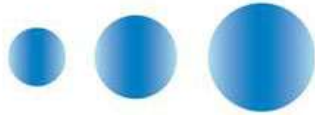


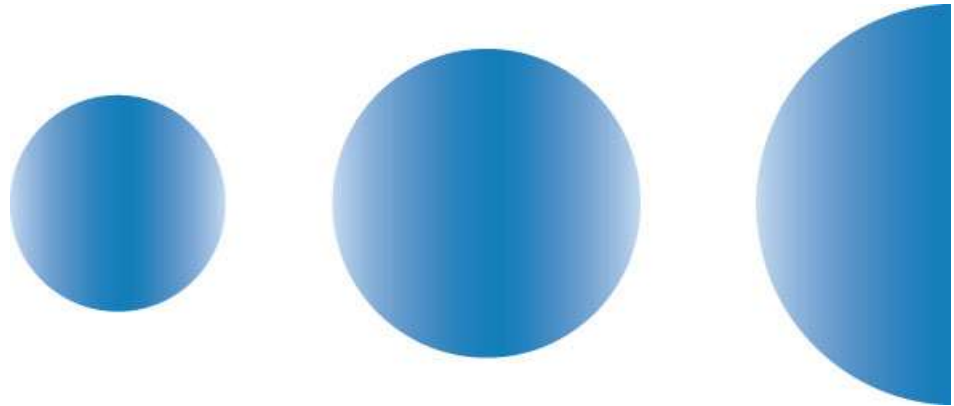
IFA



INTERNATIONAL FEDERATION ON AGEING
Global Connections

LONG TERM CARE AND TECHNOLOGY

2012 Senior Government Officials Meeting – 28th of May 2012, Prague



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2012 Senior Government Officials Meeting

Long Term Care and Technology

WHAT IS LONG-TERM CARE?

A traditional “textbook” definition of long-term care is a variety of services that includes medical and non-medical care to people who have a chronic illness or disability. Long-term care helps meet health or personal needs. Long-term care can be provided at home, in the community, in assisted living or in nursing homes.

Many would argue that today long-term “care” in reality is a complex array of services and supports experienced by consumers with long-term needs. In addition, the use of the term “chronic” may not encompass those consumers whose need for services and supports are episodic or cyclical in nature.

A 2008 report of the World Health Organization (WHO) and the OECD entitled “Conceptual framework and definition of long term care expenditure” defines long-term care services as those referring to the organisation and delivery of a broad range of services and assistance to people who are limited in their ability to function independently on a daily basis over an extended period of time. There are two complementary components of this definition: the care continues over a long time period, and second the care is usually provided as an integrated programme across service components. The services may be provided in a variety of settings including institutional, residential or home care. In this instance residential care refers to services of care and social support, other than nursing homes, provided in supported living arrangements.

Within the defined framework for long term care the role of family carers can often be overlooked, in the development of government policy and programs, in that Carers are not the person in direct receipt of health or care and support interventions. Carers are people who look after family, partners or friends who could not manage without them because of frailness, illness or disability. It is important to recognize and consider carers in the design of new home health monitoring and enabling technology, and acknowledge that it is important to help carers maintain their health and well being.

New healthcare technology can support people to take more control and responsibility for their own health and well being (self care). Home monitoring systems enable health professionals to remotely monitor patients’ physiology or activity in the patient’s own home to look for signs of change in their condition, enabling an early intervention and avoiding hospital admission. The information can also be made available to carers, as primary and secondary users. Carers play a crucial role – a primary role – in the healthcare of the person they look after. It is important for governments to acknowledge and support carers as full partners. This includes quick and easy access to the information they need.

BACKGROUND AND OVERVIEW

Since 1999, coinciding with the IFA bi-annual international conferences, the IFA has placed significant importance in providing a platform for senior government officials and Ministers to meet to examine current trends in policy and practice on specific areas of interest in light of increasing population ageing.

Recent areas of interest have included Pension Design and Reform, Ageing in Place, and Social Inclusion, subjects that have been based on mutual interest of the participants, and designed to promote dialogue and interaction among officials. Senior Government Officials Meetings provide the opportunity for government officials to showcase programs, policy, leading practice and to hear first hand how other governments are responding to similar issues.

In developed countries the sophistication and extent of long-term services and supports have evolved over time in most part to match the population growth of the ageing demographics. Today with the rapid rate of growth in population ageing, coupled with declining birth rates in both the developed and developing world, governments and civil society explore opportunities to improve long term care services for older people.

Different programs have been created for different policy objectives – all of which made good sense at the time they were developed. The result for many countries is that they have *rational* programs, but an *irrational* delivery system that are often overwhelming to consumers and have lacked cohesive policy focus. The reliance on medical models of care, in many circumstances, have resulted in the proliferation of residential care facilities and the continued inappropriate placement of older people to such institutions due to the lack of community based support services.

The unfortunate aspect of ageing is that it has been treated as a disease and in many countries services are developed based on this mindset. Medical or nursing interventions account for but a fraction of the care that goes to support an older person with limited capacities to carryout activities of daily living on their own.

More commonly the accepted definition of long-term care encompasses all non-medical and some specific medical services that the consumer receives.

TECHNOLOGY INTERFACE TO LONG TERM CARE

While the healthcare industry has seen itself at the forefront of technology advancements, industry sectors such as finance and retail has been more sophisticated in the use of technology. As life expectancy continues to rise, technology must be incorporated as a tool to maximize service delivery and support healthy ageing across the spectrum of care. With the increasing number of older people globally there will be a higher demand and need to access supportive healthcare environments, such as assisted living communities. As people age,

community care services and assisted living communities will need to accommodate the increased health and medical needs of older people.

With population ageing the number of people requiring care will grow as people live longer and increasingly live alone in later years of life. Unpaid carers make an important contribution to society by providing care to family members and friends who are ill, frail or have a disability, however their own health can suffer. Carers often focus on the needs of the person they are caring for and neglect their own needs. This is detrimental to the health of the carer and the cared-for person, and the health and social care system.

In the development of policies and programs it is important to consider carers in the design of new healthcare and enabling technology to support people to self care, as well as to support carers to keep well themselves.

Technologies that assist in the care of chronic conditions and improve the independence of older adults can cover a very wide spectrum, including communication, assistive, telemonitoring, telehealth and other technology-enabled services. Based on an extensive literature review, expert interviews and data drawn from expert panels, undertaken by the US Centre for Technology and Aging, seven technology domains have been identified as high priority technologies for rapid diffusion. The seven areas include:

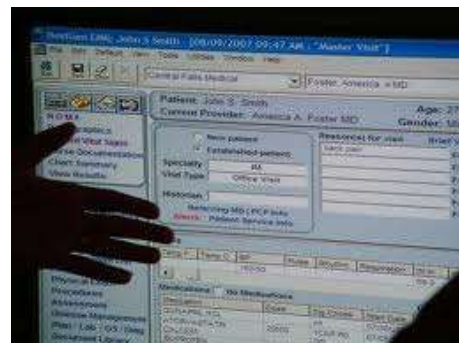
- 1. Medication Optimization**
- 2. Remote Patient Monitoring**
- 3. Assistive Technologies**
- 4. Remote Training and Supervision**
- 5. Disease Management**
- 6. Cognitive Fitness and Assessment**
- 7. Social Networking.**

Of the seven areas of technology domains, two priority areas have been identified for priority grantmaking: medication optimization and remote patient monitoring. These two technology areas are considered well balanced in terms of offering high value to stakeholders and surmountable barriers to adoption and diffusion. Each of these two technology areas offers evidence that there are clear benefits to as well as a high degree of acceptability for older people. Both technologies offer immediate relevancy given the health reform debates across the globe and specific opportunities to inform national and/or state policymakers.

These technologies also complement the interests and capabilities of potential grantees/funders and should support sustainable diffusion strategies. Finally, and of highest priority, each of these technology areas can lead to significant cost savings for the health and long-term care system.

These are a few examples of where technology can be very effective in improving older people's overall experience and at the same time deliver cost efficiencies for care providers.

Electronic Health Records: Help lower the incidence of errors and duplications by giving more accurate and timely information to staff in an efficient manner. Electronic health records also allow medical practitioners to have quick access to data, patient medical history, and critical decision support when needed. By having comprehensive information in one place, the interdisciplinary teams can easily access a residents' health record to make knowledgeable decisions in respect to care plans. Coupled with electronic health records there is a growing use of telemonitoring systems by home health care providers in providing virtual visits for persons managing chronic health and care conditions.



Integrated Passive Monitoring Systems: These systems now complement the care provided to residents in the community and assisted living settings. On a basic level these systems learn an older person's daily activity patterns and detect changes that may signal potential health issues or emergency situations. These systems use non-intrusive sensors to capture a person's actions, allowing privacy and independence to be maintained. The systems monitor activities such as when an older person gets out of bed, goes into the bathroom, etc. Such systems can alert staff to the early onset of urinary tract infections (UTIs) in residents and alerted staff of resident falls.



Systems also include a “wander” alert for residents with an onset of dementia or Alzheimer's to ensure they are safe and closely monitored. Environmental conditions can also be monitored through this technology. Overall, such system greatly complements how care and support for residents is provided.



Personal Emergency Response Systems (PERSs): One of the leading causes of hospitalization and institutionalization among older adults 75 years and older include falls. PERSs have been shown to increase feelings of security, enable more seniors to age-in-place, and reduce overall healthcare costs. A call button is worn by the subscriber on a neck chain or wrist strap, and a two-way intercom is connected to a phone line. When help is

needed a button is pressed and a call is placed immediately to a live operator via the intercom, and the necessary response is coordinated. These can also include technologies to passively detect falls using accelerometers.

Bath Aids: There are many issues that arise in terms of bathing. Studies have shown that there are temperature risks when bathing alone or even when assisted by a caregiver. Older people lose the ability to respond to temperature changes quickly, increasing the risk of scalding. With assisted bathing temperature changes are not felt by the person controlling them and bathers may also be left unattended for extended periods of time. Now there are bath thermometers and temperature regulators that provide blended water at a constant temperature. Other technological advancements that have eased bathing for older persons and caregivers include height adjustable bath systems and barrier free compliant showers. These products do not only improve access and safety to bathing areas, but enable independence and a sense of well-being.



Cognitive Orthotics: Assists older persons with orientation, appointment and medication reminders, and provides step-by-step instructions to perform activities of daily life such as hand washing and cooking. Through artificial intelligence, these systems proactively monitor the execution of tasks, and offer assistance through cues when necessary.

Mobility Technologies: Increase safe mobility of older persons where navigation systems are being developed for canes, walkers, and wheelchairs that assist individuals with decreased mobility and vision. They assist with the avoidance of obstacles, detecting changes in ground levels, and navigation through tight spaces through the use of infrared sensors, sonar, vision sensors, and ultrasound technology.

Video Gaming Systems: Now more widely utilized by care providers in helping older people stay mentally and physically active. Video gaming systems such as Wii sports and some Wii activities may increase adults' energy expenditure as much as moderately intense exercise, according to research presented at the American Heart Association's Scientific Sessions 2009.



Recent scientific research has also shown that brain fitness technologies can improve brain health and that the brain, at all ages, has significant potential to acquire new knowledge and skills with proper training and exercise. By challenging the brain of older people with new activities or games, you strengthen such cognitive skills as the ability to remember something, solve a problem, or use a particular strategy to win a game.

Social Networking: Web-based social networking allows communities of older people to connect, share knowledge, provide support to other older people, and relate to others in similar circumstances. Social networking also helps to overcome social isolation, which is a major problem with negative health consequences.

These web-based social networks utilize a variety of means to facilitate communication among client groups including discussion groups, chat, messaging, email, video, and file-sharing. Social networking services connect older people with others in similar age groups as well as to clinicians, caregivers, researchers, health plans and suppliers. Older people can use web-based social networking services to connect with friends and family as well as to exchange their knowledge and experiences of managing their conditions with others. Informal carers can use social networks to learn, understand, manage and coordinate care for the person they are caring for. Clinicians are also able to educate and promote preventive health, to collectively understand their patients' needs and to remotely assist the patient, carer and family members.

Medication Adherence Systems: These are proven medication management systems that monitor patient's medication intake and will remind patients in real time if they forget to take the medication as prescribed. Systems such as SIMpill® Medication Adherence Solution, SentiCare and Vitality's GlowCaps provide compliance data and statistics providing access to real-time information regarding medication use and compliance through web based interface systems.

Via the web account the healthcare providers can monitor the medication use of their patients in real-time, and can decide on type of intervention to meet the patient's ongoing adherence schedule. The healthcare provider can make changes in the prescribed medication schedule of a patient and run compliance statistics in real time. The patient can also track his/her own medication use history and see his/her own compliance statistics through their own account access.

The real-time monitoring of the patient's adherence can also be directly integrated into other existing patient management platforms, including remote physiologic monitoring.

One of the challenges for the health care and long term care sectors will be the importance of integrating information from all of these point solutions, something that has not yet been addressed.

IMPLEMENTING TECHNOLOGY IN LONG-TERM CARE

Goals of Health Information Technology

- Improve health care decision making
- Support patient-centered care
- Improve quality and safety of medication management
- To support informal carers in their caring roles

Characteristics of Long Term Care that require creative solutions when implementing health information technology include:

- Recruitment and retention difficulties of staff
- Home-like environment
- Makeshift data-sharing
- Complex geriatric care
- Non-customized software
- Interdisciplinary work flow
- Limited funding

Benefits of Health Information Technology

- Reduced medical errors and increased resident and patient safety
- Valuable information available at the point of care
- Enhanced communication and information exchange between varied entities, such as physicians, staff, residents, families of residents, pharmacies, and others
- Improved regulatory compliance
- Improved provider efficiency and satisfaction

BARRIERS TO IMPLEMENTING TECHNOLOGY IN LONG-TERM CARE

Within the health and aged care sectors a number of factors have contributed to what is perceived to be a slow uptake of technology enhancements to improve efficiencies and client outcomes:

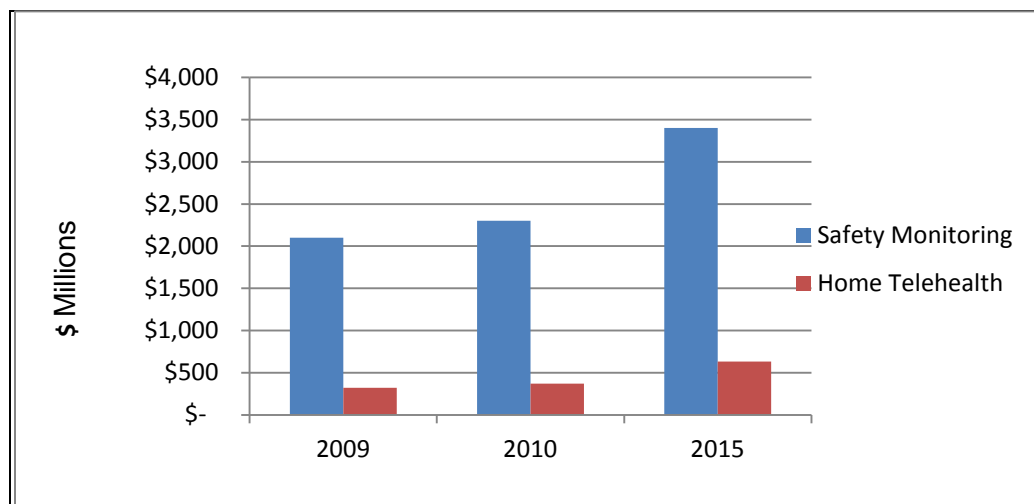
- Lack of information about technologies
- Perceived or actual lack of financial resources
- Perceived lack of knowledge and experience with implementing and managing technological change
- Lack of information about the actual extent of long-term care provision
- Liability concerns
- Regulatory concerns/barriers

- Staffing-related challenges

GLOBAL MARKETS

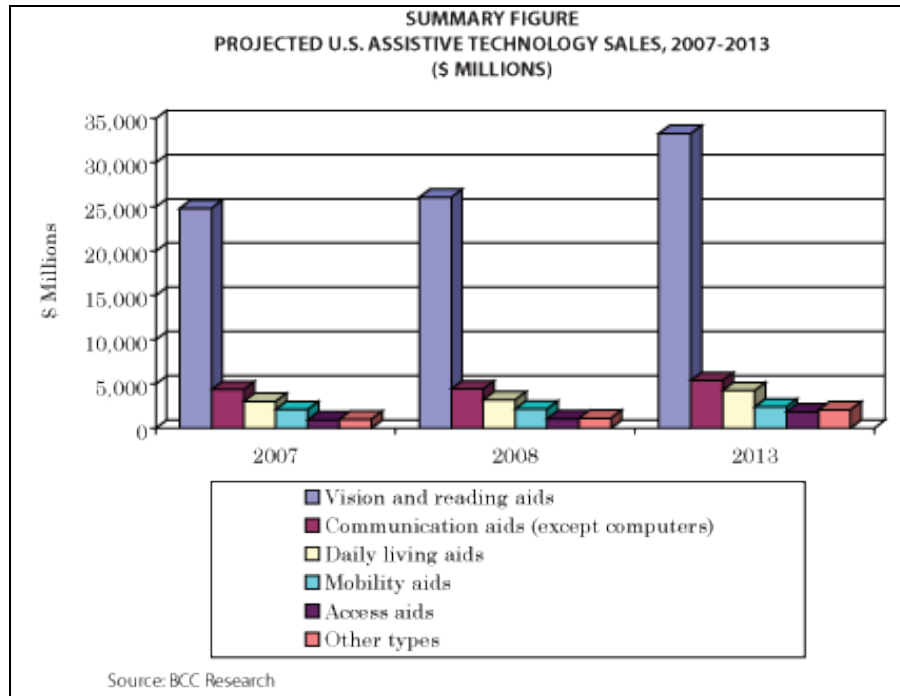
With the high rate of change in population ageing over the next 25 years, the business of ageing will see increased market opportunities in an environment where older people will be a priority sector for innovation. Safety monitoring and telehealth technologies will grow significantly:

- ✚ The global market for older persons-care technology products is worth approximately \$2.6 billion in 2010 and is anticipated to grow to about \$4 billion by 2015, at a compound annual growth rate over the period of 8.7%.
- ✚ Safety monitoring technologies are valued at \$2.3 billion in 2010 and are expected to reach \$3.4 billion by 2015.
- ✚ Home telehealth technologies are worth \$371 million in 2010 and should reach \$631 million by 2015.



Markets in the United States (alone) specializing in assistive technology for the aged and people with disabilities will see overall market growth increasing to nearly \$50 billion by 2015:

- ✚ The U.S. market for assistive technology is expected to be worth \$38.2 billion in 2008, up from \$36.4 billion in 2007. This should increase to \$49.3 billion in 2013, a compound annual growth rate (CAGR) of 5.3%.
- ✚ The vision and reading aids segment dominates the market, generating \$24.9 billion in 2007 and an estimated \$26.1 billion in 2008 and \$33.3 billion in 2013, a CAGR of 5.0%.
- ✚ The communication aids segment is worth \$4.4 billion in 2007. This should increase slightly in 2008 and reach \$5.4 billion in 2013, for a CAGR of 4.0%.



What can not be overlooked is the growth and demand from emerging markets, in developing countries, where even low tech assistive devices such as cell phones have the potential to improve the quality of life of older citizens. Diminishing elderly support ratios (the number of people of “working age” (15-64), divided by those 65+) in developing countries will have a significant impact on the family carer structures and there will be a need to develop formal care networks both at the community level and at the institutional (residential care) level, however new and emerging technologies may minimize such needs. For example, the elderly support ratio in Mauritius is currently nine (9) however this will decrease dramatically by 2050 to only three (3). At the same time (2050) the support ratio in Africa as a whole will be nine (9), North America three (3), Europe two (2), Oceania three (3) and the world as a whole four (4).

The demographics of Mauritius suggests that the need for technology and assistive devices will be of greater importance than other countries in East Africa as Mauritius has the lowest birth rates of the region, the lowest natural population increase of the region and a small percentage of those less than 15 years of age. These statistics are reflective of high economy countries.

2010 POPULATION, HEALTH, AND ENVIRONMENT DATA AND ESTIMATES FOR MAURITIUS AGAINST EASTERN AFRICA & OTHER REGIONS

	Population Mid-2010 (millions)	Births per 1,000 Population	Deaths per 1,000 Population	Rate of Natural Increase (%)	Net Migration Rate Per 1,000 Population	Projected Population (millions)		2050 Population as a Multiple Of 2010	Infant Mortality Rate	Total Fertility Rate	Percentage of Population Ages	
						Mid-2025	Mid 2050				<15	65+
WORLD	6,892	20	8	1.2	-	8,108	9,485	1.4	46	2.5	27	8
EAST AFRICA	326	40	13	2.7	-0	465	709	2.2	72	5.3	44	3
Burundi	8.5	36	15	2.1	8	11.6	16.8	2	98	5.4	41	3
Camoros	0.7	33	7	2.6	-3	0.9	1.2	1.8	53	4.1	38	3
Djibouti	0.9	29	11	1.8	0	1.1	1.5	1.7	67	4.0	37	3
Eritrea	5.2	37	9	2.9	2	7.4	10.8	2.1	54	4.7	42	2
Ethiopia	85.0	39	12	2.7	-1	119.8	173.8	2.0	77	5.4	44	3
Kenya	40.0	37	10	2.7	0	51.3	65.2	1.6	52	4.6	42	3
Madagascar	20.1	37	9	2.7	-0	28.6	42.7	2.1	48	4.8	43	3
Malawi	15.4	44	15	2.9	0	22.9	37.4	2.4	80	6.0	46	3
Mauritius	1.3	12	7	0.5	-0	1.4	1.4	1.1	13.4	1.5	22	7
Mayotte	0.2	39	3	3.6	4	0.3	0.5	2.6	-	4.5	44	2
Mozambique	23.4	40	16	2.3	-0	31.2	44.1	1.9	90	5.1	44	3
Reunion	0.8	18	5	1.3	-0	1.0	1.1	1.3	8	2.4	26	8
Rwanda	10.4	42	14	2.9	0	15.8	28.3	2.7	102	5.4	42	2
Seychelles	0.1	18	7	1.0	0	0.1	0.1	1.4	11.5	2.3	22	10
Somalia	9.4	46	16	3.0	-6	13.9	23.5	2.5	111	6.5	45	3
Tanzania	45.0	42	12	3.0	-1	67.4	109.5	2.4	58	5.6	45	3
Uganda	33.8	47	13	3.4	-1	53.4	91.3	2.7	76	6.5	49	3
Zambia	13.3	45	20	2.5	-1	20.3	37.6	2.8	70	6.2	46	3
Zimbabwe	12.6	30	17	1.3	0	16.8	22.2	1.8	60	3.7	42	4
Developed World Average	1,237	11	10	0.2	2	1,290	1,326	1.1	6	1.7	17	16
OCEANIA	37	18	7	1.1	8	45	58	1.6	21	2.5	24	11
STH EUROPE	156	10	9	0.1	5	159	157	1.0	5	1.4	15	18
WEST EUROPE	189	10	9	0.1	1	193	190	1.0	4	1.6	16	18
EAST EUROPE	295	12	13	-0.2	1	287	254	0.9	8	1.5	15	14
NTH EUROPE	99	13	9	0.3	3	109	119	1.2	4	1.9	18	16
STH AMERICA	391	18	6	1.2	-1	444	481	1.2	22	2.2	28	7
NORTH AMERICA	344	13	8	0.6	3	391	471	1.4	6	2.0	20	13
ASIA (Excl China)	4157	19	7	1.2	-0	4,845	5,424	1.3	41	2.2	26	7
China	1,338.1	12	7	0.5	-0	1476.0	1437.0	1.1	21	1.5	18	8

Source 2010: World Population Data Sheet

Note: Infant mortality – deaths per 1,000 live births
Total fertility – average number of children born to a woman in her lifetime

The mounting challenges of population growth and demographic ageing will place a considerable strain on healthcare systems across the globe, leading to increased healthcare costs and a risk of lowering the standards, not only for older people, but across all population demographics. To address these challenges, governments will need an increased focus on the R&D, commercialisation and deployment of smart technology to enable older people to remain in their homes longer and provide cost-effective solutions to meet the needs of an ageing population. New health funding models to support the wide-scale deployment of these technologies will be required to achieve the potential savings and benefits.

In Australia the Academy of Technological Sciences and Engineering's (ATSE) recent landmark report, **Smart Technology for Healthy Longevity**, reviewed the state of aged care technology in Australia and in Europe, looking ahead to the future of ageing-in-place, where elderly individuals are empowered to remain in their own homes and, crucially, explores how technology can be utilised to realise this vision.



The ATSE study identified three key gerontechnology opportunity areas for Australia: security and safety; diagnosis and treatment; assistive technologies. The report makes nine recommendations for the development and deployment of these technologies to improve quality of life for elderly Australians by enabling ageing-in-place. The summary of recommendations for using technologies to enable ageing-in-place in Australia, which could be applied in many countries include:

1 - Support gerontechnology from research to deployment

The Australian Government Departments of Health and Ageing (DOHA) and Industry, Innovation, Science and Research (DIISR) should develop a National Research and Development Agenda on Technology and Ageing to ensure national coordination of existing programs relevant to gerontechnology; identifying priority areas and ensuring sufficient funding for their research, demonstration, commercialisation and wide-scale deployment. This would complement the National Strategy for an Ageing Australia and the National Enabling Technologies Strategy and be in line with the Australian National Research Priorities.

Where clusters of expertise exist, universities and research institutes should be encouraged through joint Australian Research Council (ARC)/National Health and Medical Research Council (NHMRC) support to set up Centres of Excellence in Gerontechnology.

The Department of Health and Ageing should be tasked to develop a new funding model to support ageing-in-place and to capture the economic benefits.

2 - Understand the potential economic and societal benefits of ageing-in-place

The Productivity Commission should be tasked to carry out a study of the potential savings arising from maintaining seniors safely, securely and happily in their own homes by using technologies that are available or under development in Australia. The Productivity Commission should also be tasked to advise on a new funding model for wide-scale deployment of technology for the ageing population.

Medicare and the health insurance industry need to assess the potential of new technologies to reduce serious accidents and other events which can lead to hospitalisation of elderly people, and to implement mechanisms that encourage the application of new technologies.

3 - Deploy gerontechnology solutions to successfully deliver the benefits of ageing-in-place

The Australian Government Department of Education, Employment and Workplace Relations (DEEWR) should establish a Taskforce drawn from relevant Skills Councils to identify the training and accreditation needs of a future gerontechnology workforce operating in the home environment. This should be seen as a component of the National Health Workforce Strategic Framework.

The Privacy Commissioner should be tasked to examine the issue of privacy in the application of technologies to the aged population.

4 - Recognise the concept of ageing-in- place to enable independent living for the aged population

Ageing-in-place should be an essential component of the National Strategy for an Ageing Australia. DIISR should actively seek to ensure Australian participation in international programs and projects on gerontechnology to amplify our limited resources and gain access to new findings.

Read report: <http://www.atse.org.au/news/featured-articles/155-smart-tech-for-health-longevity>

There is no doubt that the market for technology in the areas of communication and engagement, home safety and security, health and wellness, and learning and contribution has great potential to improve the quality of life of older people and minimize costs in the delivery of care and services. Today's baby boomer generation are also carers of ageing parents and see the opportunity through the use of technology to enable both themselves and their parents to age successfully in their homes or location of choice.

There is a large and willing market right now for technology systems that will enable people to age in place and be as safe as possible while they are doing it. This opens up global markets where solutions that may have been designed to address in-country needs now have much wider applicability.

For example, companies such as Philips has systems designed for the end-user as well as a facility wide system called CarePoint. The company's system for the home, Lifeline, is a variation of a personal emergency response system (PERS) that connects to the Philips dedicated monitoring center when it is pressed. The CarePoint system is designed for managed care facilities and uses a call communicator, which offers the ability to communicate with facility staff and provides notification of wandering clients. Finally, a new endeavor named Philips Applied Technology is developing small-footprint ZigBee devices that will create a mesh network for a complete home-use medical monitoring system.

SOM MEETING PURPOSE

The purpose of the Senior Officials Meeting is to provide a forum for senior government officials and Ministers to examine current trends in policy and practice as they relate to ‘long-term care and technology’ in the face of increasing population ageing. The meeting programme will be based on mutual interest of the participants, and designed to promote dialogue and interaction among delegates, some of whom may represent countries who are well advanced, others from countries who have not yet been able to tackle the problem. The planned Senior Government Officials meeting will provide the opportunity for government officials to showcase leading practice in their respective countries and to hear first hand how other governments and the industry sectors are making use technology to improve the quality of life of older people and improve cost effectiveness.

It will enable them to:

- **Review** key aspects of long-term care and technology policy and practice that for some countries have advanced significantly in recent years; to confirm successes, failures and learning; and to explore the challenges they and their governments face, both now and into the future.
- **Hear, question and challenge** acknowledged technology sector experts on key policy and program design developments that enable care providers and older people to embrace technology enhancements to improve efficiencies and client outcomes.

Senior officials attending this event will also have the opportunity to register and fully participate in the IFA’s 11th Global Conference on Ageing by contributing to a number of symposia and paper sessions designed to appeal to all conference delegates, covering issues central to the theme of the SOM. The conference website is: www.ifa2012.org

MEETING OUTCOMES

By the end of the Senior Officials Meeting, delegates will have:

- **met colleagues from around the world**, exchanging views and experiences in developing policy and programs relating to long-term care and technology;
- a greater awareness and **understanding of the key factors** that underpin successes;
- identified some of the **challenges and obstacles** to implementing technology enhancements and strategies from different countries;
- greater **transfer of knowledge and expertise** through potential partnering relationships;
- established a **global network** of colleagues and experts from whom to obtain advice;
- **created knowledge and skills export opportunities** across borders.

DELEGATE/GOVERNMENT REQUIREMENTS PRIOR TO MEETING

For 2012 Senior Officials will not be asked to provide country reports on the topic of Long Term Care and Technology, however those wishing to make a formal presentation at the SOM are asked to provide a short 400 word abstract specific to the theme of the SOM.

Please forward abstracts directly to **Mr. Greg Shaw** (gshaw@ifa-fiv.org) at IFA by **15 February 2012**.

Additionally Officials are asked to respond to a short series of questions through an online survey response process at <https://response.questback.com/pwc/ifasomprague/>. It is through these responses that the interactive elements of the days meeting will be scheduled. The draft final program will be circulated to attending delegates in the first week of March 2012. The Questback survey, which will go live on 22 December 2012, focuses on the following questions:

1. Please mention one or more best practice(s) regarding long term care and technology developed and implemented successfully in your country.
2. Please indicate the most important barriers you perceived to successfully implement technological solutions in long-term care.
3. Please think of key-conditions that are relevant for sustainable solutions in long term care enabled by means of technology.
4. What are financial requirements or incentives to scale-up the technological innovations?
5. What should be the role of the national governments and the EU in stimulating the use of technology in long-term care?

SOM PROGRAM FORMAT

The meeting will be structured around a number of key presentations from the technology sector, a 1.5 hour interactive workshop and presentations from selected governments who have submitted abstracts for inclusion in the program. A complete program will be forwarded to Officials after 15 February 2012, the deadline for government submissions for program inclusion.

IFA 11TH GLOBAL CONFERENCE ON AGEING

If you are planning to also attend the IFA 11th Global Conference on Ageing that commences at the close of the SOM please go to the conference website www.ifa2012.com to register your attendance.

SOM VENUE - ŽOFÍN PALACE

The Žofín Palace stands on the most beautiful island in the very heart of Prague. In the course of history Slavonic Island (“Slovanský ostrov” in Czech) became a place where Prague’s citizens and notable persons would meet, enjoying the hospitality of Žofín Palace. Its halls, and Slavonic Island as a whole, are steeped in history. In 1994 Agentura NKL Žofín took out a lease on Žofín Palace and now holds events here at the very highest professional standards. In recent years Žofín has become a symbol for Czech and international social, political, cultural and business events of exceptional importance.



Address: Slovanský ostrov 226, 110 00 Praha 1

CONFIRMED SPEAKERS



Professor Greg Tegart - Centre for Strategic Economic Studies, University of Victoria, Australia

Professor Tegart has had a long career in Government and industry in the areas of research, teaching, administration, and high level policy advice to Government on science, technology and environment.

He has a BSc and MSc from the University of Melbourne and a PhD from the University of Sheffield. He initially worked for CSIRO Tribophysics in Melbourne and moved to England in 1955 to take up a Research Fellowship in the Department of Metallurgy at the University of Sheffield. From 1959 to 1966 he was Lecturer and Senior Lecturer in that University. In 1963-64 he was a visiting researcher at Northwestern University, Evanston, USA. From 1966-68 he was Professor of Materials at the College of Aeronautics, Cranfield, UK.

He returned to Australia in 1968 as the founding Manager, BHP Melbourne Research Laboratories and, in 1978, became Executive Assistant to the Chief General Manager, BHP Co Ltd. In 1979 he moved to Canberra as a Member of the Executive of CSIRO. From 1981-84 he was Secretary of the Commonwealth Department of Science and Technology and, from 1984-87, Secretary of the Commonwealth Department of Science. From 1987-93 he was Secretary of the Australian Science and Technology Council. In 1992 he became a Member of the Order of Australia for services to science and technology. He retired from the Australian Public Service in mid 1993.

From 1994-98 he was Visiting Professor of Science Policy at the University of Canberra and then Honorary Professor until 1999. Since 1995 he has been Visiting Professor in the Centre for Strategic Economic Studies at Victoria University, Melbourne. From 1997-99 he was the founding Director of the APEC Center for Technology Foresight and from 1999-2007 Executive Advisor to the Center. He is now Chair of the International Advisory Board of the Center. In 2001 he was appointed to the Academic

Advisory Board of the University of Navarra, Pamplona. From 2002-2005 he was Distinguished Visiting Fellow, National Europe Centre, ANU. From 2006 he has been Chair of the Management Committee of the Australian Research Network for Advanced Materials.

He is a Fellow of the Australian Academy of Technological Sciences and Engineering and was a Member of the Council of the Academy (1984-87, 1990-92, 1994-97) and Chairman of its International Relations Committee (1988-99). He is a Foreign Fellow of the Royal Swedish Academy of Engineering Sciences and of the Engineering Academy of the Czech Republic.

He is the author or co-author of some 250 articles in scientific and technical journals and has published several books and monographs on surface treatment of metals and alloys, mechanical metallurgy, climate change, technology and employment, and technology foresight.



Mr. Richard Watson is a writer, speaker and strategist who helps organizations to think ahead. He is the founder of nowandnext.com, a website that documents new ideas, innovations and trends from around the world and is co-founder of Strategy Insight, a scenario planning consultancy.

Areas of specialization (in addition to scenario planning) include technology and psychology, publishing, education and media.

His clients have included, amongst others, PricewaterhouseCoopers, News Limited, Virgin, Toyota, McDonald's, Westfield, Coca-Cola, the Department of Education and St George Bank.

Richard is the author of *Future Files: 5 Trends for the Next 50 Years* (2007) and *Future Minds: How the Digital Age is Changing Our Minds, Why This Matters and What We Can Do About It* (2010). His third book (due out in 2012) is about the use of scenario planning to highlight growth opportunities and predict change.

Dr. Eric Dishman - Director of Health Innovation Intel, USA

Eric Dishman is an Intel Fellow and Director of Health Innovation in the Intel Architecture Group, responsible for driving Intel's cross-business strategy, research, and policy initiatives for healthcare information technologies. He founded Intel's first Health Research & Innovation Lab in 1999 and was a founding member of Intel's Digital Health Group in 2005, which recently formed a joint venture called "Care Innovations-An Intel GE Company" (www.careinnovations.com) where Eric is also the Director of Health Policy. In 2007, Dishman was named an Intel Fellow, one of only 55 Intel executives awarded this designation in recognition of industry leadership in science, technology and innovation.



Dishman is widely recognized as a global leader in healthcare innovation with specific expertise in home and community-based technologies and services for chronic disease management and independent living. He is also known for pioneering innovation techniques that incorporate anthropology, ethnography, and other social science methods into the design and development of new technologies. He and his team's work have been featured in publications including the New York Times, Washington Post, Business Week, and USA Today. The Wall Street Journal named him one of "12 People Who Are Changing Your Retirement" and the magazine *Fast Company* named Dishman to its list of "The 100 Most Creative People in Business 2011".

An internationally renowned speaker, Dishman has delivered hundreds of prominent keynotes on healthcare reform and innovation around the globe, from the Consumer Electronics Show to the White House Conference on Aging to the World Health Organization. He has published dozens of articles on personal health technologies and co-authored many government reports on health information technologies and reform.

Dishman co-founded some of the world's largest research and policy organizations devoted to advancing the cause of independent living, including the Technology Research for Independent Living (TRIL) Centre, the Center for Aging Services Technologies (CAST), the Everyday Technologies for Alzheimer's Care (ETAC) program, and the Oregon Center for Aging & Technology (ORCATECH). Dishman has received numerous awards for his work in helping to shape the future of health care.

PWC (PriceWaterhouseCoopers) – Center of Excellence Ageing

An international Network Ageing that consists of dedicated professionals that study the effects of ageing, best practises and support our clients in facing the issue and utilise challenges.

With the baby boom generation moving into retirement from this year onwards, many territories will soon start to show the effects of population ageing. Whereas the causes of population ageing can be deduced logically, its effects and their urgency and severity are often subject to many different interpretations. We can, however, be sure that decision-makers in the public sector will be facing some daunting challenges. On the one hand, social and administrative responsibilities oblige them to develop a vision on ageing. On the other, they will be confronted with changes in the demand for public services, changes in their production capacity and having to develop new forms of service delivery.

Within the next few years, significant changes can be expected in sectors such as healthcare, local government, education, housing, justice and law enforcement. Pension funds and insurance companies will also be affected.

Under the supervision of Gertjan Baars and Anneke Offereins, PWC has developed aGlobal Center of Excellence Ageing that consists of an international network of professionals with various disciplinary backgrounds that study the ageing issue and work daily at providing clients with optimum assistance and at developing comprehensive products and services. The international Working Community conducts research, collects and shares knowledge worldwide on issues that are the result of ageing. This enables



our clients to make efficient use of the opportunities ageing has to offer and circumvent potential stumbling blocks. Together with international partners as the International Federation on Ageing and the World Demographics and Ageing Forum PwC's advisors base their work on client consultation and a profound knowledge of the public sector.



Msc. Gertjan Baars – Director Information Management, Decentralised Government Netherlands

Msc. Gertjan Baars is an information management expert and director of the Information Management team within PwC Netherlands's Local Government group.

Working from a clear vision on future developments in e-services and management processes behind the digital front office, his primary focus is the strategic implementation of IT-applications in the management processes of municipalities, provinces and water boards.

Starting with defining new e-delivery concepts as a result of the change in demands and populations for municipalities and the cooperation within public services, Gertjan Baars became more specialised in ageing as a phenomenon and its effects on the local and regional government domain. With his experience and background he advises government agencies on how to deal with the issue of Ageing.

Msc. Anneke Offereins – Senior Advisor Healthcare Advisory Group, Netherlands

Msc. Anneke Offereins is a management and organisation expert and senior advisor with the Healthcare Advisory Group, a subdivision of PwC Netherlands's Advisory division.

In this capacity, she works on strategic and organisational issues, focusing mainly on innovation and improvement of elderly care. As part of the Healthcare Advisory Group, Anneke Offereins has been studying the effects of ageing on the care sector and advises care providers on how to optimally prepare their organisations for the coming changes.

Besides her position at PwC, Anneke is also part-time employed as researcher at the Research Centre for Social Innovation of the Academy of Applied Science in Utrecht that closely cooperates with TNO, the national institute of applied science of The Netherlands.



Brainport 2020

The Government of the Netherlands wants to make the Dutch economy one of the world's top five economies and has therefore opted to focus on top sectors. Especially High Tech Systems & Materials, Chemistry and Agrofood are substantial contributors to the Dutch economy. These three sectors account for 68% of all private spending on research and development, and together make up almost half of all Dutch exports, the engine of the economic growth. World players, multinationals and small and medium sized enterprises with strong export positions in these sectors are located in Southeast Netherlands. It is only if the knowledge economy of Southeast Netherlands gets the room it needs to grow that a top 5 spot can be achieved for the country. Compared with top regions around the world with a similar business and technology profile, a European top 3 spot in and world top 10 ranking are feasible for Southeast Netherlands. But to achieve this, specific action and investment are necessary. These are outlined in Brainport 2020.

- In 2020 Southeast Netherlands will be among the Top 3 of Europe's top technology regions and in the top ten on a global scale. Southeast Netherlands is current number 9 in Europe and number 13 in the world.
- The annual contribution to the gross national product will have risen in 2020 by 40 billion to 136 billion euros.
- The economic growth in Southeast Netherlands of around 3% is double the country's average.
- The three field labs will be world renowned in 2020 as an incubator of innovative solutions for home care, mobility and sustainable buildings.
- In 2020 Southeast Netherlands will be heading for near full employment. The job market needs everyone, both the knowledge workers and highly educated technicians and manual skilled workers and craftsmen

In June 2011 Brainport Region was awarded, in New York, by the Intelligent Community Forum as the smartest City in the World. In the selection and awarding of the 2011 award, Healthcare and IT were the dominant and primary factors.

Bridging Research in Ageing and ICT Development (BRAID) Group

The Bridging Research in Ageing and ICT Development (BRAID), an EU FP7 funded project, aims to develop a comprehensive Research and Technological Development (RTD) roadmap for active ageing by consolidating existing roadmaps and by describing and launching a stakeholder co-ordination and consultation mechanism. It is based on four previous EU funded road-mapping projects: AALIANCE, CAPSIL, ePAL and SENIOR, which are feeder-projects each focused on different specific aspects of ageing and technology. The BRAID roadmap is aimed at creating a comprehensive approach to ageing challenges in the European society, responding to the changing socio-economic conditions of stakeholders. This project, which was launched in March 2010, will last until June 2012.



The BRAID project priority areas include:

- Technological infrastructures - Usable, accessible, and affordable technological infrastructure, with ICT applications, devices, tools and services to adapt to the population's changing needs and support the quality of life while ageing.
- Enhanced awareness and training - Good understanding of a life course perspective on ageing, allowing a more effective inter-generational linkage and a better preparation of individuals for this process by providing appropriate information, education, and training, promoting life-long-learning and increased technology awareness and acceptance.
- Mechanisms to promote active life - Positive, cross-societal attitude towards ageing, activating support mechanisms to motivate and empower seniors, taking into account social, functional and cultural differences, and offering a rich variety of choices and opportunities for continued active life.
- Regulatory framework and principles - Policies and regulatory framework regionally, nationally, and across Europe to provide an underpinning approach to support the rights of the seniors and particularly vulnerable older people, and recognizes, motivates, promotes, and supportst the continued involvement and contribution of senior citizens to society.



Dr. R. Benjamin Knapp - BRAID

For over 20 years, Dr. R. Benjamin Knapp has been working at the boundaries between human-computer interaction, universal design, and creative practice. His research on human-computer interaction has focused on the design of user interfaces software that incorporates physiological/biometric indicators of gesture and emotion. His research also involves the design of home environments that support people as they age. Using ambient sensing, he has been exploring ways to understand behavioral and emotional changes that predict changes in physical and mental status. For the past six years, he has led the Music, Sensors, and Emotion (MuSE) research group at the Sonic Arts Research Centre (SARC) at Queen's University in Belfast and Principle Investigator on three pan-European projects. Dr. Knapp is now the founding director of the Institute for Creativity, Art, and Technology (ICAT) at Virginia Tech University in the United States.



Dr. Karim Hadjri - BRAID

Karim is a Reader in Architecture at the School of Planning, Architecture and Civil Engineering (www.qub.ac.uk/space) at Queens University Belfast (QUB). He is currently the research theme leader for the Architecture group.

Karim is an architect with a Master of Philosophy (1989) and a Doctor of Philosophy (1992) in housing studies completed at the Joint Centre for Urban Design at Oxford Brookes University. He has worked as a scholar in the United Kingdom, UAE and Saudi Arabia, and managed academic units and research centres in both Cyprus and Colombia.

His teaching and research interests include architectural design, housing, Computer-Aided-Design, and post-occupancy evaluations. Karim is particularly interested in inclusive design and how the physical environment can be improved to fit the needs and requirements of the older user in particular. His more recent research explores the influence of the domestic environment on various user groups including dementia sufferers.

He currently supervises six PhD students examining ageing related topics such as Computer-Aided-Design tools to achieve inclusive design, interdisciplinary approach to inclusive design, way finding for dementia patients, and older people's perception of comfort at home.

Karim has led and contributed to over twenty research projects worldwide since 1992. Recently he was the PI on the Cogworks collaborative network funded by the Lifelong Health and Wellbeing Phase 2.

Karim has also practiced architecture in parallel with academia and designed a school of architecture, a university library and private housing. He is an affiliate member of the Royal Institute of British Architect (RIBA), and a fellow of the UK Higher Education Academy.

Draft Program:

- 8.45 – 9.00 Opening and Welcome & Explanation of the Program – **IFA President, Irene Hoskins**
- 9.00 – 9.10 Welcome from the **Czech Government**
- 9.10 – 9.50 Setting the scene: scenario's for the future in long term care and technology – **Speakers Professor Greg Teggart and Richard Watson**
- 9.50 – 10.50 Presentation of best practice – Speakers **Intel, Brainport 2020 and BRAID Group**
- 10.50 – 11.10 **Break**
- 11.10 – 11.20 Overview of selected key-areas for break out working groups – **Gertjan Baars, (PWC)**
- 11.20 – 12.40 First Round working groups - Session themes (2) to be determined after analysis of government responses to questionnaire.
- 12.40 – 12.55 Wrap-up and summary of first round – **Anneke Offereins, (PWC)**
- 12.55 – 14.00 **Lunch**
- 14.00 – 15.20 Second Round working groups - Session themes (2) to be determined after analysis of government responses to questionnaire - **Gertjan Baars, (PWC)**
- 15.20 – 15.35 Wrap-up and summary of second round – **Anneke Offereins, (PWC)**
- 15.35 – 15.55 **Break**
- 15.55 – 17.10 Presentations from 4 Governments – Session Chair: **Greg Shaw (IFA)**
- 17.10 – 17.20 Closing – **IFA/ EU Regional Vice President – Bjarne Hastrup**