



Standards and Good Practice around ICT for AHA

Deliverable D6.5 (formally report deliverable D6.6)

Report / Scoping Paper

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Abbreviations

AGE	Age Platform Europe
AHA	Active and Healthy Ageing
BSI	British Standards Institution
CEN	Comité Européen de Normalisation (European Committee for Standardization)
DIN	Deutsches Institut für Normung (German Institute for Standardisation)
DoA	Description of the Action (part of project contract)
DMU	De Montfort University
EHTEL	European Health Telematics Association
EN	European Norm (Standard)
ICT	Information and Communications Technology
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
NSB	National Standards Body
OMC	Open Method of Coordination
RRI	Responsible Research and Innovation
TQG	Telehealth Quality Group
WG	Working Group

WP Workpackage

1. Introduction

This report describes the way in which the PROGRESSIVE project developed a view on what is good practice in relation to standards for ICT and 'Active and Healthy Ageing' (AHA). It points the way to a view of good practice that has been and continues to be helpful in underpinning the work within various work-packages (WPs). It takes a standpoint in which good practice can only be deemed as 'good' if it is ethical. There is a strong link, therefore, in this report with the substantial work undertaken in D2.1 that has provided an 'Ethical Framework for Standards in Context of ICT for AHA' as well as with other project deliverables and tasks mentioned here, in particular in Section 4 of this document

There is **an ethical dimension in the European approach to standards**. This is demonstrated in the stance taken by both the European Parliament and the European Commission. For instance, in 2017 the European Parliament affirmed 'that demographic ageing in Europe requires systematic incorporation of the needs of older persons and persons with disabilities, and other vulnerable members of society, in the development of standards, which are a suitable tool to help achieve an active and healthy society in Europe and to increase the accessibility of products and services for people.' It also called for a 'proper and early involvement of all relevant stakeholders'.¹ The Commission's 2017 'Rolling Plan for ICT Standardisation' called for 'convergence of the efforts of standardisation makers towards European policy goals' within which there is a need for recognition of AHA as 'an important societal challenge'.² It pointed to accessibility, affordability, autonomy, interoperability, privacy protection, safety, security and user involvement as ethically justifiable objectives requiring to be considered, and where appropriate embedded, in standardisation work. Several of the PROGRESSIVE deliverables demonstrate fulfillment of these 'ethical objectives'. WP9 on co-production (and offering guidelines for user involvement in the standardisation process) is a good example of this.

A cautionary note must, however, be added. **What is regarded as 'good' or ethically justified is often open to question**. It may change depending on the context or the

¹ European Parliament resolution of 4 July 2017 on 'European Standards for the 21st Century' (2016/2274 INI).

² European Commission (2017) 'Rolling Plan for ICT Standardisation 2017' DG GROW.

knowledge available. This means that changes in thinking may take place as the PROGRESSIVE project continues to evolve – taking on board the views of different stakeholders prominent among which are the views of older people themselves and their representative organisations. Hence **some more nuanced understandings of good practices may emerge or the ethical ‘frame of reference’ of the PROGRESSIVE may simply be extended** in order to accommodate issues that have arisen e.g. in response to rapidly developing areas around ICT for AHA such as those that relate to personal information, privacy, or the use of robots. Such changes, if any, are envisaged as being pointed to within one or more publications at or in the period following completion of the project (reflecting part of the output of WP5 ‘Dissemination’).

The project’s perspective on good practice has both influenced, and been influenced by the discussions and debates relating to different deliverables that have taken place both within the consortium and outside (with a range of stakeholders including older people and their representative organisations). In other words, there has been an iterative process of shared knowledge building and ideas development throughout the first 18 months of PROGRESSIVE. This has shaped the view of ‘good practice’ that is set out in this report.

2. What is Good Practice?

This section of the report sets out the consortium’s understanding of good practice. It starts with a generic, international perspective and then looks at some specifics that have particular relevance for the PROGRESSIVE project.

Reports and guidelines about what *represents* ‘good practice’ are omnipresent. A simple Internet search on ‘good practice guidelines’ and ‘European’ finds good practice guides that range from medicines manufacture to the safety of taxi drivers. Within these, however, *definitions* as to what is ‘good’ (and, conversely, what is bad) are rarely offered.

Astonishingly, the 1994 **International Standardization Organisation / International Electrotechnical Commission (ISO/IEC) guide on good practice in standardisation fails to provide a definition of good practice.** It offers instead the rather weak comment that ‘standardizing bodies have developed procedures and modes of cooperation which are

commonly considered to constitute good practice for standards development at all levels'.³ The European Commission, meanwhile, points to **the 'exchange of good practice' as a key part of the 'Open Method of Coordination' (OMC)** that is defined as a light but structured way that EU Member States can use to cooperate at European level in the field of culture.⁴ A 'manual' of good practice is promised with 'experts' asked to 'map and compare public policies at national and regional level to identify good practices' but no definition of the good practice is offered.

More widely (within articles, reports and studies), **ethical underpinnings to claims made about good practice are usually either absent or**, with a leap of readers' imagination, **must be assumed to relate to matters mentioned in the texts** around, for instance, inclusion, efficiency, choice or the apparent merits of existing or established practice.

Readers of such articles, reports and studies are, by implication, invited to assume that their authors have sufficient expertise and breadth of knowledge to be both judge and jury on such matters. In this context, it is remarkable that in ISO/IEC terms, for standards, the requirement seems to be one where **readers of documents must accept what is 'commonly considered' as good practice** - perhaps determined by some kind of elite 'standards cognoscenti' who are part of, or who work with, those stakeholders who are sufficiently well resourced to be able to be involved in the standardisation process. Therefore, in the domain of standards, it may be the professional staff - or their representatives - in (often larger) commercial organisations that are the most influential in shaping the frameworks and the 'good' practice(s) that other organisations should later have to follow. In the current context of significant demographic and social change, consumer interests – let alone the interests of older people – may be being overlooked. It follows that if good practice within standards requires that the voices of a wide range of stakeholders should be heard, the approach to standards formulation is likely to have the shortcoming that consumers and older adults are not sufficiently involved.

It is necessary to remark that many people and organisations involved in the business of **standards often take their perspective on 'good' practice to an even further extreme**

³ International Standardization Organisation / International Electrotechnical Commission (1994) 'Code of Good Practice for Standardization' Guide 59.

⁴ See https://ec.europa.eu/culture/policy/strategic-framework/european-coop_en

through reference to ‘best’ practice - as if reflecting a status on the choice of practice that cannot be open to question. Three examples follow of citations of ‘best’ practices: CEN speaks of its work that ‘codifies best practice and is usually state of the art’.⁵ BSI, meanwhile affirms that it knows ‘the best practice way of transitioning to a new standard’ and DIN offers ‘best practice’ prizes for participants in the standardisation process.⁶

It is in the context of this **lack of clarity about what constitutes either ‘good’** (or ‘best’) **practice** that the PROGRESSIVE project has sought to develop its view around ethics and *ipso facto* to shape what might become recognised as ‘good practice’ in the arena of standardisation of ICT for AHA. The project has been hampered in this mission because of the **lack of authoritative reference points**. It follows, because of this that **unqualified assumptions about what good practice is need to be challenged**. This is particularly the case in view of their potentially having been shaped in relation to an overly commercial orientation that reflects the ISO/IEC affirmation that ‘standards should be written to meet the needs of the market-place and should contribute to the advancing of free trade’ – even though there is also brief reference to necessary requirements for ‘compatibility, environmental protection, health and safety’.⁷

The PROGRESSIVE project took **Responsible Research and Innovation (RRI) as a key reference point for good practice** - in view of its promotion of ethically-based approaches to commercial activities. This should, in turn, be reflected in standards and therefore promote good practice.

A useful definition of RRI is ‘a way of thinking that balances commercial and other goals with those concerned with wider wellbeing’.⁸ An important aspect of this definition is the dimension that relates to ‘people’s engagement and participation in the research process’.

The potential for RRI to impact on the world of standards in an ageing society **has been noted specifically in relation to ICT**, with ‘specific regulatory and policy actions ... needed to create a more favourable environment for market deployment’.⁹ RRI adds its own

⁵ See www.cen.eu

⁶ See www.bsigroup.com and www.din.de

⁷ ISO/IEC (1994) op cit.

⁸ Wilford S, Fisk, M and Stahl B (2016) ‘Guidelines for Responsible Research and Innovation’, The GREAT Project, De Montfort University, Leicester.

⁹ Porcari A, Borsella E and Mantovani E (2015) ‘Responsible industry Executive Brief: Implementing Responsible Research and Innovation for an Ageing Society’, Italian Association for Industrial Research (AIRI), Rome.

challenge, therefore, to the general challenge for standards that has been made in the opening section of this D6.5 report.

It is in this context that **PROGRESSIVE outcomes seek to ‘change mindsets’ in the world of standards**. In pursuit of this the project was, it can be noted, referenced in an ISO Focus Magazine¹⁰; successfully involved varied stakeholders in its forum in Brussels Workshop ‘Making ICT standards fit for Active and Healthy Ageing’¹¹; led a workshop with a participative audience at the AAL Forum in Coimbra (Portugal) titled ‘Changing Mindsets: New Approaches to AAL’; has consulted with varied national standards bodies in relation to Draft ‘Guidelines for the Co-Production of Standards around Age-Friendly and Smart Environments’; and is making representations, through DMU, to the new ISO TC/314 on ‘Ageing Societies’.

PROGRESSIVE is also involved in the Silver Economy awards process, both as a partner and on the Advisory Board. Last but not least, an article that relates to ‘Standards and the Silver Economy’ (within which ICT clearly has a place) has been drafted and will be submitted by project partners for publication in an influential journal. With regard to the silver Economy notable is the common perspective of the project with that set out in the new European Commission report – this noting the importance of ICT in both supporting service developments (e.g. through the promotion of interoperability) and enhancing opportunities for older people e.g. in the workplace and in accessing health and support services.¹²

The time is right to endeavour to exercise such influence in view of the potential impact on many societies of demographic and technological changes.

Moving Forward on Good Practice

¹⁰ https://www.iso.org/isofocus_121.html

¹¹ See http://www.age-platform.eu/sites/default/files/PROGRESSIVE_Forum_REPORT.pdf

¹² Varnai P, Simmonds P, Farla K and Worthington H (2018) ‘The Silver Economy’, Technopolis and <https://ec.europa.eu/digital-single-market/en/news/silver-economy-study-how-stimulate-economy-hundreds-millions-euros-year>

The critical approach to 'good practice' taken by the PROGRESSIVE project was originally signalled in the DoA.

The DoA indicated that standards might 'no longer reflect state of the art technological developments or ... (they might) fail to consider that good practice around service provision needs to be considered according to changed ways of thinking (e.g. regarding the extent of inclusion of stakeholders within the standardisation process)'. The intention was expressed **to 'generate new understandings of what is good practice and move on from old ways of doing things'**. The role of the **proposed European Multi-Stakeholder Platform on ICT Standardisation was noted as important** – to identify and recommend paying attention to standards that may have become obsolete or not gained market uptake. It also pointed to **some 'new' ethical issues that have, within the project, been identified and considered.**

These 'new' ethical issues are included within D2.1 (Ethical Framework). They have, in part, responded to related work undertaken within European fora such as the AGE Platform Campaign 'Towards an Age-Friendly EU by 2020'. This campaign aims to help 'shape a *fair* and *sustainable* society for all ages' [our emphases] as well as establishing a 'repository of good practice'.¹³ With this in mind, it can be noted that the element of the work of PROGRESSIVE that focuses on smart homes (within WP10) is **taking account of criteria that determine age-friendliness** in order to help determine what is good practice in that context. The latter is recognised as being of particular importance in view of the requirement for the project to consider 'how key requirements for a quality label or certification could be met'.

In this way, it is considered that **the PROGRESSIVE project is breaking new ground on 'good practice'** and it is seeking to place that practice on a firmer foundation. It has made good progress towards laying that foundation by critically appraising the meanings of good practice in relation to a range of ethical tenets. Crucially it has provided a frame of reference, specific to ICT for AHA (but with wider implications), by which the merits of standards and the standardisation process can be considered. This frame of reference has underpinned much

¹³ See <http://www.age-platform.eu/age-work/age-campaigns/age-friendly-environments-main/campaign>

of the work of the project and is reflected in its approach to ‘changing mindsets’ (noted above) and forthcoming reports and guides that represent project deliverables.

ICT for ALL

Part of the ‘firmer foundation’ for meanings around ‘good practice’ is provided in the work of the European Commission (a FP7 Support Action) funded ICT for ALL project that ended in 2008. ICT for ALL included older (and disabled) people within its focus.¹⁴

The ICT for ALL project referenced a 2005 European Union slogan *‘No Citizen Left Behind’*. This slogan was prominent at that time and pointed to an ethical imperative of inclusion.¹⁵ Linking with this, the definition of good practice adopted by ICT for ALL comprised seven points. Included within these seven points were elements that relate to the way that ICT can help ‘people to become engaged as citizens as well as being able to carry out daily activities’ in a context that examined aspects of good practice that are concerned with health, wellbeing and inclusion.

Although in an adjusted order, the ICT for ALL definition of good practice is laid out in Table 1 overleaf. Comments, drawing on knowledge gained and issues arising within the PROGRESSIVE project itself have been added to each of the seven points. This tabular exploration of good practice can be associated, in particular, with work that has emerged to date from the following specific PROGRESSIVE deliverables and tasks:

- D2.1 (Ethical Framework);

¹⁴ See http://cordis.europa.eu/project/rcn/79517_en.html and Sakkas N, Vlachaki E, Futo P, Toth L, Melchiorri M, Saracino S, Kowalska-Zakieta I, Swiezawska-Ambroziak K, Bury A, Fisk H, Fisk M and Parker I (2008) ‘ICT for All: Towards an inclusive Society’ ASM, Lodz.

¹⁵ Ibid.

- Task 6.3 (Analysing, Filtering and Data Entry); and
- Task 6.4 (Identifying Innovative Approaches and Examples of Good Practice).

Only limited similar work that touches on the meanings of ‘good practice’ has been identified for the ensuing ten-year period since ICT for ALL was completed: two examples are cited here. The first example is from the European Institute for Gender Equality (EIGE) which sets out ‘basic criteria’ for defining a ‘practice with potential’ to be considered as good practice.¹⁶ These criteria included ‘it works well’ (by reference to relevance, efficiency, effectiveness, impact and sustainability); ‘it is transferable’; and ‘it shows a learning potential’ (that helps build the capacity of stakeholders). A second example is within a ‘Good Practices Report’

Table 1: What is Good Practice?¹⁷

TENETS OF GOOD PRACTICE	UNDERPINNINGS FOR THE TENETS
[1] Good practice is represented by ways of working based on principles, accordance with which helps to fulfil aims and objectives associated with appropriate political, economic and social goals.	There are many principles embodied in the policy and practice frameworks supported by the European institutions that may be regarded as representing elements of good practice. These embrace political, economic and social considerations.
[2] Good practice promotes what is right, not what is expedient.	There are moral standpoints on the basis of which judgements relating to good practice can be made. These might include standpoints relating to those espoused by the United Nations in its Universal Declaration of Human Rights. ¹⁸
[3] Good practice is informed, relevant and can be innovative.	Judgements about good practice must be made based on adequate knowledge of the issues. For standards, this requires taking account of the position and viewpoint of stakeholders including consumers (exercising their free choices) and recipients (those who may lack capacity or resources and are more dependent on others of products and services).
[4] Good practice, where appropriate, challenges the <i>status quo</i> and raises questions about the way in which things have been done in the past.	Some approaches to good practice reflect the actions of ‘experts’ and ‘professionals’ doing things <i>for</i> people without sufficient recognition of people’s rights and own choices. In a context of demographic change and threats to the environment, the organisations that develop standards need to

¹⁶ See <http://eige.europa.eu/gender-mainstreaming/good-practices/eige-approach>

¹⁷ Derived from Sakkas et al (2008) op cit.

¹⁸ See <http://www.un.org/en/universal-declaration-human-rights/>

	act by incorporating broader knowledge and the wider inclusion of stakeholders.
[5] Good practice is accessible and able to be shared so that others can adopt it and adapt it.	Good practice has no meaning unless knowledge about it is disseminated. With this knowledge, other organisations and people will be able to adopt and adapt good practice in relation to specific needs and challenges.
[6] Good practice contributes to the health, well-being and inclusion of all people.	In terms of the three fields mentioned, health and well-being means recognising not just the circumstances of individuals, but also recognising – and seeking to avoid – adverse impacts upon the natural environment. Promoting inclusion means adopting universal principles to underpin the configuration of ICT, the physical design of buildings, and the provision of services.
[7] Good practice acknowledges and addresses disadvantage encountered due to environmental factors, disability or prejudice.	This observation recognises the importance of equality and human rights. It highlights the need to strive towards overcoming barriers that arise because of gender, ethnicity, culture, sexual orientation, disability and the political, social and physical (including environmental) environments.

produced for the European Commission on ‘participatory citizenship’.¹⁹ This report pointed to criteria that included the requirement for good practice to ‘relate to transversal values ... such as the values of democracy, human rights, social cohesion and tolerance’; and that (relating to the particular study objectives) ‘demonstrate the different ways participatory citizenship can be fostered at either the local, national or regional levels’.

3. Good Practice and the Ethical Framework

Good practice clearly has an ethical dimension. Some ‘starting points’ for good practice or ethical approaches were already in place.

Good practice clearly has an ethical dimension as Table 1 shows. The discussion in Section 2 of this report, however, finds definitions of good practice are generally absent from the literature. It was, therefore, necessary to identify what ethical issues might usefully be the subject of consideration within the PROGRESSIVE project. This work could have been especially problematic given the particular ICT for AHA remit of PROGRESSIVE. But, in fact, **the challenge acted as a stimulus for debate among consortium members about what**

¹⁹ Krek J, Losito B, Ridley R and Hoskins B (2012) ‘Good Practices Report: Participatory Citizenship in the European Union’, Report 3, Europe for Citizens Programme. Institute of Education, University of London.

is good practice and what is ethics in relation to standards and ICT for AHA. This ensured that careful thought was given to the matter of the ethics of good practice (and which was reflected in earlier drafts of this report) before work on specific deliverables became too advanced.

It was also helpful that **some ‘starting points’ for good practice or ethical approaches were already in place.** The project, for instance, was ready to accept the WHO perspective regarding Age-Friendly cities in view of its recognition of the imperatives about equal citizenship, and the inclusion and empowerment of older people. The concept, well established since the launch of the WHO initiative in 2005, was recognised as having applicability for *all* communities.²⁰ The work of WP7 on Use Cases and later within WP8 on age-friendly guidelines has strengthened the link with the WHO perspective.

Furthermore, all of the **PROGRESSIVE partners either had in place or were ready to accept an ‘ethical steer’** (signaled within the DoA) which, for older people, is strongly exemplified in the work of AGE Platform Europe.²¹ This ethical steer saw AHA as being about **older people being and remaining actively involved in social, cultural, civic and political life and in the workforce and labour market** as employees or as entrepreneurs, volunteers and consumers.

This perspective tallies with the WHO view of active ageing as one that links with ‘the process of optimising opportunities for health, participation and security in order to enhance quality of life as people age. [It] applies to both individuals and population groups. It allows people to realize their potential for physical, social, and mental wellbeing throughout the life course and to participate in society according to their needs, desires and capacities, while providing them with adequate protection, security and care when they require assistance’.²²

3.1 Deliverable D2.1: Ethical Framework

In the context of AHA, D2.1 (Ethical Framework for Standards in the Context of ICT for AHA) pulls together (and endeavours to make sense of) a number of ethical ‘strands’. These are set out as **ethical tenets** in detail within that report. They are also listed in Table 2 overleaf.

²⁰ World Health Organization (2007) ‘Global Age-Friendly Cities: A Guide’, WHO, Geneva, Switzerland.

²¹ See www.ageplatform.eu

²² World Health Organization (2002) ‘Active Ageing – A Policy Framework’ Second United Nations World Assembly on Ageing, Madrid

The ethical tenets consolidate the direction of the PROGRESSIVE project in a way that offers a ‘clear ethical balance’ through which **standards can be configured to serve the end users best interests** and not just satisfy purely technical, economic or commercial goals. For standards to achieve this balance would, it is suggested, represent a major breakthrough in the process of ‘changing mindsets’ and begin to demonstrate a new perspective on good practice. By adopting this perspective, **standards would (ultimately) carry greater legitimacy and authority.**

As noted in the D2.1 report, in several cases **the ethical tenets are closely linked and mutually supportive.** In other cases, there may be tensions that require attention so that a consensus, compromise or an appropriate way forward may be found. Consultation on these ethical issues took place through a mailing to PROGRESSIVE stakeholders in 2017. Although there were a limited number of responses (17), they showed agreement with the proposed ethical tenets. Subsequent discussions have taken place in different contexts including with the project Advisory Group and the Task Force established by AGE. All the tenets are seen to be relevant for the ‘fitness for purpose’ of standards that are concerned with ICT for AHA.

Table 2: Ethical Tenets for the PROGRESSIVE Project

ETHICAL TENETS	RELEVANCE TO PROJECT
Accessibility and Usability	Representing particular relevance for buildings and the wider environment, products and services - therefore assistive technologies, ‘Design for All’ and Age-Friendly communities.
Affordability	Impacting on the ‘accessibility’ of products and services for people with limited means.
Autonomy and Empowerment	Reflecting an imperative for products and services to be designed and configured in ways that engage with, afford choices, and facilitate control by older people.
Beneficence and Non-Maleficence	Underpinning the context of all products or services. Relating to the way that the risks of good or harm are assessed and addressed.
Care, Protection and Support	Representing specific relevance for products or services provided for or used by dependent, frail or otherwise vulnerable older people for whom care is needed.
Equality, Equity and Justice	Affirming the equal status and right of older people to access products and services. Linking with aspects of two other ethical tenets, accessibility and affordability.

Inclusion, Non-Discrimination and Social Impact	Supporting product and service approaches to challenge the disadvantages faced by older people through inappropriate and ageist practices and beliefs.
Interoperability	Embracing both technical (for ICT) and semantic interoperability supporting the 'seamless' use of linked products and services, thereby enhancing consumer options and choices.
Privacy, Safety and Security	Recognising rights both in the context of 'traditional' ranges of products and services (such as those concerned with health and social care) and special considerations (e.g. for cybersecurity) in the context of ICT.

3.2 Filtering Standards for Inclusion on the PROGRESSIVE Platform

A '**Filter**' document has been developed that **guides consortium members on the appropriateness of the standards to be uploaded onto the PROGRESSIVE platform.**²³

The project has been concerned to ensure that the interactive platform developed (in Task 6.1) would not just be a repository of identified standards. Hence Task 6.3 (Analysing, Filtering and Data Entry) affirms that, not only will proper endeavours be made to ensure the accuracy of the information uploaded, but that, **where reasonably possible, consideration will be given to the uptake of the standard, its fitness for purpose, and any linked certification or accreditation procedures that apply.** To help in this process, guidelines were, after consultation and amendment, issued (internally) to consortium members in June 2017. These reminded consortium members of the criteria for standards selection (noted below) that were set out in the DoA.

CRITERIA FOR SELECTION OF STANDARDS

Standards must have an ICT element. They can 'include quality norms, trust-marks, codes and benchmarks that impact on AHA'. Where they are identified as 'under development' e.g. as provisional ENs through the activities of a CEN or an ISO Committee, these shall also be included. Where European Standards derive from those of a national standards body (NSB) and are identified e.g. as EN NEN 123456 these shall be entered without reference to the NSB.

The 'ICT element' within the selected standards shall relate to the communication of information, video or speech to or from an individual (who is likely to be an older person) or his/her dwelling, workplace or other location (whether or not in his/her country of residence). This includes the use of ICT that facilitates the monitoring of the well-being or activities of older persons or their access to goods and services that are of specific relevance to them.

²³ <http://platform.progressivestandards.org/blog/search-standards-database/>

Standards will be excluded from the interactive platform when, after ‘reasonable endeavours’, sufficient access has not been gained to the standards themselves so as to make judgements regarding their relevance to AHA. ‘Reasonable endeavours’ will include, where appropriate, seeking translations that have been made into the English language (of Abstracts or other texts). But payment for the same will not be possible.

ICT areas of a more ‘generic’ nature will be excluded, such as broadband infrastructure, cloud computing, cyber-security, eProcurement, emergency communications, environmental impact of ICT, signalling protocols relating to e.g. data transfer, telephony and radio. Also excluded are ICT areas pertaining to clinical health viz. diagnoses and treatment of medical conditions, medical equipment, protocols for medical data, video and related information communication, and systems and services integral to medical institutions where clinical care is prime

The relevance of standards is being determined according to judgements made in accordance with the criteria set out in Table 3 overleaf. The essential thing to note **is the specific range of standards** that the PROGRESSIVE project is identifying and **the way in which their relevance is being assessed**. The former is set out in the DoA, but the latter directly links to the understandings that have developed around ethical and good practice as set out earlier in this paper (see Table 1) and in the D2.1 ‘Ethical Framework’.

Table 3: Relevance of Standards

RELEVANCE OF STANDARDS		
High Relevance	Medium Relevance	Low Relevance
<p>The standard ...</p> <ul style="list-style-type: none"> will specifically cite older people in the context of either a ‘design for all’ (i.e. all ages) approach; or will specifically relate to products or services that are disproportionately accessed or used by older people; and will use the language of and clearly demonstrate the ethos associated with approaches that can 	<p>The standard ...</p> <ul style="list-style-type: none"> will specifically cite older people or relate to products or services that are disproportionately accessed or used by older people; but will neither use the language of nor clearly demonstrate the ethos associated with approaches that can serve to empower and engage older people. 	<p>The standard ...</p> <ul style="list-style-type: none"> will specifically cite older people or relate to products or services that are disproportionately accessed or used by older people; but will relate to an ethos and approach associated with the potential dis-empowerment and/or marginalisation of older people – possibly in the context of old norms.

serve to **empower and engage** older people.

4. Key Outcomes in Relation to Good Practice and Standards in relation to ICT and AHA

The consortium considers that success with the work on ethical underpinnings enables the project to point to what is good practice in standards and the standardisation, at least for the area of ICT for AHA covered by the project.

The project started with an idea of some of the ethical parameters that would underpin the project work. This is explicit in the DoA and is built on in D2.1 (Ethical Framework). This report extends that work through a closer reference to links between ethics and good practice. It shows how the different elements of good practice have been the subject of debate and discussion in the consortium and, building on initial work of the ICT for ALL project,²⁴ have been reframed in order to provide the ethical underpinnings for key project outcomes.

The major project outcomes now relate to **D6.1 'Online Platform Designed and Established'** (on which especial endeavours are now taking place to increase the number of standards) and to **D10.1 'Guidelines for Standards around ICT for AHA in an Age-Friendly Context'** (a consolidated policy document). The work on these and a number of 'feeder' tasks around e.g. consultations with older people and their representative organisations, use case definition, co-production, and interoperability is, in most cases, ongoing.

With regard to the ongoing assignments, specific note is made below of work in WPs 7, 8, 9 and 10. All four WPs are feeding into the **new deliverable D10.1 'Guidelines for Standards around ICT for AHA in an Age-Friendly Context'**.

²⁴ See http://cordis.europa.eu/project/rcn/79517_en.html

4.1 WP7 Use Cases and Interoperability in the Context of Different Service Models

An important internal report setting out 'Use Cases' was completed. This related to the adoption by the project of the WHO flower and the re-setting of domains that related to AHA. A matrix was developed that has been used as a basis for the selection of specific use cases. Following the Year One Review of the project the number of use cases to be explored was reduced.

It is noteworthy, however, that the development of the matrix helped re-enforce the breadth of thinking within the project regarding ICT and AHA. Indeed, **one axis of the matrix (that was set against the eight domains of the WHO flower) related to some of the ethical tenets** that have been noted in this report. These are

- Employment, Education and Training (recognising the skills, abilities, etc. of older people);
- Participation in Society (linking with the engagement and inclusion of older people); and
- Independent living (recognising that facet of older people's lives often linking with wealth, housing and health).

A further ethical tenet has been actively discussed within this WP, viz. interoperability and is considered in D2.1 Ethical Framework.

4.2 WP8 Age Friendly Guidelines

The **centrality of the notion of age-friendly communities** to the project has been noted and was seen as an ethical 'good' from the outset. Insofar as age-friendliness relates to the inclusion of older people and recognition of their equal rights at citizens, its link to ethical tenets is seen as uncontested. The WHO initiative around age-friendly cities provided, therefore, an excellent starting point with significant content that relates to the tenets adopted.

The WHO definition of an age-friendly community can be noted as affirming that 'age-friendly community, policies, services and structures related to the physical and social environment are designed to support and enable older people to 'age actively' ... to live in security, enjoy good health and continue to participate fully in society. Age-friendly service providers, public officials, community leaders, faith leaders and business people recognize the great diversity among older persons; promote their inclusion and contribution in all areas of community life;

respect their decisions and lifestyle choices; and anticipate and respond flexibly to aging-related needs and preferences'.²⁵

The work on age-friendliness within WP8 builds on the WHO perspective. As noted above, it draws on related work by other organisations (including AGE Platform) in order to do justice to a wider range of ethical tenets (as per D2.1).

4.3 WP9 Co-Production of Standards

The co-production (or co-creation) of standards has been a major issue for the PROGRESSIVE project. The work undertaken within WP9 has been and continues to be, therefore, extremely influential. This influence links closely to the project's ethical underpinnings, in that it poses important questions about the way in which older people are not just recognised but are, or could be, brought into the standardisation process. Deliverable 2.1 (Ethical Frameworks) bears testimony to this.

The absence of older people's 'voices' (noted in Section 2 above) has been signaled as potentially having a deleterious effect on the quality and content of standards. This means that there was an imperative for the project to consider how to 'change [the] mindsets' of the professionals and 'experts' who have primary responsibility for standards production (and review), and to point, (through Deliverable D9.1 'Guidelines for the Co-Production of Standards around Age-Friendly and Smart Environments'), to the way that older people and/or their representative organisations could or should be engaged and involved in the standardisation process. This effort has already been achieved: the draft 'Guidelines' have been the subject of wide consultations (including with national standards and Annex 3 bodies²⁶, older people and their representative organisations).

The inclusion of older people in standards development is, however, recognised as not being a straightforward matter. Procedures for standards development and the 'format' for committee members' representation on relevant technical committees are long-standing. Resistance to change could, therefore, be anticipated – especially if it were to increase either

²⁵ See http://www.who.int/ageing/projects/age_friendly_cities/en/

²⁶ Bodies appointed by the European Commission to engage with standards developments in order to ensure that environmental, consumer, trade union and small business interests are safeguarded.

the time it would take for standards to be completed or the perceived organisational or administrative burdens.

The way forward (to be detailed in the final 'Guidelines') will (as well as being simple and practicable) draw on the ethical tenets and point to the benefits in terms of the quality (and wider applicability) of standards. The guidelines will, furthermore, help give answers to questions about 'when', 'where' and 'how' older people's engagement and involvement in standardisation on ICT for AHA should take place.

The work undertaken within WP9 has provided a deliverable in its own right (D9.1) 'Guidelines for the Co-Production of Standards around Age-Friendly and Smart Environments'.

4.4 WP10 Smart Homes

Smart homes are seen as **an important component of age-friendly communities**. They also relate to the notion of smart cities. The European Parliament has offered a useful (and succinct) definition of smart cities, affirming that 'a smart city is a city seeking to address public issues via ICT-based solutions on the basis of a multi-stakeholder, municipally based partnership'.²⁷ A key theme within smart cities is service integration. The Horizon 2020 programme states that smart cities must be sustainable and require 'new, efficient and user-friendly technologies, in particular, in the areas of energy, transport and ICT'.²⁸

Smart homes need to be seen in this **wider context**. A relevant reference point is the Alliance for the Internet of Things (AOITI) and its Working Group (WG) on 'Smart Living Environment for Ageing Well'.²⁹ That WG is focusing on 'smart homes and smart living environments that can support vulnerable people, such as, but not limited to elderly or disabled people, in staying active, independent and out of institutional care settings.'

The PROGRESSIVE project supports the idea of (and practical issues relating to) smart homes in the wider context of smart cities and communities. The ethical approach being taken, incorporates consideration of ethical tenets such as accessibility and inclusion (i.e. highlighting focal concerns around ICT and AHA) and counterbalances what is often a highly

²⁷ European Parliament (2014) 'Mapping Smart Cities in the EU' Study for DG Internal Policies: Policy department – Economic and Scientific Policy A.

²⁸ See <https://ec.europa.eu/inea/en/horizon-2020/smart-cities-communities>

²⁹ See www.aointi.eu

technical content in smart home and community initiatives (that, for instance, addresses transport systems and energy consumption). The work undertaken within WP10 is **at the core** of the new 'composite' deliverable D10.1 'Development of Composite Guidelines for Standards in ICT for AHA (Homes and Technologies in an Age Friendly Context)'. Smart homes will, therefore, receive **detailed attention and have a high profile** within this consolidated deliverable.

End