

Aging Well Working Session  
Series: *“Creating Connected  
Communities for Aging Well”*

Summary Report

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June 2014

GLOBAL SOCIAL ENTERPRISE INITIATIVE

GEORGETOWN UNIVERSITY **McDonough**  
SCHOOL *of* BUSINESS

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**PHILIPS**

## Executive Summary

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Most Americans see themselves living independent and fulfilling lives in their own homes and communities as they age. With a \$2 billion aging well technology market that is expected to grow ten-fold by 2020, it would appear that assistive technology for the aging also known as “gerontechnology” as well as other smart technologies can help aging adults achieve this lifestyle vision for themselves. However, there are limitations to their adoption by consumers as well as a lack of urgency and infrastructure at the community level to support them.

In May 2014, Philips and the Global Social Enterprise Initiative (GSEI) at Georgetown’s McDonough School of Business held an “Aging Well Working Session: *Creating Connected Communities for Aging Well*” to look at this issue more closely. The session introduced a study that identified some of the attitudinal barriers that need to be overcome if smart home technologies are to be more widely adopted. It also explored what consumers, aged 50-80 most value in their community settings to help them remain in their homes.

The consumer study was supplemented with a series of in-depth interviews with real estate developers working in residential, mixed-use and commercial settings to understand what considerations, if any, were being made for technology integration to support consumers’ desire to age in their homes. The study found that even though 91% of older Americans say they want to live in their own homes as they age, most do not plan to take the necessary steps such as remodeling their homes or adapting smart home technologies to ensure they can maintain their desired lifestyle.

Participants at the session included decision makers from business, nonprofit, local and federal government, and academe with expertise in aging, housing and real estate development, health care, technology, and policy. (Appendix A.)

During the session, participants were asked: what is the ecosystem needed to support technologies being designed to connect aging residents to product and service innovations offered by local businesses, community services, and the “built space”? We also wanted to know if the promise for these technologies to enable adults to remain in their homes, reduce the number of caregiver hours and/or delay the age at which an elderly person requires assisted living is being fulfilled.

### *Costly Perceptions Prevail*

The top barriers to making changes to one’s home are perceived cost and disinterest, and simply not knowing where to begin. Nearly three in five respondents (59%) say they are not interested in upgrading their home, while one-third (33%) say upgrades are too costly and in-home technology too expensive (42%). One fourth (25%) of respondents are not interested in upgrades at all.

### *Familiar Technology Finds Favorability*

Aging Americans are willing to invest in new technology for things that they are

comfortable with and use regularly and in which benefits are tangible. The Internet, WiFi, programmable thermostats are technologies that fit this comfort level, while the category of assistive technologies are newer to the marketplace and have not yet gained a strong foothold with the target consumer.

#### *Important Factors in Homes and Communities*

Having grocery stores nearby (83%), access to hospitals and medical centers (77%), and walkability (73%) are the most important factors to have in ones community as consumers age, while at-home residents most value homes with low-maintenance exteriors (58%), master bedrooms and baths on the first floor (54%), and effective lighting through the house (54%).

The in-depth interviews with real estate developers also revealed concern over the cost of smart home technologies. Developers are doing limited integration of technology solutions other than providing hi-speed Internet access and WiFi and believe technology integration to enable aging at home can be addressed ten to fifteen years from now.

Over the course of the roundtable session and break out groups, some common themes emerged which corroborate and provide deeper insights into what was learned in the consumer study:

- **Products are not for me:** Many session participants are of the opinion that the single biggest barrier to greater adoption of smart technologies is the stigma associated with these products and services. There is an opportunity to apply design thinking into product and service solutions.
- **People need to “age into” technology:** A major hurdle with consumers is in helping them to accept a category of products and services that many in the room labeled as “who wants to think about getting old”? As a result, product strategies are needed to expose today’s Boomers to smart home applications now to ensure a seamless transition to more assistive, smart technologies later on.
- **Opportunity for reframing costs:** To overcome the consumer perception that smart home technologies are expensive, the products and services need to be positioned not solely as enablers for independent living, but more as a cost savings when compared to the cost of institutional care, or as a way to decrease the number of caregiver hours.
- **Who is the customer:** Smart home technologies have a dual consumer – the aging adult and their adult age children – and distribution strategies, product positioning, and marketing communications need to recognize these different audiences. There is a hypothesis that adult children are not as price sensitive, but their parents will look more to reimbursement from their insurance provider, Medicare, or Medicaid.

- **A supplement, not a replacement:** Technology solutions hold much promise in terms of enabling adults to remain in their homes and saving costs in the process, however session participants emphasized that they are not a substitute to human contact. Any viable strategy for leveraging smart home, assistive technologies needs to recognize this important factor.

Working session participants were selected to participate not only for their expertise, but also for their role as leaders, decision makers, and influencers. Several participants expressed a strong desire to take on the challenges identified and discussed at the session and recommended various courses of action that are being evaluated by the Philips-GSEI team. These ideas include:

- forming a coalition to create a national research infrastructure;
- designing a pilot project(s) or “living lab” to demonstrate and measure the benefits of smart technologies;
- identifying the most promising solutions and models on the ground;
- spreading the knowledge to cities, their planners, and their developers and more.

## Overview

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Most Americans see themselves living independent and fulfilling lives in their own homes and communities as they age. However, for far too many Americans, this vision and desire do not translate into reality. More than 70 percent of Americans over the age of 65 will need long-term care services at some point in their lives, according to a study by the U.S. Department of Health and Human Services (HHS). Additionally, the HHS reports that anyone reaching age 65 has a 40 percent chance of entering a nursing home at some point in their lives, and 20 percent of those individuals will live there for at least five years.<sup>1</sup>

Can technology and the way we connect to our communities help our aging population overcome these odds? With the boom of technology innovations being developed for inside the home such as remote monitoring, smart appliances, and energy efficient devices, the question seems to be about how they are connecting with products and services offered by local businesses, community services, and the “built space.” Are developers embracing the coming “gray tsunami” and incorporating an aging consumer into their designs and projects? Are local service providers and government agencies building technology-based solutions to communicate and deliver benefits to older residents?

The Global Social Enterprise Initiative (GSEI) at Georgetown University’s McDonough School of Business and Philips, the health and well-being company, in collaboration with Georgetown’s urban and regional planning division and the American Architectural Foundation (AAF), set out to identify what is needed to create an ecosystem infused with technology for older Americans to live and age well in their homes and communities. A consumer study of 50-80 year olds, interviews with real estate developers, and a working session with experts in health care, consumer behavior, product innovation, retail, real estate development, community development, municipal and regional planning, policy, and academia informed this report.

## Research Findings

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There is a tenuous connection between the promise of smart home technology solutions and the perceived benefit to consumers who cannot envision how some of the new technologies can help them be independent and stay in their homes. The aging well tech market, also known as “gerontechnology”, is estimated at \$2 billion<sup>2</sup> annually and expected to grow ten-fold by 2020<sup>3</sup>. Real estate developers are well

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<sup>1</sup> Banham, Ross, “Facing the Future: when it comes to accepting the need for long-term care down the road, many opt for denial”, Wall Street Journal, 2010.

<sup>2</sup> Orlov, Laurie M. Technology for Aging In Place: 2013 Market Overview, July 20, 2013, [www.aginginplacetech.com](http://www.aginginplacetech.com).

<sup>3</sup> Cusano, Donna, “The ‘grey’ market is where it’s at for ‘quantified selfing’”. Telehealth & Telecare Aware, April 29, 2014.

aware of the demographic shift (by 2030 one out of every five people in the U.S. will be 65+<sup>4</sup>) that is underway in their communities. However, most of the developers interviewed do not see the immediate need to incorporate technology solutions that can enable older individuals to stay in their homes. Most stated that they believe these changes do not need to be implemented for another 10-15 years.

What are the implications for this apparent disconnect between technology developers and technology adopters – the consumers and real estate developers who are vital parts of the ecosystem for aging well and living independently?

### ***Insights from New Study of Technology, Mature Adults, and their Communities***

Even though 91% of older Americans say they want to live in their own home or apartment, they do not readily understand how technology might play a role in allowing them to do so. This is according to a new study of 1,000 consumers aged 50-80 conducted in April 2014 by GSEI and Philips.

Most consumers are not planning to remodel or upgrade their homes to accommodate their desire to live independently. The majority, particularly those age 60 and over, simply have no interest in upgrades or the use of smart technology applications. They perceive upgrades and smart technologies as cost prohibitive, but they also simply do not know where to start or what changes would be most useful to them.

#### *How do they view home upgrades or retrofits?*

- While over 83% of those surveyed own their own home, only 21% of those aged 60 and over intend to remodel, retrofit or upgrade their home.
  - Of those planning to retrofit or remodel their homes, less than one third, or 29% would consider both physical and technology upgrades. 23% would consider technology upgrades only.
  - Among those who are prepared to retrofit or upgrade, two-thirds would spend up to \$5,000 on physical updates, and almost a third would spend that much to do smart home updates. (15% said they would spend “whatever it takes” to stay in their own home – however, this is just for physical updates/upgrades and not technology).
- The top barriers to retrofitting or upgrading their homes are perceived cost and disinterest. Nearly three in five respondents (59%) say they are not interested in upgrading their homes, while 35% say it's too expensive and one-fifth (20%) are not interested in upgrading within home technology.
- Presented with various options for remodeling or upgrading their homes, respondents rated hi-speed Internet connections (62%); security systems (52%) and other items in the security category, such as home monitoring

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<sup>4</sup> Livable Communities, aarp.org.

(41%), programmable locks and keypads (31%), and notification systems 41%); and automated thermostats (49%) as features they felt would be most beneficial to them. These are all technologies that already exist in their homes today, suggesting that familiarity with these technology applications yields higher interest versus some of the newer, yet potentially more promising products such as smart appliances and driverless cars.

*What is technology connecting them to in the community?*

- Half of respondents currently use technology to refill prescriptions. They also use it to access government services (45%) and connect with doctors (40%).
- 50-60 year olds, however, primarily use technology in their home for entertainment.

*What Consumers Want in Communities and Homes*

- As they age, respondents feel the three most important factors for communities are high-speed internet access (87%), nearby grocery stores (83%), and access to hospital and medical care (77%).
- Respondents also place a high level of importance on having walkability (73%), outscoring access to parks and outdoor recreation (50%) and access to gyms/indoor exercise and wellness facilities (36%) and access to parks and outdoor recreation (50%).
- The most important factors inside the home are a low-maintenance exterior (58%), master bedroom and baths on the first floor (54%), and effective lighting throughout the house (54%).

### **Industry Insights from Developers**

Like consumers, developers acknowledge that technology applications in the home can be useful and interesting, but technology is currently viewed as a cost, rather than a way to provide benefits or value. These and other insights came from one-to-one interviews with experts working in residential, mixed-used, and commercial real estate development (see Appendix 1 for list of interviewees). We learned how the industry is, or is not, responding to the converging trends of an aging population and increasing incidence of smart technologies in homes, in local businesses, and community services.

Few developers are thinking about how aging residents can use smart home technologies<sup>5</sup> to connect to their communities and tap into resources in their immediate surroundings, regardless of age. Developers are driven by today's client needs and economics. However, a few acknowledged that this short-term thinking is

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<sup>5</sup> For the purpose of the session, the term "smart home" refers to "a residence equipped with technology that facilitates monitoring of residents to improve quality of life and promote physical independence, as well as to reduce caregiver burden."

problematic. One developer associated the technology integration conversation, to commercial development trends of the 1970's, 1980's and 1990's. Then, the focus was all about single use development such as the large big box retail stores and the shopping mall. Today, many of these built spaces are struggling as they lack the vibrancy of round-the-clock activity that energizes cities, are not readily accessible without a car, are subject to changing consumer trends, and are competing with shopping taking place more conveniently online. By not considering technology adoption and connectivity today against the needs of aging Boomers, this developer wondered if his industry was building tomorrow's equivalent of the dying shopping mall.

Nearly all those interviewed are well aware of America's aging population and had some knowledge of the increased incidence of technology, including smart technologies, being used in the home environment. Google's acquisition of NEST was top of mind with all but one interviewee. NEST was consistently given as an example of how the automated thermostat will play an important role in affordability as it "learns" the living patterns of residents and results in energy savings.

Additional important themes that emerged from the interviews include:

- Commercial developers believe technology integration can be addressed when the Boomers approach their 80's, about ten to fifteen years from now. At present, it appears to be a peripheral conversation especially among those who define themselves as "ROI-driven entrepreneurs" who view the technology as a cost rather than a value at this time.
- Multi-family property developers believe providing hi-speed Internet access and WiFi are sufficient for older adults.
- Builders are concerned about "making a home obsolete". They do not want to integrate technology into structures which may later become outdated and hard to remove or replace. One builder who was interviewed had earlier made investments in tablet or keypad driven, all-in-one systems that manage a home's lighting, security, and home entertainment. The builder now worries the companies behind these technology systems may not be in business in the future given the rapid pace of innovation.
- The average senior housing tenant is around 81 or 82 years old and is part of a generation that is generally not well-versed in technology. However, they might be using smart phones or cell phones to "connect" to friends and family members, refill prescriptions, or order take out from a local restaurant.
- Some retailers and restaurants are using technology for marketing and/or to customize their offerings to customer needs, a trend that could leave older, less technologically adept consumers struggling to keep up.

- Developers working in the mixed-use space believe there is a page to be taken from the retail industry. They see how retailers are building deep and meaningful relationships with their customers, using technology as an enabler rather than a product, device or component.
- How built space is conceived of and delivered has not changed much in the last 100 years. There has been little innovation, however there are opportunities for creativity. One idea suggested was more modular structures that are built in a controlled environment and then assembled on site.
- A few developers are questioning the sustainability of the age-restricted senior housing model and instead see more of a trend away from buying another home towards moving straight into apartments and condominiums located in thoughtfully planned communities with high walkability scores, convenient grocery and pharmacy access,

*“I think there’s room for innovation . . . how we design and build is pretty much the same as 100 years ago. We design a structure – with floors, wrap it with curtain walls, put a façade on and stuff people inside and say ‘live’.”*

## Roundtable Findings

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To understand the context for creating an ecosystem supporting older Americans to age at home, GSEI and Philips brought together in a May 2014 working session executive decision makers representing health care, consumer behavior, product innovation, retail, real estate development, community development, municipal and regional planning, policy, and academia (see Appendix 2). Armed with scenarios, they were asked them to tackle some key questions:

- To what degree is innovation fragmented and occurring in silos for the various individuals and entities working across everything from product and service delivery for the home to community service providers to developers of the “built space”? How can we promote more coordination and dialogue among innovators?
- What are some possible areas for collaboration? What are the risks for not doing so? What are the barriers that need to be overcome?
- How can we work together to help mature adults see the promise of and intrinsic value of incorporating more technology applications into their day-to-day lives?
- What is the next category of “familiar” technology applications that can

become valued and indispensable to consumers who wish to remain in their homes as they age? For example, consider where the back-up camera technology in cars was a few years ago. What was once a “nice to have” feature is now becoming a mandated feature in all cars starting in May 2018. What is the equivalent technology product or service for the home that can enable individuals to remain there longer?

- What are the specific roles for each of the following stakeholders as we look to define an ecosystem for our aging population to remain in their homes?
  - Residents/consumers
  - Service providers (both commercial and not for profit)
  - Designers
  - Policymakers
  - Corporate innovators
  - City and regional planners
  - Academics
  - Local and federal government

Several themes emerged from the roundtable session, including some thoughts on barriers preventing more rapid adoption of smart technologies. These barriers include the stigma associated with the products, lack of familiarity, and perceived cost. The discussion also highlighted some opportunities to address positioning and marketing messaging to a dual set of consumers – aging resident and their adult-age children – as well as ideas on what the field can do to shorten the timeframe when an ecosystem for connecting aging residents to their community, and vice versa, can become commonplace.

### ***Products Are Not For Me***

Solutions that can prevent and monitor falls, delay when an elderly person needs an assisted living situation, or reduce the need for caregiver help, have the potential to increase independence, provide peace of mind to children and friends, and potentially reduce care costs in the long run. However, some roundtable participants believe the single biggest barrier to greater adoption of smart technologies is the stigma associated with these products and services. Boomers and older adults do not want to think of products for “old people” and especially those that are poorly designed.

Participants readily acknowledged that it is a challenge to build a product that can help with independence and create the proper positioning and messaging to consumers who do not see themselves as old. And, there is the doubled-edged sword to consider when someone from the intended audience considers wearing a Personal Emergency Response System (PERS) device: “What if I do have a fall? Then, my kids may want to put me in a home.” One participant with significant experience working in the gerontechnology space believes there is a huge opportunity to reposition the PERS device, not as a product for monitoring, but rather as a service that provides responsiveness.

### **People need to “age into” technology**

Consistent with the findings of the consumer study, participants discussed how when technology is a part of a person’s life today, it is very easy to see the tangible benefits. One of the challenges with the smart technologies designed to enable people to live independently is that individuals for whom they are designed to help do not readily see these products and services as relevant to them. It’s difficult for some to imagine a time when they will need assistive technologies when the benefits are unknown. How do we get consumers comfortable with technology applications in a category – aging – that most do not want to acknowledge or think about?

WiFi, broadband, and programmable thermostats are technologies currently being used in many homes and across all age segments. Given the interest in home security and automated thermostats, could these products be the “bridge” to introduce health care products and services into the home? As consumers become comfortable with sensors that detect door openings or movement at entry points, could the next step become sensors on appliances, the medicine cabinet and more?

Programmable thermostats can be set to move temperatures up or down at set times of the day, while automated thermostats monitor living patterns, make adjustments, and result in cost savings. Home health monitoring can be positioned as a cost savings because a resident may detect health issues earlier, have fewer visits to the doctor, fewer hours of caregiver care, or delay moving to an assisted living care situation.

### **Opportunity for reframing costs**

Perceived cost is another recurring theme as a barrier. The perception is that smart technologies are expensive, and additional expense may be required to retrofit homes to accommodate them. However, affordability goes hand in hand with awareness of benefits.

The cost of sick care, anguish to the family, and cost of institutional care are huge. Some participants talked of the opportunity to reframe services to show how they can enhance life and save money and time. Others talked about the role that doctors could have in making their patients aware of the benefits to technologies that extend time at home while saving money.

Reimbursement by private insurance, Medicare, and/or Medicaid for assistive technologies is very limited even though they could promote health and independence. Participants felt without controlled measurement of outcomes and a demonstration of cost savings, these technologies will continue to see slow adoption.

### **Who is the customer?**

While cost is a concern, there were also questions raised who is actually purchasing the products. Adult aged children will typically not be as concerned with costs. They are looking at the bigger picture - keep their parents safe and

*“If developers wait 10-15 years to tackle these challenges and opportunities, it will be disastrous”*

independent, while providing peace of mind to themselves. The older adult, however, will care more about the costs involved and insurance reimbursement, an area that is still in the very early stages for smart home technologies. Until clinically driven evidence can prove better outcomes in environments that insurance will reimburse, adoption by the primary target will be more of an uphill battle.

### ***A supplement, not a replacement***

Technology has its limitations, cautioned several. It can help support independent living, connect to services and to loved ones, and reduce costs associated with caregiving hours, but it does not replace the innate need for regular human contact and human touch. Any systemic solution would need to include regular contact such as being delivered through promising models in the senior “village” movement, which coordinates volunteers and others to provide older residents/neighbors with services that help them live independently for an annual membership fee, averaging \$435 and ranging from \$50-\$1500<sup>6</sup>.

## **Key Takeaways**

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- Most believe “community” should be defined as neighborhood when we think about and plan for connecting people from their homes to their communities.
- Invasive is how most target consumers view new technology and applications for aging in their homes, especially if they are for tracking and monitoring purposes. There’s an opportunity for repositioning and design thinking if such devices or services are to become more widely accepted.
- Consumers need education, delivered in a way that is relevant, on new technologies that will enhance and/or ease their daily lives.
- Health care partners, especially payers, need to be part of any outcome evaluation demonstration that is designed to measure better health outcomes and cost savings.
- Builders should consider opportunities to install “aging well” infrastructure during new construction when it is cheaper to do so. Examples include blocking in bathroom walls to accommodate grab bars, infrastructure wiring for security cameras and sensors (as well as home theater controls), and stacked closets for future elevator installation.
- Product developers should be mindful of their dual audiences - the older adult and the adult children – and the need to communicate and market differently to each. A response service for an older adult may be positioned as a monitoring device to an adult child.

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<sup>6</sup> Snelling, Sherri. “The Village Movement: Redefining Aging in Place, NextAvenue.org, June 8, 2012.

- Solutions that are intergenerational in design are likely to be adopted more quickly. Sleek, modern wearable technologies designed for athletes could be the same wearable technologies that flag a change in blood pressure, an issue with balance, or change in skin acidity. Products used by boomers today for fitness and wellness could become familiar, personal health monitoring devices for use in their 80's and 90's.

## Next Steps

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Building on the study findings and recommendations from session participants, Philips and GSEI are evaluating the following next steps:

- Designing a pilot project(s) or “living lab” to demonstrate the benefits of smart technologies and establish a framework for creating ideal connections to the community. Documenting the best practices with specific case studies and examples, all with an eye toward measurement of outcomes.
- Forming a coalition to include Philips, Georgetown, AARP, Centers for Medicare and Medicaid Services (CMS) and other major sector leaders to create a research infrastructure that shares what is working, defines what is the desired end state, determines who needs to be engaged, and move the desired end state vision forward.
- Leveraging existing public/private partnerships, e.g. U.S. Environmental Protection Agency (EPA), U.S. Department of Housing and Urban Development (HUD), U.S. Department of Transportation, and U.S. Department of Energy, all of which have public dollars against similar initiatives, and adding the missing health and service provider sectors to the mix.
- Identifying the most promising solutions and models on the ground and spreading the knowledge to cities, their planners, and their developers.
- Continuing the conversation with an upcoming “Aging Well Expert Session” focused around the topic of caregiving.

**Developers and Industry Experts Interviewed for  
Philips-Georgetown Aging Well Session:  
“Creating Connected Communities for Aging Well”**

- **Gary Campbell**, Chief Operating Officer, **Gilbert Campbell Real Estate** (MA)
- **Vicki Davis**, President, **Urban Atlantic** (MD)
- **James Graham-Yooll**, Owner, **Rembrandt Builders** (MD)
- **John McIlwain**, Senior Resident Fellow, J. Ronald Terwilliger Chair for Housing, **Urban Land Institute** (NY)
- **Heather Personne**, Principal, **Evergreen** (AZ)
- **Ken Hubbard**, Senior Managing Director, **Hines** (NY)
- **Thom McKay**, Vice President, Marketing, **Edens** (MD)
- **John McLinden**, President, **StreetScape** (IL)
- **Scott Stewart**, Founder and Managing Partner, **Capitol Seniors Housing** (DC)

**Aging Well Working Session Series:  
Housing and Infrastructure  
May 13, 2014**

**Roundtable Participants**

1. **Majd Alwan**, Senior Vice President of Technology and Executive Director, **Center for Aging Technology Services (CAST)**
2. **Elizabeth Blazeovich**, Director, Center for Design and the City; Program Director, Sustainable Cities Design Academy, **American Architectural Foundation**
3. **Ron Bogle**, President & CEO, **American Architectural Foundation**
4. **Uwe Brandes**, Founding Executive Director, **Georgetown's Urban and Regional Planning Graduate Program**
5. **Mae Carpenter**, Commissioner, **Department of Senior Programs and Services, Westchester County**, New York
6. **Cindy Crump**, Founder, **Aframe Digital**
7. **Vicki Davis**, President, **Urban Atlantic**
8. **Dennis Domer**, Professor, New Cities; Long Life Communities, **University of Kansas**
9. **Mark Emery**, Innovation Program Director, **Philips**
10. **Graham Evans**, Vice President, New Markets, **Relay Foods**
11. **Elinor Ginzler**, Director, Cahnmann Center for Supportive Services, **Jewish Council for Aging**
12. **Ron Goldberg**, Communications Director, **Z-Wave Alliance**
13. **Scott Hall**, General Manager, **Zipcar**
14. **David Hoglund**, President & COO, **Perkins Eastman**
15. **Robert Karen**, Managing Director, **Symphony Development Group**
16. **Jeffrey Kaye**, ORCATECH Director, **Oregon Center for Aging & Technology (ORATECH)**
17. **Bill Kelly**, President and Co-Founder, **Stewards of Affordable Housing for the Future (SAHF)**
18. **Nancy Leamond**, EVP, State and National Group, **AARP**
19. **Tony Lee**, Senior Manager, Sr. Manager, Federal Government Relations, Home Healthcare Solutions, **Philips**
20. **Liddy Manson**, President, **BeClose**
21. **Ladan Manteghi**, Executive Director, **Georgetown's Global Social Enterprise Initiative**
22. **Maureen McAvey**, Bucksbaum Family Chair for Retail, **Urban Land Institute**
23. **Ellen McCarthy**, Acting Director of the **DC Office of Planning**
24. **John McLindon**, President, **Streetscape Development**
25. **Robert McNulty**, President, **Partners for Livable Communities**
26. **Lindsey Mosby**, Executive Director, Innovation Strategy Group, **frog design**
27. **Bill Novelli**, Founder, **Georgetown Global Social Enterprise Initiative and Professor of Practice**

- 28. Laurie Orlov**, Founder, **Aging in Place Technology Watch**
- 29. Kathleen Penny**, Vice President, **CH2M Hill**
- 30. Bill Prenovitz**, Senior Product Manager, **Philips**
- 31. Kian Saneii**, CEO, **Independa**
- 32. Brent Shafer**, CEO, **Philips North America**
- 33. Mark Stephenson**, Head of Brand, Communications & Digital, **Philips North America**
- 34. Kathy Sykes**, Senior Advisor for Aging and Sustainability, **U.S. Environmental Protection Agency**
- 35. Laurel Sweeney**, Senior Director, Health Economics and Reimbursement, **Philips North America**
- 36. Robert Wray**, President & CEO, **Blue Star Service Solutions, Inc.**

**Authors:** Diane Ty, Global Social Enterprise Initiative at Georgetown McDonough; Ladan Manteghi, Global Social Enterprise Initiative at Georgetown McDonough

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