, programs, data) without overloading a shared PC’s hard drive itself with multiple saved work.

4. To what extent are current EC policies in this field effective to promote respect for older people’s dignity and eInclusion?

One of the most important steps towards an inclusive European Information Society was the Riga declaration of 2006. This defined Member States and EFTA country priorities as follows:

• Needs of older workers and elderly people
• Geographical digital divides
• eAccessibility and usability
• Digital literacy and competencies
• Cultural diversity in relation to inclusion
• Inclusive eGovernment

However from the analysis of WP1 it seems apparent that current policy on
elnclusion and eAccessibility tends to be focused on matters relating to the economy, particularly since the global economic downturn (post 2007), and this is evident in how policy is worded. Clearly within markets consumers, as a group, have great power though individuals may have little. In the case of technologies, for example in purchasing assistive technologies, influence is sometimes exercised through the direct or indirect involvement of older people and the various stakeholders involved in ICT and ageing (as well as voluntary NGOs who are acting on behalf of older people representing their interests). WP1 has identified the need to include a wide range of stakeholder in decision-making, to balance the costs of implementing ICT interventions against not implementing them, in the light of real understanding of people’s needs, capabilities and preferences. The repeated mention of ‘user-rights’ in EU eAccessibility and elnclusion policy needs to better consider the unique needs and heterogeneity of older people, where rights of themselves may not in practice promote non-discrimination.

More recently, the EC has come out strongly in support of the idea of independent living being assisted by new technologies including robotics via its Digital Agenda strategy and initiatives within Horizon 2020 as a continuation of hundreds of projects funded under the Active Assisted Living Joint Programme. This programme along with the eHealth Action Plan, the European Innovation Partnership on Active and Healthy Ageing an parts of Horizon 2020 Societal Challenge 1 on Health, Wellbeing and Active Ageing are aimed at stimulating the ‘Silver Economy’ market and to help European industry (and SMEs in particular) to be in the driving seat. In this context it is important to note that the European Accessibility Act and recent procurement directive are positioned within Internal Market (IM) measures rather than anti-discrimination measures. One implication of this is the need for those interested in elnclusion and dignity to also become familiar with the language and rationale of IM measures.

5. What are (if any) the main policy gaps to be filled?

The impact and aftermath of the economic downturn, combined with the diversity of member states regarding infrastructure, assets, markets and socio-cultural expectations means that some member states will struggle more than others to deploy ICT initiatives to promote respect and elnclusion and avoid using them primarily as instruments of control. However, wherever member states are starting from and whatever their time scales for action, it should be possible for EU policy to guide them towards taking the dignity of older people very seriously as a key aim. In terms of legitimisation, it is important to bear in mind the threats to human rights posed by highly modern technological societies and particularity by the use of technologies that are not well understood by citizens in general. This perspective features prominently in the EU Charter of Fundamental Human Rights (2000) but is absent from the revised European Social Charter, 1996 (Mordini & De Hert, 2010). Generally there is a lack of reference throughout EU policy on human rights, dignity and equality: these issues are often mentioned briefly at the start of a document but the focus shifts (without contextualising the relevance of dignity) to the need to
address the broadband gap, promote eGovernance (especially for those who are housebound to promote participation in the modern society), avoid isolation and deliver training in ICT skills where appropriate. This is an area which could be better addressed in future policies, placing the emphasis back on to the dignity of older people, on understanding what this means from the perspective of older citizens around Europe, and on gathering examples of good practice of how to achieve dignity and equality in practice as well as in theory.

Discussing care, and recognising the mediating impact of cultural settings, Agich (2007) cautioned against studies of dignity and the care of older people in different countries which focus on commonalities such as demographic and health trends but neglect the differences inherent in culture, economic, social and political contexts. Recognising that tacit understandings of dignity may be shared by people from different countries, he advised that unless examined within these respective contexts the implications of their beliefs about dignity may vary hugely. This insight applies equally to the uses of technology and future EU policy needs to take account of the influence of local contexts.

If an ageing demographic is to be targeted, it is imperative to understand user’s needs. Design of technologies for ‘vulnerable’ old people has proven in the past to produce some patronizing/over-simplified or over-complicated options. This reinforces the essential need for older people to be involved early in research and development phases and to continue their involvement, which requires better ways to engage with older people in the research and development of emerging technologies. EU policy could be strengthened in this regard across the broad spectrum of technological development and not just in relation to age-related assistive technologies. This realisation can both enable empowerment of older people directly and increase the quality, usability and value of products and services.

3.10.2 Looking forward

Current anticipation is that various technologies will almost certainly come into more prominence in use to support the health and well-being of older people as part of packages of care. These include a range of telehealth and telecare applications, guidance systems for wayfinding outdoors, home technologies for indoors, and robotic applications. The latter includes robots to help with lifting and other aspects of personal care, help with domestic activities, and also the enhancement of physical attributes, such as exoskeleton frames that can help people to carry weights or reach high shelves. WP1 has identified that older people must be integral to the development of these new technologies so that they can be designed with age-friendly attributes.

The Value Ageing exploration of the concept of dignity in later life has embraced ideas about dignity that both define it in universal terms and make allowances for variations in what people understand by ‘dignity’. In addition to cultural and national variations, in considering how people may react to technologies account needs to be taken of variations related to cohort (e.g. commonly received attitudes of a group of
people of similar age and background) and also of period (e.g. the differential impact of an event or change depending on the age of those receiving it). Both of these effects are related to, but not identical with, the possible effects of an individual’s chronological age. Rhodes (1983), suggested that both longitudinal and cross-sectional study is needed to differentiate their impact. This is particularly important in considering ICT adoption by older people in Europe because of demographic, social, cultural, economic and climate change with as yet unknown potential to influence where differences in exposure to technologies will occur and how lasting the effects of discrimination or exclusion may be.

It was to a large extent inherent in most 20th century ICT developments that whether or not people were in a position to adapt them, and regardless of whether or not they then chose to use them, the presence of the technology was clear. Devices such as computers and telehealth monitoring equipment would have to be acquired and either the older person or a person acting on their behalf would have to have capability to understand and operate the technology, both hardware and software. In most cases the physical objects comprising the technology could act as a reminder of the presence of the technology itself and of the need for its use. Technology-based services from email and daily well-being phone calls to the use of search engines to explore online all require active establishment and maintenance of systems for which the individual older person or the person supporting them has a responsibility, becoming obvious especially when a problem occurs. The Value Ageing discussions around Capabilities and TAM, while acknowledging that older people have the right to choose not to use ICT if they do not want to, has been fundamentally based on older people’s engagement with technology being underpinned by principles of knowledge, choice, and appropriateness if dignity and non-discrimination is to be upheld. The ten business cases selected for discussion in WP1 are all examples of efforts to the implement these principles.

However, as the 21st century moves into a period of spreading ubiquitous computing, some of these principles come into question when technologies may neither be evident as physical objects to be chosen and understood by an individual older person, or as supporting services that they ‘buy into’. To some extent the technological shift away from personal desktop computers and towards more mobile devices such as tablets and smart phones has meant in practice that people have the choice of smaller, more mobile, and potentially cheaper devices that may suit the needs of an older person better. In these cases there is effectively no change in principle in the individual’s relationship with the technology, even if the subjective experience of using it is different. However when ICT becomes embedded in the environment in ways that are non-intrusive, as is the aim with ubiquitous computing, the relationship between the person and the technology may change.

The idea of ubiquitous computing (also described in other terms including pervasive computing, calm technology, or ambient intelligence) originated in the late 1980s at Xerox’s PARC (Palo Alto Research Center). GSIL (2008) have described some of the key technological developments that have acted as enables of ubiquitous computing.
These include:

- Enhanced technologies for networking that have increased the accessibility and affordability of broadband networks, along with developments in optical fibre and Bluetooth technology that allow multitudes of wireless signals at the same time and place.
- RFID as a low-cost method of identifying individual objects at short range.
- Newer Internet Protocols (e.g. IPv6) that enable very many more networked objects and systems.
- Smaller and cheaper sensors and actuators mean that they can be used in many more ways.
- More accurate and cheaper GPS (geolocation systems) for personal use.
- Micro-electromechanical systems (MEMS), ‘tiny mechanical devices that are built onto semiconductor chips and measured in micrometers, are used to make pressure, temperature, chemical and vibration sensors, light reflectors’ (GSIL, 2008, p 2).

Some of the places where these technologies can be used for the benefit of older people are in collective residential care facilities for vulnerable older people, and in individual homes equipped as smart homes. The development of demotics using unobtrusive technologies, as with more widespread uses of ICT, raises ethical issues about consent and the control, use, and ownership of data flowing from through networked systems that measure individual activity. Questions may arise for example about the extent to which the person living with the technology understands the implications of these information flows, and whether they need to be reminded about systems in place that are so unobtrusive and familiar as to become invisible and therefore disregarded.

For example to robotshe major electronics company Samsung, based in South Korea, has recently ventured into biopharmaceuticals with a focus on creating cheaper versions of existing therapies from biological rather than chemical sources. This will sit alongside mobile health technologies such as those to track health, and wearable fitness gadgets. Development like these have led to speculation that as more sensors and monitors are added to smart phones, the tendency for functions to be combined into one device points to a potential decline in stand-alone medical devices. Furthermore, it has been suggested that because people have been growing accustomed to tracking their own health data via apps and mobile devices, they may well be more willing to allow their trusted brand of service provider access to this data more readily that they would allow its use by a more remote ‘big pharma’ company. Older people will be among the potential target market for these kinds of devices and services, which begs the question of how they will be consulted and informed about these developments and supported in making decisions about them.

3.10.3 The role of communities
Arising from the work of VA WP1, though not initially addressed by it, is the issue of the role of communities in the use of ICTs for older people. Local (geographical)
communities and communities of interest (distributed) may have crucial roles to play in enabling older people to access technologies and find the support they need to access them safely and equitably. Dignity, as identified in this study, is a relational matter and communities are where older people will experience dignity encounters in their uses of - or exclusions from – beneficial technologies.

4. Conclusions and Recommendations

This section of the VA D1 report draws together key themes from the Value Ageing study of ICT developments impacting on the dignity and non-discrimination of older citizens, and presents recommendations for future policy initiatives by the EU.

4.1 Conclusions

This primary purpose of Value Ageing Work Package One was to provides a comprehensive analysis of the the impact of ICT on dignity and non-discrimination of older citizens within the context of EU policies on eInclusion and eAccessibility. The analysis located dignity within a human rights framework, and specifically used the Capabilities Approach (Sen and Nussbaum) and Jacobson’s dignity encounters model as lens through which to consider inclusion and dignity for older people. A collection of business cases was selected to be illustrative of best practice in this area. Validation of the draft report was used as a means to test the findings and tentative conclusions of the study with an authoritative audience of interested stakeholders and experts.

The modern meaning of dignity is that is inherent, inviolable and inalienable to all, based on the concept of human rights which is at the core of the values of Europe. Whereas the aims of upholding human rights and justice, supporting the dignity of individual citizens and families, and working towards equality of treatment are threaded through numerous international, EU, and national policy documents, this study has identified a need to strengthen a focus on understanding how older citizens around Europe experience dignity in practice, and for EU policy to promote actions that support their dignity and social inclusion which take account of differences as well as commonalities.

The approach to understanding dignity in Value Ageing, which is based on Jacobson’s model of dignity encounters, of necessity forefronts human contacts, relationships and interactions. Whereas ICTs can be tools to facilitate dignity in interactions, they can also be means to offend dignity if used poorly or not used when they ought to be. Two key aspects emerged as being fundamental to good outcomes of using technologies to support older people. The first of these, reiterated in validation of our findings, is the primacy of intra-personal relationships in which people are cognisant of what dignity looks like for the other person, and are personally committed to supporting it. Secondly dignity encounters can be facilitated by design considerations and organisational support that aim for social inclusion and the maximisation of capabilities.
Case studies described in this report, further evidence from commentators in the validation and the literatures in this field suggest that in the case of the application of ICTs, and often more generally, dignity engagements need to be regarded as processual. This is particularly the case where older people have diminished mental capacity and/or impaired capabilities mean that they have difficulty in making informed choices. The contextualising framework of an approach such as TAM, taking account of where the individual older person is coming from in terms of previous use and understanding of technologies, needs to be combined with forward-facing attention to how the person experiences the new technology and their need for ongoing support and adaptations.

The idea of engaging with the entire process of introducing technologies to older people and supporting and reflecting on or monitoring their usefulness and effectiveness also extends to the processes of design and development. The participative nature and principles of both universal design and citizen engagement make it more likely that older people and people with disabilities will be able to have useful input at the development stage of technologies that will affect their lives. This will mitigate at least some of the forces of discrimination in access to technologies.

This study has discussed some of the uses and implications of ICTs in supporting health. The potential for ICTs to be engaged further in the support of older people’s health, in hospitals, care homes and especially for those living in the community, is gaining impetus because of the cost expectations associated with lives lived longer with long-term conditions, advances in medical treatments, and difficulties in resourcing personal care. The increasing use of ICTs in this context has implications for the dignity of older people on several fronts including: the need for technologies to enhance and not substitute for personal interactions; the ability for older people to understand and agree without pressure from others to the use of the technology and, in the case of monitoring equipment, their personal data; the assurance of privacy and security of information.

The case studies selected for analysis in VA D1 covered various applications of ICTs, across a range of devices and web-based activities. Necessarily for any such study located at a specific time and place it worked with specific technologies available at the time. The intention was to draw our from these good practice cases some key principles for ensuring as far as possible that older people experience a dignified encounter with new technologies. Validation suggested that insofar as analogous initiatives elsewhere can be considered, the core principles of inclusive design, consultation, choice, continuing involvement and support, attention to diversity and resources, taking account of previous experiences and economic and other resources, hold true. What is less certain is the potential effects of technologies not yet developed which may take a different turn, for example in terms of visibility, or degree of contact with the physical body. Rapid progress in technologies that include elements of ICTs along with other elements such as smart materials or biological components makes it difficult to track which of thousands of prototypes and concepts will be developed into functioning technologies, and which of these will be adopted by older people and those working with them. Hence this situation requires
statements of principles of engagement by the EU. Capturing robust data about the effects of the use of different kinds of ICTs with older people over sustained periods of time would provide knowledge upon which to base such a statement of principles.

The heterogeneity of older people includes, among many others, characteristics such as age (with an increasing upwards spread), gender and sexuality, cultural, political and faith background and practice, disabilities and health conditions, cognitive capacity languages, and wealth. These are reflected in the consideration of individuals’ capabilities, and they may affect the nature of dignity encounters associated with the use of technologies. VA D1 has identified that with respect to the impact of ICTs on the dignity and non-discrimination of older people around Europe it is essential that these differences are given more attention in the development and use of technologies.

The use of case studies as exemplars of good practice to be analysed through the lens of dignity encounters has allowed the production of descriptions of specific technology interventions and reflections on their utility and reception by the older people involved. Some of the commentators on the draft report found the use of case studies to be useful because they can authentically anchor the theoretical approach and principles within real-life situations and produce templates for good practice elsewhere. Other considered case studies to be of limited usefulness because of their specificity and difficulty in validating and replicating in a systematic way. In this study we have used the case studies as a means of drawing out some general themes occuring across the different cases by using the unifying lens of Jacobson’s dignity encounters model.

4.2 Final Recommendations

In February 2014 the Council of Europe (Committee of Ministers) adopted recommendations regarding the human rights of older people. Measures to be taken by Member States in order to combat discrimination based on old age covered some of the major challenges facing older people: (non-) discrimination; autonomy and participation; protection from violence and abuse; social protection and employment; care; and the administration of justice. This Council of Europe Recommendation aims to find the balance between autonomy on one hand, and on the other the protection of older persons. This is an important recognition of the long-standing gerontological articulation of autonomy/security diachotomies as older people respond to, and are acted upon by, their living environments. Adopted by the Council of Europe’s decision-making body, this recommendation asserts that the rights of older persons are still often ignored and sometimes totally denied and challenges ageing stereotypes. Although it is a non-binding document, the Recommendation complements existing human rights instruments and by interpreting current State obligations in the context of ageing, it has a real potential for impact on the ground.
Recommendations for EU Policy

From the WP1 analysis, it seems apparent that policy on eInclusion and eAccessibility, especially since the economic downturn, is largely focused on matters relating to the economy. Locally, different legislations and infrastructures between countries have a bearing on how policy can be implemented. But the challenges associated with current policy options (for example who provides services and training, and for what purpose) have potential to lead to further divisions in inclusion. Furthermore the increasing pace of technological development adds more frequent challenges to eInclusion and eAccessibility policy. Yet smarter use of emerging technologies will require better engagement with older people in research and development. Our recommendations for future EU policy in this area include the following points:

1. EU policy must explicitly address and promote action upon issues of inequality that include: dealing with the pace of change in ICT; the context of the life-long need for inclusion; the cumulative effects of deprivation at earlier stages of life.
2. For effective delivery of dignity and non-discrimination, interventions need to be owned by high-level authorities, at all other appropriate levels, and between levels of implementation and governance. EU policy needs to promote and support effective integration across these levels of governance and the capabilities of communities.
3. There is a need for shared frames of reference and common language with respect to the guidance in ICT for older people such that they reflect EU principles and priorities in non-discrimination and equality of treatment for all.
4. Strengthening the involvement of older people and people with disabilities at all levels of the development of technologies and services will produce more effective outcomes by facilitating a closer fit between the heterogenous requirements of users and the specifics of provision, with the potential to decrease the wastefulness of non-use or abandonment of inappropriate technologies. For economic as well as non-discrimination reasons future EU policy should incentivise user involvement.
5. To support dignity and non-discrimination, the effectiveness of ICT initiatives should be evaluated by considering the processes involved as well as the impact of use/non-use of technological solutions to challenges faced by older Europeans. EU policy should establish protocols for the evaluation of EU-funded ICT projects on both counts.

The development of EU policy can be supported by the analysis of validated examples of good practice where underpinning principles of ethical behaviour are being translated into positive impact (figure 7). Incorporating the recommendations
above would iteratively strengthen the evidence base for beneficial factors on which to base further developments in this field.

Figure 9: Translating EU Policy into Practice
PART C

5. Validation of WP1 Final Report

5.1. Validation process objectives and rationale

The validation process for WP1: ICT Developments Impacting on Dignity and Non-Discrimination of Older Citizens was initially based on the general validation template devised for use across the Value Ageing project as a whole, comprising three elements: ‘elite’ interviews, stakeholder consultations, and a web-based resource for general public access and commentary. However the implementation of the validation process for WP1 in practice varied within this overall approach in specific ways, outlined in section 5.3 (Methodology of validation process). The rationale of the three-fold validation consultation was to ensure that each work package within Value Ageing would be considered and validated by a small number (5) of ‘elite’ consultants who have familiarity with and influence within the domain of study of the work package. This would be enhanced by a survey of specific stakeholder groups to get a rounded opinion of the findings and the process of enquiry involved in the work. Finally, in the interest of transparency and accountability, the validation process would be open to public scrutiny via a generally available survey. The objectives of the validation process were to check the validity and comprehensiveness of the draft summary of findings and whether commentators considered that these findings might have been biased by the WP1 authors’ viewpoints.

5.2 Organization and timing of the validation process

In adapting the general template for validation to fit with the specific requirements of WP1, the aim was to achieve these objectives as thoroughly and effectively as possible. Given the theoretical nature underpinning the rationale for WP1, it was essential that the elite (i.e. highly informed) validation would include academics and others working directly on issues of dignity and non-discrimination in later life, and with strong familiarity with theoretical approaches to the uses of technologies with older people and people with disabilities. With respect to stakeholder consultations, given that the subject of the work package was dignity and non-discrimination, it was essential that older people themselves would be directly consulted. For the public consultation, it was anticipated that the strong theoretical core of the work package could potentially make it a difficult read for many members of the general public approaching these issues for the first time. It was also desired to make the open validation process as accessible as possible, so a decision was made to create an audio version of the draft summary report to be posted online alongside the text version. However because of a very low response rate to this element of the validation, an alternative approach was used: direct discussion with mixed groups of people via presentations and question & answer sessions at selected conferences and seminars with mixed academic, practitioner and service user audiences.

The validation process commenced in January 2014 with simultaneous posting of the summary report and survey instrument on the Value Ageing website, linked by
Twitter and other websites, and first contacts were made with a list of prospective elite and stakeholder respondents and interviewees. Contacts who did not respond to the initial approach by email were contacted again a month later by email or by phone. Contacts who had agreed to take part in the validation process but who did not subsequently submit a survey form or make themselves available for interview were contacted again over the following two to three months. If they still did not take part, other qualified people were selected and contacted.

The initial time period during which the online survey was to be active was one month, to the end of February 2014, but this was further extended by another month to allow later submissions. In retrospect, the initial period allowed for submissions was too short and extending it caused some confusion about the cut-off date for submissions. Future online questionnaires should be open for a much longer period, and wherever possible at least 3 months.

5.3 Methodology of validation process

The online survey and survey of stakeholders used the same survey instrument (Annex 4) which comprised two parts. The first asked three questions about overall impression of the document. The second asked specific questions about the content of the summary report. The next section on validation data brings together the key points arising from the process, and they have been incorporated into this final full report along with further analysis and comment arising from the question and answer sessions and further reading.

Interviews with the experts (‘elite’ consultants) took place by telephone with simultaneous notes being taken of the conversation. The core themes of the survey instrument were covered, but these experts were asked to consider the summary report from the specific viewpoint of their area of expertise and to reflect upon any errors or omissions that should be incorporated into the final report. Each of these experts contributed substantive additions to the analysis which have been incorporated into this final report.

The Q&A sessions took place at (a) the International Union of Anthropological and Ethnological Sciences (IUAES) 2014, Chiba, Japan and the 8th International Conference on Cultural Gerontology, NUI Galway.

Further conversations were held with regard to ICTs and ageing as a result of attending a meeting in Glasgow, Scotland of leading thinkers, strategists and practitioners in dementia-friendly communities. The contribution of these general conversations, along with the small number of direct replies to the online survey, primarily informed aspects of how the final summary report has been written to increase understandability.
Contributors to the development of WP1 D1 included:

**Elites by expertise:**

In each case the experts approached had experience in more than one aspect of ageing and/or technological inclusion, but for the purposes of the validation they were asked to consider the report with respect to a specific aspect of theory and/or practice in which they had specific and current expertise. These included:

*Dementia* (Dr Richard Ward, Lecturer in Dementia Studies, University of Stirling, Scotland) Dr Ward has further expertise in minority ageing issues including LGBT issues and traveller communities.

*LGBT issues* (Dr Rebecca Jones, Lecturer in Health and Social Care, The Open University, UK) Dr Jones is a leading researcher in Bisexuality across the life course and in later life.

*Technological inclusion and older people’s use of technologies* (Professor Leila Damadoran, Loughborough University, UK)

*Entrepreneurialism in later life* (Hilary Farnworth, Hilary Farnworth Enterprises, UK) Following and academic career in micro-businesses and social enterprises, Ms Farnworth is an advisor and mentor to older people who want to start up micro businesses and go self employed.

*Health and Nursing* (Professor Josie Tetley, Manchester Metropolitan University, UK)

**Stakeholders:**

Two representatives (based in Ireland and China) of a major industry provider of equipment cutting-edge research in ICTs.

Older people (UK based)

A designer (based in Ireland) with expertise in accessible and user-centred designed ICT projects

A policymaker

A provider of services (Ministry of Health, Israel).

Some of these contributors elected to remain anonymous so individual contributions have not been differentiated by name.

**5.4 Validation data**

**5.4.1 Expert responses**

This section summaries key points from the responses of the five academic experts, with fuller accounts presented in Annex 5. The key points have been addressed in the final report and the summary report.
**Professor Leila Damadoran**

The Value Ageing summary report’s covering of the theoretical aspects of ‘dignity’ has got to the core of many of the issues. The definitions are helpful to see, and menshenwerde is right in identifying the intrinsic nature of dignity (and with cultural contexts). It would be interesting to think about what we actually do with that in practice. It’s also interesting to realize that while the emphasis of this report is on ICT, you could translate many of these ideas cross to other areas.

When we try to defining dignity, the perceptions of the user are crucial. The bottom line is, people need to be able to switch off – e.g. surveillance/monitoring equipment. People need to be able to be in control while maintaining the purpose for which the device is used.

I see the benefits of ICT as enabling and empowering continuation of what is ‘normal’ for a person as they see it, and for communications. ICTs can also help care workers to understand the older person as a whole and not just as they are during this brief time of need for care. An example of this is the dynamic memory box. The risks of harm include lack of control and intrusion into a person’s proivate space. Surveillance risks this.

I agree with the Value ageing policy suggestions, and I would emphasise that involving older people must become a necessary part of development policy, and this needs to be real, genuine involvement. More than just guidelines, we need to engage hearts and minds (of the technologist, policy makers etc) and from that everything else will follow.

**Dr Richard Ward**

I feel that overall the summary report was a bit disjointed because the conversation about dignity was not thoroughly carried through into the discussion about the case studies. It was not entirely clear how the cases had been evaluated against the concept of dignity, so it is not easy to discern the evolution of the recommendations from this process. It requires to be fitted together into a narrative that stands alone.

The issues and projects were also mainly focused on outcomes and less so on the processes, but often it is the processes that are important for people living with dementia. Systems for introducing technologies and keeping an eye on them in use is essential in dementia because of the fluidity of the condition. It is not suitable just to identify products or devices to be used by the person with dementia and then leave them to it: because of changes in the condition the technology might become unusable by the person, so there needs to be ongoing assessment and support.

Dignity is about process rather than objects, and how ICTs are used is significant – for example are technologies active or passive. Staff need to be made aware of the ethical issues of the use of these technologies with people with dementia and who and what devices are for. Dignity requires a step-by-step approach that can take onboard everyone’s viewpoint. Guidance is needed on principles that get into a relational approach to things. In dementia, concepts of autonomy, choice and
participation don’t necessarily apply the same way and become less useful -the route
to dignity is in relationships and behavior.

Dr Rebecca Jones

The report adresses the complexity of dignity well. Dignity is hard to give, but easy to
take away. Differences in understanding dignity don’t seem to be used much by
developers, but the exclusion of older people from this process is as important as
design itself.

With respect to LGBT groups, there are essentially two populations, broadly
speaking: people who openly identify as such, and are connected to networks of
support, read literature, and are ‘out’, at least to each other; and people who are
‘closeted’ and for example don’t have ready access to networks of support.

People in either group can be supported by ICTs, because technology act as an
enabler to get people to sources of information, and helps them to make
connections to others – potentially reducing isolation and allowing valuable
communications. For those who do acknowledge their sexual identity for themselves
but are not out to others, the internet has the potential to provide cover and
anonymity as they look for support.

One issue that may well be more loaded for LGBT in health care is previous medical
records, and this can apply to anyone with a non-normative life course. What is in
personal medical records can be of concern, and particularly who has access to them
and who knows what about you. The surveillance implications can be worrying and
this can have an effect on how people behave.

Hilary Farnworth

Dignity has a connection with how people feel about their experiences and skills with
IT. Many find it difficult to ask for help, but older women in particular will often
belittle their own skills. Older women learning to use IT need reinforcement with
respect to their abilities in other areas. What they don’t need is younger people or
indeed their peers telling them that they are slow (for example in grasping how to
use a smart phone).

Older entrepreneurs know that they have to engage in some way to progress. This
might mean creating a website, or engaging with social media, and the availability of
affordable local training is important to them. In rural and other area where one
venue has to serve many functions, relevant IT skills need to be in the mix for older
people. However in terms of paying for training, there is a difference between older
people who want to set up a business are likely to be willing to pay for training, and
others, including those volunteering in the charity sector, who may be less willing or
able to pay.

For older people and families trying to select technologies to support older people,
unless they are involved in an organised telecare scheme there are all sorts of
choices and sometimes wrong choices are made. This equipment can become
another cost of caring for these families. With equipment like PCs and laptops,
families will often supply an older person with old, slow, handed down equipment
when in fact they need something responsive and easy to use.

Professor Josie Tetley

Dignity is very theoretically defined in the report and and the unpacking of dignity as
concept needs to be progressed to explore some of the more practical ways in which
dignity is then understood in the context of people’s lives and practice.

I feel the assumptions that underpin this report around how dignity is understood
and the practical issues that challenge or promote dignity in relation to ICT based
solutions need to be reconsidered and developed. As I read the report I felt there
was a disconnect between sections 1, 2, 3 and section 4. Section 4 is excellent but
does not truly connect to the way that dignity is defined/conceptualized in Sections
1-3.

Overall the recommendations are excellent, but can they also reflect the need for
diversity across member states with regards to dignity and ICT to be celebrated.
Trying to make recommendations for all member states is not a fair representation of
what you have found and the fact that dignity is not understood in one way across
the EU.

I also think there are some additional issues that need to be considered such as the
additional implications for ICT based solutions for individuals: access to/affordability
of the broadband, strength/reliability of broadband, reliability of/access to power
supplies. The need for ICT solutions that meet the needs of diverse ethnic
populations are not fully considered.

5.4.2 Survey responses

Responses to the survey instrument (stakeholders and open consultation) are
presented in this section, with substantive points for action upon the final report
followed by a summary of the elite experts interviews. These points have been
incorporated into the final report. Further detail is included as Annex 6.

A. Overall impression of the document

Overall evaluation of the scientific quality of the based on consideration of most
relevant literature, progression of new ideas with supportive sources, and depth of
analysis. In response to this question 30% of respondents were ‘very satisfied’ and
70% ‘satisfied’. In some cases respondents stated that they found it hard to comment
on this aspect from their own position with regard to knowledge of the literature.
One of the older people who responded to the online survey wrote that the
document was ‘well written, accessible to many different audiences (particularly if
there is a way of increasing the font size!). It combines academic rigour with an
excellent presentation of quite complex data’.
The second question asked whether the report fully address all the main issues. Here 43% of respondents considered it to be very comprehensive; 43% moderately comprehensive; and 14% fairly comprehensive. Comments included acknowledgement of the complexity of the topics discussed; and specific suggestions for where more information would be helpful. In some cases (for example more detail on how the case studies were selected) this information was in the full report but not in the summary, and some adjustments have been made to take account of this. In other cases (e.g. reference to universal design) additional information has been added to the final report.

The third question regarding the overall impression of the document asked whether it was in any way biased by the VALUE AGEING authors’ opinions and WP1 experiences: i.e were the results of the report heavily influenced by the VALUE AGEING activities, or can the results be independently transferred and used for projects outside of VALUE AGEING? Some of the respondents stated that they found this very difficult to answer, and indeed 14% gave no response. The remaining responses were evenly split between 43% stating that yes, they were justified and 43% somewhat justified.

B: Open questions

1. Sections 2 and 3 of the Summary describe our approach to dignity in ICT in ageing. Do they provide a useful introduction to building dignity into ICT development? Do they get to the core of dignity in ICT in ageing?

In general the response to these sections was positive: one person wrote that they identified ways of ‘building dignity’ as a concept into ICT development and demonstrated how dignity could be seen as a core concept of ICT when applied to older people. However a policymaker considered that while the parameters were properly delineated and defined, issues relating to dementia and end-of-life care were lacking. This person pointed out that dignity must be defined both in well, active, independent elderly people and also in those that are disabled, but people living with dementia and people towards the end of life need special attention in attempts to define and address their dignity when it is difficult or impossible for them to do protect their own dignity. Issues of family and caregivers receive some mention in the report, but in this person’s opinion, not enough.

A design expert considered that the report would benefit from a brief description of the types of technology being considered, and some illustrative barriers for older people. With respect to ‘Dignity in research/development’, this person suggested that the report should say more about the inclusion of older people in the design process of Universal Design, further commenting that older people are a forgotten yet lucrative market segment with disposable income, in spite of industry’s apparent
lack of awareness/competence in including and considering older people in the design of ICT products/services. This person suggested more comment in the report on the notion of Universal Design, or, as it may be named in EU policy terms, Design for All. This would allow a better differentiation to be made between technology designed to assist older people (AT) and everyday technology that, if designed with more consideration of older people’s needs and preferences, would enable them to live independently for longer, etc. Mention should also be made of the EC ICT and ageing action plan (2007), and recent legislative developments such as the draft web accessibility directive, the European Accessibility Act and the new procurement Directives. Furthermore, both of these legislative actions above are being taken as Internal Market (IM) measures rather than anti-discrimination measures: this is worthy of note. In this commentator’s view, advocates and researchers alike need to become familiar with the language and rationale of IM measures so that they can intelligibly comment on and critique the Commission’s proposals.

2. In your experience, what are the functions or applications of ICT that support dignity in old age?

Responses to this question ranged from descriptions of specific technologies to more theoretical descriptions of benefit. Among the latter, various commentators referred to the ability of ICT to empower and facilitate independence and inclusion, allow choice, and increase people’s confidence and efficacy, if designed well and easy to use. A member of the public commented that to a large extent the ability of ICTs to support dignity depends upon personal and professional experience, giving the example that there are many applications that require a degree of sight and/or hearing in order to use them effectively or efficiently, and in this person’s view most large PCs and some mobile phones met the aim of supporting dignity by taking account of this.

Among specific technologies cited as supporting dignity in later life were telecommunications generally, computer-based technologies and programs, sensors, actuators, robotics and other high-tech solutions. However the comment was made that the future funding of complex technologies in the public sector was an issue and adaptability and affordability need to be addressed in the report.

Industry - Dignity in old age is difficult to define and generalise without context and is highly variable also according to different points of view (e.g. cultural context, as pointed out in the summary report page 12). In this sense it is difficult to say what ICT can do to support or challenge it. Generally speaking, the ones identified in the areas of preventing ageism and increasing inclusion (page 11) seem to be appropriate and well defined by the report. Another way of thinking this could start from simple facts: many past works proved that health condition and social activeness are two key factors affecting life quality of older people. Technologies that solved their critical pains could be used to highlight successes. Again, this has to be discussed case by case. It cannot be generalised.
3. In your experience, what are the functions or applications of ICT that challenge dignity in old age?

On the question of technologies that challenge dignity in old age, there was a range of responses covering aspects of design, access, and the effects of use. One older person stated that in their own experience ‘Many smaller pieces of equipment such as smartphones, small iPads and so forth challenge the sight, hearing and often dexterity of older people’. Another felt that poor design or lack of robustness can cause frustration for the person or make them feel as though they are doing something wrong.

In the view of a policymaker, the more complex the ICT solution being used, the greater was the potential for challenging dignity because of the technology being unacceptable or too expensive for the person, or not being integrated properly with other health and welfare systems. These circumstances brought frustration and put their dignity at risk.

Finally, one commentator considered that over-reliance on telecare technologies has the potential to exacerbate social isolation and hence bring about a loss of dignity.

4. Section 4 of the Summary describes some of the key themes emerging from our analysis of the literature and 10 business cases. Do these themes accord with your experience? Are any key issues missing?

Most readers of the summary report concurred with its account and considered that the business cases reasonably covered the main issues. One person commented that the role of homecare robotics might have been addressed as a case study.

For the policy-maker, more should be made of financial, regulatory, and integration issues. Also as only one of the selected business case related directly to those suffering from dementia, and in that case addressing those with mild dementia rather than the more complex needs of people at a more advanced stages, more emphasis should be placed on these specific needs, and indeed on the needs of people with disabilities more generally. It this person’s opinion, here too, end of life care needs to be considered.

5. The ten business cases in the Summary were selected to provide evidence of good practice. How effective in encouraging good practice do you consider the case study approach to be in describing dignity in ICT with older people?

With a few exceptions, most of those consulted believed that the case study approach was appropriate and effective in elucidating what dignity in ICT with older people should be.

The policy-maker considered that they can be excellent especially if they can demonstrate replicability in various country or regional settings – commenting that some of the selected cases seemed limited in this area.
However one commentator stated that since case studies are generally not designed to be validated on a quantitative statistical basis their conclusions for general extrapolation must be carefully weighed, even for evidence of good practice. In this view, practices successfully implemented on one socio-economic-ethnological setting may not work at all in others.

6. The recommendations address EU policy with respect to: explicit references to dignity and non-discrimination, inequalities inherent within the pace of change, the use of good practice and principles of behavior, the need for shared frames of reference, and the need for interventions at all appropriate levels of authority. Are there any missing key points?

One respondent commented: ‘non-discrimination means different things to different people, and for example someone with a severe spinal deformity could find the experience of trying to learn how to use ICT rather different to an older people with a different type of difficulty. I think non-discrimination as a concept needs even further unpacking if possible, as it will also mean different things in different societies’. This was addressed within the full report which emphasises differences between older people as well as commonalities.

7. Do you have any further comments on the report?

Most of the further comments were encouragements, for example ‘I think it is excellent, comprehensive and needs to be translated and disseminated as widely as possible’ (older person) or ‘it has given me many ideas for ICTs that could work for my mother (Q&A session). Others took the opportunity to reiterate an earlier point in relation to their key concerns with this issue: for example the policy-maker reiterated the need for affordability and integration among systems.

One member of the public would have liked to see a briefer (e.g. half page) summary at the start of the report, a series of bullet points, highlighting the main findings. This is partly address by the inclusion of the executive summary to the Final Report, but it has prompted to idea of a postcard sized summary for general public dissemination.

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LIST OF ANNEXES

1. Summary of Final Report on WP1
2. Deficitions of e-Inclusion (from
3. Datebase of 50 potential business cases
4. Validation proforma
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Annex 1: Summary of Final Report

ICT Developments Impacting on Dignity and Non-Discrimination of Older Citizens

A summary report from Value Ageing WP1

Authors: Caroline Holland, Una Lynch, Lucia Carragher, Rodd Bond.

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3. Theories and Concepts in Value Ageing
4. Ten Good Practice Business Cases
5. Conclusions

Annex A: Definitions of dignity and non-discrimination
Annex B: The evolution of eInclusion and eAccessibility in EU policy
Annex C: Business case selection criteria
Annex D: 10 Best Practice Business Cases

1. Introduction

The document is a summary of the Final Report (D1.4) of the research work package VALUE AGEING WP1: ICT Developments impacting on dignity and non-discrimination of older citizens. It describes the research activities, findings and conclusions undertaken within the scope of this work. We investigated current practices in the ICT for Ageing sector, with the aim of proposing effective strategies for impacting dignity and non-discrimination. EU policy has to some extent addressed this issue. The Europe 2020 Strategy, designed to help Europe out of economic recession, foresees the digital world as contributing to economic growth and social inclusion, and older people’s access to, and inclusion in, ICT developments is an integral part of the EU’s Digital Agenda. This priority is particularly evident in relation to research and innovation, the improvement of digital literacy and the development of sustainable health. Recognising the heterogenous nature of what it means to be ‘aged’ is a key part of Value Ageing (VA) and, we argue, it is also key to ensuring dignity and non-discrimination for all older people. The promise of the Information Society lies not in the presence of technology in everyday life for its own sake, but in the potential of ICTs to increase the efficiency of daily tasks and essential services. WP1 has investigated examples of the conscientious adoption of suitable technologies as demonstrated in a range of business models that relate to assistive technologies and to teaching and learning in ICT. We looked at the lessons and implications to be drawn from the experience of older people involved in these initiatives. The deliverables (outputs) produced by Value Ageing WP1 are:
D1.1 Problem definition and implementation plans
D1.2 EU policies on eInclusion and eAccessibility
D1.3 Report on business cases
D1.4 Final Report

2. Dignity and Non-Discrimination

2.1 Dignity in history

Since ancient times, theories about Dignity have varied, being rooted in various theologies, philosophies and cultures. Over time, notions of human dignity have addressed many issues, including the relationship between ‘man’ and ‘nature’; humans and deities; equality and hierarchies; rights and duties. WP1 explored this historical context as a backdrop to understanding human dignity today. During the 20th to 21st centuries the evolution and widespread application of human rights continued to place emphasis on the duties of individuals, organisations, and states to respect the status of people whatever their capabilities, gender, ethnicity, or culture; and also to respect basic rights to health, education and income. This approach was manifest in the introduction of human rights conventions for women (1979), for children (1989), and for people with disabilities (2006). Yet in both policy and research reports dignity has largely been used as a stand-alone and ill-defined concept. It has been argued that dignity is a subjective concept and difficult to make operational (Nordenfelt, 2004) yet some definition of dignity is required if it is to be apparent in the policy agenda. Jacelon et al (2004) offered a definition of dignity as:

‘an inherent characteristic of being human, it can be felt as an attribute of the self, and made manifest through behavior that demonstrates respect for self and others’ (page 81).

2.3 Dignity and Ageing

Definitions emerging from the Dignity and Older Europeans Project (described in more detail in Annex A) are key to understanding dignity in ageing. Briefly, four definitions are described: Dignity of Merit; Dignity of Moral Status; Dignity of Identity; and Menschenwürde.

Dignity of Merit and Dignity of Moral Status are selective and contingent on circumstances and hence they are variable, while Dignity of Identity and Menschenwürde are regarded as universal.

‘Our Menschenwürde provides the basis or grounds of our equal human rights. No body may be treated with less respect than anyone else with regard to basic human rights’ (Nordenfelt and Edgar, 2005:20).

A basic right to be treated with respect is necessary for older people to live with dignity - but it is not of itself sufficient to ensure that individuals do experience being treated with dignity. An older woman or man may want to retain her or his Dignity of Merit within the social understandings of his or her culture (e.g. being respected for knowledge as emeritus professor); or he or she may want to be acknowledged as a person with the Dignity of Moral Status because of their good deeds in the community. Dignity of Identity reflects both social position and worth within the concept of an individual’s sense of Personhood, and indeed Tadd (2004) has described Dignity of Identity as the most important in the context of older people. Where vulnerability is increased by the physical and mental changes associated with old age, unfamiliarity with social or cultural changes, or other
factors, then relationships and inclusion are essential elements in defending personal dignity. Nussbaum (2011) argues that the idea of dignity can be given content and impact by placing it in a network of related notions such as human rights, with the result of protecting and supporting a person’s agency rather than infantalising people or treating them as passive recipients of benefit. In response to our draft report, comments from older people and people working directly with older people emphasised the importance of relationships in making it possible to effectively translate policies or intentions of supporting the agency of older people into actually supporting dignity, because individual needs and expectations are different.

2.4 Dignity, ageing, ICT and discrimination

Technologies in general and ICT in particular have the capacity to prolong independence and dignity for older people especially within their familiar environments. In practice, many technologies including those related to health care as they develop will need to be developed with care to avoid the possibility of increasing social isolation for example by reducing levels of person-to-person care (Rauhalaa & Topod, 2003). Europe’s fastest growing population is the 80+ group, and older populations often have proportionally higher levels of poor e-literacy and a higher likelihood of not engaging with ICT. Increasing age also correlates with an increasing risk of disability and economic disadvantage, which are themselves key factors in digital exclusion. Older people may be vulnerable to discrimination through lack of realistic choice. Furthermore, ‘technology could be used to create a dispersed, decentralized, system of “individual nursing homes” where frail people are destined to spend their last years of life, segregated by the human community, isolated into a technological prison made up by electronic bracelets, wireless sensors, networked communication, automatic supervisors, and robotic companions’ (De Hert and Mordino, 2010 page 224). Yet technology can also protect frail older people from abuse by allowing communication between them and the ‘external world’ and potentially allowing participation in decision-making, while for those frail older people who prefer privacy to physical intimacy, assistive technologies can re-balance how they receive care towards more protection of their personal spaces. Those communication technologies designed for general use in particular offer opportunities for older people to reconnect with people and interests from earlier in their lives, and also provide a potential portal to make new friends and find new interests.

Hence ICTs have a powerful potential for both benefit and harm. Yet individual older people may not necessarily be in a strong position to make informed choices, with the risk of becoming vulnerable to poor decisions by other people and to discrimination through non-inclusion in technologies or services which could benefit them. High levels of understanding and ethical behavior are needed to navigate between potential coercion of older people to use ICTs and creating exclusion through withholding support. In order to maintain dignity and non-discrimination, older people's involvement with ICT needs to be addressed in relation to both research and development, and practice and use.

Dignity in research/development – The key imperative in ethical research is to do no harm, yet non-discrimination requires that ‘hard to reach’ or ‘hand to engage’ people who might benefit from ICT should not be excluded. The goal of eAccessibility is paradoxical in that in order to be truly inclusive individual older people must be able to choose the extent to which they want to engage with the Information Society including the choice to absent themselves from it without therefore being denied access to essential services. This means that without coercion researchers and developers must trying to engage people who might experience discrimination in ICT, such as people living with dementia, resident in rural areas, living in poverty, or with non-normative lives. It means that
inclusive development must also include design approaches that recognise the probability of general benefits for all of universal design.

*Dignity in practice/use -* ICT can enable older people in daily activities in the same ways as younger people for example by monitoring health, enabling social networks, and augmenting safety. Technological advancements related to ageing are frequently linked with delivering care. The use of technologies especially with vulnerable people can raise moral and ethical questions relating to risk, choice, and respect for human rights. According to Age Platform, the key principles in maintaining the human rights are of end-users are: upholding autonomy and consent; assessing benefice (balancing risk, aversion, safety and independence); avoiding harm; respecting decisions (dignity, integrity and personal preferences); and maintaining justice. In practical terms this means paying attention to real choice and appropriateness, and not losing sight of what might help each individual, for example when a person has limited cognitive capacity. Privacy and security are essential to dignity, but outdated, compromised or poorly designed ICTs may put these at risk. In practice, intergenerational solidarity may offer support for older people in understanding and maintaining appropriate systems.

### 2.5 EU Policy on Inclusion and Accessibility in ICT

The EU notion of eAccessibility aims at ensuring that regardless of disabilities or age people can access ICTs on an equal basis with others: exclusion implies both inclusive ICTs (e.g. inclusive through design) and the use of ICTs to achieve wider inclusion objectives of participation by all in the Information Society. The achievement of these aims implies the adoption of Universal Design (Design for All in EU terms), with better understanding of the requirements of technologies designed to assist older people (AT), and everyday technology for all that, if designed with more consideration of older people's needs and preferences, would enable them to live independently for longer etc. The Charter of Fundamental Human Rights of the European Union (2000) chapter 3 article 25 refers to ‘the rights of the elderly’, stating ‘the Union recognises and respects the rights of the elderly to lead a life of dignity and independence and to participate in social and cultural life.’ A D1.3 diagram of the evolution of elInclusion and eAccessibility in EU policy and the background of how they were influenced and conceived is replicated here in Annex B.

Member states have also begun to research inclusion independently and as a result it is possible to see the various ways in which ageing has been fitted into frameworks of ICT and accessibility. In many states, including Finland, Romania and Turkey, priority has been given to people living with disability, with ageing mentioned as a subset of disability. Slovenia focused on ageing, but in the context of all age groups, integrating rather than stratifying the different age demographics. Other member states leaned more towards accessible eGovernment (Italy); fostering innovation and "smart” economies (Ireland); or increasing the overall penetration of ICT in the general population (Hungary, Latvia). Some states need to overcome region specific or geographic issues: most notable those spread across islands, such as Greece and Malta. Here, increasing the overall penetration of broadband poses additional difficulties such as the need to connect islands via submarine cables, with extra costs incurred.

In this context the Primary Research Questions of WP1 were:

1. To what extent is ICT development threatening older people dignity and putting them at risk of discrimination?
2. To what extent can ICT become a resource to prevent offences to older people’s dignity and to prevent ageism and exclusion?

3. To what extent are eInclusion and eAccessibility policies effective to prevent offences to older people’s dignity and to prevent ageism and exclusion?

4. To what extent are current EC policies in this field effective to promote respect for older people’s dignity and eInclusion?

5. What are (if any) the main policy gaps to be filled?

3. Concepts in Value Ageing WP1

Theories and models are formulated to help explain, predict, and understand phenomena. They may extend existing knowledge or challenge it, forcing questions of how and why. Where phenomena are complex, models can be used to focus on specific aspects to increase understanding. To assess the impact of technology on dignity and equality VA WP 1 made use of a modified version of the Dignity Encounters model in conjunction with the Extended Technology Adaptation model and Sens’ Capability Model.

3.1 Dignity Encounters


“Human dignity is a principle, the value that belongs to every human being simply by virtue of being human. Social Dignity is generated in the interaction between and among individuals, collectives, and societies.” (Jacobson, 2009b: 1538).

Jacobson argues that all encounters either promote or violate dignity. Her theory focuses on three separate but interrelated dimensions to dignity encounters: the actors, the setting in which encounters take place, and the wider social and political context. Value Ageing researchers used this notion of dignity encounters to help understand the impact of the use of technologies in selected business cases.

3.2 Capabilities

The capability approach is aimed at promoting citizenship, premised on the question of what a person is able to do and to be. It is grounded in the ideals of social justice and seeks to combat discrimination by focusing on notions of choice-making and freedom. The capability approach is directed at creating a good (age friendly) society that promotes opportunities or ‘substantial freedoms’ which people may choose to exercise. Choice, or ‘decisive decision-making’ is at the core of the capability approach, encapsulating the idea that a choice is freely made, and not resulting from inadequate resources (including inadequate skills or knowledge). Sen (2005) illustrates this difference by comparing a person who is fasting by choice (in control), with a person who is starving (no choice or control). Seeing opportunity in terms of capabilities allows us to distinguish appropriately between

(i) whether a person is actually able to do things she/he would value, and
(ii) whether she/he possesses the means or instruments or permissions to pursue what she/he would like to do (which may depend on contingent circumstances).

Sen (2005) claims that by shifting attention towards the former, the capability-based approach resists an over-concentration, found in some theories of justice, on means such as incomes and primary goods.

Informed by the philosophical ideas of ‘flourishing’, Nussbaum’s work on capabilities concentrates on the interplay between basic, internal and combined capabilities. Basic capabilities are immutable: they are the things that we are born with, such as our sex and genetic makeup, but they also include latent potential that may or may not be unleashed depending on wider environmental influences. Internal capabilities are the personal characteristics of an individual (e.g. personality, intellectual and emotional capacities, physical health, internalised learning, skills of perception and movement). These traits are dynamic and as such can be developed through investment in training and education. In older people internal capabilities are heavily influenced by a long lifetime of experiences and opportunities. For example a person’s ability to use technologies may be influenced by previous work and/or educational experiences. Combined capabilities or ‘substantial freedoms’ are the totality of the opportunities which a person has when environmental/contextual factors are taken into account. The environmental factors include the physical, social and political conditions that may prevent people from choosing to live the life that they are capable of. A supportive environment is key to the capability approach. Lloyd-Sherlock (2002) emphasised the importance of changing the external environment to compensate for ageing related decline in internal capacities: Nussbaum emphasised the negative impact of ‘bad conditions’ in terms of hampering the development of internal capabilities. She identified 10 capabilities central to human dignity, the protection of which is a prerequisite for a life lived with dignity (Nussbaum 2011: 33-34). They are: life; bodily health; bodily integrity; senses, imagination and thought; emotions; practical reason; affiliations; other species; play; control over one’s environment.

Applying these concepts to the consideration of ICTs, and taking account of the importance to older people of networks of support to enable engagement with technologies, Value Ageing WP1 has also considered capabilities as they might apply to communities of people as well as individuals, and reflected on ways that the capacity of communities might be conceptualised and whether such an approach can inform change.

3.4 Technology acceptance model

The original Technology Acceptance Model (TAM) was an information systems theory suggesting that attitudes towards technology are predicted by the perceived usefulness of a given technology and its perceived ease-of-use (Davis, 1986). A later extension of the model incorporated more detail concerning social influence and cognitive instrumental processes (Venkatesh and Davis, 2000). The Value Ageing approach recognises the need to take into account the external and perceptual influences that shape individuals’ attitudes and behaviours in using (or not using) specific technologies, for example in choosing whether or not to use online banking.

These three models are brought together in Value Ageing WP1.4 to consider the impact of ICTs for older people. For example a person’s attitudes and behaviours (TAM) form part of their internal/combined capabilities, and policy and practice needs to take account of this context to promote dignity in encounters concerning ICT.
4. Ten Good Practice Business Cases

WP1 aimed to demonstrate how it is possible to keep ICT user-centred and use it to improve older people’s lives by improving their access to ICT. Best practices can help to increase access. In this study three-fold criteria were used to determine successful business cases of good practice identified in D1.3: these criteria were impact, effectiveness, and innovation (detailed in Annex C of this summary). From an initial analysis of 50 potential business cases available in this time period, 10 best cases were selected. These cases are described in detail in WP1 D1.3 ‘Report on Business Cases’ and outlined in Annex D of this document. The cases represent similar projects elsewhere and are not exhaustive. Figure 1 presents the timeline of these cases.

Figure 1: Chronological order and duration of the selected business cases

Based on the information available, each case was then considered in D1.3 in the light of Jacobson’s model of dignity encounters, with consideration of individual encounters, the environment context, and the policy context. Figure 2 illustrates this process in the case of just one of the cases (the Cogknow Day Navigator for people with dementia: see Annex D, case 8). The analysis process continued in D1.4 to bring in considerations about capabilities, technology acceptance, and finally feedback from validation of the findings from a range of stakeholders and experts.

Figure 2: The Cogknow project analysis in accordance with the Jacobson’s model

The source of Figure 1 is WP1 D1.3 (p143): Ferulli, D., Gamal, M. and Hadjiri, K (2012) Report on Business Cases

The source of Figure 2 is WP1 D1.3 (p112): Ferulli, D., Gamal, M., Hadjiri, K. (2012) Report on Business Cases
4.1 How the business cases demonstrated impact, effectiveness, innovation

Each of the selected business cases has contributed in different ways to developing more ICT-integration to the living environments of older people. Giving older people access to these various technologies has proved effective in many ways, including improving their attitudes towards interactions and taking on new challenges, and helping to support social lives on daily basis. In each case, feedback from older people and others involved in these initiatives tended to be positive. Projects that focused on supporting older people through online technology, network, media recording and communications, substantially contributed to an increase in older individuals’ awareness of technology, and helped to improve communications within wider social networks. Other projects used technology devices and services to help older people to independently and safely reach places and people, and to fulfill aspirations that were previously beyond reach. The specific findings from the business cases demonstrated impact on individuals and communities in relation to: psychosocial benefits; health benefits; physical range and mobility; civic engagement; impact on others; and effectiveness in increasing older people’s engagement with technologies. In the following discussion of these impacts, the references to each business case cites its outline description available in Annex D - e.g. Good Morning (D1); Cogknow (D8).

4.1.1 Psychosocial benefits – to the person’s sense of self, and in their relation to others

In many cases one of the effects of the ICT interventions described in the case studies was to reduce feelings of isolation and loneliness, accompanied by a boost of self-confidence and an increase in self-esteem.

For example participants in Good Morning (D1) reported feeling more secure and motivated thanks to the ‘friend at the end of the phone’ each day and this had a beneficial effect on health and well-being, and being involved in this community further improved members’ connection with their wider local community, and knowledge of community services and events. The people with dementia who were using the CogKnow (D8) system found it easier to cope with their dementia-related difficulties, navigating through their day with increased self-confidence, dignity and quality of life. The User Group, Dundee (D8) website provides free registration to the group and to classes, a virtual place for members in the form of a social network, a place to ask for ICT support, a source of information (with help available 24 hours), and a way to promote communication between older people where they may share issues, knowledge, and information about local news or events. This networking is considered to assist in reducing feelings of loneliness not only during face-to-face classes but also when the users are at home and physically alone.

Seniornett (D4) meetings are also a way for members to meet new people of similar ages and to start new friendships, resulting also in an increase in the number of older people using Facebook, Twitter and other social network sites to communicate with their friends and family, meet new people, and feel less lonely. In Hungary, the older people who took part in Inforum (D5) Grandparent-Grandchild Competitions of Informatics had the opportunity to strengthen their relationships with younger people in a sociable learning event. During these competitions, grandparents learn how to communicate through ICT (by email, chat, social networks or video-communicating software) with their grandchildren, relatives and friends, helping them and their friends to feel less isolated.
4.1.2 Promoting health and safety

In addition to the beneficial health effects brought about by a strong sense of self and good social relations, some of the business cases had the potential to directly impact health.

Access to the Good Morning service (D1) contributed to the health and well-being of older members, from timely responses to serious falls, to simply warning members about impending low temperatures.

The right to safety and feeling safe is an inviolable human right, to which impairments should not present barriers: the service provided by the Reach122 project (D10) was aimed at older people with hearing impairments including deaf sign language users, speech impaired people and deaf-blind people. It enables people with these hearing impairments to access the emergency service 112, making important progress in terms of inclusion by giving the end users both an aid to personal safety, and the capability of helping others in case of a dangerous situation. The Reach122 project (D10) improved the routing of emergency calls in the countries where it was piloted and allowed the users to make direct calls to police and fire service PSAPs, thus optimising the time required for people with hearing impairments to make emergency calls. During the validation process for this report there were several comments about the potential for ICT in promoting health and safety, especially in the context of pressure on financial and personnel resources in health and social care.

4.1.3 Range and mobility

The business cases included ways to expand the range of older people – either physically (in space) or virtually (online presence).

Older people, particularly those with age related disabilities or weakness, often opt to stay at home instead of going out when they feel unconfident about the risks involved in a long walk – possibly on slippery floors, uneven sidewalks and broken curbs typical of many towns and cities and especially historical centres. Regular public transport vehicles are often not able to circulate in pedestrian-restricted areas, inadvertently discriminating against people who need to go into these areas but are not in a condition to walk safety to get around them. For people with little physical strength, including older people and people with disabilities, access to an effective mobility technology can enable their (re)engagement in the active life of their town, encouraging them to go out and enjoy moving independently around their neighbourhood and the possibilities that involves. The PICAV prototype (Personal Intelligent City Accessible Vehicle) (D9) has been designed small and agile, composed by eco-sustainable materials, and moved by a fully electric engine with zero emission of air pollution and less than 45 dBA of noise emission. The project aims to be fully compatible with the complexities of the urban environment, demonstrating an ICT solution which provides empowerment and dignity for the user, and the ability to go independently to meet friends or go shopping.

In the Friendly Rest Room project (D6) the involvement of end users in design and evaluation during the iterative developmental steps was aimed to create user-centred solutions to the problems of people becoming reluctant to go out when they know there are no adequate toilets in the place they want to go to. The older people involved in this project were reported to appreciate their experiences in using the prototypes, demonstrated by c.80% satisfaction rate in response to questionnaires. Daily use of the prototypes increased during the test phase. Involvement with the
4.1.4 Civic engagement

In one way or another all the cases studies gave the older people opportunities to feel included in the wider world. This might mean being able physically to get out and about, become involved in online communities, have a voice about personal issues or public matters, become better informed about community services and events, feel an improved connection with communities of choice, or be valued as a contributor to research.

The City of Tampere is using the Netti-Nysse bus (D2) to promote the social inclusion of older people and people from socially deprived areas, reflecting concerns about the digital divide between people with easy access to the internet and those for whom there are barriers to access. The Inforum Grandparent-Grandchild Competition (D5) is a different approach to inclusion, becoming a social movement in 2003. When the initiative started, the number of internet users over 60 in Hungary was 20,000. By 2012 it had reached 300,000. Through its media exposure this competition is contributing to the fight against the digital discrimination of older people and encouraging older people and their friends and family to become involved in the Information Society. In terms of self-expression, MediAbility (D3) allowed the authors to voice their opinions and describe their life experiences in their own words. The project allowed for individuals who are usually marginalised within the media domain (especially older people) to post their stories of business, movies, news, and programs to the online public domain. The popularity of a person’s story can be seen online through a ranking system, and by the number of views their video receives. This opening up of expression and response is important in terms of dignity and social engagement, and for some older people, it has changed their lives. The CogKnow (D8) solution, intended to alleviate difficulties experienced by people living with mild dementia, allows people with a diagnosis of dementia to continue an active life in the town and to remain socially active for longer: hence also reducing the discrimination of their ‘invisibility’.

4.1.5 Impact on others

Directly or indirectly, the business cases often helped family, friends and neighbours to support older people. This might mean less effort required as a carer; or that family and friends of the peer group and of different generations were encouraged to get involved.

As well as supporting the older people who directly received their services, the family, neighbours and friends of members of Good Morning (D1) were also helped by getting some peace of mind themselves about the well-being of the older person, and knowing that they were being regularly contacted. Likewise positive feedback in the CogKnow project (D8) was registered from the carers associated with the people living with dementia who were using the devices, as well as from the
people living with dementia themselves. Carers reported considerable improvements in terms of independence for the user of the technology, which resulted in a decrease in the effort that was required from them as a carer. This theme was picked up in validation where experts emphasised the importance of relationships in care situations, and the capacity of ICTs to support relationships if used appropriately, including through ameliorating some aspects of the ‘burden’ of care and through increasing communication and interest.

4.1.6 Older persons’ engagement with technology

Involvement with technologies had an impact on how the older participants perceived them and further engaged with other technologies beyond the project. This included extending choices about when, where, how, and if to get involved; increased interest in benefits of technology; and increased confidence and capability in using technologies safely.

Surfing the web and looking for information online with the support of the project reduced any worries that older users in Inforum (D5) had with regards to the using internet and information technology (such as the fear of damaging the PC, or getting a virus). The Netti-Nyss bus project (D2) discovered that once those older people who had never previously surfed the web learned how to use it correctly and got used to dealing with search engines, they could decide in a more informed way whether or not they wanted to become involved in the Information Society. More than 80 percent of those who took part in the training said that they were going to use computers after the course. Often they became unexpectedly interested in the benefits of technology. These included online banking; customer services; social networks; video communication with relatives and friends; entertainment; and real-time information. Participants in the project have gone on to promote the project to others, discussing and sharing their opinions with friends to encourage them also to join the Information Society.

The User Centre group (D7), strategically located in the Queen Mother Building of Dundee University allows for mutual cooperation and benefits between the older people who are members of the group and the researchers at the School of Computing. The project contributes to making the Internet and its benefits accessible for older people, and involves them in the design of future innovations. This involvement can improve self esteem and dignity for older participants because as well as learning ICT skills they are able to bring their own opinions and values to inform future progress and advancements. By participating in the focus groups and the design phases of innovative technologies, older members have the chance to become protagonists in removing discrimination about themselves and people that they represent in the pre-market development of upcoming technologies.

Evidence from the evaluation questionnaires used in MediAbility (D3) showed that participants were willing to share their stories with each other, and felt they were learning something together. All participants enjoyed producing a film to put on a public broadcaster’s web-site. This had been a good experience for all the participants, including those who had no knowledge of computers, since developing a story was the motivation for them to use technology as a group. The FRR project (D6) made the experience of using the toilet more accessible, allowing users to feel independent and comfortable and adapt to surrounding environments. Users actively adjusted moveable elements in the prototypes during tests, demonstrating that there was a need for customisability which they had previously been unable to satisfy. The grips and alarm device helped users to feel safe using the
toilet, contributing to their dignity and quality of life. By engaging with the prototyping process, the older participants were able to ratify aspects of the design such as the adjustability, and at the same time learn about possible benefits from a technology that they might not have previously considered.

4.2 Lessons learned from the selected business cases

4.2.1 Design of technology/services/learning

ICT-related activities can enable people to try new experiences, meet new people, and reduce boredom, and tools and ideas to achieve this need not be complicated. Relatively simple tools (*Good Morning*) and ideas (*Netti-Nysse*) can be very effective. Where possible, services should be provided close to people’s homes: equipment should be personalised to fit the individual user’s needs (*FRR*). Innovation can usefully build on existing solutions, through the integration of innovative solutions within already existing infrastructures. New technologies and services can empower existing services rather than aiming to replace them: or they can make accessible links to join together existing services. In the case of *PICAV*, the very sustainability of the project is based on the concept of integration.

Where projects involve an element of training for older people, it is useful to recognise that older people tend to prefer learning ICT in connection with practical aspects of life rather than, for example, learning a specific software, and very often they prefer a sociable environment. Participants appreciate time to elaborate doubts and ask questions. Coffee breaks allow learners to meet and become friends willing to help each other, with the potential to extend this co-operation beyond the classroom e.g. via the web. A familiar learning environment, with a good layout and an informal look to the lesson room contributes to success. Trainers must themselves be continuously taught, to keep them updated and to improve their teaching techniques and approaches. Some of these updates will come from their experience of teaching courses, while others are a result of changes in practice coming from studies and progress in teaching science (*Seniornett*). Trainers must be able to interpret trainees’ responses, and humour is a useful tool in training (*Nett-Nysse*).

4.2.2 Design of technology research projects

Results from the business case studies point to the benefits of involving end users in consultation, focus groups and prototype testing. This both benefits the products produced and encourages older people into civic engagement (*FRR; User Centre Group*). Messages about good practice in project design form the case studies include:

- Realistic examples can help to clarify concepts (*CogKnow*)
- Using an iterative process, adding more detail at each stage can be successful (*CogKnow*)
- Frequent communication is essential (*Good Morning*)
- ‘Human’ research methods, for example using humour and storytelling to engage participants, including people with dementia, can be very effective (*CogKnow*)

In *MediAbility*, the storytelling method allowed mixed groups of people of different ages, gender, disability, ethnic background and prior experience of using computers to develop their skills both individually and as a group.

Benefits for carers can flow from benefits to older person (*FRR*): and technology can expand useable
Good practice is often transferable. For example for over a decade, *Good Morning* has set software, procedures and guidelines that have informed standards for a popular concept in social care that

4.2.3 Participative involvement in design and research

Older people are highly heterogeneous in terms of capacity, social characteristics, and technological experience and perception. Participants in research and users of services often have to overcome a lack of confidence in their abilities, so supporting a sense of worth can help to generate enthusiasm and promote dignity. Good practice points to ways to engage with older people, both individually and in groups. Useful learning from the business cases includes:

- Where online investigation is involved, it is important for older participants to choose their topics. This was found to be linked to attention, mood and interest in learning (*User Centre Group*).
- Meeting like-minded people from the same age group can be beneficial (*Netti-Nysse: Good Morning*), but so too can intergenerational approach (*Inforum*).
- Beyond lessons/sessions, social networking can help people to overcome problems at home e.g. resolving issues in using different computers, operating systems, applications.
- It is important to make people aware of their valuable input to research. Feedback about the outcomes of projects is an incentive for further involvement in research.

4.2.4 Engagement with media

Engagement with traditional and new media has an essential role in drawing the attention of relevant audiences at various stages of projects, including:

- Making older people aware of projects of interest to them. In the case of *Netti-Nysse*, this involved painting the computer bus in bright colours to draw attention to the service.
- Making the general public aware of issues, and fostering anti-discriminatory attitudes to older people
- Drawing the attention of policymakers to good practice for dignity and non discrimination in ICT

4.2.5 Underpinning principles of good practice

Good practice in ICT begins with respect for the dignity of older persons and with conscious effort to practice non-discrimination. From there, details of project and product design, participative engagement with older people, and engagement with audiences via appropriate media all contribute to successful outcomes. In addition, good practice in ICT is a characterised by recognising that:

- Older people need to be motivated to learn about ICT, to help them take part in the Information Society (*Inforum*).
- There is no age limit for learning about ICT. In *Inforum* grandparents were able to teach their grandchildren as well as the other way round.
- The capacity issues in dementia are particularly challenging in the development of ICTs, and it is important to consider that people with dementia may also be affected by other age-related conditions such as mobility and sensory impairments (*CogKnow*).

Good practice is often transferable. For example for over a decade, *Good Morning* has set software, procedures and guidelines that have informed standards for a popular concept in social care that
have transferred from Scotland to the Northern Ireland with further plans of further spread across Ireland.

Good practice is supported by:

- taking account of Capacity – what a person is able to be and do. This draws attention to the needs of the person, rather than the dictates of the system or technology
- making opportunities for beneficial Dignity Encounters – so that older people are neither excluded nor subject to discriminatory behaviour
- recognising differences in Technology Acceptance - not expecting older people either to automatically accept or reject new ICT solutions on account of their age.

### 4.3 The Validation process

In order to validate the findings of Value Ageing WP1 with respect to EU policy, theoretical frameworks, and the examination of good practice, the draft report was made available for general public comment and critiques were solicited from specific stakeholder in the academic, practice, and industrial communities and from older people. This was important because the business case review, while producing rich information about responses to actions and products, was based primarily on written reports of internal evaluations. Furthermore they related to specific projects within a specific timeframe, whereas one of the signature characteristics of new technologies is that they have been rapidly developing so that obsolescence and parallel or re-invention is common. While most commentators in the draft report were broadly satisfied with the approach taken in WP1 and in agreement with the findings, there were some specific criticisms and suggestions for strengthening the findings. They included the following points on dignity and inclusion, which have informed the Final Report:

- The role of affordability needs to be taken very seriously since this can be a key limiting factor for older people and indeed other people with disabilities and on low incomes. Innovative solutions to introduce technologies to developing countries may suggest ways to bring low-cost and possibly simplified but effective versions to older people in Europe.
- More account needs to be taken of the development and use of ICTs the context of increasing prevalence of dementia and people at the end of life who might have very limited capacity for active and informed engagement and decision-making. In this context the role of carers comes to the fore and considerations of dignity and inclusion need to take account also of the needs of the carer(s) and the relationship of care itself.
- More account needs to taken of the experience of older people who live and have lived non-normative lives. Across Europe there are large numbers of older people migrants living in communities where their own experiences of language, culture, duties and expectations may be in the minority. Also, within LGBT (lesbian, gay, bisexual, transgender) groups, some older people will be 'out' with respect to their sexuality and relationships, while others will not, leading to different kinds of networks of support and need. Here the capacity of ICTs with respect to issues such as networking, privacy of information, and attitudes surveillance requires careful handling. These issues emphasise the importance for all older people of networks and relationships that can support their use of ICTs.
- The use of language is important to acknowledge different traditions and approaches and allow effective communication of intention. For example the language of ‘Independent Living’ as used in relation to people with disabilities is not the same as that used when discussing
supported living for older people. To enable effective policies and practices that can support and uphold the dignity of older people it is important to recognise the impact of the nuances of meaning on people's behavior.

4.4 Recommendations for EU Policy

From the WP1 analysis, it seems apparent that policy on eInclusion and eAccessibility, especially since the economic downturn, has been increasingly focused on matters relating to the economy. Locally, different legislations and infrastructures between countries have a bearing on how policy can be implemented. But the challenges associated with current policy options (for example who provides services and training, and for what purpose) have potential to lead to further divisions, discrimination, and exclusion. Furthermore the increasing pace of technological development adds more frequent challenges to eInclusion and eAccessibility policy. Smarter use of emerging technologies will require better engagement with older people in research and development.

- EU policy must explicitly address and promote action upon issues of inequality within the context of life-long needs for inclusion. This is particularly important in dealing with the pace of change in ICT, because there is a danger of perpetuating digital inequalities both as part of economic inequality (people unable to afford devices, or essential upgrades) and age inequality (as retired workers lose the automatic technical support and innovation of the workplace).
- For effective delivery of dignity and non-discrimination, interventions need to be owned by high-level authorities, at all other appropriate levels, and between levels of implementation and governance. Without this integration there is danger of a disconnect between top level policy and the actualities of practice at local community level.
- There is a need for shared frames of reference and common language with respect to the guidance in ICT for older people such that they reflect EU principles and priorities in non-discrimination and equality of treatment for all. In particular if the notion of Dignity is to be translated into practice, there needs to be a better common understanding of the factors within individual and community capabilities that affect how individuals experience a sense of dignity for themselves, and how they perceive that others are being treated with dignity.
- Strengthening the involvement of older people and people with disabilities at all levels of the development of technologies and services will produce more effective outcomes by facilitating a closer fit between the heterogenous requirements of users and the specifics of provision, with the potential to decrease the wastefulness of non-use or abandonment of inappropriate technologies. This needs to include people across the entire range of experience of growing older, whether with cognitive impairments, non-normative lifestyles, or other minority characteristics. For economic as well as non-discrimination reasons, future EU policy should incentivise user involvement.
- To support dignity and non-discrimination, the effectiveness of ICT initiatives should be evaluated by considering the processes involved as well as the impact of use/non-use of technological solutions to challenges faced by Europeans of all ages. The impact on older people should be considered cross the broad spectrum of technological development and not just in relation to age-related assistive technologies. To support dignity in the use of ICTs, EU policy should establish protocols for the evaluation of EU-funded ICT projects regarding both impact and processes.
The development of harmonized standards (New Approach) is a key element in EU legislation and regulation: attention needs to be paid here to the development relevant technical and design standards that incorporate the needs of older people is a key aspect to inclusive policy making.

The development of EU policy can be supported by the analysis of validated examples of good practice where underpinning principles of ethical behaviour are being translated into positive impact (figure 2).

**Figure 3: Good practice learning for EU Policy Development**

5. Conclusions

We here present brief answers to the main research questions.

1. **To what extent is ICT development threatening older people’s dignity and putting them at risk of discrimination?**

The evidence from Value Ageing WP1, corroborated by validation, is that many older people have found that in conditions of good practice ICT developments have supported them in maintaining dignity and independence. However ICTs also have the potential to damage the well-being of older people if used inappropriately, or if not used (for example on the grounds of age) when they could be

12 Figure 3 designed by Rodd Bond
of benefit. This can be exacerbated by the speed of technological and social change, costs of ICT and support, incompatible systems, and inadequate information. A commentator on the draft report emphasised that unaffordability of technologies in itself could threaten older people's dignity by revealing their lack of resources. Yet technologies should not be forced on older people, create an artificial 'need' where there never really was one, or substitute for face-to-face encounters. In the case of ICT solutions for surveillance and monitoring there is potential for older people to be pressurised to accept devices and services primarily to relieve the concerns of someone else. Older people will often, even if somewhat unwillingly, accept the introduction of a device or service from a desire to compromise to keep family relationships happy. It is therefore important that the dignity of the older person is upheld in the process of deciding to use a technology, acquiring it, deciding how it is used, and considering the personal consequences of using it to the older person. Commentators on the draft report emphasized the importance of the older person staying in control and 'being able to switch off' – and what this means for applications used for surveillance and data gathering.

The current worldwide economic focus carries a danger of leading to a further divide between the included and the excluded. Digital literacy, eGovernment, active ageings, and infrastructure and services in remote areas are issues that have been identified as still tending to show a lag (Gheorgiu and Unguru, 2009) and the increasing pace of technological development adds more frequent challenges to policy. Advocating dignity in EC policy and successfully implementing it may mitigate the results of other intentions, including those purely orientated around the economy, which place many older people at risk of discrimination by virtue of deficiencies of wealth, health, and good information. Hence within ICT developments lie both risks of and solutions to discrimination.

Value Ageing cautions against the ageist attitudes, both intentional and unintentional, behind labels such as 'elderly' or 'older people'. In order to talk about and work with sub-groups of the population, such collective identifiers must be used, but we should be aware of the inherent risks of treating 'older people' as a homogenous group because they are labeled in this way. Engagement with a broad spectrum of older people in technology related R&D and implementation is therefore essential to safeguard and promote the dignity of individuals. Value Ageing WP1 suggests that it is generally not ICT development per se that threatens dignity and inclusion, but the ways that specific ICTs and services may be conceived, promoted, introduced, used, and supported, if Dignity is not an identifiable underlying principle.

2. To what extent can ICT become a resource to prevent offences to older people's dignity and to prevent ageism and exclusion?

While they cannot solve all problems, ICT sources if used well can go some way to help prevent offences to dignity and support social inclusion. The United Nations Principles for Older Persons specifies five principles which should inform definitions around eAccessibility for older persons: independence, participation, care, self-fulfilment and dignity. ICT can be a resource to prevent offences to older people's dignity and the risk of exclusion by upholding these principles. ICT can:

- support independence by smart interventions to support physical, cognitive, emotional, social and cultural aspects of daily life, and safety in the environment.
- increase participation in the Information Society and in social and civic life by opening avenues for older people to have a presence in both physical and online communities, mitigating some of the practical barriers to inclusion.
support good and appropriate care by making allowance for personal choices, e.g. between intimacy and privacy; time and place of activities; monitoring health.

- encourage self-fulfillment by allowing older people to continue longer with chosen activities (such as reading; learning; getting out and about), and encouraging self expression to support a sense of identity.

- underpin dignity by supporting, and mitigating incapacities; giving more control over Dignity Encounters.

3. To what extent are eInclusion and eAccessibility policies effective to prevent offences to older people dignity and to prevent ageism and exclusion?

ICT, used appropriately, is a powerful resource to defend older people's dignity and foster social inclusion by making it possible for individuals to become, or remain, engaged in physical and online communities. eInclusion and eAccessibility policies have a significant role to play by directing effort and supporting initiatives to include older people as engaged citizens, whatever their individual capacity. Initiatives to support the dignity of older people and counter ageism and exclusion can be based on local, regional, national and European-wide policies. For example from the business cases, the City of Tampere is using the Netti-Nysse bus to promote social inclusion of older people and people from socially deprived areas: here there is strong political commitment, with funding provided by the regional government and ministry of education. Evidence from WP1 is that policies on eInclusion and eAccessibility can be effective insofar as local environments, including financial, structural and cultural aspects, allow the policies to effectively be put into practice and their impact to be monitored. Current policies appear to be having some impact for some people, but the reality of indignity and exclusion persists for many thousands of older EU citizens. WP1 suggests more emphasis on co-creation with older people across the range of their heterogeneity, and more integration of effort between different levels of governance and implementation, to help move policy into action.

4. To what extent are current EC policies in this field effective to promote respect for older people's dignity and eInclusion?

One of the most important steps towards an inclusive European Information Society was the Riga declaration of 2006. This defined Member States and EFTA country priorities as follows:

- Needs of older workers and elderly people
- Geographical digital divides
- eAccessibility and usability
- Digital literacy and competencies
- Cultural diversity in relation to inclusion
- Inclusive eGovernment

However from the analysis of Value Ageing WP1 it seems apparent that current policy on eInclusion and eAccessibility tends to be focused on matters relating to the economy, particularly since the global economic downturn (post 2007), and this is evident in how policy is worded. Clearly within markets consumers have great power as groups, though individuals may have little. In the case of technologies influence is sometimes exercised by the various stakeholders involved in ICT and ageing, including government bodies and voluntary NGOs acting on behalf of older people and representing their interests. Purchasing assistive technology systems is an example of where
organisations have thus far been more influential decision-makers than individual older people. WP1 has identified the need to include a wide range of stakeholders in fair decision-making, for example to balance the costs of implementing ICT interventions against not implementing them, and the extent to which individuals can exercise choice (beyond use/not use). This needs to be done in the light of real understanding of people’s needs, capabilities and preferences because rights in themselves may not drive non-discrimination in practice where individual needs are not fully taken into account. The mechanisms of change within markets also need to be considered in regulating them.

5. What are (if any) the main policy gaps to be filled?

The impact and aftermath of the economic downturn, combined with the diversity of member states regarding infrastructure, assets, markets and socio-cultural expectations means that some member states will struggle more than others to deploy ICT initiatives to promote respect and eInclusion and avoid using them primarily as instruments of control. However, wherever member states are starting from and whatever their time scales for action, it should be possible for EU policy to guide them towards taking the dignity of older people very seriously as a key objective. In terms of legitimisation, it is important to bear in mind the threats to human rights posed by highly modern technological societies. This perspective features prominently in the EU Charter of Fundamental Human Rights (2000) but is absent from the revised European Social Charter, 1996 (Mordini & De Hert, 2010). Issues of human rights, dignity and equality are often mentioned in EU policy documents but often the focus shifts (without contextualising the relevance of dignity) to the need to address the broadband gap, which includes promoting eGovernance to people who are housebound, to promote participation and avoid isolation, and to deliver training in ICT skills. This is an area which could be better addressed in future policies by placing the emphasis back onto the dignity of older people and on examples of good practice of how to achieve dignity and equality – which on our analysis would result in more and more effective uptake by older people. More recent EU action with respect to accessible design in ICTs is represented by the proposed new European standard EN 301 549 ‘Accessibility requirements suitable for public procurement of ICT products and services in Europe’ which aims to set out detailed, practical and quantifiable functional accessibility requirements. While dignity is not reference specifically in this document, arguably the effect of this standard will be to enhance the dignity of people with a range of physical and cognitive impairments across the board of ICT services and products.

Discussing care, and recognising the mediating impact of cultural settings, Agich (2007) cautioned against studies of dignity and the care of older people in different countries which focus on commonalities such as demographic and health trends but neglect the differences inherent in culture, economic, social and political contexts. Recognising that tacit understandings of dignity may be shared by people from different countries, he advised that unless examined within these respective contexts the implications of their beliefs about dignity may vary hugely. This insight has been endorsed by several of the people who commented on this VA report as applying also to the uses of technology, we argue that and future EU policy needs to take account of the influence of local contexts.

If an ageing demographic is to be targeted, it is imperative to understand user’s needs. Design of technologies for ‘vulnerable’ old people has proven in the past to produce some patronising or over-simplified or over-complicated options. This reinforces the essential need for older people to be involved early in research and development phases and to continue their involvement, which requires better ways to engage with older people in this arena. However in the new world of rapidly
emerging technologies reliance on traditional ways of working with older people may not be enough to ensure dignity and inclusion. Action is required to encourage EU citizens in general those working directly with older people in particular to embrace the principles of Dignity and Inclusion as core drivers of change, and to act accordingly. EU policy should be strengthened in this regard across the broad spectrum of technological development including those with an ICT element, and not just in relation to age-related assistive technologies. This realisation can both enable empowerment of older people directly and increase the quality, usability and value of products and services.

References


Jacobson, N. (2009b) Dignity Violation in Health Care Qualitative Health Research 19(11) pp 1536-1547


Annex A: Definitions of dignity and non-discrimination (Dignity and Older Europeans Project)

**Dignity of merit**: a concept of dignity associated with a person’s position or role in society: whether from a formal source (position or office) or an informal one (achievement in sport, arts, science). Seen as transitory since position may come and go, and related to hierarchy. This implies that dignity is not inherent, but is by its nature ascribed and social.

**Dignity of moral status**: associated with a person’s moral autonomy or integrity – ‘the result of the moral deeds of the subject’ (Nordenfelt and Edgar, 2005:17). It can therefore be diminished or lost through ‘immoral deeds’. This understanding of dignity implies that it is impermanent and unevenly distributed through society.

**Dignity of identity**: associated with self-respect and reflecting an individual’s sense of personhood. Dignity of identity is dependent on relationships with others and a sense of inclusion in society: it can be violated by physical interference and emotional insults or humiliations.

**Menschenwürde** (essentialism) differs from the other three understandings of dignity in that it is universal, intrinsic, and persisting. In common with Kant’s notion of human dignity that requires human being to be treated with respect because of their ‘inalienable value as human beings’: it cannot be lost as long as the person exists.
Annex B: Evolution of EU policy in terms of eAccessibilty and eInclusion

Figure 3: Policy Analysis

The colours indicate the various phases of development, including pre 2000, eEurope initiative (2000-2005), post Riga Declaration (2006), towards i2010 and current moves towards the Europe2020 Strategy. The dashed lines mark phases. The beginning of the current global economic crisis, evident in Europe, is labeled because it has been highly influential on the formulation of policies geared towards the economy.

13 The source of Figure 3 is Value Ageing WP1 D1.2 (p28) Faith, V. and Dimitriou, D. (2012) Policies on eInclusion and eAccessibilty
Annex C: Business Case Selection Criteria

Impact – In Value Ageing, Impact is based on analysis of the responses of the final users – in this case, older people – to the ICT-driven solution presented by each business case. The responses include feedback and spontaneous expressions of personal impact. Irrespective of the degree of innovation or the kinds of technology used, significantly impact is often a function of surrounding aspects such as a perfect local context for a particular solution, alongside good design and smart interaction. If there is a solution which achieves a wide spread impact, it deserves to be analysed to allow better understanding of how the same impact could be reproduced elsewhere.

Effectiveness – Effectiveness is assessed in Value Ageing from a analysis of the improvements that each ICT-driven solution produces in the lives of older people. This includes direct effects, consequent upon that specific development; and indirect effects arising as a consequence of the added value brought by the solution in context (such as when new eAccessible modules or interfaces have the indirect effect of increasing the number of eAccessible websites and web services). In these terms, the effectiveness of a solution in achieving improvements in the lives of older users may go beyond its original focus. Where an initiative is seen to be very effective, it must be studied to understand why and how its benefits may be extended.

Innovation – The third consideration consists in the pure innovative aspect of the technology solution. This may concern the level of technology developed, or how an existing technology is improved to meet the needs of previously discriminated users. Some smart solutions are sufficiently innovative to potentially enhance the paradigms of eAccessibility and eInclusion more generally and pave the way for new, non-discriminatory standards to be adopted. In other cases an existing technology may be adapted to extend its usability to a larger number of user including older people and people with special needs. Sometimes, a new technology developed using user-centred design becomes the new referencing solution or standard.

In the search for relevant business cases demonstrating impact, effectiveness and innovation, criteria for selection were used, and a successful case would normally have most of the following characteristics:

- a very simple technology and a very smart use of it
- a very innovative technology able to be easily assimilated by the older people
- a new interface of existing technology or a new user-friendly technology working as a gateway to other technologies and services
- a combination of the above aspects designed to take place in a wider geographical and cultural context
- a new ICT concept of user approach encompassing older and discriminated people
- a technology solution addressing an important issue affecting older population, perhaps neglected by the other solutions in the current state of the art
- a strategic public help (e.g. financial support; or free training on ICT) even if not innovative in terms of technology, but specifically answering the eAccessibility and eInclusion needs of the older population in their particular context
Annex D: Ten Best Practice Business Case

1. Good Morning (UK)

The Good Morning project started in Glasgow (Scotland) in 2000, subsequently spreading to numerous sites in Scotland and Northern Ireland, and is on-going in 2014. Good Morning consists of a call centre, mainly staffed by volunteers and part-time staff. The technology used is basic, comprising PCs, phones and software to enable regular scheduled friendly calls to older people living in the community.

The Good Morning project's main focus is to enable older people to retain independence as long as possible by improving life in their own home and community, and to:

• reduce isolation and exclusion – encouraging dialoguing social engagement
• improve emotional well-being via regular friendly and positive phone calls
• improve feelings of being safe - the phone calls allow a periodic check on the health status of the older person at home, and can be used to remind people both to follow their prescribed therapy and to practice safe and healthy behaviours.
• alert to potential health problems – when an older person refers to a health problem or if a call remains unanswered, the operator alerts nominated contact persons or the emergency services
• connect people into their community – the operators stimulate the older people to join in a community and to enjoy the advantage this bring in their social life.

2. Netti-Nysse (Finland)

Netti-Nysse began in 2001 and is on-going in 2014, based in Tampere, Finland. The Netti-Nysse concept is a bus equipped with ICT technology including interconnected computers and internet access, which can deliver free training courses in basic computer and internet skills to digitally excluded people in their local communities. The bus also includes a 10-seater auditorium with a projector and audio-video equipment. The service has five full-time staff and is funded by a consortium of public and commercial organisations.

The main goal of Netti-Nysse is to help people to see the possibilities and benefits of Internet use and to enable them to make their own choices concerning their role within the Information Society. The bus is intentionally painted with bright colours to create a friendly non-threatening environment and to generate interest amongst people who see it out and about. The Netti-Nysse service is available for groups of people, clubs and societies. The official website gives people the chance to find out when the bus will be travelling to their neighbourhoods and to book a course.

3. MediAbility (Sweden)

The MediAbility project took place in Sweden from February 2006 to June 2009,
inspired by an idea of digital storytelling developed in California and modified in order to make it easy and inexpensive for excluded people. The project in Sweden was initiated by the Swedish Disability Federation.

MediAbility had two aims:

• to empower e-excluded people by providing them with the tools to make their own digital video stories.

• to get the media to focus its attention on eInclusion, and to use it as a voice for the e-excluded to the rest of the world.

Twenty-five 2-day workshops were organized, starting with oral story-telling in small groups with peer-to-peer discussions and coaching in “story-telling and technology”. Participants were taught how to use video-making software programs such as MovieMaker for PCs and iMovie for Macs. Each video, typically 2 minutes long, was mastered to CD and was shown to the other participants.

4. Seniornett (Norway)

Seniornett is a voluntary organisation encouraging seniors (55+) to try the Internet. It receives annual funding from The Ministry of Education and Research and the Ministry of Government Administration and Reform, and some funding from industry and local authorities, as well as from club member fees. Seniornett teaches people how to use the internet in local public places such as clubs, libraries, senior citizen centres, social organisations and voluntary centres.

The Seniornett objective is to encourage people to try the Internet experience by delivering it in public places near their homes where they are used to meeting other people and where they can learn from each other. By attending Seniornett courses older people can develop their learning skills and have the opportunity to develop cognitive functions and to keep their brain active for longer. In addition, the ‘Senior-surf day’ is an annual open house event held at libraries and community centres nationwide for older adults to learn about ICT.

5. Inforum Grandparents/Grandchildren Informatics Competition (Hungary)

Inforum was initiated in December 2003 and is on-going in 2014: during this period the competition has become a tradition, involving 1350 families, with media coverage and followed by decision makers. In this way it has promoted the elderly agenda as a political, welfare, quality of life and eInclusion issue.

Inforum aims to highlight the importance of including older people in the Information Society. The annual competition joins families, seniors, children, decision makers and other organizations together to create a synergy to activate a change in society regarding discrimination towards the older generation. The competition uses the stimulating influence that children can have on their grandparents in order to motivate people to use ICTs. The will to win the competition with their grandchildren is strong and encourages grandparents to learn how to interact with technology. Inforum
aims to be a reference point for the information society in Hungary, and lead the inclusion movement in the country, fighting the digital divide and defending the user’s interest.

6. Friendly Rest Room (FRR) (Austria/Hungary)

Friendly Rest Room is a consortium project which was partly funded by the European Commission in 2002 with the aim to carry out a study in several European countries in order to develop a more user-friendly toilet system for older and disabled people, thus increasing their independence, self-esteem and dignity.

The project developed several prototypes of smart toilets and tested them with end users, and is on-going in 2014. The FRR project carried out the research into the design, the engineering and the evaluation of prototypes. By involving people from the target group in the design phase, the project aimed to respond to the needs of a large number of older and disabled people. The user centred approach of the project began with the analysis of 316 toilet sessions involving 255 people of different ages and disabilities, analysing their behaviours, preferences and needs as well as the impact that product specification has on disabled people.

A questionnaire was produced in five different European countries to investigate the need for innovative toilet design across a variety of geographical, cultural or gender differences and to evidence the main difficulties found by people using a normal restroom.

7. Centre Group of Dundee (Scotland)

The User Centre was established at the University of Dundee in Scotland in 2005 and is on-going in 2014. The main goal of the User Centre is to provide a space for older people to become familiar with technology and benefit from learning opportunities, social interaction and research. Training courses can overcome the lack of computer skills among older people and encourage their participation in the digital world. Courses can take the form of formal class based training, or informal training by friends and family who act as “coaches”. Meeting spaces can be both physical, represented by the classrooms where lessons are held, and virtual, represented by the online social network embedded in the official website. In these spaces older people can meet up and teach each other or follow lessons provided by the trainers. Another objective of the User Centre Group is to involve older people as reviewers of some software, projects and initiatives which have older users as their target group. The project aim in this way to make the registered members of the group became potential protagonists in removing discrimination of older people in the Information Society.

8. Day Navigator (EU, 8 Countries)

The Cogknow project began in 2006 as an EU funded 36 month IST-FP6, and followup projects are on-going in 2014. The Cogknow DayNavigator is a holistic embedded
solution which emerged from the original project. Designed to assist persons with mild dementia to take care of themselves within their own homes and outdoors, it includes a stationary touch screen, a mobile device, home-based sensors and actuators. Devices are networked together with the Cogknow server: a home based device through a home hub, and a mobile device through a broadband connection (or the home wireless when it is at home). The server has the capacity to relay information between people and carers through a dedicated web interface. The aim is to improve quality of life by promoting independence, safety and social interaction.

The project aimed to:

• break through with research that addresses the daily needs of people with mild dementia, in order to address the most frequently identified neglected needs in the areas of information (on treatment, care and support, appointments); memory problems; communication; and psychological distress.

• prototype a portable, remotely-configurable, user-validated cognitive assistive technology to help people with the initial symptoms of dementia (including memory loss) - to remember, maintain social contact, perform activities of daily living and enhance their feelings of safety for longer.

• promote associated services which are intended to interact with people who have mild dementia through the developed prototype. These should be unobtrusive in the provision of information, further support and reassurance and in the reinforcement of their cognitive functions.

9. Intelligent City Accessible Vehicle System (Picav) (EU, 6 Countries)

PICAV was an 38 month European FP-7 project which ran from August 2009 to September 2012. The aim was to develop an innovative personal fully-electric vehicle specifically to extend the accessibility of city transport to weak, older or impaired people. It was designed to be ergonomic, small, maneuverable, comfortable, stable, assisted in driving, eco-sustainable, and easy to park and move. Accordingly PICAV can access pedestrian areas including areas with uneven pavements, interactions with high pedestrian flows and zones where no other vehicle, off-road or wheelchairs can go, especially on conventional public transport.

The strategic goals of the project were:

• to provide accessibility for all in urban pedestrian environments, creating a new mobility concept for passengers.

• to create an example of clean energy, efficiency, safety and Personal Intelligent City Accessible Vehicle (PICAV)

• to integrate into the existing urban transport system a fleet of PICAV units acting as a smooth link between walking, bicycle and conventional public transport.

• to develop PICAV units with a number of features including ergonomics, comfort, stability, small size, mobility, dexterity, step overcoming, onboard intelligence, assisted driving, eco-sustainability, parking in narrow places, vehicle/infrastructures
intelligent networking, specifically designed for people with restricted strength or mobility, but enjoyable for all.

10. Reach 112 (EU, 9 Countries)

Responding to All Citizens needing Help, REACH112 was a three year EU-funded consortium project which started in 2009 and aimed to implement more accessible person-to-person communications as well as person-to-emergency-service 112 communications.

It was based on the concept of “Total Conversation”, consisting of simultaneous combination of voice, video (including sign language or lip reading communication) and real-time text forms of communication. The target group was individuals for whom visual communication represents a significant improvement respect of voice-only communication: in particular deaf people and people with hearing impairments, including older adults suffering from hearing loss, people with a speech impairment, and deafblind people.

The strategic goals of the REACH112 project were to:

- demonstrate that 112 emergency call centres could be more accessible if they were supported by more technologies
- demonstrate that the next generation of communication solutions can allow the deaf community to access to emergency services which are currently inaccessible to them
- represent a flagship project for the EC in promoting the accessibility of the 112 emergency service
- promote the extension of IP-based communication and Total Conversation
- Implement an accessible alternative to traditional voice telephony based on the concept of Total Conversation, that can be applied to all situations.
- guide improvements in communication between citizens, in particular those with disabilities.
**Annex 2: E-Accessibility and E-inclusion definitions from D1.3**

**eAccessibility definition**

eAccessibility is an important element to make plans of an Information Society for all reality, including for people who find it more difficult to use new technologies. Historically, the term “accessibility” has been associated in disability studies to the challenges of people with disabilities to overcome the big number of physical obstacles distributed in their surrounding environments. The prefix “e” before the word refers the concept of Accessibility mainly to the world of ICT and digital devices or services. Definitions related to ensuring accessibility for people with disabilities are therefore relevant for definitions of eAccessibility in relation to other disadvantaged groups, including older people.

In today’s society, there are more and more interactions and transactions that require to be accessed via internet or electronic devices and of course, each service offered which is not eAccessible for all users, tends to create discrimination and accordingly exclusion. It is therefore important that ICTs be accessible in order to provide equal access and equal opportunity to people with diverse abilities.

Indeed, the UN Convention on the Rights of Persons with Disabilities recognizes access to information and communications technologies, including the Web, as a basic human right. Article 9 of the Convention on the Rights of People living with Disabilities requires States to ensure that persons with disabilities have equal access to communications, including communication technologies. The Article 9 of the UNCRPD is significant in that it is the first International Law document, which includes an article about accessibility to Information and Communication Technologies. While it does not provide a definition on eAccessibility or eInclusion, it does spell out what the outcome of efforts towards achieving these goals may look like.

**Article 9: Accessibility**

1.To enable persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to information and communications, including information and communication technologies and systems, both in urban and in rural areas. These measures, which shall include the identification and elimination of obstacles and barriers to accessibility, shall apply to, inter alia: (…)

(b) Information, communication and other services, including electronic services and emergency services.

(…) 2. States Parties shall also take appropriate measures to: (…)

(g) Promote access for persons with disabilities to new information and communication technologies and systems, including in Internet.

(h) Promote the design, development, production and distribution of accessible information and communication technologies and systems at an early stage so that these technologies and systems become accessible at minimum cost.

(own emphasis added)

14 K. Cullen, L. Kubitshcker, and input from P Blanck, W. N Myhill, G. Quinn, P.O Donoghue, and R. Halverson, *Accessibility to ICT Products and services by Disabled and Older People. Towards a framework for further development of EU legislation or other co-ordination measures on eAccessibility*, Bonn, November 2008.

15 empirica Gesellschaft fuer Kommunikations- und Technologieforschung mbH (coordination action under FP6) Strengthening eInclusion & eAccessibility across Europe (http://www.kpk.gov.pl/pliki/2187/Description_PROJECT_eInclusion@EU.pdf)
This raises the question if older people should de facto be considered persons with disabilities. While not every older person is de facto a person living with a disability, it is must be noted that in relation to the duty to prevent discrimination “age” is not a specified ground. Making assumptions about the abilities of older people has caused older people and disabled people to be one group sharing the same needs. Being part of a generalized group, can be to the detriment to older persons whose individual, personal abilities will not be considered. There is also the risk that rights and needs of people with overlapping grounds for discrimination, for example those people who are older as well as living with a disability, are simplified and thus watered down illegitimately.

The Committee on Economic, Social and Cultural Rights has pointed out that the prohibition of discrimination on “any other status” in article 2(2) of the (ICESCR) is likely to cover most instances of age related discrimination and points to a range of national and international policy and legal documents that declare this form of discrimination as unacceptable. In the General Comment on Non-discrimination the Committee on Economic, Social and Cultural Rights states that “Age” is a prohibited ground of discrimination in several contexts but only spells out limited examples in relation to finding work, accessing professional training or re-training and access to universal old age pensions.

Failing a clear, comprehensive indication of what “discrimination on the basis of age” includes, the language used in relation to the discrimination discourse on the basis of other grounds, such as disability, can provide insightful in understanding age discrimination, while it is important to remember that these are two different groups of people that may at times have distinctly different needs.

The Committee on Economic Social and Cultural Rights has applied “accessibility” in relation to some of the Covenant rights. These applications are useful in that they indicate the contextual understanding of this term in the broader human rights language, which is relevant also in the European context. Accessibility of housing for example means that disadvantaged groups enjoy continuous and sustainable consideration, in terms of which they should be awarded a priority status. Priority status can include the specific legislative protection or the allocation of additional resources. Applying this to the current context means specific considerations and additional resources have to be applied to protect older people from discrimination by ensuring equal access to ICT. Non-discriminatory “access” also forms part of the normative content of the right to water. Here “accessibility” is considered to have 3 overlapping dimensions, namely physical and economic accessibility (talking about vicinity and affordability of access) as well as access on a non-discriminatory basis. The various dimensions of “access” are relevant in relation to ICT as well. To successfully reduce the digital divide, overcome barriers and promote inclusion into the information society, various forms of “accessibility” including physical, economic, and based on equality, will need to be considered. These forms of “access” are incorporated into the European Policy Framework as discussed further below.

16This question was also raised in D.12 page 14.
17 See article 2(2) of the International Covenant on Social Economic and Cultural Rights (ICESCR); article 14 of the European Convention of Human Rights; and the Preamble of the European Social Charter.
18 D 12 page 14.
19 Committee on Economic, Social and Cultural Rights General Comment No. 6 The economic, social and cultural rights of older U.N. Doc. HRI/GEN/1/Rev.6 at 34 (2003) at paragraph 12
21 Extra protection against discrimination.
The General Comment on the Rights of Older People specifies the United Nations Principles for Older Persons. The five principles are independence; participation; care; self-fulfilment and dignity. Participation refers to the active participation in the formulation and implementation of policies that affect their well-being and share their knowledge and skills with younger generations. These principles ought to inform the definitions around eAccessibility for older people especially with regard to the participation in the policies that affect people’s well being. eAccessibility depends on the lived experiences of the end users and must therefore be informed by the experience of the end users.23

In a report carried as part of the study on e-Accessibility 2020 (“Study on Implications from Future ICT Trends on Assistive Technology and Accessibility”, SMART 2010/0077) experts in the field provided the following definition of eAccessibility, which included specific mention of access of older persons as well as those with disability:

"e-Accessibility aims at ensuring that people with disabilities and older people access ICTs on an equal basis with others."24

The World Health Organization who also considers e-Accessibility from the disability paradigm, refers to the ease of use ICTs, such as the Internet. In practice this means that web sites need to be developed so that disabled users can access the information. For example for people who have low vision, web pages need adjustable sized fonts and sharply contrasting colours. For people who are deaf or hard of hearing, audio content should be accompanied by text versions of the dialogue. Sign language video can also help make audio content more accessible.25

The WC3 consortium on web say that the world wide web must work for all people, whatever their hardware, software, language, culture, location, or physical or mental ability. When the Web meets this goal, it is accessible to people with a diverse range of hearing, movement, sight, and cognitive ability. This understanding of a particular form of ICT thus includes elements of non-discrimination.26

According to this consortium “Web accessibility” means that people with disabilities can use the Web. More specifically it means that people with disabilities can perceive, understand, navigate, and interact with the Web, and that they can contribute to the Web. This approach delinks disability with older people, saying that web accessibility will also benefit people with changing abilities due to aging.27 The principles of web accessibility can be extrapolated to ICT accessibility in general.

**eInclusion definition**

Each service provided online or each new device or innovative technology that is “not eAccessible for some groups of persons” contributes to “exclude” those groups from the information society. The term “inclusion”, started appearing in the 17th century, means “the action or state of including or of being included within a group or structure” accordingly with the Oxford Dictionary28 As for the term “eAccessibility” the prefix “e” before “inclusion” refers to the inclusion to the ICT development implications in the last decades.

In July 2005 the eEurope Advisory Group, co-ordinated by Daniel Kaplan, cofounder of the Foundation Internet Nouvelle Generation, defined eInclusion to refer to the

23 D 1.2 EU Policies on eInclusion and eAccessibility page 18.
26 http://www.w3.org/standards/webdesign/accessibility
27 http://www.w3.org/WAI/intro/accessibility.php
28 http://oxforddictionaries.com/definition/english/inclusion?q=inclusion
“effective participation of individuals and communities in all dimensions of the knowledge-based society and economy through their access to ICT, made possible by the removal of access and accessibility barriers, and effectively enabled by the willingness and ability to reap social benefits from such access. Further, e-Inclusion refers to the degree to which ICT contribute to equalizing and promoting participation in society at all levels (i.e. social relationships, work, culture, political participation, etc.).”

Many of definitions focus on e-Inclusion according being essentially about social inclusion in a knowledge society. Social inclusion and participation are closely linked concepts as are accessibility and equality. The e Europe advisory groups argue that the concept is related but different to the notion of accessibility, an issue, which will be dealt with in the next section.

According to the Riga Declaration 2006 “eInclusion” means both inclusive ICT and the use of ICT to achieve wider inclusion objectives. It focuses on participation of all individuals and communities in all aspects of the information society. eInclusion policy, therefore, aims at reducing gaps in ICT usage and promoting the use of ICT to overcome exclusion, and improve economic performance, employment opportunities, quality of life, social participation and cohesion. (paragraph 4)

The Institute for Prospective Technological Studies (IPTS) of the European Commission used the eEurope’s definition in its technical report revisiting eInclusion: from vision to action. In accepting the social inclusion element in a knowledge based society, the report links eInclusion with Sen’s Capability theory, in terms of which social inclusion is considered a normative imperative, consisting of a set of individual entitlements to fundamental human freedoms, autonomy, dignity and equitable participation in society. With accessibility forming part of the normative content of human rights, and inclusion enabling each citizen to claim these entitlements through the legal process, both of these concepts sit firmly on the footing of the universally agreed canon of human rights.

In June 2006 The Riga Ministerial Conference "ICT for an Inclusive Society" defined “e-Inclusion” to mean

“both inclusive ICT and the use of ICT to achieve wider inclusion objectives. It focuses on participation of all individuals and communities in all aspects of the information society. E-Inclusion policy, therefore, aims at reducing gaps in ICT usage and promoting the use of ICT to overcome exclusion, and improve economic performance, employment opportunities, quality of life, social participation and cohesion.”

This definition is also used in other European projects such as the DfA@eInclusion project and in the epractice.eu portal of the European Commission where it is introduced by a description of the ICT as a nearly essential resource to support the actual daily life in many contexts, from work to social life, from public services to culture, from entertainment to political dialogues.

The Ambient Assisted Living (AAL) programme describes what "e-Inclusion" means for European policy in the ageing society. Europe’s e-Inclusion policy for older people focuses on their

34 http://www.epractice.eu/einclusion
empowerment and participation in the knowledge society and economy, independently of age, gender, income, education and origin".  

Another definition for eInclusion is used in European projects like CEMSDI, which defines e-Inclusion as

"the term used within the European Union to encompass activities related to the achievement of an inclusive information society. In this vein, new developments in technology turns the risk of a digital divide into "digital cohesion" and opportunity, bringing the benefit of the Internet and related technology into all segments of the population, including people who are disadvantaged due to education, age, gender, disabilities, ethnicity, and/or those living in remote regions (subject to the geographical digital divide) […]."

E-Inclusion has a demand as well as a supply side, meaning that the development, marketing and creation of tools and technologies that promote e-Inclusion is a potentially huge market gap. Hewlett Packard’s presents a definition for eInclusion: In HP’s FAQ section we read: "e-Inclusion is HP’s vision of empowering and enabling all the world’s people to access the social and economic opportunities of the digital age".

2.1.3 The relationship between these concepts

To sum up, the concepts of eAccessibility refers to the normative content of the right that is achieved through ICT. eAccessibility is directly linked to equality and non-discrimination, namely in equal access to ICT. The various existing challenges that older people and people with disabilities have in equally accessing ICTs determine the meaning of this concept. From the human rights framework eAccessibility must include economic and physical concept. In other words to be eAccessible ICT must be affordable and structured in such a way that frail people with limited eye sight or hearing or limited motor functions are able to use them effectively. eInclusion often refers to the participation in ICTs by everyone through the elimination of barriers. In reality it is not possible to distinguish these concepts very neatly from each other. ICT needs to be accessible for inclusion to happen but inclusion is also a prerequisite for accessibility. Either way, both concepts reinforce the human rights framework in that they are both based on the recognition of everyone’s inherent human dignity; they are both aimed to achieve substantive equality and the protection against discrimination; and both can only be achieved through the participation in the design, implementation and evaluation of the services.

37 http://www.hp.com/e-inclusion/en/vision/faq.html#question1
Figure 4 (D1.3) Factors associated with eAccessibility and eInclusion and the relationship between them
### Annex 3: Database of 50 cases for potential inclusion in D1.3

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Area</th>
<th>Dates</th>
<th>eInclusion or eAccessibility</th>
<th>Description of the project</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMART 2008</td>
<td>Spain, Ireland, Norway, Italy</td>
<td>2006-2008</td>
<td>eAccessibility</td>
<td>Monitor and analyse how legislation, policies, practices, implementation in EU policies impacts on eAccessibility state of the art, to identify best practices for transfer at wider EU level.</td>
</tr>
<tr>
<td>Good Morning</td>
<td>UK</td>
<td>2000-ongoing</td>
<td>eInclusion</td>
<td>Daily call at pre-arranged time to hundreds of older people to establish trusted relationship and reduce member's isolation and monitor well-being at home.</td>
</tr>
<tr>
<td>Age UK/NI/Scotland/ Cymru</td>
<td>UK</td>
<td>2009-ongoing</td>
<td>eInclusion</td>
<td>Multiple activities and campaigning to influence policy and practice, raise funds, offer support, products and services, carry out research including social ageing and medical aspects of mental decline.</td>
</tr>
<tr>
<td>Senior</td>
<td>Italy, UK, Belgium, Denmark</td>
<td>2008-2009</td>
<td>Both</td>
<td>Consortium and thematic meetings to investigate systemic solutions and technology tends to define how they can meet the needs of senior citizens without compromising privacy and ethics.</td>
</tr>
<tr>
<td>MediAbility</td>
<td>Sweden</td>
<td>2006-2009</td>
<td>Both</td>
<td>Using digital storytelling to empower e-excluded people by providing them with tools to make their own digital video stories.</td>
</tr>
<tr>
<td>NettiNysse</td>
<td>Finland</td>
<td>2001-ongoing</td>
<td>eAccessibility</td>
<td>A bus equipped with computers and Internet access to provide free training in basic computer skills to digitally excluded people in local communities.</td>
</tr>
<tr>
<td>Connect MK</td>
<td>UK</td>
<td>2006-ongoing</td>
<td>eAccessibility</td>
<td>Refurbished redundant PCs from council use, for rent at low weekly rental for citizens of the town of Milton Keynes.</td>
</tr>
<tr>
<td>Seniornett</td>
<td>Norway</td>
<td>2000-ongoing</td>
<td>Both</td>
<td>Encouraging people to try the internet by bringing it to local public places e.g. clubs, libraries, senior citizen centres, social organisations and voluntary centres for peer learning and shared experiences.</td>
</tr>
<tr>
<td>Inforum</td>
<td>Hungary</td>
<td>2003-ongoing</td>
<td>eInclusion</td>
<td>Grandparents (50+)/Grandchildren (4-14yrs) Informatics Competitions: pairs in competition on knowledge questions using the internet as an aid to find information.</td>
</tr>
<tr>
<td>Project</td>
<td>Country(s)</td>
<td>Year</td>
<td>Accessibility</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
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<td>-------------</td>
</tr>
<tr>
<td>Mijnabe.nl</td>
<td>Netherlands</td>
<td>2006-ongoing</td>
<td>eAccessibility</td>
<td>A simple, easy to navigate web portal for people with poor literacy, to provide access to relevant and practical information.</td>
</tr>
<tr>
<td>Eldy</td>
<td>Italy</td>
<td>2007-ongoing</td>
<td>eAccessibility</td>
<td>A free software package in 27 languages for PC and tablet to simplify PC use and internet access for senior citizens.</td>
</tr>
<tr>
<td>IT-huis</td>
<td>Belgium</td>
<td>2008-ongoing</td>
<td>eAccessibility</td>
<td>Supporting schools to hold basic IT courses for parents and grandparents to help children with schoolwork; providing free training equipment, train-the-trainer sessions, learning resources and staff to other projects; producing a monthly brochure with guides to using technologies e.g. mail, banking.</td>
</tr>
<tr>
<td>APSIS4all</td>
<td>Spain, Austria, France, Germany, Greece, Italy, UK</td>
<td>2011-ongoing</td>
<td>eAccessibility</td>
<td>Aimed at personalising public digital terminals (e.g. ATMs, ticket vending machines) for all by making them able to adapt interfaces automatically to needs and preferences of users to overcome accessibility barriers.</td>
</tr>
<tr>
<td>e-Access11</td>
<td>Greece, Bulgaria, Cyprus, Romania</td>
<td>2007-ongoing</td>
<td>eInclusion</td>
<td>Developing an online repository platform to search, deliver and share accessible e-Training resources and courses, reusable between platforms and programmes.</td>
</tr>
<tr>
<td>HERMES</td>
<td>Austria, Spain, Israel, UK, Greece, Italy</td>
<td>2008-ongoing</td>
<td>eInclusion</td>
<td>Developing a combination of home-based and mobile assistive and training technology for older people, focused on supporting their outdoor mobility, conversation skills and memory, and reducing age-related decline of cognitive capabilities.</td>
</tr>
<tr>
<td>FRR</td>
<td>Austria</td>
<td>2002-ongoing</td>
<td>eInclusion</td>
<td>Field test of User Friendly Toilet prototype for older and disabled people in several countries</td>
</tr>
<tr>
<td>LCOL</td>
<td>UK</td>
<td>2001-ongoing</td>
<td>eAccessibility</td>
<td>Leicestershire Care On Line – to reduce social isolation for vulnerable adults by providing many services via easy and accessible website.</td>
</tr>
<tr>
<td>SeniorLearning</td>
<td>Spain, Hungary, Austria, Norway</td>
<td>2006-ongoing</td>
<td>eAccessibility</td>
<td>An e-learning system designed for senior citizens and providing online courses enabling them to get used to the internet and its services.</td>
</tr>
<tr>
<td>Project</td>
<td>Country/Region</td>
<td>Duration</td>
<td>Initiative</td>
<td>Description</td>
</tr>
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</tr>
<tr>
<td>Skype</td>
<td>Luxembourg</td>
<td>2002-ongoing</td>
<td>eInclusion</td>
<td>Application for audio and video communication via VoIP technology, with further features including embedded games and multimedia object sharing.</td>
</tr>
<tr>
<td>Elder Games</td>
<td>Spain, UK, Norway, Italy, Germany</td>
<td>2006-2009</td>
<td>eInclusion</td>
<td>To involve and motivate older people to get used to ICT and to train their cognitive skills by creating a hybrid entertainment-therapeutic ICT environment.</td>
</tr>
<tr>
<td>User Centre Group Dundee</td>
<td>UK</td>
<td>ongoing</td>
<td>eInclusion</td>
<td>Based at University of Dundee, School of Computing: friendly, informal computer club for over 60s with training and drop-in sessions.</td>
</tr>
<tr>
<td>Listening Books</td>
<td>UK</td>
<td>2005-ongoing</td>
<td>eInclusion</td>
<td>A very large depository of audio book resources from a charity with long experience in audiobook technology including streaming (2005), MP3 CD production (2007) and secure download (2010).</td>
</tr>
<tr>
<td>COGKNOW</td>
<td>Spain, Netherlands, Sweden, UK, Norway, Malta</td>
<td>2006-ongoing</td>
<td>eInclusion</td>
<td>DayNavigator is a holistic embedded solution (touch screen, mobile device, home-based actuators and sensors) to assist people with dementia, in home and outside to improve quality of life: customisable to the person and carer.</td>
</tr>
<tr>
<td>Vital</td>
<td>Germany, France, Spain, UK, Portugal, Czech Republic</td>
<td>2007-2010</td>
<td>eAccessibility</td>
<td>Several ICT modules for older people using TV as main delivery at home and mobile phones outdoors for: search audio books and multimedia courses, peer-to-peer gaming, personal news/media content, real-time audio guides, video communications and diary.</td>
</tr>
<tr>
<td>NACODEAL</td>
<td>Spain, Italy, France</td>
<td>2011-ongoing</td>
<td>eInclusion</td>
<td>A potable device to support older people especially those with memory disorder, integrating augmented reality technologies to give users instructions of how to proceed during ADLs.</td>
</tr>
<tr>
<td>SRS</td>
<td>UK, Austria</td>
<td>2010-2013</td>
<td>eInclusion</td>
<td>Developing and prototyping a remotely controlled and semi-autonomous domestic robot for older people: personalised, remotely</td>
</tr>
<tr>
<td>Project</td>
<td>Country 1</td>
<td>Country 2</td>
<td>Country 3</td>
<td>Country 4</td>
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</tr>
<tr>
<td>CompanionAble</td>
<td>UK</td>
<td>Austria</td>
<td>Spain</td>
<td>France</td>
</tr>
<tr>
<td>ACCOMPANY</td>
<td>UK</td>
<td>Italy</td>
<td>France</td>
<td>Netherlands</td>
</tr>
<tr>
<td>Florence</td>
<td>Netherlands</td>
<td>Spain</td>
<td>Germany</td>
<td>UK</td>
</tr>
<tr>
<td>WIISEL</td>
<td>Spain</td>
<td>Israel</td>
<td>Italy</td>
<td>Switzerland</td>
</tr>
<tr>
<td>ARGUS</td>
<td>Spain</td>
<td>Germany</td>
<td>UK</td>
<td>Austria</td>
</tr>
<tr>
<td>SpaceBook</td>
<td>Sweden</td>
<td>UK</td>
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</tbody>
</table>

controlled (e.g. by carers) and with self-learning capability.
<table>
<thead>
<tr>
<th>Project</th>
<th>Country</th>
<th>Start-End Year</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HaH</td>
<td>Spain</td>
<td>2006-2009</td>
<td>eInclusion</td>
<td>Hearing at Home: to enhance eInclusion of older people and hearing-impaired at home via a Home Information and Communication platform which analyses sounds for different sources and presents them as visuals e.g. captions or facial expressions on TV screens.</td>
</tr>
<tr>
<td>i2Web</td>
<td>Germany</td>
<td>2010-2013</td>
<td>eInclusion</td>
<td>To provide inclusive ready-to-use techniques and tools to develop Accessible future internet services including social networks, Web 2.0 applications, websites and IP TV.</td>
</tr>
<tr>
<td>PICAV</td>
<td>Italy</td>
<td>2009-2012</td>
<td>eInclusion</td>
<td>Personal Intelligent City Accessible Vehicle to extend city transport to older people and people with disabilities, networked together and with city infrastructure/public transport and emergency services.</td>
</tr>
<tr>
<td>GUIDE</td>
<td>Germany</td>
<td>2010-2013</td>
<td>eAccessibility</td>
<td>Gentle User Interfaces for Disabled and Elderly Citizen: a software framework and design tools for integrating accessibility and auto personalization features into web and TV, using various interface technologies.</td>
</tr>
<tr>
<td>OASIS</td>
<td>Italy</td>
<td>2008-2012</td>
<td>Both</td>
<td>Open Architecture for Accessible Services Integration and Standardisation: using ICT and other technologies to provide holistic services – home control, mobility, workability, socializing, nutrition, safety etc. to support independence and well-being and stimulate social and psychological engagement.</td>
</tr>
<tr>
<td>Cloud4all</td>
<td>Spain</td>
<td>2012-2015</td>
<td>eAccessibility</td>
<td>Using cloud technologies to enhance eAccessibility in products and services by adding automatic personalization features: and developing a tool to locate accessible solutions from different sources within a single search.</td>
</tr>
</tbody>
</table>
A platform through which a user with disability can organise a trip according to their particular accessibility needs, suggesting the accessibility features of places intended to be visited and possible transportation means and paths.

Accessibility Assessment Simulation Environment for New Applications Design and Development: to create an integrated simulation assessment environment for supporting, checking and validating new accessible software applications (mobile and web).

<table>
<thead>
<tr>
<th>Project</th>
<th>Country/Region</th>
<th>Years</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BrainAble</td>
<td>Spain, UK, Portugal, Austria</td>
<td>2010-2012</td>
<td>Both</td>
<td>An ICT-based HCI composed of Brain/Neural Computer interaction sensors with affective computing and virtual environments to provide eAccessibility and eInclusion for people with disabilities from elderly or traumatic events.</td>
</tr>
<tr>
<td>AEGIS</td>
<td>Spain, Greece, Czech Republic, Belgium, Germany, Romania, Sweden, UK, Canada</td>
<td>2008-2012</td>
<td>eAccessibility</td>
<td>Investigating whether it is possible to create access techniques and open access source toolkits able to be directly exploitable and embeddable in existing devices and ICT systems (desktop, rich internet and mobile applications).</td>
</tr>
<tr>
<td>Reach112</td>
<td>Italy, Sweden, UK, Netherlands, France, Spain, Belgium, Greece</td>
<td>2009-2012</td>
<td>eAccessibility</td>
<td>Responding to all citizens needing help: making more accessible communication by phone via an alternative way to communicate based on the concept of Total Conversation (real-time text conversation, with sign language/lip reading/voice – or any simultaneous combination of these).</td>
</tr>
<tr>
<td>HaptiMap</td>
<td>Sweden, UK, Spain, Germany, France, Finland, Netherlands</td>
<td>2008-ongoing</td>
<td>eAccessibility</td>
<td>HaptiMap, haptic, audio and visual interfaces for maps and location services, to include senses such as touch, hearing and visual, to make digital maps and location based services more accessible.</td>
</tr>
<tr>
<td>TTfone TT1180</td>
<td>UK</td>
<td>?-ongoing</td>
<td>Both</td>
<td>A mobile phone specifically designed for older people with a large display with high text contrast, FM radio, torch, big buttons/letters, dedicated SOS emergency button.</td>
</tr>
<tr>
<td>VM150</td>
<td>UK</td>
<td>?-ongoing</td>
<td>Both</td>
<td>Serene Innovations amplified answering machine, to facilitate older people and people with hearing impairments.</td>
</tr>
<tr>
<td>Project</td>
<td>Country</td>
<td>Start-End</td>
<td>Sector</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
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<td>--------------</td>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>ACORN Stairlift</td>
<td>UK</td>
<td>1992-ongoing</td>
<td>eInclusion</td>
<td>Stair lift with safety sensors, DC power, remote control.</td>
</tr>
<tr>
<td>KSERA</td>
<td>Netherlands</td>
<td>2010-2013</td>
<td>eInclusion</td>
<td>Knowledgeable Service Robots for Aging: to seamlessly integrate smart home technology with socially assistive robot to help older people and people with COPD with ADLs and self-management of disease.</td>
</tr>
<tr>
<td>Anziani.it</td>
<td>Italy</td>
<td>?-ongoing</td>
<td>eInclusion</td>
<td>A social network dedicated to older people: chat service, entertainment, multimedia content, information about local events, tourism, health and education.</td>
</tr>
</tbody>
</table>
## A. Overall impression of the summary document

1. What is your overall evaluation of the scientific quality of this report?

(Based on the following criteria: consideration of most relevant literature, progression of new ideas with supportive sources, and depth of analysis).

| 1. Very satisfied |  |
| 2. Satisfied |  |
| 3. Neutral |  |
| 4. Unsatisfied |  |
| 5. Very unsatisfied |  |

Comments

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2. Does the report fully address all the main issues in question?

(In reference to these main issues:)

| 1. Very comprehensive |  |
| 2. Moderately comprehensive |  |
| 3. Fairly comprehensive |  |
| 4. Missing important issues |  |
| 5. Not at all |  |
3. Is the report in any way biased by the VALUE AGEING authors’ opinions and WP5 experiences, in the sense, are the results of the report heavily influenced by the VALUE AGEING activities or can the results be independently transferred and used for projects outside of VALUE AGEING?

<table>
<thead>
<tr>
<th>1. Yes, they are justified</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Somewhat justified</td>
<td></td>
</tr>
<tr>
<td>3. Not justified</td>
<td></td>
</tr>
</tbody>
</table>

**B: Open questions**

1. Sections 2 and 3 of the Summary describe our approach to dignity in ICT in ageing. Do they provide a useful introduction to building dignity into ICT development? Do they get to the core of dignity in ICT in ageing?

2. In your experience, what are the functions or applications of ICT that support dignity in old age?

3. In your experience, what are the functions or applications of ICT that challenge dignity in old age?

4. Section 4 of the Summary describes some of the key themes emerging from our analysis of the literature and 10 business cases. Do these themes accord with your experience? Are any key issues missing?

5. The ten business cases in the Summary were selected to provide evidence of good practice. How effective in encouraging good practice do you consider the case study approach to be in describing dignity in ICT with older people?

6. The recommendations address EU policy with respect to: explicit references to dignity and non-discrimination, inequalities inherent within the pace of change, the use of good practice and principles of behavior, the need for shared frames of reference, and the need for interventions at all appropriate levels of authority. Are there any missing key points?

7. Do you have any further comments on the report?
We would like to know your position relative to ICT and ageing, but you can remain anonymous if you wish.

What is your role or interest in ICT in ageing?

In which country do you live?

What is your age/ age group?

(Optional)- If you would like to be acknowledged for your contribution, please provide your name and contact details:

Thank you for your response.

Please send your comments to the VALUE AGEING team c/o Dr Caroline Holland
caroline.holland@netwellcentre.org
Annex 5: Validation data

Experts

Professor Leela Damodaran

Congratulations on the work – it is badly needed because still so often work in ICT is technology-determined or technology-centred, and it is nice to see work looking at what it means in human terms. The toolkit from the Sus-IT project (engaging older people in research, design and development) was not in the original case for support – but came about because people asked for it and it was clear early on that different partners were working to different ethical frameworks (and only one explicitly saying there should be beneficial effects as well as avoidance of harm) – so the toolkit provides an ethical governance framework to sit on top of existing institutional frameworks, to consider respectful, caring etc. ways of working with older people.

On the report’s covering the theoretical aspects of ‘dignity’, it has got to the core of many of the issues and the definitions are helpful to see - Menschenwürde is right in identifying intrinsic nature of dignity (+ with cultural context). It would be interesting to think about what we actually do with that in practice, and it’s also interesting to realize that while the emphasis of this report is on ICT, you could translate many of these ideas cross to other areas such as Social Care: it spans all areas where are working directly with older people.

On defining dignity, the perceptions of the user are crucial. The bottom line is that people need to be able to switch off – e.g. surveillance/monitoring equipment: people need to be able to be in control while maintaining the purpose for which the device is used. Example: video case conferences should allow the older person to see one face at a time onscreen, and professional need to be aware of the invasion of personal space involved.

Ethics of real choice by individual older people – e.g. in Independent Age ‘Bossy Daughter’ vociferous scenario where the older person in pressurized by professional, family or carers for ‘their own good’: hence consent form does not necessarily of itself preserve dignity. (The Plum Report (commissioned by OffCom – 2006?) looked at scenarios for 2012. Drew out that a lot of telecare is imposed).

A strong line from Sus_IT was that older people did not appreciate classroom learning and wanted to explore technologies in a socially embedded way – in social spaces including to learn about telecare devices. Try before you buy most important - to see and play with devices (cost, weight etc)

ICT can support dignity for older people when they are enabling and empowering continuation of ‘normal for them’; and for communications.

Also, when they help care workers to understand the older person as a whole and not just as they are during this brief time of need for care – e.g. via a dynamic memory box.

ICT risks damaging dignity when it leads to lack of control, and/or intrusion into private space (surveillance).

People should not be asked to make decisions about ICTs at times of crisis. Co-design methods get people at an earlier stage to start thinking about options and planning for when they will need ICT support later: a good way to do this is using technologies to ‘game’ thinking about scenarios and options in the longer term.

Damodaran agrees with the policy suggestions. Involving older people must become a necessary part of development policy, and this needs to be real, genuine involvement. More than just guidelines, we need to engage hearts and minds (of technologist, policy makers etc.) and from that everything else
will follow. Forum Theatre is a good example – dramatized scenarios to get those who are remote form the coalface to understand the universe of the older person.

We also need to tell people about the information and help that is out there, learning from good practice we already know about.

Hilary Farnsworth - Business Consultant working with Older Entrepreneurs.

Dignity has a connection with how people feel about their experiences and skills with IT. Many find it difficult to ask for help, but older women in particular will often belittle their own skills, claiming to be ‘rubbish’ with technology, and stating ‘I am stupid’ when they make a mistake. Farnsworth has even come across this tendency when working with feminist groups. However when probed, these same women often do have some IT skills or skills in relation to other forms of technology that demonstrate an ability to learn new skills with support. There is a misunderstanding about learning ICT skills: that the knowledge it is like a bucket of skills that can be ‘poured’ into a person so that they then ‘know computers’ etc. In fact it is more a matter of a life-long quest to discern what aspects to learn about and what to ignore – nobody can know it all and the art is to know what you need to know. In Farnsworth’s view, older women learning to use IT need reinforcement with respect to their abilities in other areas. What they don’t need is younger people or indeed their peers telling them that they are slow (for example in grasping how to use a smart phone).

She is in favour of using people aged over 45/50ish to act as champions (indeed the older the better). They should lead on projects (though younger people may also be involved for intergenerational balance) because they will be able to unpick their own learning curve for the benefit of people they are helping.

For effective learning, there is no substitute for group learning with a big screen for demonstrations. Conversely, the size of smart phones is a problem – they are useful for getting around, and are a whole computer in your pocket, but they are just not big enough for many older people to use comfortably. Tablets are better in this sense (size) but they are not phones. Also, work with the Older Feminist Network suggests that for people with existing keyboard skills need to unlearn using pressure to hit keys hard, and learn instead a stroke action – this may be a difficult adaptation. Consideration needs to be given to how people with arthritis can use these devices. In the case of people who have diabetes, there are issues concerning neuropathy in the fingers. Hence some interfaces need to be big enough for people to use. Smart phones can also be a particular problem in terms of small size and complexity of use, but Farnsworth believes that if people start to use them while they can still manage them, they may be able stay with them longer.

For older people and families trying to select technologies to support older people, unless they are involved in an organised telecare scheme there are all sorts of choices and sometimes wrong choices are made. This equipment can become another cost of caring for these families. With equipment like PCs and laptops, families will often supply an older person with old, slow, handed down equipment when in fact they need something responsive and easy to use.

In Farnsworth’s view Telecare will be the next big thing because it can provide monitoring without the need to physically go to the doctor, thus saving money. This raises issues about guidance and who pays (e.g. for broadband); the effect of these technologies on the likelihood of people getting out and about; and the relationship between media ‘noise’ and policy initiatives. However it is important to realise that solutions like this and call centres like ‘Good Morning’ while useful can not be the whole answer to loneliness.
Gaming is also an interesting future area of engagement as more women get into making and playing games. For some older people, this will help. For example a person with a physical mobility problem described the pleasure of riding a horse in Second Life: there is potential in gaming, for some people, for welcome stimulation.

In terms of the ‘nudge v compel’ debate, Farnsworth refers to the report by the International Longevity Centre. In her view older people need to be able to grasp the specific benefits of technologies before they will attempt to learn them: if they don’t, they won’t. However IT knowledge is patchy tends to be job related. Older entrepreneurs know that they have to engage in some way to progress. This might mean creating a website, or engaging with social media, and the availability of affordable local training is important to them. In rural and other areas where one venue has to serve many functions, relevant IT skills need to be in the mix for older people. However in terms of paying for training, there is a difference between older people who want to set up a business are likely to be willing to pay for training, and others, including those volunteering in the charity sector, who may be less willing or able to pay.

Thinking about digital inclusion, Farnsworth’s view is that while not getting involved with some aspects of technology is fine if that is what people want to do, when it comes to being cut off from sources of information available online, that is not fine for older people who may need it and are effectively dis-abled here unless someone else steps in to help them. Cost is certainly an issue, and for EU policies we need to look across countries at schemes which have provided free broadband – this needs to be in the mix of benefits for older people because they should not have to pay a high price for access to information.

Dr Richard Ward

Felt that overall the summary report was a bit disjointed because the conversation about dignity was not thoroughly carried through into the discussion about the case studies. It was not entirely clear how the cases had been evaluated against the concept of dignity, so it is not easy to discern the evolution of the recommendations from this process. It requires to be fitted together into a narrative that stands alone.

The report is an almost entirely positive account of the selected projects and their outcomes and achievements, but does not give any idea of what problems were faced and what hitches were encountered along the way, so it comes across as uncritical.

The issues and projects were also mainly focused on outcomes and less so on the processes, but often it is the processes that are important for people living with dementia. Systems for introducing technologies and keeping an eye on them in use is essential in dementia because of the fluidity of the condition. It is not suitable just to identify products or devices to be used by the person with dementia and then leave them to it: because of changes in the condition the technology might become unusable by the person, so there needs to be ongoing assessment and support.

Policy-wise he anticipates a shift of ICTs into communities as the emphasis on supporting independence and staying at home longer gathers strength. For example the use of GPS for way-finding will probably become big, in spite of its contentiousness and connotations of punitive tagging, because at a practical level it appears to be useful and reassuring for families and carers. In terms of social media technologies, the likes of Skype in care homes is already being used to link families; and online chat rooms may be a way to facilitate peer group discussions may be useful for people with early stage dementia. It is worth noting that a lot of the discussion about ICTs has moved on from considering older people as a group in isolation and towards as intersectoral approach to individuals’ capabilities and needs.
Thinking about emerging technologies, we should not miss opportunities such as aids in supermarkets to help people to reach high shelves – small things like this could help people to remain independent. But the implementation has to be right – for example existing automated check-out at supermarkets are pretty unfriendly, especially for people with dementia. To some extent this is an experience issue: if a degree of familiarity will help people to take to a technology quicker, then this needs to be taken into account in design.

Dignity is about process rather than objects, and how ICTs are used is significant – for example are technologies active or passive. Staff need to be made aware of the ethical issues of the use of these technologies with people with dementia and who and what devices are for. Dignity requires a step-by-step approach that can take onboard everyone’s viewpoint. Guidance is needed on principles that get into a relational approach to things. In dementia, concepts of autonomy, choice and participation don’t necessarily apply the same way and become less useful - the route to dignity is in relationships and behavior.

What’s needed is a well-thought out guidance for people at the front line: at present practitioners tend not to have robust ideas about how to introduce technologies and to work with them as the condition of people with dementia fluctuates.

Professor Josie Tetley

Overall satisfied with the summary report, and feel it is fairly comprehensive. The report provides a succinct summary of the work undertaken in Work Package 1. However, I think the way that the concept of dignity has been defined and related to the use of ICT in the context of later life needs to be reconsidered. I also think there are some additional issues that need to be considered such as the additional implications for ICT based solutions for individuals such as: access to/affordability of the broadband, strength/reliability of broadband, reliability of/access to power supplies. The need for ICT solutions that meet the needs of diverse ethnic populations are not fully considered.

Dignity is used as a key concept for exploring how older people’s lives could be improved through the use of ICT based solutions but I was not convinced that a clear connection is made between dignity and the best practice business cases. It maybe useful to explore the fact that motivating factors, other than dignity, may have driven the development of ICT based solutions/interventions.

I do feel there is problem in the way that the concept of dignity is presented and used to explore the Good Practice Business Cases. The concept of dignity needs to be revisited as at the moment this Value Ageing report presents dignity in quite a simplistic way and does not fully recognize the issues that challenge dignity and non-discrimination in later life. In terms of transferability the report makes a good point the notion of dignity may be understood differently in different cultural contexts. So I feel the assumptions that underpin this report around how dignity is understood and the practical issues that challenge or promote dignity in relation to ICT based solutions need to be reconsidered and developed. As I read the report I felt there was a disconnect between sections 1, 2, 3 and section 4. Section 4 is excellent but does not truly connect to the way that dignity is defined/conceptualized in Sections 1-3.

I have seen that ICT applications can provide opportunities for older people to have more connected lives, improved confidence, more choice, improved access to information, and increased potential for ageing in place of choice for longer. And in my experience also the applications of ICT that challenge dignity in old age are fragmented single focus developments, carer needs versus cared for needs (particularly in relation to surveillance and monitoring applications), and market forces – so developments may only be in one, or
I think the themes in Section 4 are very good. I thought Figure 2 on pg 9 was excellent and effectively linked the key issues to one another in order to show how recommendations for EU policy development connect to the project findings/themes. However, as my comments above indicate Section 4 does not fully connect with Sections 1-3 and I could not always see how the key themes and links to dignity issues relate to the earlier sections of the report i.e. Sections 1-3. I wondered from reading the summary how you selected the 10 cases from the 50 identified are whether these are described elsewhere in more detail. Again I feel there is a possible mis-match here in that the drivers for the 10 cases were not necessarily dignity related and at times it feels that the connection of the cases to the concept of dignity as outlined in Sections 1-3 was somewhat forced. If the concept of Dignity was unpacked in some more applied and practical ways (look at dignity related to nursing for example) this may help strengthen the application of dignity to the ICT cases drawn on.

Overall the recommendations are excellent, but can they also reflect the need for diversity across member states with regards to dignity and ICT to be celebrated. Trying to make recommendations for all member states is not a fair representation of what you have found and the fact that dignity is not understood in one way across the EU.

So my key concern is the way that dignity has been defined in Sections 1-3 of this report. Dignity is very theoretically defined and the unpacking of dignity as concept needs to be progressed to explore some of the more practical ways in which dignity is then understood in the context of people’s lives and practice. The problems of applying the theoretical definitions of dignity to practice also needs to be acknowledged. Cultural diversity in how dignity is understood also needs to be recognized and the issues related to the practical application of dignity needs to be developed. So in essence I think dignity has probably been accepted as something that is quite straightforward. However, having worked as a nurse in education and practice I know it is far more challenging to apply theories of dignity to practice and Sections 1-3 do not connect clearly to the ICT practices outlined in Section 4. These challenges and the need to recognise diversity in how dignity is understood across cultures within and across EU settings needs to be more strongly reflected in the findings.

Dr Rebecca Jones

The report addresses the complexity of dignity well. Dignity is hard to give, but easy to take away. Differences in understanding dignity don’t seem to be used much by developers, but the exclusion of older people from this process is as important as design itself.

With respect to LGBT groups, there are essentially two populations, broadly speaking: people who openly identify as such, and are connected to networks of support, read literature, and are ‘out’, at least to each other; and people who are ‘closeted’ and for example don’t have ready access to networks of support.

People in either group can be supported by ICTs, because technology act as an enabler to get people to sources of information, and chelp them to make connections to others – potentially reducing isolation and allowing valuable communications. For those who do acknowledge their sexual identity for themselves but are not out to others, the internet has the potential to provide cover and anonymity as they look for support.

One issue that may well be more loaded for LGBT in health care is previous medical records, and this can apply to anyone with a non-normative life course. What is in personal medical records can be of concern,
and particularly who has access to them and who knows what about you. The surveillance implications can be worrying and this can have an effect on how people behave.

Stakeholders
Industrial response
A. Overall impression of the document
1. What is your overall evaluation of the scientific quality of this report?
(Based on the following criteria: consideration of most relevant literature, progression of new ideas with supportive sources, and depth of analysis).
2. Satisfied

Comments (up to 600 characters)

Even though we are not up to date with the most current publications on the topic of dignity, eInclusion and eAccess, the report seems to consider different aspects of the literature and engage with them deeply.

Dignity is not our research focus on ageing so it is hard to comment on it in a holistic way. Through the discussion on dignity, discrimination and ageing, the summary report really helps thinking deeper about the relationships between technology and people, which is a very good thing. We think more explanation regarding their operational definition may be needed together with how the definition instructs its applications in the working package.

2. Does the report fully address all the main issues in question?
(In reference to these main issues:)
2. Moderately comprehensive

Comments (up to 600 characters)

Keeping in mind its nature (i.e. a summary), the report addresses adequately the main issue. However, due to the complexity of the topic discussed (e.g. dignity) and the difficulty in understanding how this WP fits with the rest of the work conducted, we felt more information would have been welcome.

3. Is the report in any way biased by the VALUE AGEING authors’ opinions and WP5 experiences, in the sense, are the results of the report heavily influenced by the VALUE AGEING activities or can the results be independently transferred and used for projects outside of VALUE AGEING?
2. Somewhat justified

Comments (up to 600 characters)

It is difficult to judge, as the reviewers are not familiar with WP5 and its background. However, we do feel the value of the research be independent and transferrable to other project investigating related topics.
B: Open questions (please limit answer to each question to 800 characters)

1. 2 and 3 describe our approach to dignity in ICT in ageing. Do they provide a useful introduction to building dignity into ICT development? Do they get to the core of dignity in ICT in ageing?

   We believe that the report deals with very complex and nuanced concepts, such as that of dignity, respect, discrimination, inclusion and access, that are hard to define and distinguish from each other. We appreciate the effort made in trying to clarify them, but we believe that the topic required more in depth discussion, which probably was not possible in the brevity of the summary report.

   Moreover, besides dignity, the needs of the older section of the population and characteristics of ICTs should be covered together with the operational definition of dignity. The separation of topics made the discussion and analysis rather complex. Our suggestion is that the operational definition of dignity should be somehow more connected with ICT’s characteristics, especially on what critical needs to target (e.g. content) and how to solve problems (e.g. process).

2. In your experience, what are the functions or applications of ICT that support dignity in old age?

   Dignity in old age is difficult to define and generalise without context and is highly variable also according to different points of view (e.g. cultural context, as pointed out in the summary report page 12). In this sense it is difficult to say what ICT can do to support or challenge it. Generally speaking, the ones identified in the areas of preventing ageism and increasing inclusion (page 11) seem to be appropriate and well defined by the report.

   Another way of thinking this could start from simple facts: many past works proved that health condition and social activeness are two key factors affecting life quality of older people. Technologies that solved their critical pains could be used to highlight successes. Again, this has to be discussed case by case. It cannot be generalised.

3. In your experience, what are the functions or applications of ICT that challenge dignity in old age?

   This is an interesting question, and one that we felt perhaps the summary report did not explore enough. The assumption that ICT is a threat to dignity in old age, mostly due to the potential of eExclusion and hence of its potential role in discriminating against people without eAccess, has not been discussed in depth. We would have appreciated a section reviewing some of the major findings in the academic literature that have substantiated this assumption as part of the summary report. The report focuses mostly on ‘best practice’, something much needed, and mentions the dangers of ICT to dignity without giving specific examples of when and how this happens.

4. Section 4 describes some of the key themes emerging from our analysis of the literature and 10 business cases. Do these themes accord with your experience? Are any key issues missing?

   The themes and examples were very interesting and cover all the themes according to our research experience. However, once again probably due to the brevity of the summary report, we felt we did miss some elements to understand the context of the choice made in presenting these business cases versus other (e.g. metrics of selection, etc.). Moreover, the discussion may also need to be connected with the
nature of specific information, i.e. what participants to these studies are really expecting or requiring from technologies.

5. The ten business cases were selected to provide evidence of good practice. How effective in encouraging good practice do you consider the case study approach to be in describing dignity in ICT with older people?

We think the 10 business cases were very good in making the reader reflect on the complex ramifications and varied composition that the issue of ICT, dignity and inclusion has in old age. They were effective also in suggesting good practice.

6. The recommendations address EU policy with respect to: explicit references to dignity and non-discrimination, inequalities inherent within the pace of change, the use of good practice and principles of behavior, the need for shared frames of reference, and the need for interventions at all appropriate levels of authority. Are there any missing key points?

Possibly, there could be suggestions for policy makers to ensure high standards in the delivery and maintenance of ICT systems.

It perhaps could also include instructions on how the findings could be applied in further research and development for ICTs (e.g. implications for design).

7. Do you have any further comments on the report?

We would like to commend the authors in their constant attention throughout the summary report to user centric design and importance attributed to involving older people in the entire process of delivery ICT solutions.

Designer response

A. Overall impression of the document

1. What is your overall evaluation of the scientific quality of this report?

(Based on the following criteria: consideration of most relevant literature, progression of new ideas with supportive sources, and depth of analysis).

2. Satisfied

While I understand the need to reference and use of EU-level projects as the source of data for the case studies there are many more scientific studies and reports that I know the research team would have familiarly with that could provide more authoritative findings and analysis. For example the Whole Systems demonstrator project in the UK and several reports from around Europe and the use of telehealth and telecare systems.

Section 2.4 would benefit from a brief description of what older people actually use ICT for to help contextualize the case studies, the overall conclusions and the policy recommendatations more. The section seems to be mainly focused on telehealth/telecare systems but what about internet and everyday technologies.
2. Does the report fully address all the main issues in question? (In reference to these main issues:)

2. Moderately comprehensive

See comments under 1 about, although I appreciate that there may have been reasons why a spread of case studies rather than research studies/reports were chosen

3. Is the report in any way biased by the VALUE AGEING authors’ opinions and WP5 experiences, in the sense, are the results of the report heavily influenced by the VALUE AGEING activities or can the results be independently transferred and used for projects outside of VALUE AGEING?

1. Yes, they are justified.

Comments (up to 600 characters)

B: Open questions (please limit answer to each question to 800 characters)

1. 2 and 3 describe our approach to dignity in ICT in ageing. Do they provide a useful introduction to building dignity into ICT development? Do they get to the core of dignity in ICT in ageing?

Section 2 would benefit from a brief description of the types of technology being considered here and some illustrative barriers for older people. The De Hert and Mordino quote is excellent but I think elaborating more on the types of ICTs that are most relevant here could be useful.

“Dignity in research/development – “ Consider mentioning the inclusion of older people in the design process here (Universal Design!). Older people as a forgotten, yet lucrative market segment with most disposable income. Also industry’s apparent lack of awareness/competence in including and considering older people in the design of ICT products/services

It may be useful to provide a footnote on definitions of eAccessibility and eInclusion as these are essentially Commission constructs and may not be understood by readers outside the EU or even within Member states. Consider including also the notion of Universal design here. While I appreciated that it is not explicitly mentioned in EC policy, Design for All is – which is the EC term from UD. Incorporating the notion of UD will allow a better differentiation to be made between technology designed to assist older people (AT) and everyday technology that, if designed with more consideration of older people’s needs and preferences, would enable them to live independently for longer etc.

Section 2.5 does not mention the EC ICT and ageing action plan (2007).

More relevant and recent legislative developments are the draft web accessibility directive, the European Accessibility Act and the new procurement Directives. Referencing these here may assist in providing more specific policy recommendations later on.

Paragraph 2, Section 2.5 states “The dashed lines demarcate phases, and the beginning of the current global economic crisis, evident in Europe, is labeled because it has been influential on formulation of policies geared towards the economy.”. This is a good point – it may be worth elaborating that both legislative actions above (web and EAA) are being taken as Internal Market measures. The Commissions approach to bring forward new legislation in this space as an IM (and not anti-discrimination) measure is worthy of note and perhaps some commentary. One key issue is that advocates and researchers alike need to become
familiar with the language and rational of IM measures so they can intelligibly comment on and critique the Commission’s proposals.

Section 3.2 consider referencing the ICF in relation to the continuum of abilities that impact more or less on an individual’s ability to perform everyday tasks.

2. In your experience, what are the functions or applications of ICT that support dignity in old age?
   - Universal Design of everyday products and services including the web
   - Telehealth/telecare

3. In your experience, what are the functions or applications of ICT that challenge dignity in old age?

   *Poor design*

4. Section 4 describes some of the key themes emerging from our analysis of the literature and 10 business cases. Do these themes accord with your experience? Are any key issues missing?

   *It may be useful to draw some comparisons with issues on the use of ICT by persons with disabilities. Although I have no references to hand, anecdotally the language and notion of Independent Living by persons with disabilities is quite different to that of supported living by older people. This is core to the notion of dignity and is a nuance that could be lost by policy makers in look at the role of ICT for older people and persons with disabilities.*

   *Section 4.2.5 states “Good practice in ICT begins with respect for the dignity of older persons and with conscious effort to practice non-discrimination. From there, details of project and product design, participative engagement with older people, and engagement with audiences via appropriate media all contribute to successful outcomes.” This is a good point and well made. Again I would recommend mentioning Universal Design as both a key philosophical underpinning and as a useful design tool in considering the needs of older people in the development of the ICT products and services. The 7 principles of UD are a useful tool in setting out high-level goals are very well suited to older people as well as person with disabilities.*

5. The ten business cases were selected to provide evidence of good practice. How effective in encouraging good practice do you consider the case study approach to be in describing dignity in ICT with older people?

   *The 10 cases are used to good effect. However as commented above my preference would be to expand this (if feasible of course) to include findings from international research on AT, telehealth, telecare etc*

   *6. The recommendations address EU policy with respect to: explicit references to dignity and non-discrimination, inequalities inherent within the pace of change, the use of good practice and principles of behavior, the need for shared frames of reference, and the need for interventions at all appropriate levels of authority. Are there any missing key points?*

   *The recommendations are quite well formulated – if a little generic. However in a paper on dignity it may not be possible to make them more specific! One recommendation to consider is the market potential of older people. This relates to the earlier point about new legislation being proposed as an IM measure. Similarly older people are a large market segment that, alongside all other consumers have a right to be serviced by the market. This is not just a issue of equality/inclusion, it makes good business sense in the*
context of a European economy that is recovering from recession. Therefore I suggest that a policy recommendation be considered along the line of equal access to the ICT market for older people. This may take a little reverse engineering and a reconsideration of some of the findings from the case studies. But I think it is a policy recommendation that is very relevant to the current approach to policy development in this area.

➤ “Strengthening the involvement older people and people with disabilities at all levels will produce more effective outcomes.”

This recommendation is well made but in practice may prove difficult to achieve. A key element of legislation/regulation in the EU is the development of harmonized standards (New Approach). Therefore attention to the development of relevant technical and design standards that incorporate the needs of older people is a key aspect to inclusive policy making. Consider making reference to this in section 4.2.3 and if feasible include it in the policy recommendations

7. Do you have any further comments on the report?

A new European standard EN 301 549 "Accessibility requirements suitable for public procurement of ICT products and services in Europe" on accessible ICTs has just been finalized by CEN, CELENEC and ETSI. Consider referencing this in the document. The EN is already referenced in the draft proposal on web accessibility, and will likely be referenced in the EAA and is likely to adopted by member states when transposing the new procurement directives.

Annex:

Quotations/references from study “The Lived Experience of People in Ireland using Online Public Services”

http://www.universaldesign.ie/web

“Despite some stereotyping of older adults as “technophobes”, all the evidence suggests that they use and enjoy it in much the same ways as the rest of the population, while being more likely to access health-related information38. One US study found that “email and children were primary reasons” why many seniors started to learn using computers39.”

Design of the web: “Seminal studies such as the Pew Internet & American Life Project have found that when Web design changes were made to accommodate particular groups such as older users, the changes also improved the performance of all users40. “

This study also found that “Factors such as traditional attitudes to authority, trust, literacy and user relevance of online channels emerged as powerful factors, especially for older people.” – in relation to accessing and using public services online

[...the reasons for low usage rates of the Web typically associated with conditions such as being older or having a disability cannot be explained only in terms of socioeconomic factors related to levels of computer

40 Fox, Susannah (March 25, 2004) “Older Americans and the Internet”, Pew Internet and American Life Project
usage or access to the internet. The design of website is particularly an issue for this cohort and need to be considered as a priority in facilitating access to public services. Other factors that need consideration are the diversity of devices and technologies used to access the Web and the different types of web content and services being provided. (page 38)

“There has been a huge growth in dedicated mobile applications (apps): an estimated 5 million apps had been downloaded in Ireland by June 2011.⁴¹ While apps have huge potential to help and liberate people, including people with disabilities and older people, there is also the potential to further exclude those who are already at a disadvantage by providing small, hard-to-use, inflexible interfaces. Jellinek and Abrahams (2012) describe an "anything goes, but get there first” mentality during the meteoric rise of the app, and say many developers have ignored accessibility, or may not know what they are expected to do to improve accessibility of their products, or how to do it." (page 39)

“Ethnographic and other research reveals an active and pragmatic citizenry making decisions around the affordability, merit, value, and personal appropriateness of the technology⁴³. Other studies, as noted above, show that once online, persons with disabilities and older citizens engage with and enjoy the Internet in much the same ways as everyone else, even adapting available resources to improve their experience of the Web." (page 45)

the level of uptake declines among older age groups in Ireland is broadly the same as elsewhere. Hanson (2011) questions the popular assumption that this type of decline is “a generational issue” that will simply disappear over time – even over several decades: "According to this position, problems currently being investigated in relation to ageing and technology ability will become irrelevant when today’s younger adults themselves are older. Many, perhaps even most, of the members of these younger generations share the belief that research on technology issues and ageing is a problem that will not plague their generation. However, this belief rests on two assumptions. First is the assumption that age-related changes in ability will not hinder their technology use when they age. Second is the assumption that today’s technology skills will prove adequate for using future technology.”

Examples in the literature include how the use of ICT to gain health information can improve health outcomes, such as reduced length and frequency of hospital stays⁴⁵.

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⁴¹ Behaviour & Attitudes and Return2Sender (2011)
⁴² See also Seven Steps to Accessible Mobile Apps (2012), published alongside the Jellinek and Abrahams report by the One Voice for Accessible ICT Coalition. http://www.onevoiceict.org/first-seven-steps-accessible-mobile-apps
⁴³ For example, Mehra, B., Merkel, C & Bishop, P. (2004) “The Internet for Empowerment of Minority and Marginalised Users”, New Media & Society, 6, 6, 781-802
**Older volunteer response**

*I have volunteered with the elderly as a home visitor for more than thirty years. Now in my 75th year with deteriorating age related disability, I am a keen enthusiast for use of modern technology in promoting independence and dignity of older people. My response to the report is based purely on my observations an experience of working with the elderly. I could summarise it in 4 points as follows:*

1. **Socio-economic and psycho-social factors:**

   *There appears to be an assumption that ICT developments impacts on all older people the same way. I think it largely depends on the socio-economic group the older people belong to as the degree of impact varies with the level of education in any particular group of people. There may be resistance to technology among the less developed groups. Although technology can no doubt make care at home possible for the frail elderly, their discomfort with technology could impair feeling of respect and dignity thus increasing their isolation and feeling of exclusion.*

   *Similarly, ethnicity can influence level of psychological barriers to acceptance of technology. Feeling of inability to learn and accept could increase isolation and loss of dignity.*

2. **Age factor:**

   *The rate of development of new technology has accelerated in last decades of the twentieth century more than ever before. This has enhanced the propensity of younger older people to accept development of technology and accept it more readily. I think one has to recognise that impact of development of ICT on people over 80s is different than those under that age group. Although older people tend to accept new technology more easily if it is for practical purposes, it is important that new ways of doing things are introduced in a non-threatening, fun way to enable them to be comfortable with it.*

3. **The gender factor:**

   *I think the feeling of dignity, acceptance or otherwise of new technology and being comfortable with it, can vary with gender. Men tend to accept new technology more easily than women and are generally more willing to give it a try. Yet, failure to grasp it could lead to a greater degree of loss of dignity in men. I find men and women cope better with a different approach to introduction of technology.*

4. **Family support and social capacity:**

   *I find older people with families supportive of technology accept and be comfortable with it more readily without loss of dignity. They need assurance of being able to turn to someone for support in case something goes wrong with the equipment or the system. Feeling of exclusion and isolation can be greater without any assurance of support.*

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**Policy Maker response**

1. **What is your overall evaluation of the scientific quality of this report (Very satisfied)** Comments:

2. **Does the report fully address the main issues at stake? (1 – Extremely comprehensive)** Comments:

3. **Is the report unduly biased by the VALUE AGEING authors’ opinions and WP5 experiences, i.e. are the results of the report heavily influenced by the VALUE AGEING activities or can the results be independently transferred and used for projects outside of VALUE AGEING? (Yes, they are justified)** Comments:
1. Sections 2 and 3 describe our approach to dignity and non-discrimination in ICT in ageing. Do you think our approach gets to the core of these principles in this context? Do they provide a useful introduction to building dignity and non-discrimination into ICT development?

*The parameters are properly delineated and defined, I feel the one subject lacking in defining dignity are issues related to dementia sufferers and end-of-life care. It is essential that dignity be defined in well, active, independent elderly and those that are partially disabled, however these two populations need special attention in attempts to define and address their dignity when it is difficult or impossible for them to do so. This also addresses other issues of family and caregivers which receive some mention, but to my mind, not enough.*

2. In your experience, what are the uses of ICT that support dignity in old age?

*Telecommunications, computer-based technologies and programs and lastly sensors, actuators, robotics and other high-tech solutions. This is based on the difficulty in the future of funding complex technologies in the public sector—the issue of adaptability and affordability was not addressed, I believe, even as a research item.*

3. In your experience, what are the uses of ICT that challenge dignity in old age?

*The more complex the solution, the greater potential for challenging dignity by being unacceptable, too expensive, and not integrated in other health and welfare systems—making the frustration of the elderly (and hence) their dignity more vulnerable.*

4. Section 4 describes some of the key themes emerging from our analysis of the literature and 10 business cases. Do these themes accord with your experience? Are any key themes missing?

*Major themes are present—again to the exclusion of financial, regulatory, and integration issues—for the most part. Also there is only one business case of the 10 relating directly to those suffering from mild dementia. None address the dignity needs of more advanced stages of dementia, or disability for that matter—such as ALS or stroke sufferers, or end of life care.*

5. The ten business cases were selected to provide evidence of good practice. How effective in encouraging good practice do you consider a case study and analysis approach to be?

*Excellent especially if they can demonstrate replicability in various country or regional settings. Some of the cases seemed limited in this area.*

6. The recommendations address EU policy with respect to: explicit references to dignity and non-discrimination, inequalities inherent within the pace of change, the use of good practice and principles of behavior, the need for shared frames of reference, and the need for interventions at and between all appropriate levels of authority. Are there any missing key points?

*I reiterate-replicability and affordability and integration within and among systems.*

7. Do you have any further comments on the report? *None.*
Gerontotechnology Expert Response

A. Overall impression of the document

1. What is your overall evaluation of the scientific quality of this report?

(Based on the following criteria: consideration of most relevant literature, progression of new ideas with supportive sources, and depth of analysis).

2. Satisfied

Comments (up to 600 characters)

*Overall a good narrative-based methodology was applied. However, the criteria for selecting the best 10 business cases (Annex C) do not appear to have been applied in a systematic way. Were each of the business cases numerically ranked against the criteria? What metrics were used? E.g., how was “wide spread impact” measured? See also comments under Q4.*

2. Does the report fully address all the main issues in question?

(In reference to these main issues:)

2. Moderately comprehensive

Comments (up to 600 characters)

*It may have been useful to mention national and international standardisation initiatives in areas of accessible design for the older population and how these relate to ethical considerations. E.g., ISO/IEC Guide 71:2001 “Guidelines for standards developers to address the needs of older persons and persons with disabilities” (currently in revision)*

3. Is the report in any way biased by the VALUE AGEING authors’ opinions and WP5 experiences, in the sense, are the results of the report heavily influenced by the VALUE AGEING activities or can the results be independently transferred and used for projects outside of VALUE AGEING?

2. Somewhat justified

Comments (up to 600 characters)

*The selection methodology for the business cases does appear potentially to be open to subjective considerations of the authors because no systematic analysis of the candidate cases was presented. Possibly equally interesting would have been a discussion of several projects / business cases that were not successful as judged by the same set of criteria.*

B: Open questions (please limit answer to each question to 800 characters)

1. 2 and 3 describe our approach to dignity in ICT in ageing. Do they provide a useful introduction to building dignity into ICT development? Do they get to the core of dignity in ICT in ageing?

Yes

2. In your experience, what are the functions or applications of ICT that support dignity in old age?

Technologies that empower and facilitate independence

3. In your experience, what are the functions or applications of ICT that challenge dignity in old age?
Overreliance on telecare technologies potentially can exasperate social isolation and loss of dignity.

4. Section 4 describes some of the key themes emerging from our analysis of the literature and 10 business cases. Do these themes accord with your experience? Are any key issues missing?

The business cases cover reasonably comprehensively the main issues. The role of homecare robotics may have been addressed as a case study. The literature survey seems rather brief in the number of citations.

5. The ten business cases were selected to provide evidence of good practice. How effective in encouraging good practice do you consider the case study approach to be in describing dignity in ICT with older people?

Case studies generally are not designed to be validated on a quantitative statistical basis and therefore conclusions for general extrapolation must be carefully weighed, even for evidence of good practice. Practices successfully implemented on one socio-economic-ethnological setting may not work at all in others.

6. The recommendations address EU policy with respect to: explicit references to dignity and non-discrimination, inequalities inherent within the pace of change, the use of good practice and principles of behavior, the need for shared frames of reference, and the need for interventions at all appropriate levels of authority. Are there any missing key points?

None of which I am aware.

7. Do you have any further comments on the report?

No

Academic (Social Science) Response

He would like to see more discussion on the selection of cases. All the cases are ‘organised - he would like to know what else is happening at an individual level/ad-hoc way? For example where later stage dementia – can be managed at a distance by families using technical fixes e.g. when to take tablets (reminder) – here the technology doesn’t do much to help with social interaction, but it does support continued independence. – ICT support for independence and autonomy are important functions at the individual level.

It is important to emphasise the need for consent on both sides for the use of these technologies, but sometimes families can be resistant – for example he has seen cases where agencies wanting to use GPS for safety monitoring for people with dementia met resistance from families who felt it would lead to withdrawal of face-to-face care, replacing the human. Technologies like this can only work when the individual concerned and all those involved with their care not only agree to the technology use but also buy into the idea of using it right.

In terms of the concept of Dignity, he thinks that the selected cases do chime with the Jacobson model because Dignity is all about the interaction between people, not the technology itself.
In his view, ICT is a long way from ubiquitous at present, and at this stage it is OK if people want to exclude themselves from inclusion in the information society. What is more important is to find out why people choose to do so – especially if the reasons are to do with costs or ignorance: we should be looking to overcome these. But if people have for example moral objections to using ICT, they should be upheld. Furthermore the entrenched belief that old people don’t use technologies and younger people do needs to be challenged and the actual digital divide more accurately characterised. One of the problems is that political elites are part of the ‘included’ and don’t think or understand much about the digitally excluded.

It is important also not to lump all technologies together because of the different ways people approach them and their functions. For example ICTs could be broken down as (a) those that allow familial interactions (b) those that provide emergency services and (c) those that give access to help and information. The VA case studies span all three of these types and the recommendations need to be clearer about what is being discussed.

Another way of thinking about them is to differentiate between those ICTs primarily aimed at supporting Independence (GPS; telehealth and telecare) and those aimed at supporting Dignity (e.g. social interactions; memory prompts for dementia that act as tools for person-to-person interactions). New technologies are often introduced as trendy and cool, whereas older people are often more interested really in things that support their dignity and independence, perhaps with staff working quietly in the background to support their ICT use.

Further EU policy needs to include proper evaluations of developments based on the social model to fully understand their impact, and digital futures need to be included in thinking about human rights. For example, the security for a Facebook account is based on ‘normative’ behaviors, but what happens to a person’s Facebook account when their dementia progresses and they can no longer remember passwords. (The same applies to the legacy when people die). Current expectations of people interacting with this kind of technology does not really take into account that people really aren’t all the same. ICT use will only work equitably across the EU if there is proper broadband – this is essential not just for commercial reasons but for civic reasons also.

Researcher (Technology) Response

A. Overall impression of the document

1. What is your overall evaluation of the scientific quality of this report?

Satisfied

2. Does the report fully address all the main issues in question?

Very comprehensive
3. Is the report in any way biased by the VALUE AGEING authors’ opinions and WP5 experiences, in the sense, are the results of the report heavily influenced by the VALUE AGEING activities or can the results be independently transferred and used for projects outside of VALUE AGEING?

Yes, they are justified.

B: Open questions (please limit answer to each question to 800 characters)

1. 2 and 3 describe our approach to dignity in ICT in ageing. Do they provide a useful introduction to building dignity into ICT development? Do they get to the core of dignity in ICT in ageing?

I think they do.

2. In your experience, what are the functions or applications of ICT that support dignity in old age?

Provision of choice; increased confidence/efficacy if designed well and easy to use; inclusion.

3. In your experience, what are the functions or applications of ICT that challenge dignity in old age?

Poor design or lack of robustness (e.g. in research trials of technology) that may cause frustration for the person or make them feel like they’re doing something wrong.

4. Section 4 describes some of the key themes emerging from our analysis of the literature and 10 business cases. Do these themes accord with your experience? Are any key issues missing?

I don’t think so.

5. The ten business cases were selected to provide evidence of good practice. How effective in encouraging good practice do you consider the case study approach to be in describing dignity in ICT with older people?

I think its effective.

6. The recommendations address EU policy with respect to: explicit references to dignity and non-discrimination, inequalities inherent within the pace of change, the use of good practice and principles of behavior, the need for shared frames of reference, and the need for interventions at all appropriate levels of authority. Are there any missing key points?

Not that I’m aware of, but I’m not very familiar with policy.

7. Do you have any further comments on the report?

I think the report is very interesting, and valuable. While it represents a summary, I would still have liked to see a briefer (e.g. half page) summary at the start of the report, a series of bullet points, highlighting the main findings.

Older Person Response (physical and visual difficulties)

A. Overall impression of the summary document

1. What is your overall evaluation of the scientific quality of this report?

(Based on the following criteria: consideration of most relevant literature, progression of new ideas with supportive sources, and depth of analysis).

Very satisfied
This is extremely well written, accessible to many different audiences (particularly if there is a way of increasing the font size!). It combines academic rigour with an excellent presentation of quite complex data.

2. Does the report fully address all the main issues in question?
(In reference to these main issues:)

Very comprehensive

3. Is the report in any way biased by the VALUE AGEING authors’ opinions and WP5 experiences, in the sense, are the results of the report heavily influenced by the VALUE AGEING activities or can the results be independently transferred and used for projects outside of VALUE AGEING?

I find this a difficult question, I do not think it is biased by the VA’s authors opinions – the results should be easily transferred across to other projects

8: Open questions

1. Sections 2 and 3 of the Summary describe our approach to dignity in ICT in ageing. Do they provide a useful introduction to building dignity into ICT development? Do they get to the core of dignity in ICT in ageing?

These sections are carefully constructed to identify ways of ‘building dignity’ as a concept into ICT development and demonstrate how dignity could be seen as a core concept of ICT when applied to older people.

2. In your experience, what are the functions or applications of ICT that support dignity in old age?

This question clearly depends on the reader’s personal or professional experience. There are many applications that require a degree of sight and/or hearing in order to use them effectively or efficiently. Most large pcs and some mobile phones meet the aim of supporting dignity.

3. In your experience, what are the functions or applications of ICT that challenge dignity in old age?

Many smaller pieces of equipment such as smartphones, small ipads and so forth challenge the sight, hearing and often dexterity of older people.

4. Section 4 of the Summary describes some of the key themes emerging from our analysis of the literature and 10 business cases. Do these themes accord with your experience? Are any key issues missing?

I concur with the summary.

5. The ten business cases in the Summary were selected to provide evidence of good practice. How effective in encouraging good practice do you consider the case study approach to be in describing dignity in ICT with older people?

The case study approach as described in this report seems to be very effective in elucidating what dignity in ICT with older people should be.

6. The recommendations address EU policy with respect to: explicit references to dignity and non-discrimination, inequalities inherent within the pace of change, the use of good practice and principles of behavior, the need for shared frames of reference, and the need for interventions at all appropriate levels of authority. Are there any missing key points?
Not that I can think of – however non-discrimination means different things to different people, and for example someone with a severe spinal deformity could find the experience of trying to learn how to use ICT rather different to an older person with a different type of difficulty. I think non-discrimination as a concept needs even further unpacking if possible, as it will also mean different things in different societies.

7. Do you have any further comments on the report?

I think it is excellent, comprehensive and needs to be translated and disseminated as widely as possible.