



AgileAgeingAlliance



AGEING SOCIETIES ISO/TC 314

# CULTIVATING NEIGHBOURHOODS THAT CARE

## A MANIFESTO FOR CHANGE



REPORT MADE POSSIBLE BY

**CLARION**  
HOUSING GROUP





“Fostering Healthy Ageing requires fundamental shifts – not just in the actions we take, but in how we think and feel towards age and ageing. The Decade of Healthy Ageing sends a clear signal that it is only by working as one, within the United Nations system and with governments, civil society and the private sector, that we will be able to not only add years to life, but also life to years.”

DR TEDROS ADHANOM GHEBREYESUS,  
DIRECTOR-GENERAL, WORLD HEALTH ORGANIZATION



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# CULTIVATING NEIGHBOURHOODS THAT CARE A MANIFESTO FOR CHANGE

AN AGILE AGEING ALLIANCE  
NEIGHBOURHOODS OF THE FUTURE REPORT



“ As a market leader Clarion has an obligation to lead by example. To explore new forms of housing and neighbourhoods which are fit for future purpose, whether that’s in 30, 50 or 100 years ”

DAVID ORR  
CHAIRMAN CLARION HOUSING ASSOCIATION

Image Clarion Housing Group

# EVERYBODY CAN EXPERIENCE HEALTHY AGEING

Being free of disease or infirmity is not a prerequisite to healthy ageing, as many older adults have one or more health conditions that, when well controlled, have little influence on their wellbeing.

Healthy ageing is about creating the environments and opportunities that enable people to be and do what they value throughout their lives. This means preserving both our physical and mental capacity as we age – it also means making changes to our environments so that they are accessible to and supportive of older people with varying needs and capacities.

Environments include the home, community and broader society, and all the factors within them such as the built environment, people and their relationships, attitudes and values, health and social policies, the systems that support them and the services that they implement. In summary: Being able to live in environments that support and maintain one’s intrinsic capacity and functional ability is key to healthy ageing.

WORLD HEALTH ORGANIZATION





# WHY MULTIGENERATIONAL?

A longitudinal study by UCL Psychiatry reports the most robust evidence to date that increased social contact between ages 50 and 70 is associated with a significantly lower risk of developing dementia later in life.

The World Health Organization reports social isolation can be as damaging to health as smoking 15 cigarettes a day. The problem worsens as we get older:

**Social isolation significantly increased a person's risk of premature death from all causes. A risk that may rival those of smoking, obesity, and physical inactivity.**

**Social isolation was associated with about a 50% percent increased risk of dementia.**

**Poor social relationships (characterised by social isolation or loneliness) was associated with a 29% increased risk of heart disease and a 32% increased risk of stroke.**

**Loneliness was associated with higher rates of depression, anxiety, and suicide.**



# LONELINESS KILLS

In a world where social networks have made it easier to avoid forming real world relationships, this report addresses the challenge at the neighbourhood level, the setting where residents can socialise, foster common values and a sense of purpose.

**C**ultivating Neighbourhoods that Care examines how the built environment can address loneliness in society through the creation of connected communities for residents of all ages.

Long before COVID 19 reared its ugly head, analysis of 3.4 million research participants carried out by Brigham Young University in the US, showed evidence that social isolation- or lacking social connection and living alone- increases mortality risk by over 30%.

Talking to TIME magazine Julianne Holt-Lunstad, an author of the Brigham report, suggested that rethinking the way neighbourhoods are designed would be an important policy intervention for loneliness.

A more recent study, led by Dr Fuschia Sirois, at the Department of Psychology, University at Sheffield in the UK, points out that loneliness is highly complex and a growing concern globally.

**A global concern**  
According to the World Health Organisation, about 20–34% of older people in China, Europe, Latin America, and the United States of America feel lonely.

Analysing research from 25 countries, Dr Sirois's found that people, and especially women, who felt lonely, were 1.4 times more likely to make visits to their GP or another primary health-care provider than someone who was not lonely.

And this trend is not exclusive to older adults. A survey of over 55,000 people in the UK, by the BBC, found that 40% of 16 to 24 year olds felt lonely.

Looking beyond the health implications, reducing loneliness would also lighten the financial burden for public health and care services.

By way of example, Dr Sirois said there are estimated to be over 3.7 million people who feel lonely in Great Britain alone, a modest 10 percent reduction would result in 518,000 fewer GP visits,

leading to substantive savings for the NHS.

**Better together**  
A report from the Stanford Center on Longevity framed the loneliness challenge as an opportunity to tap into the very attributes that older people possess. Simply stated, older people's qualities and their affinity for purpose and engagement position them to make critical contributions to the lives of youth who need help the most.

And the benefits are not one-directional. Research shows that pairing young and older people has positive consequences for each. In promoting the well-being of the next generation, older adults experience fulfilment and purpose in their own lives.

Reaping the benefits requires institutional and cultural change, a reorientation that recognizes the capabilities of this vast human resource, ageing adults, and the value that intergenerational matches can instil in the lives of both young and old.



# A MANIFESTO FOR CHANGE

Contributed to by age, health, care and design experts, policy makers and thought leaders, and drawing on perspectives and best practice from around the world, this report considers how the housing sector can combat loneliness and mental health issues – among younger and older populations – and ease the associated burden on health and social care systems.

What's needed is a paradigm shift away from the disparate snakes and ladders style housing archetype; from starter, to family, to retirement homes. To smart building types, capable of adapting to accommodate a growing family, and then supporting an ageing one in later life, in smart technologically enabled multigenerational environments. This can only be achieved by taking

account of the needs of the occupant and how they change over time.

What's missing is a commonly agreed view of "what good looks like", making it hard for regional and local government, developers, and procurers of related products and services, to plan with any degree of confidence.

By pooling research, expertise and insights, participating stakeholders have the opportunity to revolutionise the design of our age-friendly neighbourhoods of the future, at both the micro and macro levels.

## Setting standards

Central to this agenda is a call for a new ISO standards framework to drive the delivery of multigenerational living worldwide.

In scoping out this standard, we will reimagine homes and neighbourhoods that are more accessible and enabling, adapting to different stages of life and ever-changing human requirements.

Across the world a vast body of knowledge is being

generated in the field of planning for age-friendly communities. However, most of this knowledge remains at the local or regional level, or is presented in abstract principles which are neither binding or familiar to most stakeholders.

The development of this standard will enable advancement of a professional discourse on planning multigenerational neighbourhoods for the wellbeing of all, predicated on

a set of guiding principles and a voluntary code of conduct.

I would encourage you to reflect on the guiding principles overleaf, enjoy the thought provoking articles within the report, and then turn to page 124 to find out how you can get involved.

### Ian Spero

Founder, Agile Ageing Alliance (AAA)  
Honorary Professor, UCL Bartlett  
School for Sustainable Construction





# GUIDING PRINCIPLES

The draft principles are informed by the articles commissioned for this report, predicated on extensive research and consultation.

**1** A smart multigenerational neighbourhood (SMN) should be an enabling environment that supports the efforts of older adults to maintain their daily routine, activities, and engagement with the local community.

**2** We need to understand the lifeworld of older people to ensure our SMN's of the future are truly responsive and supportive during the known trials and unexpected tribulations of later life.

**3** Multigenerational living should be recognized in existing national and global development goals.

**4** Governments should incentivise older adults to move to newly created multigenerational neighbourhoods; this could kick-start a new chapter in how our societies work and different generations support one another.

**5** Age-friendly design should be prioritised in community's disproportionality impacted by poverty, to help alleviate disparities and level up regions.

**6** Low carbon and low running costs, should be set as a requirement within SMN planning policies, or as a covenant within the sale or lease of public land.

**7** Older people's housing should be located within a 10-15-minute easy, safe walk from local centres, with access to shops and services.

**8** SMN's should be barrier-free and wheelchair-friendly.

**9** SMN's should be dense and walkable with shared, safe greenspaces at the centre, and cars at the edge.

**10** SMN's should include public spaces, with plenty of rest stops, to facilitate engagement across all generations. This familiarity will also serve to combat ageism.

**11** Integrate dedicated healthcare facilities within SMN's, so that medical staff and volunteers can actively work with senior residents, particularly on chronic disease management; this also eases patient load at GP surgeries and hospitals.

**12** SMN's should co-locate child care with senior care facilities to promote inter-generational bonding.

**13** SMN's should be accessible; let's avoid the trap of designing environments we may eventually age out of and exclude others from.

**14** SMN's should observe good universal design principles and user-centric design features.

**15** SMN' accessibility should be approached from the perspective of Universal Design, as a means of achieving equal participation and breaking down barriers for individuals.

**16** SMN's should provide optimal balance between effort and support, so people can function well within their capabilities across the life course.

**17** SMN home adaptation should be fit for purpose, taking account of an individual's specific needs, capability and environmental conditions.

**18** SMN's should embody the principles and contents of the United Nations Sustainable Development Goals.

**19** Local authorities should give older adults a voice in identifying and prioritising their own needs, in terms of SMN development, community services, cultural participation and technology application.

**20** Adhering to UNESCO guidelines, SMN's should include digital entry points for persons with limited literacy and digital skills; thereby creating a virtuous cycle that accelerates learning and development, empowering individuals and strengthening communities.

**21** SMN's should provide the best possible technical infrastructure to meet the needs of people living with disability and or older more frail adults.

**22** SMN's should demonstrate that technological innovation can be non-invasive, where data becomes the dynamic element that gives value and life to increasingly innovative services.

**23** Interoperable digital infrastructure should render SMN' homes and buildings ready for deployments of specialized technical solutions, fit for current and future home-owner's needs and conditions.

**24** The document will incorporate an ethical framework to guide local government and other public/private sector stakeholders, when developing services for older people living in smart multigenerational neighbourhoods. Dignity, autonomy and participation, as well as justice and equality, are key principles.

These principles will be fleshed out and continue to evolve throughout the duration of the standard development process.



# ONE SIZE DOES NOT FIT ALL

To achieve societal change at scale the housing sector has to rethink its 'one size fits all' single use structure blueprint based on age and life-stage, e.g. older people, young professionals and families. These homes are often inappropriate for older adults or people with physical, mental, intellectual or sensory disabilities and they are difficult to adapt.

Too many people are living in homes that are unsuitable for their needs and dangerous to their health. Poor housing policies have created a crisis where there is a lack of decent, accessible and affordable housing.



Photo by Laura Thonne on Unsplash

People require homes which can adapt to their changing needs – family size, mobility, health, age, and lifestyle, in environments designed to encourage social interaction and mobility, potentially until end of life.

Clarion house 350,000 people in the UK alone. We own and manage 125,000 homes and build thousands of new homes every year. The principles of co-existence are embedded in our £2billion programme of regeneration, investing in our homes and communities to give existing and future residents a better quality of life for decades to come.

## Principles of co-existence

While there are plenty of one-off homes designed to meet the needs of older adults and/or people suffering from dementia, there are few examples of those homes being built at scale, and even fewer examples of whole neighbourhoods being designed with such principles at their heart.

Clarion's Regeneration team are currently identifying suitable sites where these principles can be embedded from day one, in both the design and operation of neighbourhoods and homes.

Operating at the core of Europe's largest housing association, our charitable association

'Clarion Futures' is delivering one of the UK's largest social investment programmes, investing £150 million over 10 years to provide the tools and support people need to transform their lives and communities for the better.

This project is a wonderful opportunity to collaborate with some of the world's foremost thinkers and practitioners. To co-create living test beds, that will help to define the essence of best practice, where young and old, disabled and able-bodied persons, can co-exist in well-designed technologically enabled housing, with access to bespoke services that will help facilitate independent living and enhance wellbeing across the life course.

## David Orr

Chairman, Clarion Housing Association  
Chair, the Good Home Inquiry  
Co-Chair, Housing 2030



CLARION  
HOUSING GROUP





# WHY WE MUST ACT NOW

AAA invited Andrew Edkins, Professor of the Management of Complex Projects at University College London and founding director of the Bartlett Real Estate Institute, to assess this report.

This report, produced by the Agile Ageing Alliance, contains a true wealth of insights, examples and recommendations designed to help shape a new International Standard – one that focuses on the creation of technically enabled multigenerational neighbourhoods. This is extraordinarily timely given the acute experience felt globally as a result of the Covid-19 pandemic that was and is enmeshed in the longer-term trends of both ageing populations and the climate emergency that we are now facing.

As the world seemed to shrink, as travel restrictions were imposed, we have been reminded of the value of our communities, many of us becoming more appreciative of, or critically dependent upon, the new digital infrastructure that we relied on to stay in contact with friends, family and others important to us.

This report, and the extensive bodies of work that it refers to, is a powerful motivation to act now to prepare for our neighbourhoods of the futures. The arguments, evidence and cases that are presented are compelling and persuasive.

**Rather than allowing segregation and risk potentially ghettoisation, this report argues, convincingly, for integration and harmonisation of our neighbourhoods by foreseeing, adapting and accommodating to our needs as we journey through life.**

Given this is a global issue, the report cites illustrative cases that span those nations with mature economies and societies, through to those that are still growing and developing.

## **Dignity, respect, inclusion and fairness**

The common themes of dignity, respect, inclusion and fairness are demonstrated in examples that span geographies, cultures, wealth and history. What may strike you when you read this – as it did me – is the need for conversations to be had with a range of those that are involved and affected. Multigenerational neighbourhoods should be created with those that are going to live and rely upon them, not inflicted on them by those who think they know better. This is not to negate the expert and need for expertise, indeed this will be crucial, but there is a need for empathy and sensitivity alongside the practicalities of making neighbourhoods compliant and viable.

**Multigenerational neighbourhoods should be created with those that are going to live and rely upon them, not inflicted on them by those who think they know better.**

## **Money talks**

I imagine some readers will think ‘this is all very well, but where’s the money coming from?’ The answer is that the money needed to create the types of neighbourhoods described or suggested in this report is already present. The private sector is actively investing in various schemes that are factoring in this future thinking and state-of-the-art processes and technologies, including many that are captured under the banner of modern methods of construction. This is investment and not altruism or philanthropy – as many are recognising that getting these sorts of neighbourhoods up and running leads to successful returns.

To add to this private sector money, we have the pivotal role of the public sector in all its guises – from central to local government and the many public sector agencies that can touch our lives, and the invaluable contribution of third sector organisations, such as the University of the 3rd Age. And to these sectors we must add you and me – us the ordinary citizen who will be the inhabitants and residents in these multigenerational communities and neighbourhoods. If the awful experience of the pandemic has any positives, then one might be that for those of us that were ‘locked down’ we had opportunity to get to know our neighbours better and appreciate the value and the potential of the area we live in.

## **Go the whole hog**

This report rightly looks to the future and recognises the other challenges we face. Looming large is the shift to radically lower greenhouse gas production. To stop global warming getting worse we need to decarbonise our built stock. This presents a great opportunity to ‘go the whole hog’ and not just get to zero carbon, but to normalise the creation of multigenerational neighbourhoods, where putting people and the planet’s needs as a priority can lead to new business models, new technologies, new service offerings, new attitudes and new behaviours.

Building ‘smart’ multigenerational neighbourhoods where everyone feels safe, secure, happy and proud should not be considered as wild and fanciful thinking – it should be our aspiration and a socioeconomical and technologically viable goal.

**The aim of this report is not to mandate an ISO standard that is a closed and fixed framework or structure. The role of the standard is to steer, guide and inspire an internationally recognised and respected reference, together with a voluntary code of conduct, that will clearly inform and assist the shaping of our multigenerational neighbourhoods of the future. The evidence is clear, the argument compelling and the time to act is now.**

Andrew Edkins,  
Professor of the Management of Complex Projects,  
The Bartlett, UCL



# COLLECTIVE RESPONSIBILITY

Working with AARP to establish foundations for change.

Societies across the globe are ageing fast; by 2050, one in four people will be 60 or older. Yet our homes and our communities do not even meet current lifespan needs, as they were designed for young, able-bodied people.

Senior living options can address some of these issues but are often financially out of reach, and most older adults do not want to move to age segregated communities. Indeed, mixed generations are increasingly living together, as illustrated by the growing trend in multigenerational households.

## How did we get here?

In 2016 AAA embarked on 'Neighbourhoods of the Future', a European Union funded research and outreach programme which aims to better understand the life course of older adults and their relationship with the built environment.

Informed by consultation and research, AAA has subsequently published a series of articles, white papers and reports which promote the benefit of multigenerational communities in our age-friendly neighbourhoods of the future.

Britta Berge who Chairs ISO Technical Committee 314 says:

**"I am so encouraged by the work and scope of the AAA and how seamlessly it aligns with TC 314's agenda:**

**The massive demographic transformation will increasingly affect individuals, families, communities, governments, and businesses across the world. We aim to address these challenges by investigating innovative solutions, guidelines, tools, and best practices to inform the development of international standards, and a standard for multigenerational environments is now an ISO TC 314 priority."**

Outside of ISO, Britta Berge is Vice President, Policy, Research & International Affairs at AARP, the world's largest nonprofit, nonpartisan organisation, dedicated to empowering older adults to choose how they live as they age.

Facilitated by the German Marshall Fund of the United States, AARP and AAA hosted think tanks in Washington DC and London involving multidisciplinary practitioners and thought leaders in housing from USA and Europe.

Our experts identified key barriers impeding development. Here we pose some of the questions that need to be addressed in order to catalyse change at scale.

## Funding

What existing funding options can help make age-friendly housing a reality? Where do we need to innovate with new programmes and products? Government subsidies and financing programmes typically support first-time buyers. What options can be offered to "last-time buyers"? In the US reverse mortgages and in the UK lifetime mortgages are viewed with suspicion tied to the reputation from outdated products where older homeowners lost their homes. Do we work to address this misconception or shift the product?

Individuals increasingly live in multigenerational households. The aggregated incomes of these households are not typically considered by mortgage lenders, limiting their options. Incentives could be offered for developers to increase the supply of age-friendly housing in multigenerational neighbourhoods. If successful, consumers will see options which they could not have otherwise contemplated.

## Ageism

Anti-ageing and age bias exist in our societies. Ageing and being old is viewed unfavourably even among the aged, therefore older people and the products, services, and housing targeted to them are often dismissed, unless the need is urgent. Additionally, developers often focus on younger buyers and the millennials who have pushed baby boomers out of the spotlight. There are practical reasons for this, such as first-time home buyer programmes and the fact that this population does not have

to sell an existing home. Yet older adults and millennials and younger generations, are often viewed as problematic—demanding too much and not complying with society's expectations. Perhaps this is because society's existing frameworks are not meeting their needs.

## Regulations

Regulations and existing regulatory structures are a significant barrier to the widespread creation of age-friendly housing and multigenerational communities. Incentives to promote the desired change are an option, but they must be valuable enough to the recipient, and they must be tracked, and the progress documented.



Changing the building codes, for example, to require features that enable people over the lifespan would have far-reaching impacts in the creation of age-friendly housing—it would also help to shift housing stock.

#### Focus on retrofits

Existing housing stock in Europe and the US will not meet needs because it has not been designed with respect to abilities across the lifespan. In the UK, 80% of the housing needed by 2050 has already been built and only 7% is accessible or visitable. Similarly, in the US less than 1% of housing meets universal design (UD) similar criteria. While we should focus on new designs being age-friendly, we must also focus on retrofits. Getting all the stakeholders to understand this is a challenge.

In the US, AARP joined forces with the National Association of Home Builders in the early 2000's and created the Certified Aging in Place Specialist (CAPS) training for builders, remodelers, designers, and occupational therapists.

While thousands of professionals have become trained and certified to successfully understand and deliver renovations and new homes that support ageing in place, many do not see the potential of this market.

On the consumer side, a lack of awareness coupled with denial for the potential need for supportive design features limit demand. In the UK, Care & Repair England have created guides for age-appropriate retrofits, and as can be seen in the article on pages 50-53 Foundations are currently addressing the challenge head on, but one issue remains: many older adults simply cannot afford the work.

#### Health + Care systems

Despite structurally very different healthcare systems between Europe and the US, there is increasing recognition that the design of housing and of neighbourhoods plays a critical role in health, wellness, quality of life, and longevity. Ageing societies are already experiencing a staffing crisis in health and social care, with increased demand looming.

Designing housing that enables independence for the lifespan should be considered a crucial variable in planning for our neighbourhoods of the future.

The US population of middle-income baby boomers will reach almost 15 million by 2030, a near doubling and a rate of growth more than eight times that of low-income baby boomers. This population is not eligible for government subsidies and cannot afford the significant expense of long-term care. Many will have to deplete their assets and may then be eligible for Medicaid. The proper design of housing and neighbourhoods can help maintain independence, having the potential to reduce the number of older adults reliant on government funding in their later years.

In the UK with 3.8 million people over pension age who are interested in downsizing, only 7,000 homes, including retirement villages and extra care/assisted living schemes, have been put in service. Yet there is an annual demand for over 30,000 new, purpose-built homes designed for older people, well above the actual number achieved last year.

## WE AIM TO SPARK A MOVEMENT WHEREBY THE BUILT ENVIRONMENT, AT EVERY SCALE, IS A TOOL FOR DISEASE PREVENTION AND THE PROMOTION OF WELLNESS.

How can we encourage age-friendly housing and multigenerational neighbourhoods to be viewed as resources in healthcare? Why aren't builders and developers clamouring to meet the needs of the older adult market? What role can municipalities play? What barriers exist to meeting the demand?

#### Disparities

Over the past few decades the public health sector has increasingly shown that the built environment is a significant variable in obesity, chronic disease, and other public health concerns—particularly in low-income communities.

The pandemic has proven how unbalanced and overburdened our formal healthcare infrastructure is, and how our housing models fail to facilitate individuals' at-home care, services and supports. This is exacerbated by unequal access to broadband and technologies that enable telehealth, remote learning and work, and social interaction, and by a lack of standardisation that inhibits interoperability.

In the US, older minorities can expect to live seven to nine years less than Caucasians. In the UK, older adults in the poorest neighbourhoods have a life expectancy of seven years less than those in the richest. This disparity has to be taken into account when developing the new standard.

#### Sustainability

Climate change disproportionately affects older adults, posing unique challenges for evacuation and increasing potential fatalities due to weather extremes from storms as well as heat and cold events.

There is an opportunity to link efforts for sustainability with age-friendly housing and multigenerational neighbourhood design. Walkable neighbourhoods and energy-efficient housing are particularly beneficial as we age. In the US, the LEED (Leadership in Energy and Environmental Design) certification now awards a point for universal design.



Additionally, a focus on flexible housing could meet both objectives of resilience to climate change and adaptability as residents' needs change over time. Linking policies and environmental features to green and sustainability initiatives, programmes, and incentives may be a path for joining a non-aspirational area (design for ageing) with one that is significantly aspirational (sustainability).

#### Designing for adaptability

One key approach in age-friendly housing design is to apply universal design principles, whereby features of the home are designed to work for the true range of potential residents, including those with disabilities. Another approach is to design homes to be adaptable or flexible for a range of potential residents and needs over the life of the home. For example, a first-floor den can also serve as a bedroom, if designed to meet codes for egress and there is a full bathroom on the same level.

This may be a more aspirational path for homeowners and a more easily navigated path for builders and developers.

#### Blocking the market

Older adults are often stuck in their current homes, even when there is a desire to move. Some of the reasons include lack of desirable options to move to, and economics. Much of the younger population cannot afford to buy these homes due to several variables including high student loan debt, higher home prices, higher rent, and an increase in home sizes.

Should new neighbourhoods be required to have a mix of housing stock size and price to enable owners to move as their needs and income change without leaving the community?

#### People and technology

The use of technology to fill the void of lack of services, service delivery, and social interaction requires reliable internet access. Lack of broadband in rural areas is a significant barrier to overcome if we hope to use technology as a new and crucial resource.

This is a multigenerational issue: children have limited access for schoolwork, adults have limited telecommuting and remote work options, older adults have limited telehealth, social interaction, and use of in-home supportive technologies.

Innovative new product and service solutions enabled by evolving technologies such as the Internet of Things, Artificial Intelligence and 5G provide a golden opportunity to rethink the outlook for ageing populations, particularly if various sectors, organisations and stakeholders adopt new collaborative business models and work collectively towards development of a new ISO standard for smart multigenerational neighbourhoods.

Baby boomers are not only the largest generation of older adults the developed world has ever seen, but also the most educated, financially secure, technologically aware and experienced. It is a generation accustomed to the service economy, not just as customers, but also as suppliers.

“A key paradigm is that digital innovation can enable, improve, support, augment and empower—but not replace—human communication and relationships.”

Older adults are ready for a fundamentally different approach in terms of their relationship with the home. They are open to the idea of smart non-intrusive, secure connections with friends, family, health professionals, and caregivers. They are comfortable with inanimate objects, such as their car, talking to them, and are now getting used to conversing with their devices. Whether people have a disability or not, they need places and products that support healthy and active ageing, but they do not want ugly, cumbersome devices imposed on them. And, they want suppliers to focus on them as customers, not as patients, end users, or care clients.

The technological innovations coming our way could have transformative benefits for older adults. We need to do more to engage the widest possible audience to avoid a two-tier society: those who are tech-savvy,

and those who are left behind. A key paradigm is that digital innovation can enable, improve, support, augment and empower—but not replace—human communication and relationships. Enabling older adults to live in environments that fit their evolving needs will in turn facilitate life-affirming opportunities for personal development and social engagement.

#### Aims and aspirations

We aim to spark a movement whereby the built environment, at every scale, is a tool for disease prevention and the promotion of wellness.

As architect and urban designer Jan Gehl says: “First life, then spaces, then buildings, the other way around never works.” Working collaboratively we should be creating spaces that support everyone at every stage across increasingly long lifespans.

As we begin to build and renovate our homes and communities in a post-COVID-19 world, we must radically accelerate the application of an age-friendly multigenerational standards framework that addresses disparities. This means housing and neighbourhoods that are safe, affordable, facilitate multigenerational interaction, meet sensory, emotional, physical, social, behavioural, and health and intellectual needs across the lifespan, and include appropriate transportation options and services—enabling every resident to thrive.

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Principal at Merlin Stone Consulting



# #BETTERTOGETHER

AAA aims to establish a network of demonstrators, test beds and living labs set in real world environments. Collectively, these innovation sites will provide the setting in which to:

**Develop and test innovative practices and solutions.**

**Undertake consumer centric research to understand the experiences of citizens and service providers.**

**Define the pre-requisites for ensuring the cooperation and compliance of participating commercial and public organisations.**

**Determine strategic plans for future schemes and the associated standards & policy interventions.**

## PLACING OLDER PEOPLE AT THE CENTRE OF A MODERN HOUSING REVOLUTION

Lord Best, Chair of the UK's Affordable Housing Commission and the All Party Parliamentary Group (APPG) on Housing and Care for Older People, says government should make it easier for older home owners to move to new multigenerational housing schemes.

Speaking at the AAA ISO Ageing Societies Leaders Forum, Lord Best asserted that older people could be the catalyst for a modern housing revolution. If they were incentivised by government to move to newly created multigenerational neighbourhoods, this could kick-start a new chapter in how our societies work and different generations support one another.

Lord Best cited the Neptune scheme in Malmö Sweden, as a prime example of a new neighbourhood where older people are (literally) placed at its centre.

There, older residents act as a societal anchor because they are “less likely to move, more likely to spend their money, and can offer support to their neighbours, old and young alike. Indeed, they provide stability.”

With millions of older adults living in large suburban homes they don't need, located far from the services they do, Lord Best's APPG has identified significant demand from older people, who would be willing to move given the right financial incentive. This would be a win win for the economy:

- Revitalise our ailing town and city centres.
- Free up suburban housing for younger home buyers.
- Repurpose redundant commercial real estate across the country.
- Reduce loneliness together with health and care costs.



# A MULTIGENERATIONAL NEIGHBOURHOOD EMBODIES EQUALITY OF OPPORTUNITY AND TALENT

With over 400,000 active members University of the 3rd Age demonstrates the value of communities which are defined, not by age, but by experiences still to be explored.

**A**geism is still prevalent according to a report from the Joseph Roundtree Foundation which concludes: "This is problematic for older people and means resources fail to deliver their definitions of quality." Given the report was published in 2004, regrettably not a lot has changed.

In 2020 1,000 older adults were questioned. Two in five (43 per cent) have been on the receiving end of patronising language in relation to their age and almost two in five (37 per cent) have been addressed with names they say are ageist.

In parallel, a poll of over 2,000 members of the general public, revealed that over half (53 per cent) admit to regularly

using words that were deemed patronising by older people.

According to the World Health Organisation: Pervasive ageist stereotypes of older people as uniformly frail, burdensome and dependent are not supported by evidence and limit society's ability to appreciate and release the potential human and social resources inherent in older populations.

**Ageism – stereotypes, prejudice and discrimination against older people on the basis of their chronological or perceived age – creates barriers to developing good policies, both on health and broader development.**

The U3A is a movement of vibrant and energetic people retired from full time work. Members forge new interests, make new friends and develop and extend talents. There are no barriers to their potential. Members do not see themselves as being defined by age, which bears no relation to what they can do and the opportunities available to them.

And they are not afraid of technology. In fact we have seen a significant rise in the number of older members, who have got to grips with the internet and Zoom during lockdown.

## Are they ready for technology?

A 2019 Survey of 3,200 members of the 450,000 U3A members revealed:

# 95%

HAVE INTERNET ACCESS IN THE HOUSEHOLD

# 82%

ACCESS THE INTERNET ON MOST DAYS, WHILE ONLY 5.5% REPORTED NEVER USING THE INTERNET

# 73.5%

ACCESS THEIR EMAILS DAILY AND A FURTHER 20.6% WILL ACCESS THEIR EMAILS ON MOST DAYS.

# 49.9%

OWNED A SMART PHONE, 55.5% A TABLET AND 44.8% A LAPTOP

Image Third Age Trust





Well-designed homes and neighbourhoods, combined with enabling technologies, will empower older adults and promote mobility. This will lead to a better quality of life, health and wellbeing, together with cost savings to individuals and governments alike.

A multigenerational neighbourhood embodies equality of opportunity and talent. It ensures that older adults are seen as contributors and consumers in the same way that every other working adult or younger person should be. And mixed generational communities ensure that no age group is set apart or treated differently and this approach celebrates the value of lived experience.

This project is a chance to challenge preconceptions of what ageing means – where society’s conversations are based around a contribution not deficit model.

Let’s imagine a fresh collaborative approach which recognises that older people are not a burden, but still have the potential to contribute to their communities.

A positive attitude to ageing has tangible benefits to society and neighbourhoods. Our mutual learning model is low cost and has a life and existence of its own. A world where everyone – whatever their age – is acknowledged for the tangible contribution they can make.

We hope this bold initiative will lead towards a consistent and sustainable standard for a fairer society, where older adults, living in close proximity to families and young people, are valued and respected for the positive impact they have on the communities around them.

Most of all we want to create strong multigenerational neighbourhoods that challenge the assumptions about ageing through the life course which are prevalent in our society. Often the assumptions are not matched by actual experience – the U3A model is the living experience of this.

**Sam Mauger**  
Chief Executive  
The Third Age Trust



**In order to achieve a truly inclusive age-free community, we need lifetime homes.**

Images: Third Age Trust



# STRATEGIES FOR PROMOTING SOCIAL INCLUSION

New models of housing will enable all ages to live alongside each other in the new hub of work, care and family – the Home.

Over the past two decades contributions from architecture and design, the arts, sociology, psychology and policy have established a rich literature of experience around intergenerational spaces. Importantly has been the move from multi-generational spaces – a space occupied by individuals of different generations, to inter-generational living – a place of formal and informal interaction between people of different ages and generations. While the first is a simple artefact of accommodation styles, the latter requires a more deliberate design and planning strategy.

Here at the University of Oxford Institute of Population Ageing, we have been working on 'Intergenerational Shared Sites' and 'Intergenerational Contact Zones' – a move from spaces occupied by individuals of different generations – to inter- or multigenerational communities, where space encourages formal and informal interactions between people of different ages and generations.

The most advanced thinking around this concept, now introduces the question as to whether these shared spaces already exist naturally within many local communities, and if so what are the opportunities to utilize the existing spaces that could promote opportunities for mutual exchange between the generations.

In a post-Covid world we will increasingly work and socialise in connected local communities. These groups of people will become the magnets for life's activities, as opposed to constructed developments that require people to travel to and from segregated activities. As thousands of businesses consider downsizing their space, there is the possibility that conversion of office space into residential hubs will follow, with these spaces supporting wider community activities.

And it is not just offices that will become connected, mixed-use communities. Even before the pandemic, many UK property developers were looking to convert retail outlets into housing in response to the changing high street. Indeed looking to the future, office parks and shopping arcades will become residential hubs with local work, retail, care and leisure spaces.

This will be facilitated by the continued rebalancing of individual and communal needs, leading to a growth in multigenerational, socially integrated communities. Independent living in western societies is an accepted sign of adulthood, but co-living still enables this. We thus have the opportunity for the construction of new-style family homes which incorporate an adjacent unit for ageing parents.

This could become the first home for the adult children, until they then move into the family home and the parents become the residents of the adjacent unit, all maintaining a degree of independence.

At Oxford we have linked up with colleagues from the University of Copenhagen in Denmark. Our thinking is influenced by the Danish concept of "dense low" architecture, in which buildings are kept low and tightly packed to promote social contact, lead to the concept of the "soft city", with its blurring of indoor and outdoor space, enabling the sharing of external private spaces with public common space.

A similar philosophy is behind the retrofitting of Dronningensgade Street in Copenhagen's Christianshavn district. Located next to a public square, close to the main thoroughfare, various non-residential uses have flourished on the ground floor – shops, offices, a restaurant and music venue – alongside a range of dwelling types, including a student residence. The courtyard includes a nursery and a shared laundry.

The soft-scaped intergenerational community of 2021 is a policy solution to tackle concentrations of deprivation and poverty. Refitted and refurbished residential, corporate and retail spaces will enable professional, managerial and service workers of all ages to live alongside each other in the new hub of work, care and family – the home.

**Sarah Harper,**  
Clare Professor of Gerontology and Director, Institute of Population Ageing, University of Oxford.



# A MULTIGENERATIONAL COMMUNITY IS SO MUCH GREATER THAN THE SUM OF ITS PARTS

ARCHIVE Global (AG) is a non-profit organisation that focuses on the link between health and housing. Executive Director Sarah Ruel-Bergeron has been advising WHO on translating their Housing and Health guidelines into an implementation framework.

A strong advocate for multigenerational culture, Sarah is currently leading AG's engagement in Bangladesh, but says, the example here represents a common way of life across the global south, with insights that could inform the way we go about social

engineering and planning neighbourhoods globally.

## Skills and knowledge transfer

In these extended family homesteads you find activities for every capacity level, from a toddler to an elder. While this provides numerous

benefits for all, there are specific advantages to ageing societies. Older people have perfected skills that can be taught – oversight can be provided to train younger, more agile or active hands, and they remain invaluable to the community. Furthermore, continuing to be physically

active to their capacity, and having mental stimulation, helps people age in place.

## Shared resources benefit all

In these economically strained environments sharing resources is a necessity, but it also presents a number of advantages. Expenses are distributed among many, if a cow falls ill or crops don't yield as much as expected there are other economically productive activities to offset

costs or losses. In this sense there is also a larger opportunity for diversified funding streams – by way of example, some older people may be weaving baskets or sewing garments or crafts which can be sold at market.

As a valued member of the community the older person is more likely to maintain their dignity which in turn enhances their mental health. They can also count on a more robust safety net to

cover their needs, whether physical impairment, funds needed to visit a clinic, or a close group of people who can help should memory loss set in. In this sense the multigenerational community or neighbourhood is so much greater than the sum of its parts.

**Sarah Ruel-Bergeron**  
Executive Director,  
ARCHIVE Global





# FIRST DO NO HARM. THEN TRY TO DO GOOD

Dr Evangelia Chrysikou, Director at one of the world's oldest but most radical faculties of the built environment, is calling for a paradigm shift.

As a teacher I often use the paradigm of the Hippocratic Oath. A phrase that is cited by all physicians, insisting that it should equally apply to architects: "First do no harm, then try to do good". These two lines, in that order, should suggest a new paradigm that all architects and professionals of the built environment should be aware of and incorporate in their practice.

Growing up, I recall us kids playing in the middle of the street, older neighbours sitting in small groups on the pavements and the parents in and out, busy with their daily chores. The most vulnerable, especially people of the fourth age, stayed indoors, withdrawn.

Images like that belong to the urban past rather than the present or the future. Yet, given there are people of all age groups in most of our communities, we need to make more of an effort to understand and define multigenerational neighbourhoods. This will allow stakeholders to qualify what good looks like so that developers, regional and local government, architects, designers, and procurers of related products and services, can plan with any degree of confidence.

That's why I am delighted that ISO see multigenerational neighbourhoods and communities as a priority area for standardisation.

My work, in relation to these communities, concentrates on designing supportive environments for people's physical and mental health across the lifespan. How would the most vulnerable remain in place and active in ways that are comfortable for them, meaningful?

How could the home and neighborhood environment be modified for all those treated at home or closer to it with the advancements of medical care? This has to happen in a systemic way, from a high level closer to policy, to a practical level of design detailing that enables prevention and early intervention. Both are key to transforming health and care in our neighbourhoods of the future.

Extending healthcare to the home, an ecopsychosocially supportive environment that accounts for vulnerability, is a critical consideration for an ageing society and we need to rethink home as a place of Health + Care. It is time to consider what the decentralisation of the hospital means for the medicalisation of home. Currently, this is happening in an ad hoc way that is challenging both for the care recipient, or patient, and their families. Homes are not planned to be adapted to facilitate the provision of treatment or recuperation, which in a domestic setting can have a significant benefit on recovery times and mental wellbeing. What is the baseline that new and existing homes need to acquire to make these changes possible in a supportive manner? And what should be the local infrastructure, at a community and neighbourhood level, that would facilitate this? We don't have an answer, but if AAA and ISO help us ask the question, it won't be too long before answers are forthcoming.

**Dr Evangelia Chrysikou**

Director MSc Healthcare Facilities at the UCL Bartlett School of Sustainable Construction.

Member of the National Accessibility Authority in Greece  
Vice-President of the Urban Public Health Section, EUPHA

## THE SHAPE OF THINGS TO COME

Funded through the EU's Horizon 2020 'SHAPES' (Smart & Healthy Ageing through People Engaging in Supportive Systems) is a €21m Collaborative R&D project committed to fostering older adults' dignity, worth and security as valued members of society.

The 4 year project spans 14 countries and 10 pilot innovation sites, exploring interactions between older adults, technology and the built environment.



# HOW WE EXPERIENCE AGE IS INTIMATELY TIED WITH WHERE WE LIVE

Who we live with, our neighbours and our sense of belonging in the community, which we both shape and are shaped by.

We are all ageing. It is curious that at a certain point on that continuum – at least historically – expectations of ‘age’ seem to change. In different countries they change in different ways; from veneration to frailty, sometimes both.

Now something else is changing – our ideas about ageing itself; for sure we are living longer and healthier lives than before; but we are also starting to understand that health and wellbeing can actually co-exist with using a wheelchair, getting confused or sometimes forgetting things. Different experiences co-exist; we are pluralities not defined by singular attributes; or by a series of difficulties.

SHAPES aims to inform development of an open ecosystem, enabling the large-scale deployment of digital solutions for healthy and independent living,

designed to meet the needs of older adults who face reduced functionality and capabilities.

Funded by the European Union’s Horizon 2020 research and innovation programme, our work builds on that of many others. We too are very much reliant upon input from partners, as members of the SHAPES interdisciplinary consortium, comprising over 200 researchers with a wide spectrum of expertise (from psychology to engineering, medicine to computer science, anthropology to ethics and law), including colleagues who have contributed to this article, and from the wider global ageing societies ecosystem.

The Agile Ageing Alliance is a key partner in SHAPES. AAA’s focus on cultivating age-friendly multigenerational environments provides the bedrock for sustainable

developments in this area. Our thanks to Ian Spero for facilitating this collaboration with ISO. The International Organisation for Standardisation, literally sets the standard for effective, safe and appropriate use of technologies and products. We in SHAPES are delighted to be associated with this high-level, timely and necessary initiative – to change the context, the way we think and how we operationalise healthy ageing in the places we want to be.

**Mac MacLachlan,**  
SHAPES Coordinator; National Clinical Lead for Disability Services, HSE (Irish Health Service); Professor of Psychology & Social Inclusion and Co-Director, ALL Institute, Maynooth University.

## SHAPES AIMS

- To create, enlarge and consolidate the SHAPES Ecosystem for active and healthy ageing allowing stakeholders to exchange knowledge and expertise, identify current and future solutions for active and healthy ageing, provide mutual advice, training and support and exploit collective knowledge for social and commercial purposes.
- To promote the adoption of standards in the field of integrated care of older individuals, and the identification of standardisation priorities to facilitate the deployment of open and interoperable platforms.

## EXPECTED IMPACTS

- A European-led platform for smart, healthy and independent living at home.
- Increased competitiveness of the European ICT industry, through enhanced interoperability, best practices and financing models and scalable markets.
- Links and synergies between Member States, regional and transnational initiatives.
- Improved evidence-based efficiency of health and care systems with demonstrated added-value of underlying technologies.
- Improved quality of life and health for involved users and carers, with demonstrated added-value of underlying technologies.
- User-centered, validated and innovative solutions addressing accessibility, privacy, security, vulnerability, liability and trust in connected data spaces.



# WE NEED TO UNDERSTAND THE LIFEWORLD OF OLDER ADULTS

Planning an ISO for multigenerational neighbourhoods constitutes a once in a lifetime opportunity to transform human diversity into a unique resource for community development.

Compounded by the impact of COVID-19, adults of all ages are more open to technologically enabled person-centred health and care pathways.

These new solutions can facilitate shared health related data with professional and informal caregivers and significant others, as well as creating opportunities to establish and maintain socially

meaningful relationships for older adults.

At the heart of the SHAPES project a network of pan-European pilot sites, involving more than 2,000 older adults, informs development of and facilitates testing of user-led digital solutions and services. Critically, everything is informed by ethnographic research and analysis. This task is headed up by David

Prendergast, Professor of Science, Technology & Society and Dr Jamie Saris, at Maynooth University.

David says: “As researchers we need to understand the lifeworld of older people to ensure our smart neighbourhoods are truly responsive and supportive during the known trials and unexpected tribulations of later life”.

According to a wide database of qualitative interviews carried out in Intel’s Global Ageing Experience Study, here are the key themes that older adults qualified as important for age-friendly connected environments:

- Feeling safe,
- Supporting cognition,
- Supporting physical activities,
- Bringing health care home,
- Help getting care,
- Enabling social interaction,
- Meaningful and useful life and,
- Environments of choice.



# HOME ADOPTION MUST BE MADE TO MEASURE

SHAPES partner AIAS Bologna interviews residents, family members, formal caregivers, social workers and other stakeholders.

Comprising occupational therapists, engineers, architects, social workers and an administrative staff, the multidisciplinary team look at health, social and technology related issues. Typical areas of assessment are: architectural barriers to entering the home and to various spaces and rooms; smart home technology and safety related issues. The home visit report will include

recommendations, sketches of solutions, indications for builders and information about public funding opportunities.

Our overriding aim is to ensure that home adaptation is fit for purpose taking account of an individual's specific needs, capability and environmental conditions. A significant number of early adopters have already been interviewed for SHAPES and the core message is clear: Technology adoption should not be an

aim in itself. It should be embedded seamlessly in the environment addressing qualified needs.

**Evert-Jan Hoogerwerf,**  
Head of the Assistive Technology Sector of AIAS Bologna, Secretary-General of the Association for the Advancement of Assistive Technology in Europe and Secretary-General of the Global Alliance of Assistive Technology Organisations in Geneva.

**Dr. Sonja Grigoleit,**  
Deputy Head of Business Unit Public Technology and Innovation Planning (TIP) at Fraunhofer Institute for Technological Trend Analysis.



## THE SHAPES PILOTS

### Conceptualisation

The envisaged solution:

- Responds to the retrieved needs and wishes of the target users.
- Is compatible with the relevant policy frameworks.
- Reflects the values of the integrated care and support.

### Contextualisation

The solution:

- Is compatible with existing pathways in care and support.
- Enables new pathways.
- Is compatible with the existing wider Health and Social Care system.
- Is compatible with existing funding models.

### Implementation

The build solution is compatible with:

- The skills of the users.
- The expectations of the users.
- The environment of use.
- Other technologies.
- Legislation/regulation (e.g., safety, privacy, etc.)
- The organisation's management procedures.

### Evaluation

The solution:

- Is compatible with the evaluation practices in the organisation.
- Can cope with larger numbers of users.
- Is interoperable with different care contexts and cultures.



# WHY ARE ACCESSIBILITY REQUIREMENTS STILL VOLUNTARY?

Age-friendliness necessitates cultivating attitudes and behaviours that promote the dignity and worth of older people, their sense of security and belonging and of being wanted and valued members of society.

Persons with disabilities face a number of barriers including attitudinal, environmental and institutional barriers which hinder their full and equal participation in all aspects of life. Older persons with disabilities are often widely impacted by these barriers, specifically when referring to the built environment. Accessibility to the built environment is essential for persons with disabilities and older adults to participate fully in society.

Currently, there are no legal obligations at European level to make the environment accessible for either the public or the private sector. In other words, accessibility requirements are still designed on a voluntary basis. Despite the lack of binding legislation, efforts have been made at European level to move in

the right direction. These include the work on the harmonisation of standards to allow full participation by all, in particular by the European Committee for Standardisation (CEN) and the European Committee for Electrotechnical Standardisation (CENELEC). These efforts are not to be underestimated as an important step to assure effective participation of ALL citizens in daily life.

At the national level, almost all EU countries contain a general obligation to make public buildings accessible, with specific requirements for certain categories of buildings (e.g. schools), often extending to both public and private providers. The obligations are mainly based on national non-discrimination legislation, with subsidiary national building regulations and codes. This

confusing diversity of national laws reinforces the need for an accessibility standard to facilitate access to a market of 600 million people in Europe.

## Independent Living

Living independently and full participation in all aspects of life are two main elements to consider when discussing accessibility. It should be borne in mind that disability as defined in the United Nations Convention on the Rights of Persons with Disabilities includes not only physical, mental, intellectual or sensory impairments, but also disabilities that are created as a result of the barriers encountered in interactions that hinder, impede or prevent full and effective participation in society on an equal basis with others.

This paradigm shift from a medical view of disability to a human rights approach of

## CHECKLIST

- 7 principles of Universal Design when considering design solution: simple and intuitive use; flexibility in use; size and space for approach and use; perceptible information; low physical effort; tolerance for error; and equitable use
- Accessible parking space, pedestrian routes and street crossing
- Accessible and visible entrances
- Usability
- Adequate lighting
- Adequate level of audio with low background noise levels if any
- Adequate climate environment (temperature, moist, air,...)
- Clear signage
- Information available in alternative formats (Visual, tactile, audio)
- Accessible stairs, lifts, adequate wayfinding signage
- Flat, clear, even, slip-resistant surfaces
- Tactile orientation
- Accessibility of equipment/ services

Lucia D'Arino,  
Programme Advisor,  
The World Federation  
of the Deafblind

disability includes a larger proportion of the population than might be initially accounted for. In other words, a big portion of the population might be considered a person with a disability, if taken into consideration disabilities which are acquired throughout life or at an older age. It is with this in mind that we must approach the question of accessibility, whether we are legislators, architects, contractors or writing standards that provide a concrete framework for action on disability and ageing.

Accessibility can, and should, be approached from the perspective of Universal Design as a means of achieving equal participation and breaking down barriers for individuals.

## New Urban Agenda

The New Urban Agenda (NUA) was adopted at the United Nations Conference on Housing and Sustainable Urban Development in 2016. It embodies a shared vision for a better and more sustainable future. The potential is such that well-managed, planned urbanisation can be a crucial tool for sustainable development around the world.

The shared vision of the NUA is that of equal use and enjoyment of cities and human settlements without discrimination of any kind and goes further in detail by promoting age- and gender-responsive planning and investment for sustainable, safe and accessible urban mobility for

all. To achieve NUA's vision, it is recommended to follow the "leave no one behind" principle, ensuring sustainable and inclusive urban economies by leveraging the agglomeration benefits of well-planned urbanisation and ensuring environmental sustainability.

We should be aiming for a paradigm shift, notably by adopting "sustainable, people-centred, age- and gender-responsible and integrated approaches to urban and territorial development by implementing policies, strategies, capacity development and actions at all levels, based on fundamental drivers of change"

Lucia D'Arino,  
Programme Advisor, The World  
Federation of the Deafblind



# DESIGNING FOR MID-TWENTIES RIGHT-HANDED MALES

Accessibility data, has traditionally been an afterthought when it comes to the creation of new processes and opportunities. We are now at the point where we can leverage data gathering efforts to include the assessment and removal of those barriers which prevent an equal and inclusive society from being actualised.

Presently the built environment is designed for mid-twenties right-handed males. Without conscious consideration towards accessibility needs we will fall into the trap of designing environments we may all eventually age out of and exclude others from.

Access Earth is supporting SHAPES by facilitating development and deployment of an interactive digital database to capture and establish insights and perspectives relevant to the process of masterplanning inclusive neighbourhoods consistent with the aims of

the new ISO standard. This database will serve as a conduit for capturing accurate depictions of the issues facing older individuals with accessibility concerns relating to health or age in a post COVID society. These insights will not only enable the identification of accessibility deserts in existing neighbourhoods but will also help guard against future actions that would result in accessibility constraints in our smart multigenerational neighbourhoods of the future.

**Matt McCann,**  
Chief Executive Officer Access Earth



Image Access Earth

# A QUESTION OF ETHICS

Dignity, autonomy and participation are key principles

Digital transformation and sustainable innovations are gradually renewing institutional structures and value creation in evolving wellbeing ecosystems. We aim to ensure that SHAPES is ethically responsible with a positive impact for its various endusers and service providers, as well as for the wider ageing society. Alongside end-users' needs, ethical principles, values and guidelines are particularly important when developing

and employing solutions linked to citizens' fundamental rights, especially when the target group constitutes vulnerable older adults.

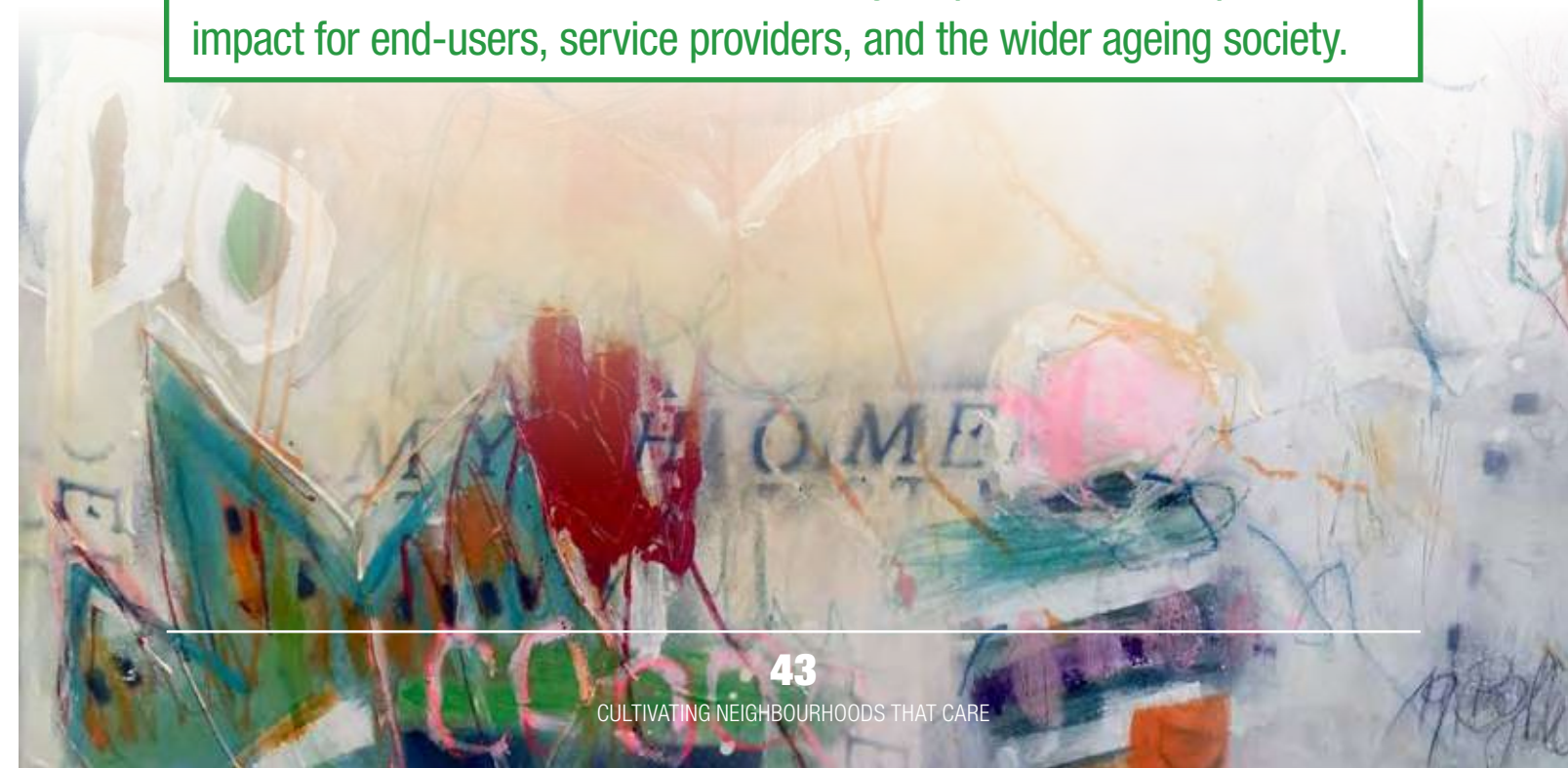
SHAPES ethics stem from the Charter of Fundamental Rights of the European Union, the Convention on the Rights of Persons with Disabilities, biomedical ethics, the ethics of care, and the capabilities approach. The aim of our research is to develop an ethical framework and a code of conduct that socially

responsible organisations can utilize when developing services for older people living in technologically enabled multigenerational neighbourhoods. Dignity, autonomy and participation, as well as justice and equality, are key principles.

**Sari Sarlio-Sintola,**  
SHAPES Ethics Manager



We aim to ensure that SHAPES is ethically responsible with a positive impact for end-users, service providers, and the wider ageing society.





# MULTIGENERATIONAL NEIGHBOURHOODS: WHERE DO PEOPLE LIVING WITH DEMENTIA FIT IN?

The advent of COVID-19 has shed light on significant aspects of the relationship between people and places, demonstrating how global events have local impact, reconfiguring the patterns and rhythms of day-to-day living.

We've learned that neighbourhoods are places where people come together in response to such existential threats. Consequently, questions are being posed about the use and occupation of public space and not only how neighbourhoods can become more resilient, sustainable and smarter but also fairer and more equitable; better able to meet the needs of diverse residents, young and old. In this context, the experience of people with chronic and progressive conditions such as dementia, might provide a litmus test for a broader process of change, where questions of cognitive accessibility inform efforts to support attachment, a sense of belonging and the potential to age in place.

The 'Neighbourhoods: our people, our places' study (2014-2019) was an international, qualitative investigation into the neighbourhood lives of people with dementia. We carried out over 300 in-depth interviews with 127 people living with dementia and care partners, generating learning to help inform the emerging dementia-friendly communities agenda, but which also led to challenging the conceptual orthodoxy that surrounds both dementia and our understanding of neighbourhoods themselves. Existing perspectives have long considered outdoor and public spaces as fraught with risk and hence not appropriate for a person with dementia. By contrast, our research underlines that all older and disabled

people have a right to free movement and liberty, but still face barriers both social and material, pointing to the need for neighbourhood-based change. Of course, this raises questions about the mechanisms that lead to change, who shapes this process and how priorities are set.

A key finding for us is that people living with dementia have a particular kind of environmental expertise borne out of their experience of living with the condition and on that basis need to be part of any dialogue and planning for new visions of neighbourhood living. This insight supports arguments for an experientially-led approach to change that understands the 'particularities of place' from the perspectives of those



who live in a neighbourhood, not just the helicopter view of planners and commissioners. To facilitate this, we need creative methodologies for engagement that bring people together to reflect on how neighbourhoods emerge from our shared patterns of daily activity, movement and sociality. In this respect, COVID has also taught us the value of digital connection, underlining that co-presence is no longer a prerequisite of connecting with one another and demonstrating that questions of maintaining neighbourhood 'reachability' are just as important as promoting walkability.

We also need to think about how neighbourhoods generate unequal outcomes for different groups and individuals and what can be done to foster greater equity. For instance, our research demonstrated the way that busy roads and high volumes of traffic create barriers for people with dementia, who are continually having to weigh risk against the benefits of free movement, a challenge that is by no means dementia-specific. Existing research shows that younger and older people are more likely to be involved in pedestrian-related traffic incidents, while chronic exposure to traffic noise and

particulates in pollution affects cognition in later life and brain development in childhood and (sometimes fatal) respiratory conditions. This illustrates that many of the key challenges of urban living have multi-generational implications but also underlines the potential for 'strategic alliances' between people of different ages and generations to tackle these problems together.

**Richard Ward,**  
Senior Lecturer in Dementia Studies,  
University of Stirling

The Neighbourhoods: our people our places study was supported by the Economic and Social Research Council (ESRC); and the National Institute for Health Research (NIHR). The views expressed are those of the authors and not necessarily those of ESRC or NIHR.



# IF YOU DON'T ASK YOU DON'T GET

To understand what older people want from their neighbourhoods, we must ask them in a genuine and thoughtful way, says **Iain McKinnon** Cofounder of the Global Disability Innovation Hub.

**T**hese insights will enrich the new ISO. We must also recognise, as with disability, there is huge diversity among older people. They are not a homogeneous group, far from it, and that must be reflected in the environments we design, build and grow. When one, static solution can't meet everyone's needs, we must employ innovative solutions that work now and can adapt into the future.

## Shared experiences

Some people need more encouragement to integrate and so the softer aspects of social cohesion, including programming and public facilities, is just as important as the inclusive design of the built environment.

In a multigenerational neighbourhood, all residents should feel empowered to be proactive members of the community on their own terms. A consistent approach to communication and interaction platforms will help ensure widest reach. A strategic approach is needed and technology can help.

## It's good to be different

As an international standard, it will be fascinating to consider how cultural, demographic and climate differences will be addressed.

The recommendations in the standard must be based on hard evidence and data-driven research with real end users, and in this case, a diverse range of older people.

The standard should also consider ways to actively promote implementation. Any standard is only successful when implemented at scale, and so consideration must be given to achieving genuine impact. If this standard were to become embedded in planning policies, then we will begin to see real positive change and impact, which is what we all want.

**Iain McKinnon MEng NRAC**  
Director – Inclusive Design Global  
Disability Innovation Hub





# GET STANDARDS RIGHT FOR OLDER PEOPLE, ULTIMATELY YOU GET IT RIGHT FOR EVERYBODY

It's well documented that the provision of services promoting health, social care, psychological wellbeing, community activities and domestic life do not meet each individual person's needs.

Running parallel with the above is the lack of appropriate environment designed to meet the needs of those living with physical and or mental health constraints.

In my capacity as national ambassador for the Alzheimer's Society and national chair of the Prime Minister's Rural and Dementia Air Transport Groups, I have considerable experience and expertise relating to dementia both here in the UK but also around the globe. I have also been working on the ISO Ageing Societies standard for dementia friendly communities, which needs to go hand in glove with the development of this new standard for smart multigenerational neighbourhoods. The point is, if you get the standard right for older people, for young

disabled people, for families with young children, ultimately you get it right for everyone.

Currently we know that not all individuals are able to "age in place." This is a challenge for planners, designers and most importantly individual households. The predicted numbers of older people requiring community support and adaptations to their homes and the impact of these issues on the wider society, need to be strategically planned by engaging and consulting with all age groups.

The question must be, what could a person focused, well-planned and standards driven rural and urban multigenerational inclusive neighbourhood offer to tomorrow's population? Working collaboratively with all stakeholders, property

developers and strategic land providers could develop: – planned safe outdoor spaces, accessible transport links, adaptable housing, community activity spaces, local health services and strong connectivity to broadband, which will ensure the community can enjoy all the benefits of assisted technology. I will leave the reader with a quote by Mark Hyman:- The power of community to create health and wellbeing is far greater than any hospital or health clinic.

**Ian Sherriff**

Academic partnership lead for dementia at the Faculty of Health: Medicine, Dentistry and Human Sciences University of Plymouth

“The power of community to create health and wellbeing is far greater than any hospital or health clinic.”



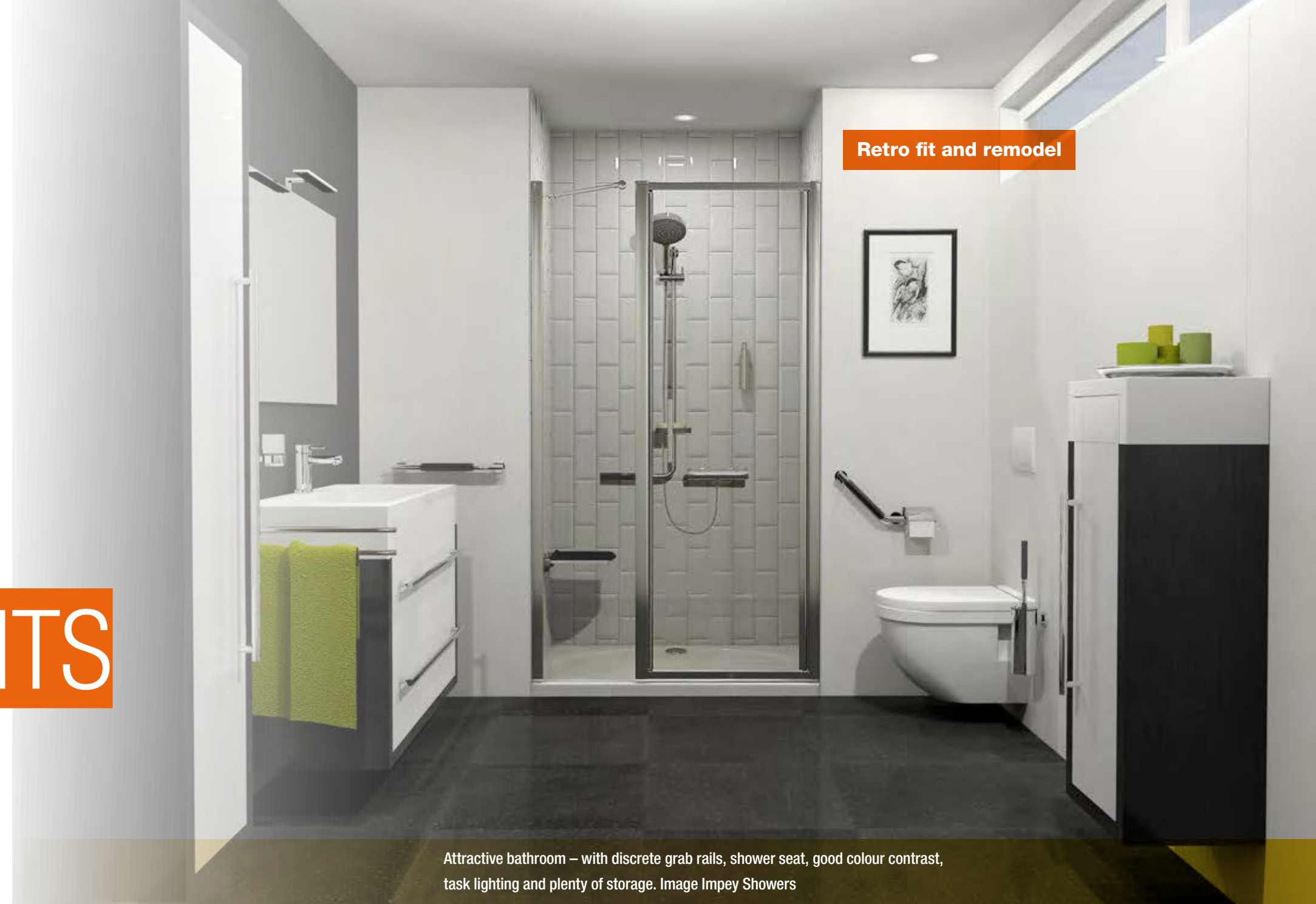
# IT IS POSSIBLE TO MAKE ACCESSIBLE ENVIRONMENTS

Take supermarkets for example: they have automatic doors, no steps and wide aisles. That's primarily for commercial reasons to facilitate shopping trolleys rather than wheelchairs or pushchairs, but it makes life so much easier for all.

Would it not be wonderful if everyone could grow old in a home that has been designed to be that accommodating to our changing needs as we age. Even better, if that home is in a multigenerational neighbourhood with similarly easy access to shops and facilities.

Unfortunately, in the UK new properties only add 1% to the dwelling stock each year. Most of us will never live in a new home, or even one that has been completely refurbished.

Even where there are alternatives some people will not want to move as our existing homes are not simply bricks and mortar but places that hold a strong emotional attachment. Our current neighbourhood is also likely to be a familiar place where we have friends and family and where we know we have support.



Retro fit and remodel

Attractive bathroom – with discrete grab rails, shower seat, good colour contrast, task lighting and plenty of storage. Image Impey Showers

The real challenge in this United Nations Decade of Healthy Ageing (2021-2030) is to retrofit and adapt our existing homes and neighbourhoods to help people who remain in place in their existing homes stay independent and able to live full and active lives.

## Why we need standards

Foundations is the National Body for Home Improvement Agencies in England. We also oversee the national network of home improvement agencies (HIAs) and handyperson providers across the country.

In England there is a grant to help with the adaptation of people's homes called the Disabled Facilities Grant (DFG) which is available to help more people of all ages remain living independently in their own homes and reduce pressures on health and care services.



ISO standards could play a very important role in raising the profile of home adaptations and setting the bar for effective design.

### Home adaptations count

There are 14.1 million disabled people in the UK alone (one in five people) with half having substantial problems carrying out day-to-day activities.

The majority of us acquire impairments during our lifetime, particularly as we get older. Our homes need to be adapted to accommodate changing needs, rather than having to limit our activities because of the barriers the environment places in our way.

Everyone wants to stay active and independent. Straightforward changes to existing homes, such as fitting rails, ramps, stairlifts, showers, altering the layout, and adding better lighting can allow us to carry on with normal life.

The social rental sector plays a crucial role as over half (53%) of their tenants have a long-term illness or disability, far more than in other tenures. Recent research has shown that there is a complicated system for the funding and delivery of home adaptations with some organisations having comprehensive in-house services, while others delegate responsibility to local authorities.

The main recommendation for housing associations is that home adaptations need to be part of a strategic plan for housing for older and disabled people. A shift in focus from making short term modifications that are removed when a tenancy changes, to better designed, long term, inclusive alterations will help occupants of all ages enjoy a full life in their homes. As the number of well-designed homes increases it will also give disabled people more choice if they need to move.

### The importance of prevention

The design of adaptations is evolving but needs added investment and much better advice and information to encourage people to act sooner. Many people delay asking for help, or put off making changes to their homes, because of the stigma attached to old-fashioned designs, and lack of awareness of attractive alternatives.

### Preventative action is vital as if people wait until they become frail or reach crisis point choices become more limited.

There is a need for more architects and designers to get involved in this field as there is considerable scope for further innovation in adaptation design. Investment in training for the construction industry is also important to give more understanding of new materials and designs so that builders and tradespeople

### Why we need an ISO standard:

- Promote a different way of thinking about home adaptations
- Based on homes and neighbourhoods being suitable for all ages and abilities
- Make the case for investment in enhancing the usability and versatility of the home for the long term
- Encourage better design to meet these principles
- Help improve construction standards
- Economies of scale are possible from large scale adoption

Image Impey Showers

can provide better advice to consumers. The standard of work needs to improve to get things right first time, avoid leaks from poorly fitted bathrooms and reduce the need for repairs.

We also need a new language to describe accessible and adapted homes and the various features within them that help people with activities

of daily living. People are unaware of what is available and do not understand terms like 'accessible', 'universal' or 'barrier-free', they need to be able to easily find products and services that will help them improve their homes.

However, disabled people or those in later life are very much against any language and imagery that is negative

or stereotypical. A recent study asked consumers what language they would prefer. They said they simply wanted to know that something was 'easy to use' or 'for everyone'.

### Sheila Mackintosh

Housing Consultant and Visiting Research Fellow, University of the West of England

### Paul Smith

Director, Foundations



# THE LINK BETWEEN PLACE AND THE PHYSICAL, SOCIAL AND MENTAL HEALTH AND WELLBEING OF PEOPLE IS INEXTRICABLE

As the population of over 65s increases, so too will the scale of the challenges between people and the places that they live.

According to Natalie Record, Housing Innovation Lead at the UK's Connected Places Catapult, these challenges include: social isolation, sedentarism, access to care, safe and healthy housing, amenities, and transport. Despite awareness of these challenges, significant changes are needed within the UK's built environment industry to ensure that existing and future neighbourhoods support equitable healthy ageing for all.

There is a lot to learn from multigenerational neighbourhoods across the globe. Within these communities, the social and physical infrastructure is designed to: encourage people of all ages to participate in civic life; reduce social isolation and loneliness;

and tackle spatial aspects of vulnerability.

'Smart' multigenerational neighbourhoods allow for the adoption of iterative and innovative approaches (including use of digital tools and technologies) to improve accessibility, inclusivity and equitability to meet the needs of local people. For example, digital citizen engagement tools can facilitate local co-creation and participatory design to ensure that the health and wellbeing needs of all members of the community are reflected in local decision-making processes.

Connected Places Catapult is the UK's innovation accelerator for cities, transport and place. In 2020 we launched our Homes for Healthy Ageing Programme, working with the country's

brightest innovators, local authorities and housing associations to create a series of testbeds to trial digital tools and technologies to overcome some of the UK's healthy ageing challenges. We don't want to reinvent the wheel. Instead, we look to build on what others have done already, and accelerate existing innovations.

We are co-creating toolkits to help our testbed partners to measure the impact of interventions in overcoming local challenges and aid the transfer of knowledge beyond the lifespan of the programme. We will use the testbed insights to explore the creation of smart multigenerational neighbourhoods in the UK as well as internationally in the wider context of our sustainable housing work.



Image by Clément Falize

Policy insights and standards recommendations will be captured throughout to maximise the impact of the programme.

The creation of an ISO standard for smart multigenerational neighbourhoods supports our mission to create trusted, sustainable and replicable models for healthy ageing

interventions within the built environment. A standard that can iterate based on the learnings from real world trials and testbeds will provide the opportunity for best practice to evolve, as we learn and test what works best with citizens, innovators and wider stakeholders. We encourage the inclusion of promoting a data-driven

approach through the definition of data standards within the standard, as well as providing good design principles to encourage participatory design for the delivery of healthy homes and multigenerational neighbourhoods globally.

**Natalie Record,**  
Housing Innovation Lead at  
Connected Places Catapult



# WHAT ONE OF US LEARNS HAS THE POTENTIAL TO BENEFIT US ALL

The built environment must be planned and developed to support interactions across generations, cultures, and socioeconomic groups.

Stakeholders — including developers, investors, Policy leaders, and local community members — are turning to multigenerational community solutions that drive collaborative innovations that can improve residents' health and longevity. If we've learned nothing else during the COVID-19 pandemic, it's that across the globe we are deeply connected in ways that usually go unnoticed.

## The designer's challenge: How to harmonise density with happiness

Alongside new possibilities, more timeless questions persist. Our research in Hong Kong has focused specifically on housing, especially challenges around the effect of Hong Kong's density on livability and affordability for seniors, where at least six people live per square meter. It's a place that also holds the world's title for highest life expectancy, but ranks 75th in world happiness, leaving much work to be done.

Not surprisingly, the density is having an adverse effect on seniors' needs due to

demographic shifts, real estate premiums, and incommensurate space constructions. We've just begun to develop a programme and policy solution, but first steps have included the better integration of housing and services — and to look at the single unit public housing designs to integrate barrier-free accessibility, spatial connectivity, and function.

When scaling this work anywhere around the world, our strategies converge with a need for robust international standards to make them operational and replicable.

The ISO standard could revolutionise the design of communities, at both the micro and macro levels, leading to fundamental improvements that will empower ageing populations to extend independence and embrace longevity.

## Tama Duffy Day

Principal, Gensler Global Senior Living Practice

Image Gensler/Ryan Gobuty



# REALISING MULTIGENERATIONAL COMMUNITY LIVING IN THE VERTICAL CITY OF HONG KONG

High density and high-rise living in a vertical city may not be naturally conducive to meaningful social interaction across generations.

As Hong Kong is rapidly ageing both in terms of population and building stock, the phenomenon “Double Ageing” compounds the effects of physical, social, communication and attitudinal barriers faced by older adults particularly in older urban cores. It is therefore timely to respond with a reimagining of smart multigenerational communities that are accessible and inclusive, challenging conventional wisdom in spatial planning through multi-stakeholder dialogues and collaboration. These innovations may deploy smart technologies to enhance inclusion and accessibility, but may equally be smart through software and governance.

Through a series of “Operation Solnno” programmes, conducted by the Jockey Club Design Institute for Social Innovation of The

Hong Kong Polytechnic University, conscious effort was directed towards creating multigenerational community living in the vertical city of Hong Kong. Multi-sectoral co-design workshops were held to forge collaboration from community groups, government departments, professional institutes and social services providers. The programmes demonstrated that through vertical integration of spatial design and community participation, multigenerational interactions may be fostered by innovatively reconfiguring vertical indoor and outdoor spaces. The future built spaces will also serve as a “living laboratory” for conducting research on multigenerational living under the disciplines of environmental design, gerontology, social sciences, health and rehabilitation science.

During 2018-2021, the following multigenerational community projects were enabled for implementation:

YWCA Yau Yat Chuen “Y Care” Lodge – an existing youth hostel re-imagined as a multigenerational community centre with a creative composition of co-living accommodation, day care centre for the aged, pre-school nursery, youth activities centre and roof-top camping spaces to encourage interaction across all ages.

Aberdeen Kai-fong Association “AKA” Community Centre – a 14-storey new extension with sky garden added to the existing low-rise centre, re-conceptualised and re-integrated as a multigenerational co-living centre with aged care homes, day centre and comprehensive neighbourhood facilities to be shared by young and old

residents in the once thriving fishing village.

Hong Kong Housing Authority “Lai Kok Estate” Rehabilitation Garden – connecting the podium aged care home and the high-rise public housing apartments, an idle roof space was transformed into a multigenerational therapy garden to serve both the residents of the care home and the public housing tenants.

Hong Kong Housing Society “Prosperous Garden” Play Space – through a design competition, implementable ideas on age neutral design were generated incorporating health technology for interactive multigenerational play in a public open space.

Leisure, Cultural & Sports Department “Kowloon Park” Fitness Trail – in the district park of Kowloon, a tuck-away fitness trail was redesigned through redefining play/fitness equipment, health management and smart city concepts to support multigenerational play.

On a public policy level, the joint endeavors of society have yielded notable influence on the recent government decision to add 5% of gross floor area to future public housing projects, dedicated to social welfare facilities without affecting original flat production (HKSAR Chief Executive Policy Address 2020).

Once implemented, this will serve as a benchmark for a clear strategy to promote shared spaces for healthy, inclusive, and sustainable ageing. This provision may potentially become a useful reference in the ISO standard on how spatial resources may be allocated to incorporate the concept of smart multigenerational neighbouring in a vertical city.

**Calvin Luk**

Acting Director, Jockey Club Design Institute for Social Innovation Hong Kong Polytechnic



Image JCDSI, HK PolyU



# LESSONS TO BE LEARNED FROM THE WORLD'S OLDEST POPULATION

Japan may have the oldest population on earth, but it is also among the healthiest. This constitutes a virtuous circle for the economy which benefits by leveraging the experience of an ageing workforce.

**T**he built environment plays a critical role in this equation.

A growing body of evidence shows that age-friendly and multigenerational communities can greatly improve quality of life across the generations. Getting this balance right is incredibly important and requires sensitivity to the

desires and values of people at different ages in life.

This agenda is of particular interest to IAFOR. Founded in Japan, The International Academic Forum is a politically independent non-profit think tank, dedicated to encouraging interdisciplinary discussion, facilitating intercultural awareness

and promoting international exchange, principally through educational interaction and academic research.

There is a clear global opportunity here for many different countries to learn from each other, and for those information flows to go both ways.



Image IAFOR

## A social compact

A thriving multigenerational neighbourhood is one that allows for seamless interaction and exchange across the stages of life, leveraging the value that each generation can bring to the one before and after. This underlines the social compact that lies at the beating heart of a healthy society: where help is not unidirectional, or seen in the form of burdens to be borne, or debts to be repaid, but instead as a wider part of mutually beneficial and understandable exchanges across the lifecourse.

This philosophy should transcend healthy ageing to healthy growth at any age. Different ages experience their own shares of physical and psychological challenges, and inclusive environments are better for everybody.

IAFOR welcomes the opportunity to inform the development of such an important standard. I would like the ISO to pay particular attention to questions of care, privacy and surveillance. Both in the design of the physical environments and the

technological infrastructure supporting these smart developments, as well as in the regulations governing the use of technology. I also expect the standard to take into account, and be respectful of, local heritage and cultural contexts.

**Dr Joseph Haldane, PhD**

Chairman & CEO, IAFOR

Guest Professor: Osaka University, Japan

Honorary Professor, UCL, UK





# HOUSING WITH CARE FOR OLDER PEOPLE IN JAPAN

In 2019 I was awarded a fellowship from the Winston Churchill Memorial Trust to research alternatives to care homes for older people in Japan.

I passionately believe people should be given a greater degree of choice over the housing and care options available to them in later life.

I was particularly interested in exploring housing with care for older people which is integrated within a wider multigenerational society, as opposed to the practice of ‘warehousing’ older people, a criticism frequently aimed at specialist ‘retirement’ communities.

This type of housing with care fosters a culture of mutual support – younger people benefiting from older mentors, people with dementia experiencing joy by the presence of young children -normalising ageing and valuing the contribution that older people can make to society.

Two of the places I visited in Japan stood out as particularly innovative examples of multigenerational neighbourhoods:

Ginmokusei housing with care for older people, most of whom have dementia or cognitive impairment. At the heart of this development in a small town in Chiba prefecture is an attractive, high quality, comfortable and affordable restaurant, which is open to the wider community every lunch time. Staffed by residents at Ginmokusei, the restaurant is a great meeting point which encourages convivial interaction between residents and the community.

Share Kanazawa – is a multigenerational housing with care complex on a 3.6 hectare site on the outskirts of Kanazawa city. It provides housing and support for adults and children with disabilities, and as well as housing with care for older adults. The Share Kanazawa complex is built on the concept of promoting mutual support across generations.

The scheme offers homes to local art students who get reduced rent and art

studio space in return for volunteering. There are also many facilities at Share Kanazawa that benefit local people who do not live on site, such as the community centre, jazz bar, wellness centre, alpaca ranch etc and the shared spaces have been designed to create opportunities for social interaction, or ‘informal mingling’.

These and other examples of inspirational social engineering I witnessed in Japan could be replicated anywhere as long as the basics are right. Built to the principles of ‘universal design’ so that it can be accessed by anyone regardless of their age, size, ability or disability. An ISO standard for multigenerational neighbourhoods will help ensure that these extraordinary spaces become the norm, rather than the exception available to a fortunate few.

**Rebecca Jarvis,**  
Director of Operations | Health  
Innovation Network





# INSTITUTIONAL CARE REIMAGINED

Population ageing is one of humanity’s outstanding triumphs, with growing recognition that advancing age is not one and the same as ill health.

The coronavirus pandemic has shone a light on the fragility of social care systems around the world and highlighted the need to develop new models of care.

In much of the world, there is a significant gap in the current social care landscape for housing and care options that sit between care homes,

and people receiving care in homes that may no longer suit their needs.

Developed nations need to broaden the provision of models that enable older people without acute care needs to live independently for as long as possible, with onsite support and care if needed, promoting health and wellbeing, mitigating pressure

on the health and social care system and enhancing social connectedness.

This constitutes a burgeoning opportunity for strategic collaboration between care providers experienced in delivering high quality, person-centred care and support, and developers and home builders who can embrace the principles of universal design

in the new multi-generational communities they build.

Greensleeves Care is one of the most respected care charities in the United Kingdom. We provide exceptional 24-hour nursing care, specialist dementia care and residential support to older people across England. We have more than 20 care homes and more

than 20 years’ experience of delivering exceptional care, and are really excited about the opportunity to develop a new breed of care homes for inclusive multigenerational neighbourhoods, embracing a culture of empowerment, renewal and innovation.

Care homes of the future can act as drivers of urban revitalisation with universal

design, accessibility and assistive technologies at their heart. Simply put, future long-term care options must offer a broad choice of products and services that reflect the many and unique ways that people age.

**Paul Newman**  
Chief Executive of Greensleeves Care  
Chair of Ageing Societies Committee  
314 at BSI

“ Viewed as a whole, the problem of ageing is no problem at all. It is only the pessimistic way of looking at a great triumph of civilization. ”

FRANK W. NOTESTEIN, AMERICAN DEMOGRAPHER, 1954

Greensleeves Care



# VAST KNOWLEDGE IS BEING GENERATED IN THE FIELD OF AGE-FRIENDLY COMMUNITIES

Rinat Ben-Noon has been commissioned by the Ministry of Construction and Housing in Israel to produce a guide for planners, and urban engineers.

A multigenerational neighbourhood should be an enabling environment that supports the efforts of older adults to maintain their daily routine, activities, and engagement with the local community, which could very well be the same neighbourhood they have lived in all their adult lives.

The social challenge is to disrupt the existing planning concept designed to meet the

needs of young families and working-age residents, who are perceived as the economic and social engine of the city, to ensure the ageing population are no longer treated as second class citizens.

Across the world a vast knowledge is being generated in the field of planning for age-friendly communities. However, most of this knowledge remains at the local or regional

level or it is presented in abstract principles which are not binding, or familiar to most stakeholders. Thus, the development of an ISO standard will enable advancement of a professional discourse on planning multigenerational neighbourhoods for the wellbeing of all. In Israel, we are very much looking forward to contributing to this important initiative.



Image Rinat Ben-Noon



Here is a brief summary of our process:

1. **A shared learning:** The study centered on the following questions: What are the unique characteristics of the older adults for the living environment, compared to other age groups? Taking account of the role and function of the living environment and the meaning of accessibility in old age. The discussions dealt, inter alia, on the impact of spatial planning on relief of loneliness, and the way that planning could support elder adults' efforts to maintain self-independence.
2. **Multidisciplinary focus:** Combining knowledge from the field of gerontology and planning principles layered with local architectural insight.
3. **Focusing on the main fields of work;** Lifelong apartments and buildings design, creating a planning infrastructure for types of innovative housing complexes, such as shared housing,
4. **Pilot for the assimilation of design elements in ongoing plans,** with the help of private architects. At this point, the ideas and needs became blueprints and models.
5. **Publication and consultation** with stakeholders and other professionals, through round tables and seminars.
6. **Writing and editing** a planning guide for the inclusion of elder-adults in every city plan.
7. **Outcomes and recommendations** will feed into the AAA ISO multigenerational neighbourhoods standard development process.

Rinat Ben-Noon PhD  
Geographer and Social Planner





# MILAN ADOPTS A 'LEARN AND ADAPT' APPROACH TO A MULTIGENERATIONAL FUTURE

Milano4YOU, an area of 300,000 sqm in the Segrate – municipality in the metropolitan area of Milan, represents a digital-native neighborhood offering a new lifestyle concept in line with the emerging needs of multigenerational communities.

The Milano4YOU disruptive multidisciplinary design and operation model is based on an IoT framework integrated into sustainable and modular buildings. Pervasiveness of digital technology generates real time Big Data collection fully compliant with security and privacy. Machine-learning algorithms provide cognitive abilities to systems and services, thus enabling a “learn and adapt” approach to the individual and collective needs of a lively and dynamic community.

Milano4YOU design is an ongoing project in collaboration with the Research Centre for Advanced Technology in Health and Well-Being<sup>1</sup> of the nearby Hospital San Raffaele<sup>2</sup>. San Raffaele Living Lab co-creation methodology is shaping services and experiences in the Milano4YOU social ecosystem with the aim of promoting health and wellbeing, as well as triggering cross-generational experiences in a socially-oriented environment. Since Mi4you model is a living model, it aims to adapt to the requirements of



a wide range of residents (millennials, working adults, children and families, older adults), who will have an active role in the community by setting up collaborative ventures and best practice exchanges in response to common problems or needs. Residents will become ‘prosumers’, consuming and producing at the same time: services, content, partnerships,

buying groups, as well as interacting with public administration, healthcare and security organisations, startups and other innovation-oriented stakeholders.

Zoning will constitute a rich mix of living needs within a

stimulating multigenerational environment where community can flourish.

The integration between energy systems, digital infrastructure, construction characteristics and the ecosystem of human-centred

services, will enable a context of wellbeing, aimed at achieving economic, environmental and human sustainability:



### 1. Economic Sustainability

The project offers affordable homes and minimises expenses by means of a shared economic operation model.

### 2. People Sustainability

Services are designed to promote physical, emotional and social wellbeing, in residential, assisted living, commercial, business, culture and leisure contexts. The park and the cultural centre play a key social role.

### 3. Environmental Sustainability

Neighbourhood energy model, is in line with the concept of Nearly Zero-Energy Buildings – nZEB. The digital infrastructure, minimises energy consumptions by reusing energy waste.

### A data driven neighbourhood

Milano4YOU is designed to be a replicable and reconfigurable model in different scales and places, and its first deployment in Segrate aims to:

- Embody the principles and contents of the United Nations Sustainable Development Goals.
- Demonstrate that technological innovation can be non-invasive and concretely translate into a lower cost of living and a better quality of life.
- Create a “data driven” neighbourhood where data becomes the dynamic element that gives value and life to increasingly innovative services.

The merging of the digital infrastructure, platform of services, energy management and social experience into

the modular green building is crucial in defining an efficient and sustainable model able to meet contemporary demand, mainly coming from both youth and older adults, that improve quality of life in terms of services rather than pure asset ownership.

Milano4YOU is expected to release the first building units in 2023. The project team welcomes the AAA ISO initiative and looks forward to collaborating in a spirit of open innovation to inform development of a new ISO standard for smart multigenerational neighbourhoods and improve quality of life and wellbeing for all.

**Alberto Sanna**

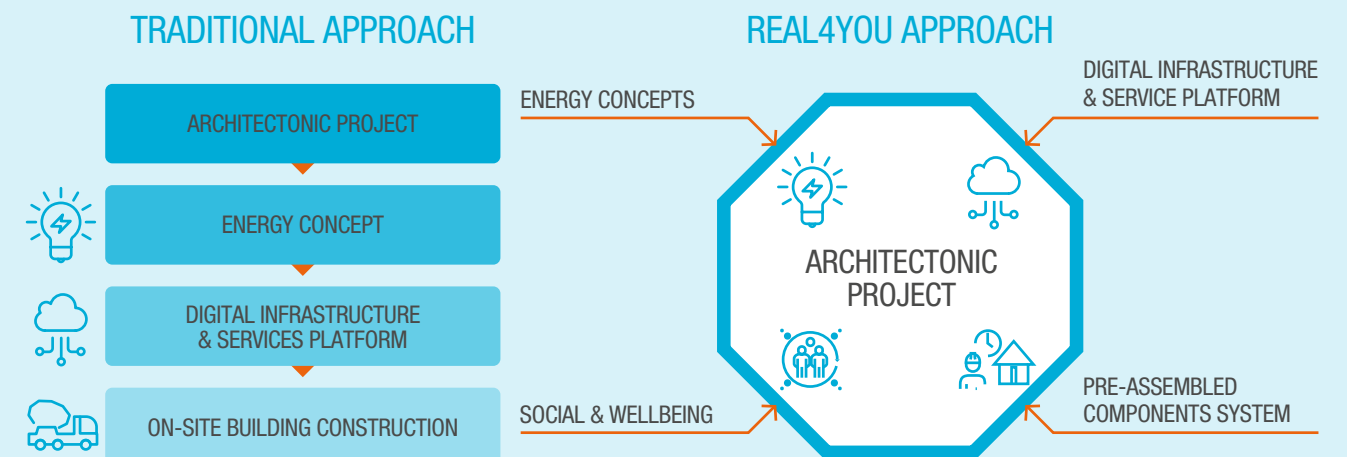
Director, Life & Health Scientific  
Institute San Raffaele Milan Italy

## MILANO4YOU MASTER PLAN WITH ITS MULTIPLE AREAS



- 1 Parco 60,000 mq
- 2 Senior housing 7,300 mq
- 3 Ville 4,500 mq
- 4 Residenza Libera 55,808 mq
- 5 Centro culturale 1,700 mq
- 6 Social housing 7,500 mq
- 7 Centro sportivo 3,500 mq
- 8 Centrio commerciale 5,500 mq

## MILANO4YOU INNOVATIVE APPROACH





# INCLUSIVE AND INNOVATIVE

Developing multigenerational communities in isolated areas of Australia.

**G**lobal Community Resourcing (GCR) focuses on community care and services that are innovative, customer-focused and create connections in Australia and globally.

As an active member of the ISO Ageing Societies Technical Committee working group, GCR supports the need for developing standards to accelerate the construction of a new class of age-friendly housing in smart, socially integrated, multigenerational neighbourhoods, employing innovative technology, business and service models

to improve communities' health and wellbeing.

Prompted by the pandemic, GCR is currently piloting a project in Queensland Australia, which aims to improve social participation, community engagement and information dissemination for older adults, employing smart co-design techniques and deployment of leading-edge enabling technologies.

With a specific focus on the health and wellbeing of indigenous people. The project is focused on the Southern Moreton Bay Islands (SMBI), which accounts for 4

of Australia's 8,222 Islands. Located in the Redland City district South-East of Queensland, Macleay, Russell, Lamb and Karragarra Islands have a combined population of 6,000, of which 33.9% were aged 65 years or over, as recorded in a 2016 census.

Key considerations for multigenerational living in Island Communities include the range and quality of services, health and community care, and built environment (new verse retrofitting). The project will discover what kind of innovative and digitally

enhanced solutions would be desirable -and practical – to promote multigenerational inclusive living in those Island Communities.

## Empowering marginalised individuals

The project will embrace a range of marginalised individuals, including Aboriginal and Torres Strait Islanders and Forgotten Australians. Underpinned by support from local, state, and

federal government, economic development initiatives, peak body associates, aged and community care providers, technology vendors and community leaders. Key considerations include the scale of services, health and community care and built environments (new verse retrofitting). This provides an opportunity for innovative and digitally enhanced solutions to promote multigenerational, inclusive living in those Island

Communities and contribute to the ISO Standard for Smart Multigenerational Neighbourhoods, defining best practice for high and low income communities worldwide.

**Anne Livingstone,**  
Director of Research and Projects,  
Global Community Resourcing  
Australia.



Images Redland City Council







# RETIREEES MAP OUT AGE-FRIENDLY NEIGHBOURHOODS IN CHINA

Beijing is pioneering a radical multigenerational approach to care in the community.

**T**hey are called 'Un-walled Care Homes', which are overseen through a system of Community Governance. This novel take on care in the community includes senior day care centres with living labs which offer a wide range of novel courses designed to enhance cognitive and emotional wellbeing. These include music therapy, horticultural training, nostalgia therapy, group sand-play and physical fitness training, involving various forms of dance.

Led by Dr Jianbing Liu, Director Service Engineering and Smart Health, The Beijing Academy for Science and Technology 'BJAST', has recruited and trained a team of retired volunteers who have conducted field research across 20 Beijing streets, working closely with residents, to help local communities identify and prioritise their own needs in terms of neighbourhood development, community services, cultural participation and technology application.

The programme would appear to be a win win scenario, giving volunteers a voice and a sense of purpose, while informing urban planning which is a true reflection of the needs of the community.

Initial findings from the Beijing pilot include the need for more elevators in older housing developments, a commitment to build communal public toilets, and more age-friendly public spaces for leisure purposes, together with the provision of cultural and sports services.

## Training two million caregivers

In recent years China has seen a raft of measures put in place to meet growing demand of an ageing population. With a senior care givers workforce of around 300,000 and an over 60 population of 249 million, among which 40 million are partially to fully incapacitated, the government plans to train 2 million senior caregivers by the end of 2022. This policy led to a new set of professional standards for caregivers to encourage more people to join the understaffed workforce: Scrapping education requirements, shortening the window of time needed to reach the highest professional level and updating the required skill set to suit the growing need for community care for older adults.

In parallel supply has been boosted by easing market access for private and foreign investors, and offering tax exemptions on community-based care services.

Let's face it, for better or worse, China's one-party system allows it to deliver change quicker and to a greater scale than most. President Xi Jinping is reported in China Daily as saying: "We will respond proactively to population ageing. We will adopt policies and foster a social environment in which senior citizens are respected, cared for, and live happily in their later years. We will provide integrated elderly care and medical services, and accelerate the development of old-age programmes and industries."

AAA will follow progress with great interest.



# THE WORLD'S FIRST FULLY INTEGRATED VERTICAL MULTIGENERATIONAL COMMUNITY

Kampung Admiralty in Singapore was named World Building of the Year at the 2018 World Architecture Festival, and has also received other prestigious awards for its innovative holistic approach to housing and senior care.

As part of AAA's Neighbourhoods of the Future research I had the great privilege to visit Kampung Admiralty in Singapore. The pioneering project integrates housing for older adults with a wide range of social, healthcare, communal, commercial, and retail facilities.

The 11 storey project, developed by the Housing & Development Board (HDB) in partnership with 8 other agencies, features 100 age-friendly flats, a two-storey medical centre, providing specialist outpatient care, an Active Ageing Hub co-located with a childcare centre, dining and retail outlets,

and a living garden community farm, where residents are encouraged to grow their own produce. Each week they meet up to cook and eat the fruits of their labour which are shared with other residents in a communal kitchen.

I particularly liked the floating play area where seniors are encouraged to engage in active ageing, while the children (pictured) scamper about on climbing frames and see saws.

According to our hosts, HDB Directors Koo-Lee Sook Chin and Ng Hwee Yian, the development of Kampung Admiralty suggests several learning points that would be useful in planning future integrated projects:

- Look for compatible partners at the early stage of town development



Image Ian Spero



Image Darren Soh for CSC gov.sg

planning, lest the opportunity is lost if these potential partners have committed to their own individual developments.

- Provide scale to create opportunities for collaboration and co-programming, and amenities to facilitate seniors to lead independent and active lifestyles.
- Integrate healthcare facilities within the same development so that medical staff and volunteers can actively work with senior residents, particularly on chronic disease management; this also eases patient load at hospitals.
- Co-locate child care with senior care facilities to promote inter-generational bonding.

## Observe good universal design principles and user-centric design features

- Be barrier-free and wheelchair-friendly.
- Provide seamless connectivity and plenty of rest-stops.
- Design social communal spaces to encourage residents to interact daily.

## Curate strong co-programming activities

- Co-programming activities should not be left to chance to be developed organically; instead, they should be curated upstream.
- Close coordination amongst agencies is a must. Bring on board facility operators who can propose and implement cross-programming initiatives that capitalise

on the synergy of available facilities, and minimise overlaps that might cause confusion and result in wastage.

## Establish support from co-locating agencies

- Set up a steering committee, well-represented by senior management from the respective co-locating agencies, to oversee the planning and construction of the new development.

### Ian Spero

Founder, Agile Ageing Alliance (AAA)  
Honorary Professor, UCL Bartlett  
School for Sustainable Construction

With special thanks to Michael Yapp and Augviera Bonn of Coventry University Singapore Innovation Hub who helped facilitate my visit.



# HOMES SHOULD BE PLACES OF SUPPORT WHICH ALLOW FOR THE EVOLVING NATURE OF FAMILY LIFE

Manisha Patel, a pioneering architect of multigenerational housing says the needs and wants of different generations and communities are closer than ever.

In recent years, we have seen a rise in mental health issues and loneliness because of a lack of care, support and interaction. Informed by evolution of the village, that grew both organically and sustainably, and which provided different types of homes based on affordability, employment, transport, social infrastructure and intergenerational support, multigenerational housing and neighbourhoods are one way of addressing this challenge.

The delay in starting families, increased costs of housing, longer life expectancy and working from home are all aspects of modern living that contribute to the ever greater need for more flexible housing.

Another key consideration is that older people often want the privacy and dignity of their own space that will allow them to keep treasured possessions and furniture that so often needs to be given up when moving to institutional accommodation. Downsizing can be a difficult process for many older people. Longer life expectancy presents the challenge of designing housing that will be easily used by those with less mobility and greater frailty. Flexible homes suitable for living, working and multigenerational occupation may be the answer to many of these 'new' housing dilemmas.

By way of example, PRP's Chobham Manor Multi-Generation House is comprised of a three or four storey house adjacent to a two storey dwelling. It has three or four bedrooms with a separate self-contained one-bedroom dwelling which could be used by: grandparents, young couples, a recently qualified graduate or student, a family member with a disability who wants to live independently but to remain in close proximity. The two buildings are served by separate front doors and linked by a shared courtyard garden. Roof and upper level terraces can provide access to shade and sun.



Image PRP





**We need a standard that brings together placemaking, open space, health and wellbeing, technology (this can be designed into all forms of housing), access to employment, services and social infrastructure.**

In the post-pandemic world these socially supportive multigenerational neighbourhoods become ever more important and an ISO standard that helps underpin the development of these to create places where people want to live, work, play and stay is well overdue.

**Manisha Patel**

Senior Partner PRP

Mayor of London Design Advocate

Clapham Park – Image PRP



# LET'S GET RADICAL



Community garden at Ravensbury, Merton – HTA Design LLP (left)

Multigenerational and co-housing explored in 'Radical Housing' by Caroline Dove (below)



## A dedicated multigenerational standard should define the ingredients for an inclusive, supportive and active place to live and age well.

In 2020 for the first time in history, there were more over 65s than under 5s in the world. This has further highlighted some of the big questions, such as 'how will we care for each other?' Affordability of care and places to live, isolation and loneliness, are impacting not only older people but

younger generations too. We believe that it's important to facilitate and promote healthy, well-connected and sociable places to live, and that this can go a long way to sustaining a longer and happier life.

When designing multigenerational places at HTA we always involve the

communities that will live there and think about the important elements, which can be easily integrated into new and even existing homes and places.

Researching successful and sustainable places for my book on multigenerational and co-housing, 'Radical Housing', I've found many inspiring examples.

Their homes are flexible and adaptable, with just a bit more space to allow for changing needs, and they are places which encourage sharing, sociability and activity. They are also achievable and affordable.

At Ravensbury, in Merton, south-west London, there's an established community living in a very green riverside 'village' but in houses which are no longer suitable for

their needs, and not easily adaptable. Designed with Clarion and the community, a wide range of new homes are being built, integrating flats for older people next to family houses. There are plenty of opportunities to be active and sociable, with a choice of gardens, spaces on streets and the surrounding riverside parks.

One of my favourite projects is the Sutton Estate, where we're

renovating and revitalising one hundred-year old flats, co-designing them with Clarion and their residents, and transforming them into age-friendly and very sustainable multigenerational places which will be accessible, adaptable and safe for the future.

**Caroline Dove**  
Partner – HTA Design LLP,  
Author of Radical Housing



# CIRCULAR ECONOMY PRINCIPLES ARE FUNDAMENTAL BUILDING BLOCKS



Age segregation in housing, is arguably as important a challenge as our response to the climate emergency.

Sutton Estate Images Clarion Housing Group



## Creating Sustainable Estates which will last at least 100 years

The Sutton Estate is one of the UK's earliest examples of purpose built social housing and has been providing affordable homes in the Royal Borough of Kensington and Chelsea for over 100 years. It was paid for with a bequest from the Victorian philanthropist William Sutton (1833-1900) who left almost all his considerable fortune for housing the poor, much to the consternation of his family (who contested the will for years) and landlords, (including London County Council) concerned that these

cheap and desirable dwellings would lead to lower rents.

Today Clarion Housing Group is investing over £40m upgrading existing homes, creating new public realm and bringing 81 much needed homes back into use. We will ensure the Sutton Estate continues to offer low cost homes to rent in one of the most expensive places to live in Europe. We have two main objectives:

- To give existing and future residents the opportunity to live in adaptable homes

designed to meet modern standards with improved fire safety, good light levels, of appropriate sizes and with excellent accessibility

- To retain and improve the existing fabric of the estate, taking full account of its heritage and quality with an extensive programme of public realm and community amenity enhancements, designed to appeal to, and benefit, residents of all ages and abilities.

Although the estate has an older than average demographic (understandably, few people move), that will not always be the case. So we are designing for adaptability, anticipating demographic change and building homes and public realm that is resilient and flexible.

At the same time, we work with residents to build in opportunities for community stewardship and activity, reflecting the strong community bond already found here. Clarion's Age Friendly Strategy underpins all this work.

This second point, retaining and improving the existing fabric, has shaped the whole design process from the outset. These are historic buildings in a sensitive setting. Circular Economy principles lead us to retain, upscale and reuse as much of the existing buildings and materials as possible. Even the new housing office is to be built with the bricks from the old one it replaces.

This isn't rocket science – but it does need forethought and a commitment to make precious assets, whether a building or a cohesive community, work as hard as possible. Clarion is privileged to have the opportunity to prepare the Sutton Estate for another century of public service.

**Paul Quinn**

Director of Regeneration  
for Clarion Housing Group



# IT'S NEVER BEEN ABOUT BUILDING HOUSES

Creating a connected caring multigenerational neighbourhood

**S**ure, we're building 239 new homes, but that's only part of the story. For Nationwide Building Society and Igloo Regeneration, Oakfield has always been about creating a connected multigenerational neighbourhood – cultivating a community that cares for its members, but also that looks outward, beyond the red line of the site plan, to the existing communities surrounding it.

Our designers, Metropolitan Workshop and PRP, have conceived flats and maisonettes (where older and younger people will live within the same buildings, as opposed to being segregated), and two- three- and four-bed homes, and cottages. Some are designed specifically for older people from the get go; others allow people to 'age in place'. In Planning terms, all homes are either Part M Cat 2 or 3. Some are what we've termed Cat 2+, which means we have installed the means to provide the best possible technical infrastructure for people living with disability and or older more frail adults.

## If design is our hardware then social engineering is the software

This is where Nationwide's in-house Social Investment team come to the fore – helping to create the social structures and opportunities for people to meet and support each other.

This could be focussed around the development's Community Hub, or events and voluntary services organised by the planned Residents' Association, or communal gardening, or simply by designating some of the seating in external spaces as 'chatty benches' which is a sign to others that you'd like to talk.

Mindful that neither Igloo nor Nationwide will actually be part of this new community we will plant seeds and act as a catalyst, because we know the bulk of the ideas and momentum needs to come from the ground up. We appreciate that our approach is quite different to development norms, so we would welcome an ISO standard to help set benchmarks and drive best practice. A knowledge sharing platform would also be helpful. For our part, we have commissioned a 'Curiosity Society' to help measure impact, and we will be freely and openly sharing our results and learnings.

When Igloo joined forces with Nationwide our ambition was to go beyond house construction to building society. Oakfield represents a significant milestone on this path and Igloo is looking forward to collaborating with the AAA ISO project to inform development of the new standard for smart multigenerational neighbourhoods.

**John Long**  
Development Director, Igloo Regeneration

Image Nationwide Building Society,  
Metropolitan Workshop, Igloo Regeneration



# BREAKING NEW GROUND IN SCOTLAND

Multigenerational housing can offer the ageing population optimum health and well-being by inclusively engaging in daily life through therapeutic and salutogenic design strategies.

‘Salutogenesis’ comes from the Latin word Salus, meaning health, and the Greek word genesis meaning origin. As a medical approach, the salutogenic model is concerned with the relationship between health, stress, and making functional adjustments to our lifestyle to stop illness rather than treat it. This is the key strategy to the Victoria Road School

(VRS) restoration project, bringing together housing and communal space within one campus, incorporating innovations in energy and digital infrastructure. VRS was conceived to meet local needs and enable a salutogenic model supported by dedicated health and social programme. The TDT (Torry Development Trust) successfully persuaded

GHA (Grampian Housing Association) to incorporate a mix of bedroom sizes from 1-4 bedrooms and incorporate community facilities around the reimagined courtyard. These outdoor spaces have been conceived to enable older adults to engage in outdoor activities that complement intergenerational activities.



## SALUTOGENESIS MODEL (MONICA ERRICSON)



Sensory spatial attributes and smart housing infrastructure will be developed for older people to stay connected socially and receive health care remotely.

Torry is an area where social exclusion and health inequalities are the dominant neighbourhood classification, depicted in inadequate housing, abandoned public realm, declining mental health and well-being – as classified in the SIMD (Scottish Index of Multiple Deprivation, 2020).

The cross-sector multidisciplinary project partners named below, who have contributed to this article, see the Victoria Road School restoration project as a game-changer in Scotland. Sharing a passionate commitment to achieving societal change, the partners are committed to share data and know-how with the Agile Ageing Alliance to inform the development of a global ISO standard.

1. Quazi Mahtab Zaman, PhD Architecture & Urbanism, Scott Sutherland School of Architecture, Robert Gordon University
  2. Stephanie Morrison, Public Health & Occupational Therapy, Robert Gordon University
  3. David Fryer, The Torry Development Trust
  4. Neil Clapperton, Grampian Housing Authority
- Advisers:**
5. Prof. Elizabeth Hancock, Vice Principal, Robert Gordon University
  6. Prof. Libby Curtis, Grays School of Art, Robert Gordon University
  7. Laura Chalmers, Head of the Centre for Collaborative and Interprofessional Practice, Robert Gordon University



# FACED WITH THE UNEXPECTED WE HAVE TO MAKE A DECISION

A unique multigenerational living lab in Ireland has placed older people at the heart of a thriving community.

Once upon a time I started to take long afternoon buggy walks with my two-year old grand-daughter round Naas, the Kildare town I have lived in for over three decades. Naas is an old market-town, and capital of County Kildare, though major population increase reflects its increasing role as a commuter town for Dublin.

I had noticed a few times a discreet café presence in the old convent buildings

beside the main Catholic Church. Caught by a rain-shower Seoirse Rue and myself decided we needed shelter and a treat. While we greatly enjoyed the elegant surroundings and the quality of food on offer, it was obvious that this was more than an ordinary café. The restored convent buildings is now home to Mc Auley Place, a bustling and multi-layered innovative social and community project, which has translated into reality its vision

of placing older people at the heart of a thriving community.

The complex provides independent living for elders in its 53 customised apartments, which also houses an Arts and a Community Centre, Tea-rooms, a Volunteer Hub, a Renaissance Charity Shop, and an urban woodland garden. Mc Auley Place is host to a wide range of residents, visitors, and volunteers who reside there, play there, eat there, meet friends there, play and listen



Images Mc Auley Place Archive



to music there, practice art and craft there and generally engage with life there. In the warm inviting foyer there is a major clue to the value system driving this unconventional success story. It is a hand-drawn framed wall-hanging of the UN Principles for Older People, which states that as we get older, we should have access to the educational, cultural, spiritual, and recreational resources of society, and be able to pursue opportunities for the full potential of our development. Mc Auley Place is driven by these principles and works to make them operational daily.

Having an interest in all things urban, I decided I needed to find out more. The original drive came from

a small core team inspired in particular by the energy and vision of one individual, Margarita Solon. She was highly experienced in the nursing care of elders and felt strongly there was something seriously amiss with how society interacted with its older generation. She felt the generally accepted model of nursing-home care, frequently located far away from other services, to be very limited and limiting.

**The Mc Auley Place vision is to provide for 'natural ageing' in the community, but it is a community of interest not age.**

When you walk across the threshold, you are not instantly confronted with age but with a diverse ecology which embraces social interaction and cultural

stimulation and which refuses to look on old age as a disease. The Mc Auley Place ethos describes this as 'social prescribing', basing the care of older people on non-medical grounds, and creating an environment which is accessible, connected, vibrant, comfortable, pleasing, functional and respectful. The key to this is creativity, and the use of the arts is at the core of the Mc Auley Place mantra.

They see a worrying trend in modern society to create environments for older people which are safer and safer, removing all challenges and stress, and in the process creating a living environment which is less robust and more 'fragile'.



If we remove all opportunities to experience the unexpected and engage with beneficial forms of stress, the result is inertia. Mc Auley Place therefore talks about ‘anti-fragile environments, where you can benefit from being taken out of your comfort-zone. They see creativity as essentially about challenge, often asking you to do things you may fear. Faced with the unexpected, we have to act, make a decision. Mc Auley Place provides a dynamic context where an intentionally mixed programme of activities is encouraged and allowed to interact and collide, a place where a truly anti-fragile environment is sustained.

There are many lessons to be learned from the evolving model at Mc Auley Place. One of its key achievements is the manner in which it generates reflection on the role of older people in society. It does this through an ethos which is holistic and interdisciplinary, nurturing a value system which emphasises integration, refusing to accept that an older generation remains invisible, but instead seeking to integrate people fully into a vibrant living community. Mc Auley Place also creates new perspectives on the enabling role of infrastructure, and the contribution of institutional innovation,

particularly in terms of collaboration between generations and sectors.

In seeking a town-centre campus, and building identity and a sense of ‘Place’ which is complex and layered, Mc Auley Place mirrors the richness and diversity of an ideal urban community.

**The holistic thrust of the programme spans the spectrum of social, cultural, environmental and economic spheres. The mixed character of its town-centre location represents an ‘Urban Lab’ for new thinking and policy.**

Through its holistic, non-denominational, and multi-faceted approach, Mc Auley Place, seeks the physical, psychological, emotional and spiritual well-being of all citizens. It owes its existence to the dedicated team of volunteers from the local community, and acknowledges a support base that includes choirs, book-clubs, student unions, scouts/guides, Lions Club, Rotary Club, all contributing to greater awareness of the Mc Auley project and generating a sense of community ownership.

**Dick Gleeson**

Most comfortable calling himself an ‘urbanist’. Dick previously held the position of Dublin City Planner.

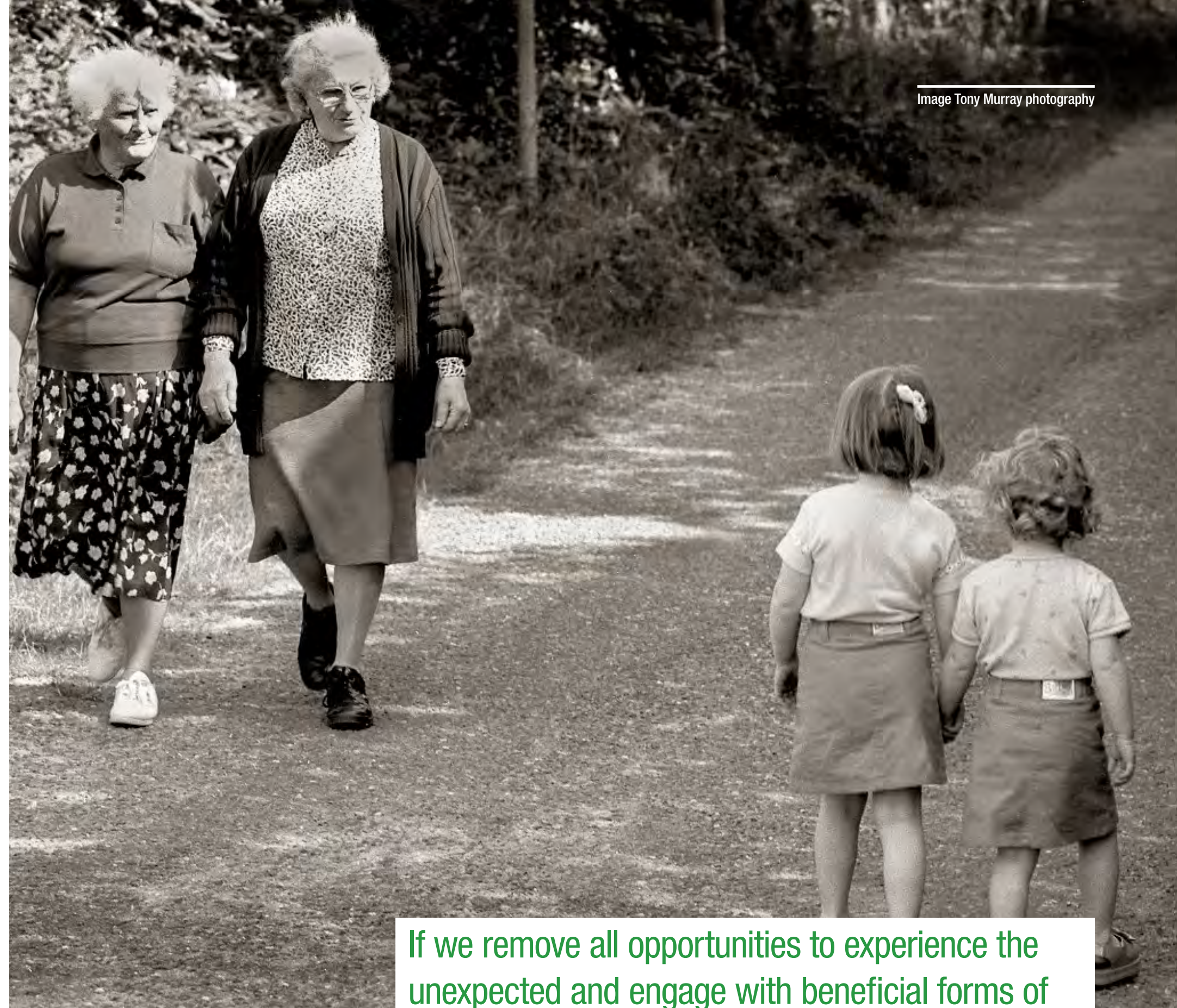


Image Tony Murray photography

**If we remove all opportunities to experience the unexpected and engage with beneficial forms of stress, the result is inertia.**



# INSPIRING HOPE AND HAPPINESS

The art you see in this report is by Bea Garding Schubert, whose latest series 'Home', talks about hope, trust, confidence and feeling at home. Here Bea explains why at 60 she decided to create her own vision of a multigenerational community.

Our house was just too large, the garden too.

So in our 60's we decided as a couple to minimise our material life, give away what we did not need. It was a new freedom. We moved into a caravan and lived on a farm for about a year, planning our new life. First we thought of a tiny home community. Finally we decided to build our own ecological low energy wooden house with a small garden. We didn't have to search long. The farmer sold us a wonderful piece of land in easy reach of supermarkets, gym, doctors, dentists, yoga school, hairdresser, bakery. All by foot or bike.

Living alone was no option. We wanted to create a community. A 50 plus 'multigenerational' community. And before too long our project attracted likeminded neighbours, keen to contribute to our vision.

We have been living together since summer 2019. We love our house. Lots of light, low energy costs, a small terrace and garden. Together with a good size communal garden.

Collectively we grow organic vegetables, we have raised flower beds and glasshouses, sculptures and a bowls court which can be also used by the village people.

**Every day we think this was the right decision. We feel at home! It means happiness, hope, trust and confidence.**

## Bea Garding Schubert

Represented by Saatchi Art and NoonPowell Fine Art London, Bea's abstract work resides in major international collections and has been exhibited around the globe.



Images Bea Garding Schubert



# DESIGNING A HEALTH FOCUSED NEIGHBOURHOOD OPEN TO ALL AGES AND ABILITIES IN CALIFORNIA

The Community for Health and Independence (CHI) is a forward-thinking, transdisciplinary initiative offering universal design for medically vulnerable older adults and individuals with developmental disabilities.

Born out of a unique, public-private partnership between the University of California, Davis (UC Davis) and Bear River Land Holdings, LLC, the 2,000-acre development, currently in planning stages, is dedicated to providing an environment that optimises health and integrates technology to enhance medical and social services, ensure safety and security,

increase caregiver support, and provide engagement and life long learning. CHI will include a range of housing options, retail, parks, walking trails, and facilities to promote socialisation, exercise, and recreation.

UC Davis is contributing to the design of the built environment, the inclusion of technology, as well as future implementation of health

services and community interventions that will provide support and accessibility to residents. The University brings the potential to offer telehealth, innovative technologies, lifelong learning, ongoing research on healthy ageing, and student-engaged resources to promote intergenerational relationships and support connected and vital ageing.

The partners have been working on a collaborative research programme to summarise existing evidence and identify research gaps to inform CHI land use planning and design.

## Existing evidence indicates

Our environment has a tremendous influence on our health and longevity – and the environments we live in during mid- and late-adulthood play a key role. Design of the built environment can increase physical activity, improve mental health, reduce obesity, cardiovascular disease, lung cancer and cognitive decline. Communities can be purposefully designed to foster socialisation, trust and a sense of safety, increase emotional support, promote shared values, and enhance community cohesion, for example by promoting walkability and offering a variety of social gathering spaces.

## Research gaps

There is a need for more evaluations of age-friendly communities. Research is needed to identify essential community features to improve health outcomes and quality of life for older adults, individuals with disabilities,

and their caregivers. Additionally, more research is needed to assess whether innovative, integrated technology improves health outcomes and caregiver satisfaction.

UC Davis and Bear River Land Holdings, LLC are honored to be participating in the international collaboration to develop an ISO standard for age friendly, multigenerational communities, led by Ian Spero and the Agile Ageing Alliance.

**Thomas Nesbitt,**  
MPH, MD, Emeritus Associate Vice Chancellor, UC Davis

**Joy Melnikow,**  
MPH, PhD, Director, Center for Healthcare Policy and Research, UC Davis

**Pauline DeLange Martinez,**  
MA, PhD student, Department of Public Health Sciences, UC Davis

**David Lindeman,**  
PhD, Director, CITRIS Health, CITRIS and the Banatao Institute, UC Berkeley

**Chrysanthi Demos,**  
President and CEO, AKT Investments, Inc. and Bear River



# DO IT YOURSELF: CREATING THE TOOLS FOR A QUIET REVOLUTION

Alastair Parvin is cofounder of WikiHouse, an open-source project which aims to democratise and simplify the construction of sustainable, resource-light dwellings.

**A**s we look ahead to the challenges of our time – a climate crisis, an ageing population, rising care costs, loneliness, and growing inequality – there is one thing that everyone agrees on: where we live matters.

To make a success of the next century, we need to build beautiful, sustainable homes and neighbourhoods where children can grow up safely, young people can thrive, and grow old in good company.

And the truth is, we already know how to do it. We have known for millennia that it takes a village to raise a child. We have known for centuries how to build places that are adaptable and generous, with shared green spaces. We have known for decades how to build low-carbon homes with low running costs. And yet, in most places, it's still not happening. Why not? Simply put, because the large housebuilders – upon whom we still rely to build the vast

majority of homes – have no incentive to do it. It isn't compatible with their business model.

To diversify the homes we build, we need to diversify who builds our homes. That means looking to the thousands of local authorities, housing associations, community organisations, independent cohousing groups or custom-builders on millions of small sites, who do want to build the zero-carbon, multigenerational neighbourhoods we need.

The problem is that today those groups face a labyrinth of barriers: from securing land at a viable price, to attracting finance, to navigating planning, to procurement and construction itself. It is just 'too difficult'.

That is our challenge. How can we use a combination of policy and digital innovation to make it much, much easier for non-profit developers,

local community organisations and families themselves to build beautiful, zero-carbon homes and neighbourhoods? It is the question that we created Open Systems Lab to address. And there isn't one single solution; it will involve a whole stack of innovations to transform the development operating system.

## Reimagining the operating system

We're working on some of them: a digital planning tool that will allow local authorities to simplify the planning process and a web-based design automation tool to rapidly test the viability and performance of schemes on small sites.

Supported by Innovate UK, we are working on the latest version of WikiHouse, a pioneering high-performance timber building system that can be manufactured in small, local factories and rapidly assembled by almost anyone.



Image Open Systems Lab

So let's take ourselves into a near-future where the tools for this quiet industrial revolution are available. What role might a smart multigenerational neighbourhood standard play, and what might it include?

## Plan for more green spaces

We need to break away from lazy conventions around car and bin lorry access, and let communities build dense, walkable neighbourhoods with shared, safe greenspaces at the centre, and cars at the edge.

## Low carbon and low running costs

It is possible to build homes with zero embodied carbon, zero operational emissions and low running costs. The problem is that it requires up-front investment into fabric and energy infrastructure. Even if a developer wants to pay this up-front premium,

in order to secure the land, they still have to out-bid other developers who have no intention of doing so. Result: a race to the bottom, where good development becomes unviable.

A standard that demands both low carbon and low running costs could be set as a requirement within planning policies, or as a covenant within the sale or lease of public land. This would then be factored into any land value calculation from the outset, creating a level playing field for communities and developers who want to do the right thing.

## Give occupants more power to adapt

In 1992, Frank Duffy and DEGW created a system for describing a building as a series of separate layers, each with its own lifecycle: site, structure, skin, services, space-plan and stuff.

On one hand, it is a diagram of the way that a building changes over time. Adaptable, generous buildings allow each layer to change independently of the others.

But it is also a diagram of control. After all, the answer to one-size-fits-all housing cannot be one-size-fits-all design solutions. However there is one simple, powerful principle that we could use as the basis for a universal standard. It is this: the greater the freedom and control that occupants have over as many of those layers as possible, the greater the chance that those homes will adapt to meet the needs of not just one, but many generations, for many years to come.

## Alastair Parvin

Is CEO of Open Systems Lab, a UK non-profit R&D company working on systemic innovation for the built environment.





# INFORMING POLICY AND QUALIFYING MARKET NEED

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# LOOKING ON THE BRIGHT SIDE OF LIFE

We asked Paul Priestman a world-leading industrial designer known for envisioning and delivering complex design solutions for transport and travel to apply the same thinking to neighbourhood planning.

**D**esigners are optimists. We look at the world and see what improvements can be made, how to maximise existing resources, how to make things more accessible, more sustainable. This is perhaps truer now than ever before.

Despite the many challenges we've faced in the past year, the time is ripe for innovation. And it's encouraging to see that while the older demographic was more often than not neglected in the development of new products or technologies, this is no longer the case. At the Consumer Electronics Show this year, a whole host of innovations were unveiled aimed at older consumers. This is reflective of a wider change in society's attitude to ageism. Indeed, two of this year's most acclaimed films, *Nomadland* and *The Father* – encourage each

and every one of us to reconsider our relationship with ageing and older people. It's an attitude that needs to extend to how we design our environments. EVERY user should be accounted for, especially as we repurpose town and city centres and consider how to 'build back' after the pandemic. According to a recent survey conducted by AVIVA a third of UK households are multigenerational, yet our cities and communities are predominantly designed for the young and able.

## Designing neighbourhoods fit for purpose

We should be designing neighbourhoods that fit the needs of users with the most stringent requirements, that way we'll create public realm that is safe and accessible to all.

Actually, it is starting to happen. Consider the worldwide effort to make places more pedestrian and cyclist friendly. This has both immediate and long-term health benefits, and makes the environment safer to navigate for all users. Similarly, improving pavements makes it easier for older people with mobility issues, as well as young families with prams and those with physical disabilities or sight impairments. Setting standards for inclusive multigenerational neighbourhoods must be based on criteria representative of the communities they serve. Only by engaging all users in the urban planning and design process will we successfully encourage greater interaction, social connections and opportunities.

**Paul Priestman**  
Chairman PriestmanGoode

Despite the many challenges we've faced in the past year, the time is ripe for innovation.

Image PriestmanGoode



# ON ITS OWN THE MARKET CANNOT DELIVER

Across the world, housing stock is failing the needs of ageing populations. As life expectancies continue to increase so too must our sectors' commitment to challenging the status quo.

According to the Royal Institution of Chartered Surveyors RICS, housing professionals have spent decades looking at solutions to enable people to stay in their homes as they get older. Adaptations such as level access bathrooms, stair lifts and ramps have made homes more accessible, while shopping delivered to the door and in-home personal care can alleviate the challenges some day to day tasks may create.

Yet, there is a big difference between being able to stay in your home and being able to take part in neighbourhood life. According to Age UK, more than 2 million people in England over the age of 75 live alone, and more than a million older people say that they go for over a month

without speaking to a friend, neighbour or family member. Rather than relying on our ability to adapt, is there not an alternative, where we create better places in which to live at the outset?

In the UK, the construction sector generates in excess of £150 billion on an annual basis. This has a multiplier effect; stimulating wider economic growth, and directly contributing to new infrastructure, making better places, and improving the environment.

However, it is a sector that has struggled to respond to growing demands of an ageing population. This year the value of private property in the UK will top £6 trillion for the first time, with people over 50 estimated to hold over

two thirds of the country's housing wealth. Unfortunately, despite owning the greatest number of homes, it doesn't necessarily mean that those homes continue to meet their changing needs and aspirations.

With the number of those aged 65 years and over growing faster than those under 65, action is required on many fronts to ensure that we have the homes and the neighbourhoods required to ensure healthy and happy ageing. Creating better-housed, less isolated, and more engaged ageing populations, could achieve savings to public health and social care services freeing up much needed resources.

## Accessible for all

One of the reasons people do not want to leave their homes is the fear of losing the community with which they've formed a connection over years or decades. This is particularly acute in the low-density suburbs of the United States, as high-density housing is generally required to make ageing living options affordable and to provide suitable support to residents. From a commercial perspective there are a range of models such as co-housing and multi-generational living that can make ageing at home or assisted living affordable for retirees or people near retirement.

In order to gain a better understanding of the challenges and opportunities, in 2019 RICS joined forces with AAA and brought together sector leaders to discuss the development of a reference framework for age-friendly housing in multigenerational communities.

As a public interest body, setting standards across the surveying profession in order to protect consumers and businesses, RICS sees value in developing a template that will enable collaboration across the private and public sectors. On its own, the market cannot deliver.

The development of a framework and an ISO standard for smart multigenerational neighbourhoods will provide clarity for developers, planners, local and national government that they can follow and be measured against, whilst providing funders, both private and public sector, with reassurance required to invest in this much needed and growing sector.

**Mairéad Anne Carroll**  
RICS Property Management  
and Agency







Tony McAteer/Gleeds

# ENCOURAGING SOCIAL INTERACTION INTO OLD AGE

The Royal Town Planning Institute (RTPI) plays a major role in commenting on and influencing planning policy in the UK and Ireland, and with over 1,500 members overseas works across the world to increase support for planning the world we need.

**T**own planning has an important role to play in ensuring that our communities remain truly multigenerational. It is important both for older people and those with whom they are in close contact for

there to be a wide spectrum of opportunities for older people to live which are near to where everyone else lives.

In Great Britain there are over 2.2 million people aged 75 and over living alone.

Half a million older people go at least five or six days a week without seeing or speaking to anyone at all. COVID 19 has only served to draw attention to this crisis.

The RTPI published research on “Settlement patterns, urban form and sustainability” which found that compact, medium density, mixed use and public-transport friendly settlements encourage continued physical activity, economic participation and social interaction into old age. Older people’s housing should be located within a 10-15-minute easy, safe walk from local centres, with access to shops and services. This helps people be more independent and live well for

longer, thereby improving their health and well-being.

By way of example Redwood Glades, Hull, is a dementia friendly, extra care housing development for affordable rent for adults aged 18. The open facing nature of the development and the site’s proximity to local shops and services, and public transport, and developing intergenerational relationships within the facilities helps residents to avoid feeling isolated.

There is anecdotal evidence of direct health benefits, with emergency staff reporting a decrease in admissions since the developments have opened.

The RTPI is pleased to be contributing to the development of a global standard to establish what a good multigenerational neighbourhood would look like.

**Richard Blyth MCD**  
FRTPI Head of Policy Practice  
& Research Royal Town  
Planning Institute.



Redwood living room. Image Tony McAteer/Gleeds



# ENLIGHTENED NEIGHBOURHOODS OF THE FUTURE WILL BE PUBLIC-PRIVATE COOPERATIVES

Carter Casady, Director of UCL's new Centre for Private-Public Partnerships says it's time to rethink business models.

Although Covid-19 has reinforced the need for public and private actors to work collaboratively, developing sustainable communities will require us to completely rethink existing business models. Government budgets have already been severely impacted and further constrained by the pandemic, leaving limited fiscal capacity for “business-as-usual” development opportunities. Public-private partnerships will thus be critical for constructing multigenerational neighbourhoods of the future. However, such partnerships must move beyond traditional funding and financing mechanisms and capitalise on more inventive methods of assessing, quantifying, and capturing value. For example, multigenerational neighbourhood developments may benefit from land value

capture mechanisms that recover and reinvest land value increases stemming from investment in such community developments.

Tax-increment financing may be another means of financing these redevelopment opportunities based on anticipated future tax revenue from these multigenerational neighbourhoods. Asset recycling may also be a uniquely suited mechanism to extract latent value embedded in mature infrastructure, whereby proceeds from the sale or leasing of commercial assets can be reinvested into the development of communities promoting healthy ageing and independent living.

## Converting liabilities into assets

What undercuts a variety of these approaches is the concept of converting liabilities into assets. Revitalising ailing town and city centres, freeing up suburban housing for younger home buyers, and reimagining redundant commercial real estate are all ways of thinking about leveraging sub-optimised value. Often, governments possess significant numbers of assets which are under-performing or have outlived their original use. These sub-optimised assets tend to be significant fiscal liabilities for government, costing the public sector millions of Pounds. However, these liabilities can offer tremendous value if leveraged by the private sector, thereby delivering returns for both the public and private sectors.

Such opportunities for extracting untapped economic value may be perfectly suited for the sustainable development of new multigenerational neighbourhoods. At their core, these strategies help internalise previously unaccounted for value into the economic equation.

Thereby offering new business models which support ageing in place, using existing assets rather than relying on age-specific care in institutional settings. In fact, internalizing these externalities properly creates new possibilities for more sophisticated, outcome-based contracting methods. In doing so, we can begin to move beyond the

pure financial dimensions of community development and focus on the broader value proposition multigenerational neighbourhoods have to offer, both for older adults and society as a whole.

Carter B. Casady, PhD,  
Academic Director, Joint Centre  
for Public-Private Partnerships  
UCL Bartlett School of Sustainable  
Construction





# SOCIAL ENTREPRENEURS ARE UNIQUELY QUALIFIED TO ENRICH THIS STANDARD

Whether it's the digital divide or the loneliness epidemic, bringing different generations together can help heal and strengthen our communities.

UnLtd find, fund and support social entrepreneurs to reach their potential. In my role as Impact Lead for Healthy Ageing at UnLtd I support over three hundred entrepreneurs who are passionate about improving the health and wellbeing of older adults in the UK. Some are building powerful multigenerational communities, others are developing wearable technology to help people stay safe and independent.

By way of example, Lewis Hornby invented a chewy sweet made of water for his grandmother to help her stay hydrated after she was diagnosed with dementia. Since launching Jelly Drops two years ago, Lewis has sold over a million units.

All these entrepreneurs, and countless others across the world, are in a unique position to help develop and benefit from standards for this growing sector.

## Testing and learning

Social entrepreneurs can advise on what good looks like, telling us what works and what doesn't. They have access to thousands of older consumers, many of whom are vulnerable, and can guide us during the development process. They iterate quickly, testing and learning from new approaches, gathering real time feedback and adapting their services to make them as impactful as possible. Their drivers and metrics go beyond commercial exploitation and they often have personal experience of the challenge they are committed to

solving while working with some of the most vulnerable and marginalised groups in society. They are generally more inclusive and diverse than corporate enterprises and more sustainable too.

They can also test draft standards on the ground and share feedback in real time, to inform and refine the final solution.

Creating standards that are truly fit for purpose is a collective endeavour. Involving social entrepreneurs in their design will ensure that we protect vulnerable consumers and empower businesses to meet their aspirations, helping millions to live their best lives at any stage of life.

**Roland Singer-Kingsmith**  
Impact Lead, Solutions for an Ageing Society UnLtd

Their drivers and metrics go beyond commercial exploitation and they often have personal experience of the challenge they are committed to solving while working with some of the most vulnerable and marginalised groups in society.

Image Kathryn Ratray UnLtd





# ENABLING TECHNOLOGIES

## CREATING THE 'PERSON-CENTRIC' SMART MULTIGENERATIONAL NEIGHBOURHOOD

By consulting with a broad spectrum of private, public and 3rd sector stakeholders, including technology providers, housing associations, regional government, and older adults, AAA aims to establish a person-centric view of what technologies and systems are needed to cultivate smart age-friendly neighbourhoods of the future.

To inform development of an ISO standard we must learn more about the relationship that exists between individuals, their built environment and an increasing variety of smart technologies and digital services. Taking account of the idiosyncratic needs, desires and aspirations that allow people to thrive and flourish, regardless of their age and means.

It is vital that we put the person at the centre of how we understand, develop, deploy and evaluate these technologies. Too often technological solutions have failed to work because they have overlooked or misunderstood the human element.

While our project will lay emphasis on new build, development of this standard will also take a person-centric approach to exploring how we should retrofit existing urban environments, in ways that can best support healthy, active and meaningful engagement with the neighbourhood as we age.



# AS THE COST OF ADULT SOCIAL CARE SOARS CITIES ARE EXPLORING INNOVATIVE SOLUTIONS

With a population in excess of 277,962, it is predicted that the number of residents aged 65 living in Sunderland, will increase by more than 22 percent to 66,300 by 2030.

The City, in the North East of England, is also forecasting that by 2030 18,850 residents aged 65 and over will be unable to perform one domestic task or one selfcare task for themselves, an increase of 23 percent on today's figures. This will have significant implications for health and social care delivery and budgets and it is unlikely that government funding will maintain pace with this change to the population dynamic.

Avoiding social isolation and maintaining an individual's ability to live in their own home and community can improve health and wellbeing for all, especially older adults. There are benefits to both the City Council and the individual if residential or full-time care can be avoided for as long as possible or ideally altogether.

The development of more multigenerational neighbourhoods, where the community can support each other while older adults get to age in place could be a game

changer. Effective application of assistive technologies could make this possible. This approach may hold the key to making social care budgets stretch further to meet future demand.

## A catalyst for the digital revolution

To this end the Council has set up a dedicated unit responsible for managing all Telehealth, Telecare and Telemedicine hardware and related services.

## ASSISTIVE TECHNOLOGY – CASE STUDY

**AT & Traditional Combined Solution**  
IOT Gateway/Hub x1, Door contacts x2, Motion sensors x4, 2 smart Bulbs, GPS device, Amazon Alexa, chair sensor and 3 x daily visits from a single carer via a home care agency. Checking App shared and installed on the phones of Mrs B's Family.

**Cost of Previous Care Solution**  
Residential care for Mr B Mrs B = Annual cost £69,141.28

**Cost Avoidance with Combined Solution**  
= £69,141.28 – £8,512.16 = £60,629.12

### Cost of Combined Solution

Internet connection = Nil (as Mrs B's property had broadband)

Hardware & care visits = Year 1 £8,512.16 and £8,168.16 in subsequent years



Assistive Technologies are now deployed to over 550 dwellings across the city helping to keep people safe in their own homes.

With funding support from Innovate UK, the Council has jointly developed and successfully trialled a dedicated solution: the Social Health Enabling Independent Living App (S.H.E.I.L.A) running on local SME, Solcom's Whzan platform.

SHEILA permits an informal care network to monitor day-to-day activity, ensuring residents remain hydrated and nourished, as well as alerting to unusual activity such as flooding, gas leaks, changes in behaviour patterns or front doors opening at night. The technology is low-cost, off the shelf and easy to install.

Data from the system is also viewable by care professionals to aid them in providing individualised care packages, where required.

The Sunderland Smart City Programme is deploying ubiquitous next generation digital connectivity across the city including free, ultrafast 5G ready wi-fi to a number of locations together with a city[1] wide Low Powered Network (LoRaWAN).

This connectivity will extend and increase resilience in Sunderland's use of IOT sensors in care monitoring and providing assistive technology to residents.



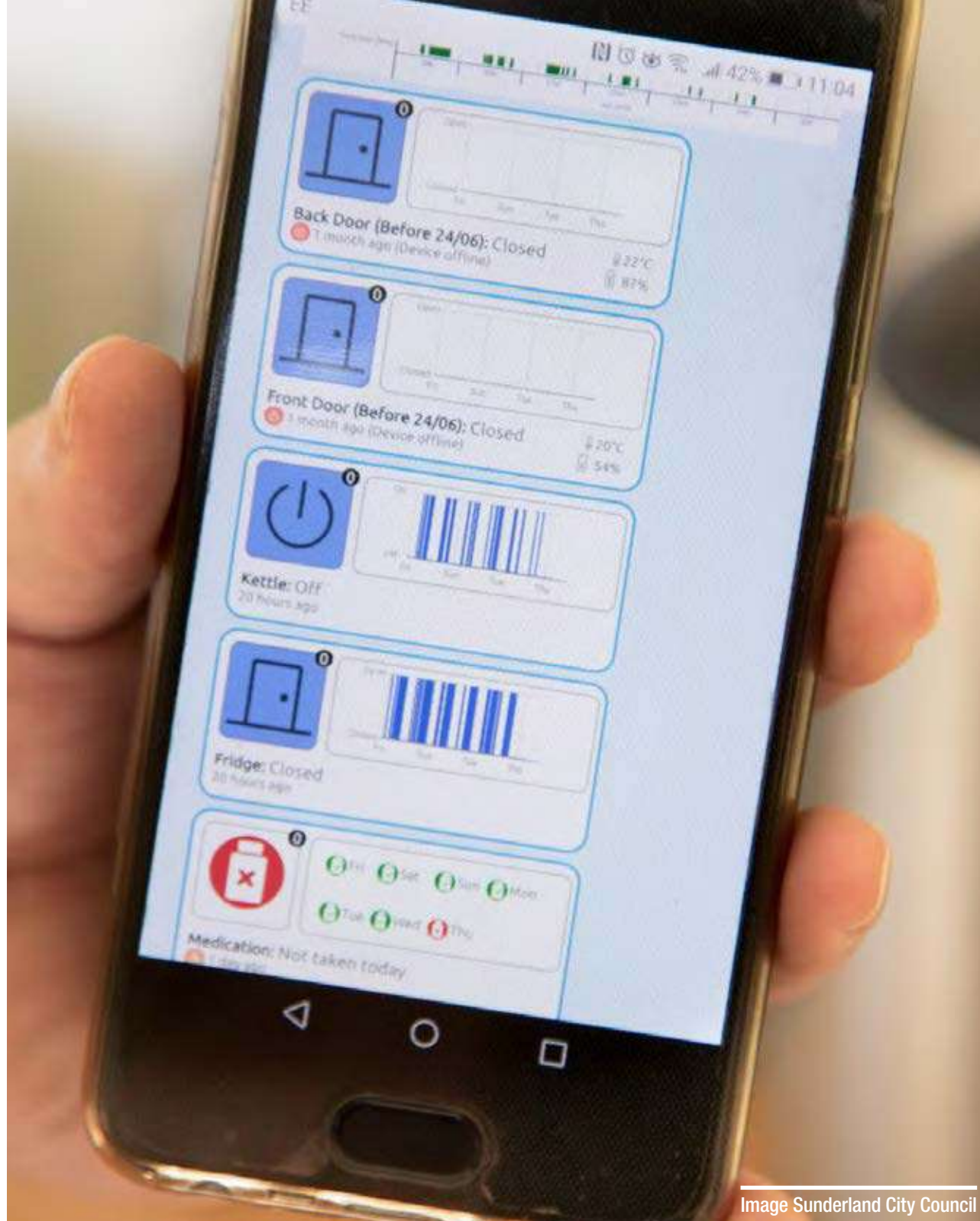


Image Sunderland City Council

The UK National Testbed Pilot Business Case has predicted that rolling out assistive technology to 1,500 individuals could result in a saving of £3.7m for Sunderland City Council over 3 years.

## ASSISTIVE TECHNOLOGY – CASE STUDY

Mrs A is 59 years old and has Muscular Dystrophy. Mrs A's mobility has begun to fluctuate and she is experiencing regular falls, from which she can't get back up from the floor. Mrs A wants to retain the mobility she has and is reluctant to become wheelchair dependent at this stage of her illness.

Mrs A's son is self employed and able to support his mother if she falls during the day. Mrs A uses voice commands to ask Alexa to call him if she falls during the day. He is able to respond and use the Raizer independently to lift her from the floor.

### AT Solution

Amazon Alexa, Powered Raizer Single Handed Care Lifting Equipment

### Cost of AT Solution

Internet connection = Nil (as Mrs A's property had broadband)

Amazon Alexa = £30.00 one off cost

Powered Raizer Single Handed Care Lifting Equipment = £ 2830.00

### Cost of Traditional Solution

Telecare, Annual charge £764.54 & Per call out £78.30 Annual Cost £9,534.14 ongoing, based on an average of two response calls per week

### Cost Avoidance to the Council

= £ 9,534.14 – £2,860.00 = £6,674.14 in year one and £9,534.14 in subsequent years



The SHEILA pilot projected resulted in quantifiable improvements to resident health and wellbeing and significant savings in care costs, as can be seen in the illustrations above. Consequently, Sunderland has committed to rollout SHEILA across 1,500 homes by 2024.

The system is currently being incorporated into 17 new bungalows for disabled residents which the council is building. It will also be

integrated into the city's regeneration masterplan "Riverside Sunderland".

Located in the heart of the city, close to shops and other amenities, Riverside will be a showcase multigenerational urban quarter of innovative homes and commercial mixed-use space, uniting the surrounding neighbourhoods and communities of Sunderland with new walking and cycling links, promoting health, wellbeing, security and a strong sense of community.

With the development of smart multigenerational housing, communities and neighbourhoods at the heart of Sunderland's regeneration strategy, the City Council are ready to pool resources and share knowhow in a collaborative effort to make the ISO smart multigenerational neighbourhoods standard a reality.

### Dave Young

Sunderland City Council Deputy Business Development Manager,



# USING JOINED-UP DATA TO BETTER SERVE THE COMMUNITY

Older generations are able to combat loneliness, while getting help from younger people with tasks they find physically difficult.

In return, young people benefit through access to more affordable housing.

Enabled by funding from Innovate UK, the joint project between The City of Wolverhampton and PredictX is unusual in that most local authorities are not actively involved in data science projects.

The City of Wolverhampton has sought to analyse and develop a holistic view of health and social care data so services and support can improve outcomes in local communities. Working in partnership with local start-up PredictX and Innovate UK, data and machine learning capabilities have been combined to identify conditions early on that require support.

The pseudonymised joint data has been categorised into specific 'people profiles' based on demographics, long term health conditions and



Image by ESB Professional

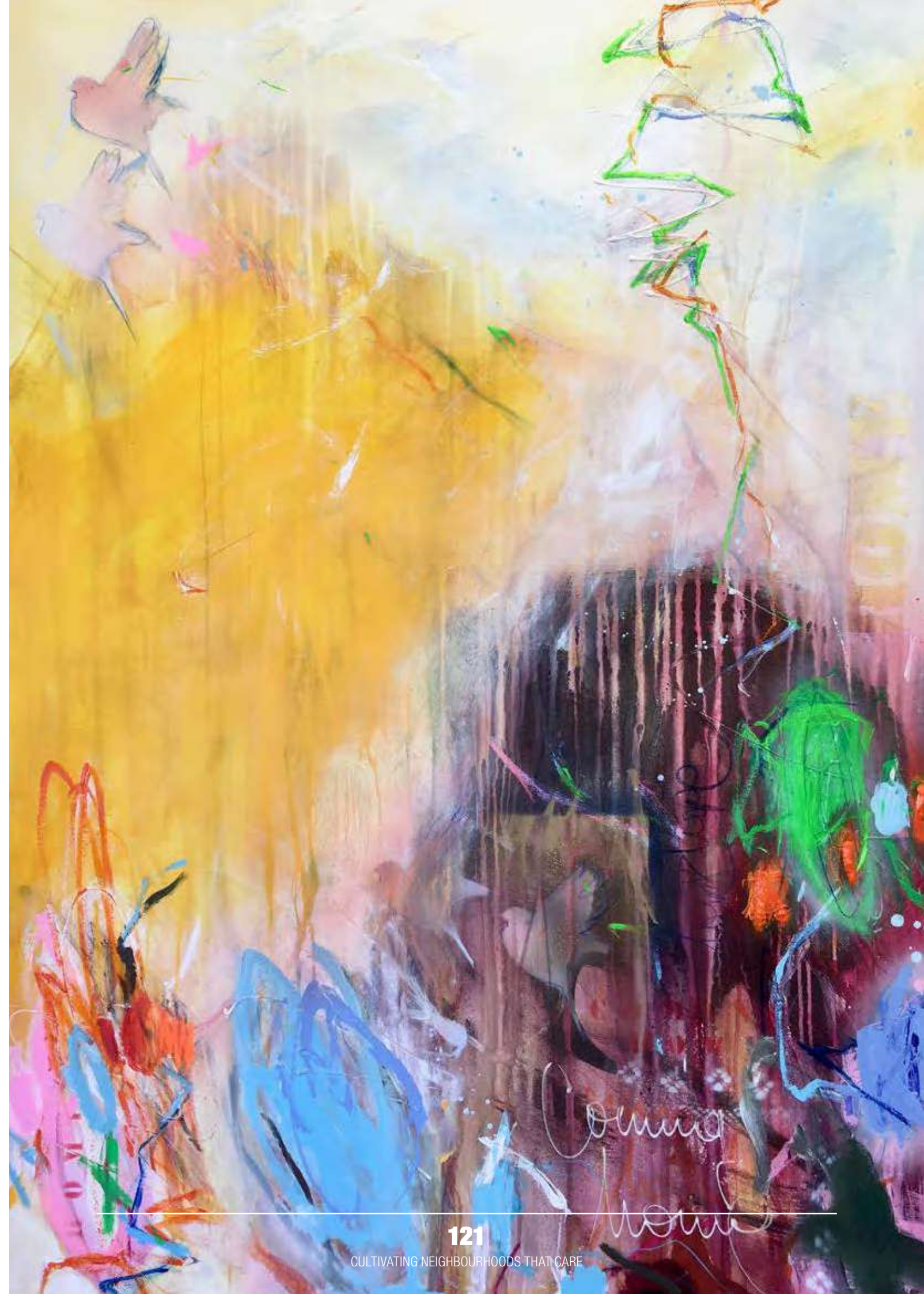
both previous and current contacts with health and care services. By analysing the insights provided by these and mapping them across local geography, we have identified 'hotspots' where we can now optimise the health and care resources needed for residents.

We want to build on our work in Wolverhampton to push a 'big data' approach even further across the region so more communities can benefit. In this respect the aims of the ISO smart multigenerational

neighbourhoods standard in employing innovative technologies, business and service models to improve health and wellbeing, and reduce the financial burden on citizens and the state is a goal we share and aim to make a reality.

**Mike Holden**

Project Manager – BCF/ICP  
Programme City of Wolverhampton  
Council





# PERSON TAILORED SERVICES

Microsoft is helping regional and local governments to plan for a better future.

**C** OVID-19 has left an indelible mark on our neighbourhoods and communities. Looking to the future, technology has the ability to help support and secure community bonds, many of which have been formed during the pandemic. This is no longer a theory; it is now the day to day reality for many of us as we seek to sustain and build new relationships under very different circumstances.

As our confidence in technology grows, our ability to better understand what it can do for society is becoming clearer. As the sensors in our homes, phones, watches and other devices that we carry and wear become less expensive, more common and more capable, it's no longer science-fiction to imagine a world in which everyone has access to a virtual doctor who can tell when you're getting sick before you know you are

– and refer you to the most appropriate specialist for help. Perhaps for the first time, we are ready to engage with this sort of new reality.

Robotics and augmented reality will also play a role in multigenerational neighbourhoods – autonomous delivery bots will help older adults live self-sufficient and independent lives longer by delivering medicine, groceries and other necessities right to their front door. They may also support parents in helping enrich their children's learning from their own homes, enabling visits to places we can't physically travel to.

Empowering every person on the planet to achieve more is Microsoft's mission and we are passionate about using technology for everyone's benefit. In fact we anticipate helping more than 1bn people with disabilities around the world by enabling computers to hear, see and reason

with impressive accuracy – capability which is already mature – and which supports every one of us as we go about our day to day lives.

## Data rules

Underpinning all of these innovations is data. This ISO framework for smart multigenerational neighbourhoods would be extremely beneficial to our national, regional and local government customers and the citizens they serve, as it helps set the parameters for how data about us and our communities should be used. It also needs to ensure that we all have the right digital skills to participate in these multigenerational neighbourhoods. We therefore look forward to contributing to the development of this important collaborative endeavour in a spirit of open innovation.

## Faith la Grange

Director Regional & Local Government  
Microsoft

Technology has the ability to help support and secure community bonds, many of which have been formed during the pandemic.

Image by Andrea Piacquadio from Pexels



# CO-CREATING A NEW ISO STANDARD

The standard development process can be used to bring together diverse stakeholders to stimulate thinking around important issues.

Many people think of standards as dry and overly technical deterrents to progress, but this has not been my experience.

Standards play a key role in enabling innovation.

Through my involvement with the NSAI (National Standards Authority of Ireland) I have seen how standardisation can democratise the co-creation process by giving a voice to minority groups and a common language to measure and evaluate performance, reflecting the shared values, aspirations, and responsibilities we as a society project upon each other and our world.

At national level there is much freedom to use innovative approaches to arrive at a consensus. For example, in Ireland I sit on the NSAI committee looking at the dementia inclusive communities framework.

We organised a number of workshops involving

people living with dementia, caregivers, family members, advocates, healthcare and design professionals and a range of other stakeholders.

## **Dementia inclusive communities**

One session asked participants to describe what a dementia-inclusive community meant to them, resulting in a rich discussion around values, human-rights, equality, dignity, independence, and a range of other topics that provided a foundation for subsequent workshops and meetings.

As soon as I learned about the possibility of this new standard for smart multigenerational neighbourhoods I knew I had to be involved. As a Research Fellow at Trinity College in Ireland I am currently engaged in a variety of urban design and building design research projects in the Dublin region. In all these projects the human as user is critical, with an emphasis on user

centred, Universally Designed, occupant behaviour driven design solutions.

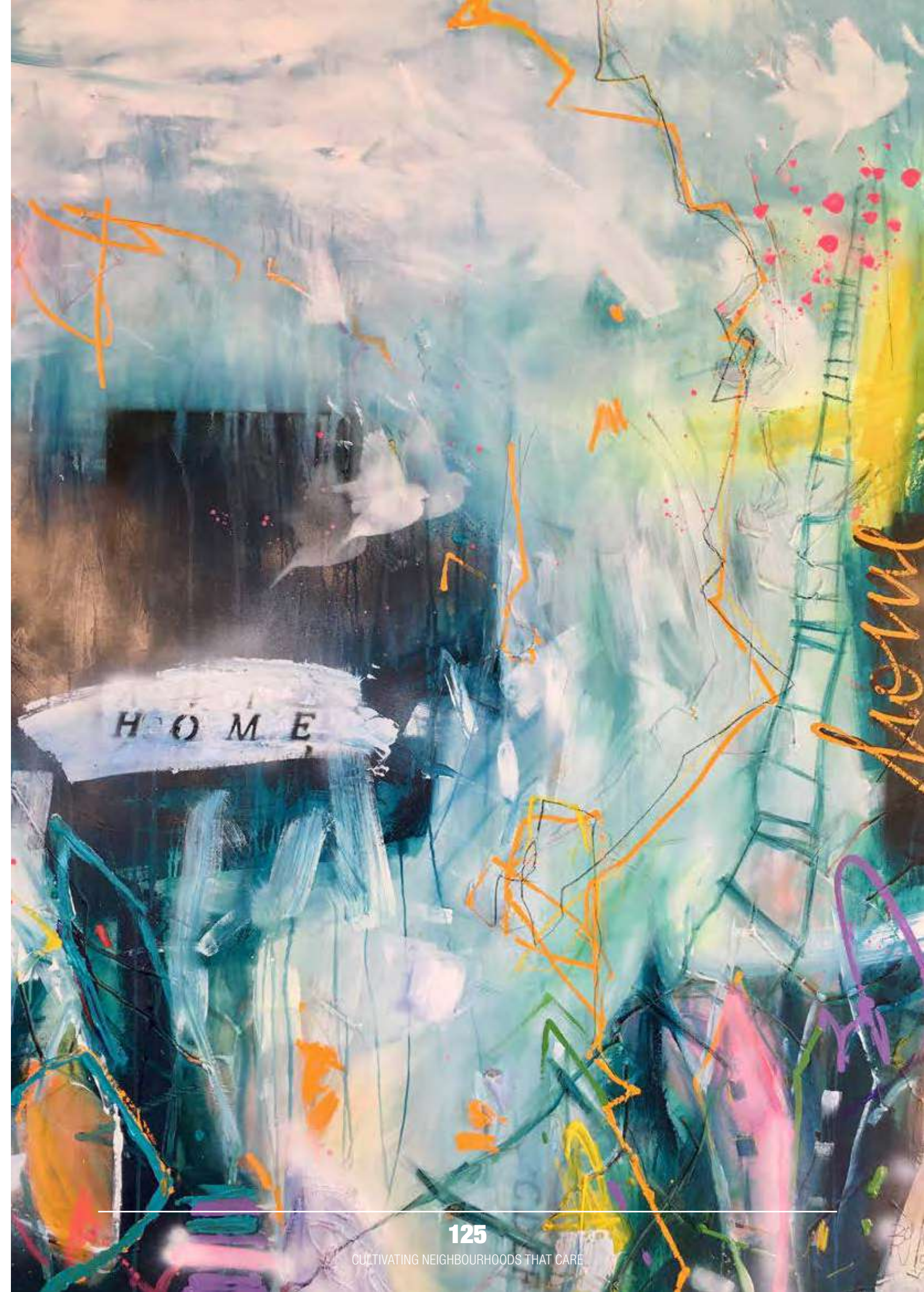
User centered design underpins the Agile Ageing Alliance's '[Neighbourhoods of the Future](#)' research, and I have now teamed up with AAA founder Ian Spero, who is leading development of this standard for ISO Ageing Societies Technical Committee 314.

We'll be developing the standard, in a spirit of open innovation, with ISO mirror committees and cross-sector stakeholders across the globe over the next three years.

If you, and/or your organisation are interested in getting involved, visit the AAA website: [www.agileageing.org](http://www.agileageing.org), find the Standards page and click on the registration link.

We look forward to collaborating with you.

**Thomas Grey,**  
Research Fellow and Course Director,  
TrinityHaus





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# MULTIGENERATIONAL OR INTERGENERATIONAL?

Whereas the terms intergenerational and multigenerational are synonymous in theory, in practice and built environment terms, intergenerational housing is often used to describe an old model where extended families of different ages live together in tightly-knit local communities. This ISO standard envisages a new paradigm where such participation can be shared among unrelated people of all ages, living independent, modern lives, in inclusive multigenerational neighbourhoods, enabled by assistive technology and benefiting mutually.

ISO TC 314 Requirements and Guidance for Smart Multigenerational Neighbourhoods aims to:

Accelerate construction of a new breed of age-friendly housing in 'smart' socially supportive multigenerational neighbourhoods, employing innovative technologies, business and service models, to improve health and wellbeing and reduce the financial burden on Citizens and State.





NEIGH  
BOUR  
HOODS  
OF THE  
FUTURE

2021  
2030

The title is rendered in a playful, multi-colored font where each letter is composed of overlapping horizontal and vertical bars in red, yellow, green, blue, and purple. Small dark brown dots are placed at the intersections of these bars. The word 'NEIGH' is on the first line, 'BOUR' on the second, 'HOODS' on the third, 'OF THE' on the fourth, and 'FUTURE' on the fifth. The dates '2021' and '2030' are centered within the 'O' of 'BOUR'.

CREATING A BRIGHTER FUTURE FOR OUR OLDER SELVES