

# AAL

PROGRAMME

# AAL FORUM 2018

## EXECUTIVE SUMMARY

**AGEING WELL IN THE DIGITAL AGE:  
A GROWING COMMUNITY OF CHANGE MAKERS**

[www.aalforum.eu](http://www.aalforum.eu)

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# WORKING TOGETHER FOR A BRIGHT AAL FUTURE

**Welcome** to this very special publication that we have put together following another successful AAL Forum, this year held in Bilbao, Biscay. The purpose of this document is to provide some reflection on everything that took place over the three days in Spain and summarise the many lessons learnt, views expressed and ideas exchanged.

Firstly, though, I would like to thank our hosts in Bilbao for providing such a wonderful and welcoming venue for the event and for ensuring the programme was bursting with interest for everyone involved in driving the digital transformation of health and social inclusion for our ageing population. Bilbao, Biscay and the Basque region as a whole are steeped in tradition, yet forward-thinking, too, ready to embrace the ideas AAL has to help older people lead more active, healthy and connected lives.

That was clear in speaking to the many older people from the region who attended to judge our Stand Award Prize for 2018. Their judgement was a real nod of approval for the winner and a clear indication that the platform designed by the University of Geneva to help older people join social activities in their local area, create communities and stay connected with society clearly has market potential.

As well as inviting older people to view the brilliant innovations on the exhibition floor, we wanted the AAL Forum 2018 to bring together its growing community of change makers to discuss ways in which we can work together to understand better the challenges we all face as we get older as well as focus on how we should organise ourselves to meet those challenges.



Of course, the aim for AAL will always be to develop the products and services that make a real difference to people's lives, but by establishing continuous dialogue amongst this community at a time of great change for AAL and a time of opportunity for the silver economy, we can now see more clearly where we should focus our efforts in the future.

One thing that I believe is clear from the voices we have represented in this publication is that there seems to be a consensus on the need to involve older people in the development of products and services for this market – and not just in getting them to test products or tell projects what they think they need. Older people have a huge amount to give and their experience across the many disciplines needed to promote active and healthy ageing will be essential in ensuring we succeed in the future.

Next year the AAL Forum moves to Aarhus in Denmark, a vibrant, innovative and exciting university town fully engaged with the AAL community and the promotion of active ageing. Let's hope that we can learn from all that happened in Bilbao and, by the time we meet in Aarhus, we will have even more successes, ideas and innovations to celebrate once again.

See you next year!

*Peter Saraga,*  
AAL President



# THE AAL FORUM 2018



AAL  
FORUM  
2018

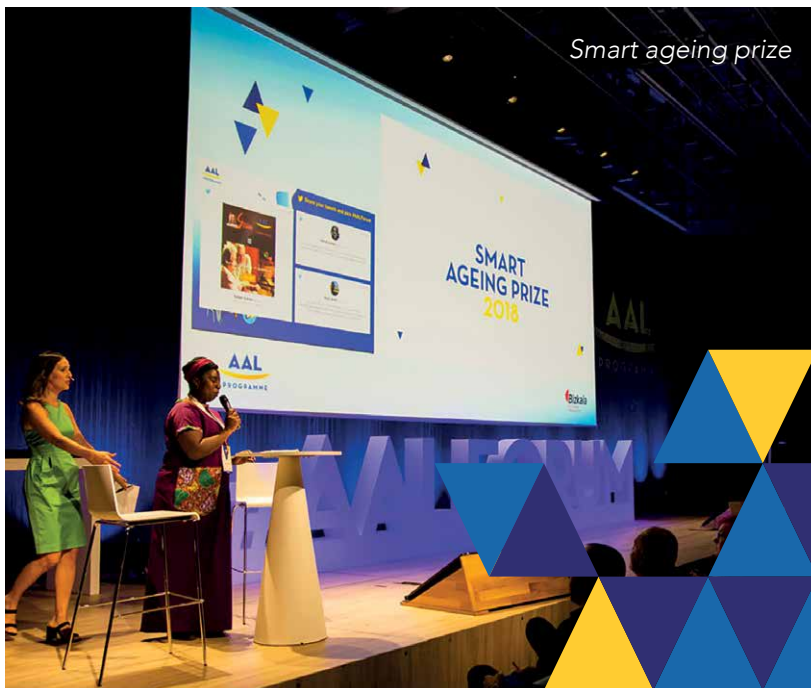
The AAL Forum took place in Bilbao, Biscay, in the heart of the Basque Country, Spain on 24-26 September. Biscay has one of the oldest societies in the world and has become one of Southern Europe's promote figures in developing, testing, validating and manufacturing innovative products and services for ageing well. Hosted by Biscay Country Council and taking place at the Euskalduna Conference Centre just down the river from the world-famous and strikingly beautiful Guggenheim Museum, the event welcomed more than 500 delegates to take part in exciting talks, interactive workshops, a buzzing exhibition with new technological advances, poster sessions, a matchmaking event and many other opportunities for delegates to immerse themselves in a world of active and healthy ageing in Europe

**Only 40** years ago, Bilbao was a dark, introspective and industrial city but it has since been transformed through design and culture into a new and vibrant place in which to live and work. This was the sort of journey Jeremy Myerson, designer and co-founder of the Helen Hamlyn Centre for Design in the UK and keynote speaker at the event, hoped the AAL community of change makers would go on during the forum.

Design for ageing well was a critical theme at this year's event, with Myerson delivering a speech during the opening ceremony about what design can do for the success of future products and services for ageing (see page 10). With many products and services developed through AAL funding having reached a fairly mature stage in their development, there are still challenges and

barriers that are preventing them getting to market. The year's forum wanted to understand this problem better and so there was a concerted effort to look closely at what might be holding products in this sector back - and how they are designed is just one of those factors.

The forum was also abuzz with the prospect of AAL after 2020, of how AAL would look beyond the decade and how it will go about changing and adapting its approach for future success. Similar to the notion of change through design,



Smart ageing prize



Hackathon

workshops focused on the need for collaboration and more awareness and understanding by all sectors and ages in society, countries and ecosystems of active and healthy ageing. The plenary sessions explored these ideas in greater detail welcoming stakeholders from European, national, regional and local areas to offer their opinions on what it will take to be AAL beyond 2020 and to consider the mechanisms that need to be implemented for AAL products and services to truly take off in the near future.

As ever, the workshop sessions (see pages 58-94) this year were all well received with a high level of interaction through a mixture of presentations, group discussions, World cafés, fishbowl panel debates and brainstorming breakouts. The dialogue and teachings were extremely rewarding and valuable lessons were learnt, with many discussions spilling out into coffee and lunch breaks. As one workshop coordinator said: "Though we might not have achieved everything we set out to in our session, we just couldn't stop the passionate and lively debates that were happening. Everyone was making some fantastic points and really getting involved. The conversations even continued after the session ended. It was great for everyone."

The AAL Exhibition (see page 26) once again played a significant part at this year's event, with projects and related industries able to demonstrate their latest advances, products and ideas to both a lively AAL audience and to a jury of 14 older people and members of the Council of Elderly People of Biscay. This group was invited to judge the AAL Forum's Stand Award Prize, a fun competition run for the second year that sees exhibitors presenting their stand to a number of end-users and answering their questions before being marked and graded by those end-users. Projects were once again able to see for themselves the reactions to and interactions with their products or services from their real target audience. This year's winner was the University Hospital Geneva, which was

exhibiting an online platform that provides information to older people about events in their communities.

Running alongside the exhibition over the two-day event were the poster sessions, held throughout the coffee and lunch breaks to ensure maximum participation. Projects, industry and business were able to present their developments and answer questions from the floor in a relaxed and informal setting, using digital displays.

A number of events also took place prior to the forum, which also played a vital role developing AAL ideas. The first, which took place over a number of months in 2018, was the Smart Ageing Prize (see page 14), which was launched with NESTA last year with the aim of finding "products and services that use innovative digital technologies to support older people to participate fully in social life". From 95 applications, 15 semi-finalists were chosen to attend a mentoring academy in Brussels over the summer to support the development of their business. Five of these were then announced as the finalists to appear at the forum and be in the running a €35,000 top prize, after pitching their ideas to the opening ceremony audience.

The winner of the 2018 Smart Ageing Prize, after tough deliberation by the judging



Matchmaking session



panel, was KOMP, which was delighted with the valuable accolade. KOMP is a one-button online device that connects generations and it is designed to put an end to loneliness. Ageing in a world where technology develops so fast can be hard for older people, not only functionally but, as more families turn to digital mediums to stay connected, some are just left behind. KOMP is there to reconnect families and friends via photo sharing, messaging and video calls with many new features on the horizon to keep it updated and modern. For those with little or no technical knowledge, KOMP cuts out the hi-tech and replaces it with just one physical button.

**“Everyone was making some fantastic points and really getting involved. The conversations even continued after the session ended. It was great for everyone”**

Another main event that started before the main forum was the two-day hackathon (see page 53) where a group of eager designers, developers and older adults got together for 30 hours of creative brainstorming for Hack4Elder advantAGE. The University of Deusto put on an excellent event, full of collaborative sessions, discussion breakouts and innovation pills (five-minute talks given by international experts) to foster the creation of new ideas that improve quality of life for the elderly. Seven teams pitched their final ideas after the two days to an international panel of experts who chose TOGETHER, which seeks to improve social services through telecare, as the winning entry.

Matchmaking (see page 50) also made a return as in previous years as a service to pair delegates to discuss potential collaborations based on their skills and assets in an informal and relaxed environment.

This Executive Summary provides an overview of the event from all the key perspectives with reports from all of the workshop sessions, so you can get a real feel for what was discussed and understand the main outcomes of the work being undertaken in and around the AAL ecosystem. There are also a number of opinions expressed and analysis published from award winners, event delegates, the exhibition floor and views from all around the forum on some key questions.

The publication also contains interviews with key stakeholders at the event providing a good understanding of the different views, advice, knowledge and strategies that were captured at this year’s AAL Forum. The opinions provide an honest appraisal of the opportunities available to AAL and how to exploit these, what users want and how best to meet that need and how, together, through co-creation and collaboration we can all achieve success in the future.

In summary, this year’s AAL Form was an excellent occasion for all delegates - from researchers, developers and investors, to caregivers, industry experts and end-users, all were able to communicate openly and share their thoughts about AAL developments now and what the programme needs to be doing in the future to remain at the heart of active and healthy ageing in Europe. With more interaction than in previous years, Bilbao was humming as everyone raised their own voices and made valuable contributions to all the lively debate.

The theme for this year’s event was: “Ageing well in a digital world: A growing community of change makers”, with the aim of enhancing and growing a solid and secure community so that together we can help improve the lives of older adults. There was real determination to get things moving and build collaborations at every level, involving all people in society at every age in order to make sure the right products and services are created now and long into the future.

Isabel Robles



# AAL FORUM 2018: OPENING CEREMONY

**The AAL Forum 2018 in Bilbao kicked off at the Euskalduna Conference Centre, where delegates gathered to hear about the focus of this year's event and to get the ball rolling in terms of collaborating and innovating together**

**The start** of the opening ceremony was a celebration of all things Basque, including a performance of the traditional Basque dance, the Auresku. In the modern day this dance has taken on a more ceremonial role, said co-presenter Adela Ucar, often reserved to honour special guests of the region. In this case, the guest were us – the AAL community.

Co-host Peter Fitzpatrick then gave a short history of the venue, the Euskalduna Conference Centre, which up until 35 years ago was a working shipyard. Ernest Hemingway famously described Bilbao as an “ugly mining city” in his book *Death in the Afternoon*, but since his visit in the early 20th century it has undergone a transformation into one of the most culturally vibrant cities in Europe. The Guggenheim Museum sits as the jewel in its crown, but beyond this it has embraced a spirit of change and development which has seen it named European City of the Year at the 2018 Urbanism Awards.

Isabel Sánchez Robles, head of the Social Action Department at the Bizkaia Regional Council, formally welcomed the delegates to the Basque region and talked about some of the recent efforts of the local council to get

involved in the area of active ageing. The population of over-65s has doubled in the last 30 years in the region, so it has enacted a number of health and social policies that aim to promote healthy, active ageing and ensure good quality of life for its older citizens. Older people themselves are at the centre of these initiatives.

Recently elected as the new President of the AAL Association, Peter Saraga used his







inaugural speech to describe just how far the programme has come since its inception. Having funded more than 200 projects and supported more than 700 SMEs, it has played a key role in Europe's push to address the challenges that older people face. Equally important to the products and services are the transnational networks that have been developed during AAL's existence. But, Saraga continued, the forum itself is less about celebrating the achievements of the past than looking to the future. He encouraged the audience to get involved in the numerous interactive workshops that would take place over the two days and explained that AAL is now working on a new strategy for itself.

Next up on stage was Marco Marsella, head of unit at DG CONNECT. He talked about how much the AAL community is respected for its efforts to directly address the topic of independent living through the use of technology. Interoperability is still a major hurdle for many of the technologies being developed, and the European Commission is working on ways to facilitate this. They are also looking into ways to develop the field of personalised medicine, which is growing in importance.

Horizon2020 and Horizon Europe will be pumping a lot of money into this sort of research in the coming years, as is the EC's dedicated health cluster. The Digital Europe Programme will focus on capacity building and rollout in artificial intelligence, high-performance computing and general digital transformation. Marsella emphasised that synergy between these different funding bodies will be paramount to the EC's contribution to the AAL community.

**“The population of over-65s has doubled in the last 30 years in the region, and it has enacted a number of health and social policies that aim to promote healthy, active ageing and ensure good quality of life for its older citizens”**

*Peter Saraga*



## KEYNOTE

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**Jeremy Myerson, the first-ever holder of the Helen Hamlyn Chair of Design at the Royal College of Art, opened the 2018 AAL Forum and it was no surprise that he set the scene for the whole event by stressing the significance and importance of design for ageing well. Though we are surrounded by new developments in technology, Myerson questions whether it is being served to older adults in the right way. If we consider design when it comes to technology for the over-65s, however, then we can come closer to helping older people lead richer, more active and more rewarding lives**

**In the** opening keynote address, made to a packed first plenary session at the AAL Forum 2018, Jeremy Myerson began by framing his views on why design is so critical to active and healthy ageing, around three experiences in his career. Firstly, the author, academic and design activist is the co-founder and director of the Helen Hamlyn Centre for Design, and his remit there is to encourage design that improves quality of life through lots of projects, some successful, some less so. Secondly, he was also director of Worktech Academy which looked at how to support an ageing workforce through design and technology. Finally, and most recently, Myerson considers his "most critical experience" to have been his role as curator of the New Old: Design for Our Future Selves exhibition. In other words, here was a man who knows what he's talking about.

For the New Old: Design for Our Future Selves exhibition, Myerson invited six



# DESIGN FOR DESIRE NOT FOR AGE

leading design teams from around the world to speculate with design proposals focused on different areas of life and push the boundaries of our perceptions of ageing. We live in such uncertain times but, as Myerson said, "one thing is predictable, and that is demographic change".

To move forward through this certainty, Myerson believes we need to start asking questions about what it all means to be old. "What type of older age do we want? Years full of life or a life full of years? How should designers, innovators and technologists address this age? There's been an unhappy relationship between design and ageing over the last 50 years whereby the mass market economy has simply thought of older people purely for their economic benefit. Design has only been there, it seems, to treat disabilities as special needs."

**"There are many opportunities  
in design that can help us get by  
more easily as we age"**

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Jeremy Myerson

Myerson expanded on this by suggesting that in order to enable new products and solutions for older people to be recognised and desirable, we need a wider ambition to revisit and redesign what it actually means to be old – suggesting we could look at it instead as having the freedom to travel, to work and to engage with the community, rather than being dependent, frail and in need.

When Myerson was working on a UK government report Future of an Ageing Population in 2016, he found inspiration for his New Old exhibition, discovering that there was an overwhelming need for better design in how older people live in their houses and in their neighbourhoods and how they use technology to do this.

“For the New Old exhibition, we wanted design interventions that fitted into the messy realities of older peoples’ lives and not those dreamed up in a fantasy,” he said. “It’s a productive era of aspirations in later life that is so unprecedented it demands special creative potential.”

Having been on tour in three countries already, the New Old exhibition has generated many talking points along its way and Myerson wanted to share these as he is convinced they “shed light on some of the questions that AAL is facing”.

“The New Old exhibition examines the divisions in society, in technology, in ageing and in the future and how we align ourselves in order to create and integrate new design-led services for the ageing population,” he said.

It was this division that remained central to the rest of Myerson’s speech as he went on to examine what he considers to be six dichotomies that exist between good design and technology designed for older people. He believes it is these that need to be addressed if we are to create the products that not only meet the needs older people face, but are the products older people actually want to buy and use. The six dichotomies he highlighted were:

### Human v Automation

Myerson asked strongly contentious questions, many that resonate within the AAL community: “Who do you want to care for you in your old age, a robot or a human?”, he pondered.

“There are many opportunities in design that can help us get by more easily as we age,” he said, answering his own question. “For example, we could live in a fully-serviced apartment that is run by someone, or something else in a secret network the other side of our walls. Amazing Apartment designed by Future Facility created just this, but would this actually make our lives happier and easier? Would we not be like prisoners in our own homes, more isolated than ever?”

Myerson used this example to illustrate how the possibilities of design could go too far in constructing an environment that actually negatively impacts our health. “In reality,” he continued, “we talk about bringing people together, avoiding isolation, so why not design communal areas that remove parking spaces and add park benches and BBQ stations for more human interaction.”

### Special needs v Social inclusion

Myerson went on to critically examine the mobility scooter, one of the most recognised symbols of ageing. “And yet it is ugly, impractical, socially isolating and extremely stigmatising,” he said. “Here we have a huge divide in how those who are

older and have a disability are treated and designed for, compared to your average-Joe person. The design standards are completely different and have fallen short of being aesthetically and physically suitable."

One of the most successful designs for the New Old exhibition was the Scooter for Life, designed by Priestman Goode. It pushed this boundary between designing something that not only fulfils a need but looks good and is desirable to its target market and designing something simply to fulfil a need.

The Scooter for Life examined how the freedom and appeal the design of a child's scooter represents could be replicated for older people, handing them greater independence without embarrassment or stigmatising them with the negative connotations of ageing. He said: "A product should be for life. Allow a grandmother and a child to use the same fundamental design and you end stigmatising that older person. A product should be able to be taken with you through life."

### Passive v Active

Our ageing demographic has impacted how work and the working environment is viewed. Though governments are increasing the retirement age, there remains a question of whether these working environments are suitable or attractive to older adults. "If a work place is hard to move around, uncomfortable or technologically distancing, older people will retreat from work," said Myerson.

"Older people are in fact a font of experience, skills and knowledge, and so they could and should be actively participating in the world of work if they want to and are happy to do so. By redesigning the aesthetics of a working environment with lighting systems, standing chairs and specific skilled jobs ideal for older people's patience and understanding, companies will attract older workers and these workers will be more comfortable and bring a lot of positives to the work force. More initiatives like this should be adopted."



### Global scale v Local appeal

Many new projects and designs face the difficult decision of scaling down or scaling up, to serve the "local communities with customised solutions," said Myerson. "Or they face the challenge of opening up more innovating opportunities by going big."

"What is to say, however, that future products and solutions cannot cater for both options by tackling local issues on a mass scale?" The Aura Power Suit by Yves Behar at Myerson's exhibition is a life-altering garment with imbedded AI to support natural body movements, and then there is Paro the Seal, a therapeutic device for dementia sufferers world-wide that was never meant to be a global product. "There's interest in a global market," said Myerson. "But to succeed is to successfully combine traditional products with future technologies."

### Private lives v Shared data

"We read in our news feeds stories about data and privacy breaches so it's no surprise that older people are more sceptical of new technologies and how secure and safe they are. However, the possibilities big data offers design and technology is huge and arguably unavoidable."



Myerson used the new technology called Spirit by IDEO to illustrate the tension that exists between the possibilities technology offers and what we need to give up to use it. "Spirit could be the next Alexa," Myerson said. "Think of an ingestible capsule that collects data as it moves around your body about such habits as eating and drinking. It then marries this with all the data you've given to Amazon and Google to create your profile, voila – you're an interface. When you next meet someone your gut will physically tell you whether you're a friend match or not. AI will know better than you about who you should hang out with."

Though this might one day be possible, and however appealing this technology may be for some, Myerson believes that, as a society, we have to consider and stay true to how far we are willing to go towards dismantling our private lives and think that though the technology is there, do we have to use it?

### Assets v Deficits

"So, you are getting old and you will be living for longer and this is bad." Myerson expressed a very common viewpoint. "But," he added. "You are wrong."

At the New Old exhibition Myerson wanted to move people away from the negative view of ageing and focus on mapping the positives. One project he is using to do this is Exchange by Special Project. The installation brings older and younger people together in informal conversations so they can discover for themselves the wisdom and experience that can be leveraged when different ages are brought together.

"This is an idea of co-creation and co-design between different generations that can bring us much closer to the lived reality of how older people can live their extended years," he

said. "Generations have so much to share and offer one another that design and technology should freely enable this, and the sooner society changes how it understands ageing the sooner everyone can benefit."

After providing these six examples of the dichotomies society faces in terms of designing for older age and, indeed, how society views ageing in the first place, Myerson concluded on a positive note.

"We need to ask ourselves these six big questions about what we want from design and technology for active and healthy ageing. If we can answer those questions we can get to the sweet spot of innovation. We have to marry what is technologically feasible with what is viable commercially and what is desirable for ageing.

"So often, desirability is what is missing, and design is the ingredient that can help us bring these things together to help us age well. There is a world of opportunity through technology, it's there to be taken - we just need to bring designers into the ring."



# PRIZE-WINNING IDEAS FOR SMARTER AGEING

The three winners of the AAL's Smart Ageing Prize 2018 were announced at the AAL Forum this year. The competition was tough, revealing a huge range of ideas and potential within the AAL community

**The AAL Forum** 2018 saw the award of the second Smart Ageing Prize following a tense plenary session during which all five finalists pitched the packed arena with their ideas and products.

The challenge made at the launch of this year's award, in November 2017, was simple - to develop a solution that enables older people to enjoy the sort of social life they want and the call, which was open to anyone with a great idea, was to develop an innovation from paper to something tangible. More than 80 entries were received and, at the end of March this year, these were whittled down to 15 semi-finalists.

The semi-finalists all then travelled to Brussels for an intense boot camp, where they met experts, business leaders and investors and received support and mentoring to further develop their ideas and business plans. After this academy, all 15 were asked to produce a working prototype as well as a solid business plan

demonstrating how each was ready for the market. Judges then re-examined the 15 and selected the final five to appear at the forum and present their work to the AAL community.

After making their pitches to the audience and judges, the nervous finalists then had to wait as the judges announced the three winners in reverse order, explaining first the criteria by which they had been judged. The key drivers the judges looked for in each solution were need and co-creation, while they were also looking for each product to have the potential to create transnational impact. A reduction in the social burden of older people in society was also a prerequisite, while the overriding quality judges wanted to identify was how the product leveraged the positive and helped older people be happier and able to contribute to society in whichever way they wanted.

**“The types of technology brought forward, clearly demonstrates the sheer breadth of ideas that exist in this market”**



PEPE



Tara Long





Stefan White  
(Right) with  
Dr Kim Foale,  
CEO Geeks for  
Social Change

### And the winners were . . .

In third place came Refresh by How Do I?, a mobile app and content creation platform that links video to living and working spaces. Users record videos through the platform, which are vetted before being uploaded. "Easily identifiable NFC (Near Field Communication) stickers link step-by-step video instructions to the appropriate location through our app and a mobile device," said Tara Long, founder and COO. "Alternatively, video content can be linked to a calendar to support routines and social engagement. Users and their supporters can create content related to daily routines – including employment activities, personal care, home maintenance, and social activities."

Second prize, and a cheque for €10,000 went to PlaceCal, a partnership of community organisations, charities, social housing providers, government services, health providers, and citizens, based in Manchester, UK. "We are working together to improve the quality, quantity and accessibility of community data to make smarter and better connected neighbourhoods that work for everyone," said PlaceCal's Stefan White. "It is a low social capital social network designed to facilitate real world interactions. It's especially aimed at helping people find out about the small, local events that can be hard to discover: the coffee mornings, sewing groups, computer classes and gardening groups that might be just around the corner."

Finally, the winning cheque for €35,000 was awarded to a very happy Catherine Karlson, founding member of No Isolation in Norway and developer of KOMP, a one-button computer that makes communication between all generations simple. "With KOMP your family and friends can share photos, messages, and make video calls," she said. "KOMP does not replace physical meetings, but it makes the time between them feel a little shorter and the real beauty is that with its one-button functionality, the person using it does not have to be digitally switched on, so it brings analogue grandma into contact with her digital family." An unlimited number of family members can be invited to share moments through the KOMP app, giving every generation in the family the opportunity to participate. **See the full interview with the Smart Ageing Prize winner on page 16.**

Once again, the Smart Ageing Prize was organised for AAL by NESTA, a UK-based organisation, which runs a programme of socially-focused prizes across the UK and Europe for their Centre for Challenge Prizes. Constance Agyman, Head of International Development and Communities at NESTA, was delighted with the entries this year. "There was a great range of entries," she said afterwards. "The types of technology brought forward, ranged from simple digital tools and the internet of things to social connectors and networking and this clearly demonstrates the sheer breadth of ideas that exist in this market – and that is very encouraging." **See the full interview on page 18.**

# ENDING LONELINESS AT THE PRESS OF A BUTTON

**With its one button to turn it on or off, KOMP is a simple idea that won the hearts and minds of the judges of the second AAL Smart Ageing Prize, and won its creators a €35,000 first prize. Now, with money in the bank and the well-deserved recognition a prize like this provides, KOMP is out to conquer Europe and put an end to loneliness and social isolation for millions of older people. We talk to founding partner Catherine Karlson about the award and her plans for the future**

**No Isolation**, founded in Norway in October 2015, was a start-up with an ambitious mission. The group of researchers and technologists wanted to reduce involuntary loneliness and social isolation by developing communication tools designed to connect lonely people to friends, family and the world outside.

They started by working with children suffering with long-term illness who, by being immobile or bed-bound, were socially isolated. The loneliness these children faced was a huge part of their lives, but it didn't necessarily have to be that way and so AV1 was born, a telepresence robot that acts as the child's eyes, ears and voice in the classroom. Suddenly, lonely children could be back at school with their friends.

While developing AV1, No Isolation started to look more closely at the whole scope of loneliness and social isolation in the round and it soon became clear that they also needed to be working with older people. "It was a natural progression for us," said Catherine Karlson, founding member of No Isolation, who was speaking after KOMP picked up first prize and €35,000 for the AAL's Smart Ageing Prize. "Older people have a very high risk of becoming lonely or socially isolated and there are things we can do about that."

Karlson is quick to point out that it is not getting old in itself that makes a person lonely or socially isolated. There are many other factors involved and one of these is that the technology that surrounds society today doesn't necessarily cater for the



*Catherine Karlson*

needs of the older person or has not been designed to cope with some of the restrictions older people may face in mind.

"There is a lot of technology that does great things except take into account the needs of the older person," she said. "Much of it doesn't allow for things like loss of sight, dry finger tips and forgetfulness when remembering things like passwords. Meanwhile, in lots of cases where technology is useful for older people, many may not have used anything like it before so it needs to be made easy to use, which is often not the case."

With this very basic premise in mind - that many older people are lonely and that technology can help them reconnect with society but much of the available tech is not suitable for their needs - KOMP was born.

"We came up with the idea for KOMP in February, 2016," explained Karlson. "The whole team sat down together and, not thinking about



anything other than loneliness and older people, we came up with many ideas before it hit us – something simple to use, requiring no digital skills can be used one end, while all the digital complexity can be at the other.

“We then came up with three very low-tech prototypes designed to connect analogue seniors with a digital family. We tested this basic idea, using cardboard and paper models, in many homes of older people in San Francisco and, despite them being some of the most tech-savvy seniors in the world, we learnt a huge amount.

“What it taught us was that however our ideas developed after this research phase, we needed something as simple as possible so we came up with the one button idea – you can’t go wrong with only one button and that became the whole concept behind KOMP.”

So how does it work? Karlson emphasises, “it’s all very simple”. The older person simply turns a screen in their home on and off using the one button on the front, and then the rest of the family, with whom this person wants to be connected, is able to connect.

“All the issues of passwords and logging in etc are dealt with by the tech-savvy family rather than the older person,” explains Karlson. “The older person simply has to press the one button to connect and the family is able to share pictures, leave messages or speak via a video link. All the older person has to do, is turn it on or off.”

The development of a working prototype then followed which was taken out into the community for further testing. Karlson explains that it was important that this version of KOMP was tested with people who said that they didn’t want technology in their home. “We figured that if they liked it, then we would have succeeded,” she said. “It became very important to us to focus on the people who don’t have technical skills.”

After this testing phase, KOMP was launched on a small scale in Norway, where already 200 have been sold. This soft launch was designed as a way of testing if there was a general demand for this sort of device and whether or not people would actually buy it before it went into large-scale production.

“What is really good to see though is that with those 200 users, we now have seven family members connected to each screen – so it is clear that KOMP is a thing that engages a whole family and we are encouraged by that.

“What is even better for us,” Karlson continued, “is that we would be speaking with older people who had a family they wanted to connect to, but they felt like they were intruding or being a burden when they were calling or they were expecting family to call them – and now we see that with KOMP, they are reporting the opposite. The family is sending them things and, rather than being afraid to reach out, they see things coming into them all the time and this makes them very happy.”

With this positive feedback, KOMP is now being rolled out in Scandinavia with new partners on board, including a retailer making it available in shops as well as online. After this, the plan is to take KOMP into the rest of Europe. Of course, winning the prestigious AAL Smart Ageing Prize will not only provide them with tremendous encouragement that KOMP has huge potential, but the €35,000 prize money will certainly help with the roll-out, too.

**“What is really good to see though is that with those 200 users, we now have seven family members connected to each screen - so it is clear that KOMP is a thing that engages a whole family and we are encouraged by that”**

“We are definitely looking into further development now,” said Karlson. “We now cover the basic needs people have, but there are many other services that could be added that would be very relevant for older people once you get them online. That could be care providers or doctors connecting with them to do a care conference, for example, and we will be exploring these ideas now that we have some additional finance behind us.”

Apart from being able to see KOMP grow and expand across Europe, Karlson sees winning the AAL prize as validation for the company’s “big idea” that communication tools don’t need to look the same on both sides. “The freedom that gives us to develop tools that work on both ends with people who don’t necessarily have the same digital skills or physical or cognitive capabilities is huge. What was available before wasn’t always working for the older person in the family.

“Of course, our overall aim is to put an end to loneliness and social isolation – so we will keep on learning and keep on exploring and, I hope, we will play a big part in people’s lives, people of all ages.”

# KEEPING IT SIMPLE REAPS REWARDS

**Constance Agyeman, Head of International Development and Communities at NESTA, leads the International Development portfolio and a range of relationships and socially-focused prizes across the UK and Europe for the Challenge Prize Centre. She was at the AAL Forum to introduce the winners of the AAL's second Smart Ageing Prize and spoke after the event about this year's competition and the need for more work in the smart ageing sector that engages fully with the older person**

*Constance Agyeman*



**Constance Agyeman** wasn't entirely sure what to expect when this year's Smart Ageing Prize was launched for AAL back in November 2017. One thing she was sure of, however, and that was that she wanted entries to "keep things simple".

It is a sensible approach and, indeed, although the technology behind the

winning entry KOMP is highly technical and complex, the device the older person is actually being asked to use is simplicity itself – and that's the key to its success believes Agyeman.

"I was looking for products and services that provided a real connection to what older people really need," she said. "More often



than not, keeping things simple is the best way to make a connection and when you have that, people will buy and use your product.”

The competition focused on social life and, more specifically, was seeking to identify products that enhance the quality of someone’s social life – that could be enhancing life at home or getting older people out and about into the community and becoming more active. “I think that’s why it was so good to have such a wide spectrum of ideas,” said Agyeman. “I think there is some really exciting market potential in many of the solutions we saw as entries to the Smart Ageing Prize as well as those we saw at the AAL Forum as a whole,” she added.

**“More often than not,  
keeping things simple is the best  
way to make a connection and  
when you have that, people will buy  
and use your product”**

As well as keeping things simple, Agyeman also believes that older people together with younger people (who will be older people one day) are key to developing the kind of products people want, need and will use. “I think there is a real tension in what older people think they want and what is being developed and sometimes there needs to be a bit of coercion and convincing,” she said. “That’s why we need to see more older people involved in the co-creation of these products – and this is what really excites us when we look around the AAL Forum.

“Projects should be engaging with older people, listening to them, asking them about what they want and really developing ideas with them rather than developing things in isolation and then coming to them and saying ‘Ta-da – here’s something for you’. And I think they are doing that more and more.

“I think there is some really interesting potential out there involving older people

more and I think that we as an older population are starting to think differently about things. We are more open to new ideas than previous generations and this opens up many more possibilities.”

One key issue involving older people was acutely highlighted by the number of entries for The Smart Ageing Prize seeking to deal with it, and that was loneliness. Indeed, the winner tackles this challenge head on, as did three others on the final shortlist. It’s plainly a crucial issue that many older people face but one that Agyeman believes technology may be able to ease.

“Loneliness is devastating and the fact that social isolation is becoming more prevalent in an age when there is so much that is connecting people is a huge shame,” she said. “Loneliness doesn’t just impact on older people, of course, but I think it’s just more acute amongst older people, as society becomes more disparate and the world a more open place.

“Loneliness leads to so many other chronic illnesses and this has been underestimated for a long time now,” she continued. “I think the comparison that has been made that loneliness is the equivalent to smoking 15 cigarettes a day is a really powerful symbol – and shocking.”

Speaking specifically about the Smart Ageing Prize winner KOMP, Agyeman believes there is a lot of development for them still to do and she hopes the money they won will help them achieve their ambitious goals. But she believes the real key to their success will be the product’s simplicity. “The idea they have for enabling people to connect with each other in a very simple way means that for people who are house-bound or can’t get out very much, there is always something to look forward to and connect with. The simplicity of the one button is a real gift.

“And the beauty of having a prize like this is not just to reward the achievement so far, but to enable further development that will be needed.”

# POSITIONING AAL IN EUROPE'S FUTURE

Following the recent announcement by the European Commission of its first EU digital programme proposal and the publication of its 'Digital Transformation of Health & Care Strategy Within the Digital Single Market', questions arise about where this leaves AAL and its contribution to those future programme discussions. With just two years left of the AAL Programme in its current format, this fundamental question was proposed to a panel with differing perspectives and experiences





**Peter Fitzpatrick**, owner and manager of World Class Language Consultants, chaired the session, “AAL Beyond 2020.” He opened the proceedings by reiterating the announcement of the European Commission’s proposal for its Framework Programme 9, called Horizon Europe, which mentions five societal challenge clusters including health as well as digital and industry. Fitzpatrick wanted to use the session to dissect how the speakers’ sectors should be positioned in future European partnership programmes.

Before commencing the panel discussion, Fitzpatrick laid the groundwork for this debate by providing the representatives from the EC, national and regional levels time on the floor to summarise how their agendas over the past year have been addressing the demographic change through digital technology.

Birgit Morlion of DG Connect (EC) spoke of four exciting future programme proposals that see digital and health hold massive prominence: in:

- Digital Health and Care focused on digital applications for people-centric services
- A framework proposal for 2021-27 to ensure the EU drives digital transformation benefitting all citizens
- Horizon Europe’s Pillar Two health cluster, represents six main areas of intervention using digital tools and solutions
- The Digital Europe Programme reinforcing digital capacities in community health systems.

From the national perspective Kerstin Zimmerman from the Austrian Ministry for Transport, Innovation and Technology presented an overview of the situation in Austria, which has seen a huge surge Austria’s involvement in various strategies: RTI 2020 and Open Innovation 2025 which moves towards a more focused science innovation and digitisation approach. There is also the National Programme Benefit, part of ICT of the Future, which involves 250 large and small projects.

Chris Flim, Dutch Representative for eHealth, Welfare and Sport, also discussed the national developments

in the Netherlands. Ageing and ICT in Netherlands is a key priority and so an “Elderly Pact” has been established to improve care and living, focusing especially on carers, informal carers and housing by following a hospital-at-home concept.

The regional perspective introduction was led by Mathieu Hovanessian, policy officer for innovation in the PACA (Provence-Alpes-Cote d’Azur) region of France, which is leaning towards a strongly region-led approach in ageing. It has adopted a voluntarist policy that rewards health, ageing and wellbeing. They also established “The Region Willingness” which takes direct action addressing specific regional challenges of older people

**“There is a lack of serious talk that happens between administrative levels in allocating resources to ensure that innovations come from the needs of the end users, the most important stakeholders”**

Maria Aguirre Rueda, Director of Health Research and Innovation at the Ministry of Health of the Basque Government, provided regional context for Biscay and the Basque Country, which has developed an array of strategies including:

- A general policy on science, health and innovation
- A Digital Agenda for 2020 to ensure health and socio-health strategies in all Basque ageing policies
- The Basque Country’s greater involvement in EU innovation partnerships on AHA.

When it comes to aligning AAL’s, ‘Ageing well in a digital world’ slogan to specific sector innovation programmes, Flim believes that from a national perspective one of the key factors in successful innovation programmes is for the AAL Programme to actively combine the

Birgit Morlion



Maria Aguirre Rueda



different levels from European to local and act as the connector. Though he can see that AAL is doing well to try to combine real end-user perspectives, Flim understands that ageing well in a digital world is a challenge but says that whilst there will always be a push from technology, it's critical that there needs to be a greater push for end-user involvement at every stage and the AAL Programme can help with this.

Aguirre Rueda asserted a similar point that, though there are examples of good technologies, they have often missed their potential success due to a lack of end-user involvement. There is a lack of serious talk that happens between administrative levels in allocating resources to ensure that innovations come from the needs of the end users, the most important

stakeholders. She went on to conclude that for innovation programmes to do well there needs to be dialogue and participation through the help of national programmes.

Fitzpatrick then turned his attention to the regional panel members, asking them about the role that individual regions play within the larger AAL ecosystem. Hovanessian believes that regional relations with companies are important, and much of the information that is needed for creating efficient and effective action plans for the EU is found at a regional level. Aguirre Rueda described regions as the connection between the EU and local actors for getting new ideas into the EU framework.

The panel were then asked about the possibilities for AAL after 2020. Morlion

Kerstin Zimmerman



Chris Flim



believes that AAL is working on global challenges but a lot of the innovation and research happens on a local level. Localised knowledge should be present in EU programmes and policy. This is starting to happen, but it needs to happen more.

Morlion went on to say that ecosystems are very different from country to country and different action plans are needed for different healthcare issues. She believes that there needs to be a move towards a more integrated approach that puts the people at the forefront, not technology. Local and regional powers should communicate with each other and the EU should align with this to come out with one voice.

For this united partnership to be attractive from a national and regional

perspective there is a combined belief between Aguirre Rueda, Hovanessian and Zimmerman that there needs to be more connection, more alignment and more exchange between every level and this should be done by the EU providing the right tools and instruments to deploy the right strategies. Aguirre Rueda believes that regions could even voluntarily participate with other regions and countries, but this would need to be complemented with funding and support.

Overall, the take home message from the session was that AAL needs to bring together the current fragmented landscape and open up collaboration by working directly with SMEs, start-ups, companies and, most importantly, users so that the right business models are developed, based on real user needs.



# INTERVIEW: PETER SARAGA

The exhibition floor at this year's forum was awash with the sound of new ideas and technologies being discussed. We sat down amongst the bustle of exhibitors and other delegates with AAL President Peter Saraga to get his take on the AAL Forum 2018

**I think** the forum this year has been a big success. The venue is wonderful, and the organisers have done a fantastic job of bringing everyone together and creating a welcoming and collaborative environment. You can feel as we're sitting in the exhibition now that there's a real buzz in here, and that is a sign that people are talking, cooperating and coming up with new ideas.

One thing I've observed this year is that much of the content has not only been showcasing what we've already achieved, but has also been addressing the challenges we face in the future. This is so important, because the world is changing and the demographic challenges we face are growing quite rapidly. I think we as a community can continue to make a significant contribution to European development of active and healthy ageing.

**“We shouldn't be  
telling people  
'you need this'  
- they should be telling  
us 'I want this'”**

As I said in the opening ceremony, I think one of the areas we have to focus on now collectively is increasing the impact of everything we do. This means that there has to be a much higher rate of deployment of the products and services we create to the people who need them. One reason that AAL is in an advantageous position to make a significant contribution is because it operates at local, regional, national and European levels. Deployment happens mostly at a local level, but to make things cost-effective, we also need those larger scales of operation.

Jeremy Myerson's keynote address was one of the best we have had and really helped set the tone for the whole forum. He brought a different perspective — a design perspective — which is always welcome. His dichotomies were particularly interesting, especially when he began to explore how we should be moving away from talking about the needs of older people and start talking about their desires. AAL is absolutely on board with this, and that is why we place so much emphasis on co-design and co-creation. We shouldn't be telling people “you need this” – they should be telling us “I want this”.

I would like to make a special mention to the the children's choir who sang at the opening ceremony, which I think everyone was in agreement were wonderful. I was told afterwards that the final song was actually a representation of the bombing of Guernica, with the sounds representing both the destruction of the town and the reactions of the people. It was a very powerful piece and a tremendous performance.



Peter Saraga

# NEW OPPORTUNITIES FOR AAL WITH HORIZON EUROPE

**Birgit Morlion is a Programme officer for eHealth, Well-Being and Ageing at European Commission's DG Connect. Part of her brief is to manage the EC's relationship with AAL, which includes working with the AAL community on strategies to build on the many achievements the programme has made over the past 10 years and how it should transform to be ready for the future and Horizon Europe. After speaking at the AAL After 2020 debate during the first plenary session, she explained why the future looks optimistic for those working on active and healthy ageing**



Birgit Morlion

**These are** very exciting times for Europe at the moment. There are many new proposals on the horizon, in particular, the new financial framework that is currently being discussed for the next commission. As part of this, the next Research and Innovation Framework Programme has been announced - called Horizon Europe. It includes huge scope for both digital and health research, so the concept of ageing well in the digital world, the AAL's new mission statement, totally fits in there.

There is also a focus on partnerships in Horizon Europe and we want to use communities like the AAL community to help shape European policy with a bottom-up approach so we are really listening to what's happening at the local level in

municipalities, in the regions and in the member states. We want to involve every level of society in creating the right environment that can help European citizens age well in this digital world and remain active and independent for longer. Partnerships are the ideal instrument for this cross-level collaboration.

While this is, of course, a global challenge, we also see the need for this to be tackled at the local and regional level and the EU strategy will reflect this, which is why we want to give local users a voice. The challenges may be similar across Europe and the world, but culture, ecosystems and regulation may differ from country to country, region to region.

This makes Europe a very fragmented landscape in terms of its health and care provision – but AAL can open up the barriers that may exist by being in touch with local authorities across borders and by exploring different markets through their projects and the products and services they develop.

Running next to the new research programme, there is a new programme called Digital Europe with which we will be focusing on keeping Europe as number one in the digital transformation of its society. This will involve focusing on a technology perspective, like artificial intelligence, high-performance computing, robotics and seeing how we can use this technology in order to transform how we do things on the societal scale. The digital transformation of health and care is a clear example of this. At the European level, our biggest asset is the public health systems we have, but they are constantly challenged - they are budget-pressured and there is an increasing scarcity of resources. We really need to collaborate on how technology can support the transformation of these health systems so we can keep them sustainable.

And though technology will have a huge part to play in this, it should not be the driving force – people should be. While there are many opportunities to come, it is also time now for the AAL community, the people at the forum, to raise their voices and let us know what they need at the European level, from a policy perspective, an economic perspective and also what they need as a European citizen.

# THE AAL EXHIBITION 2018

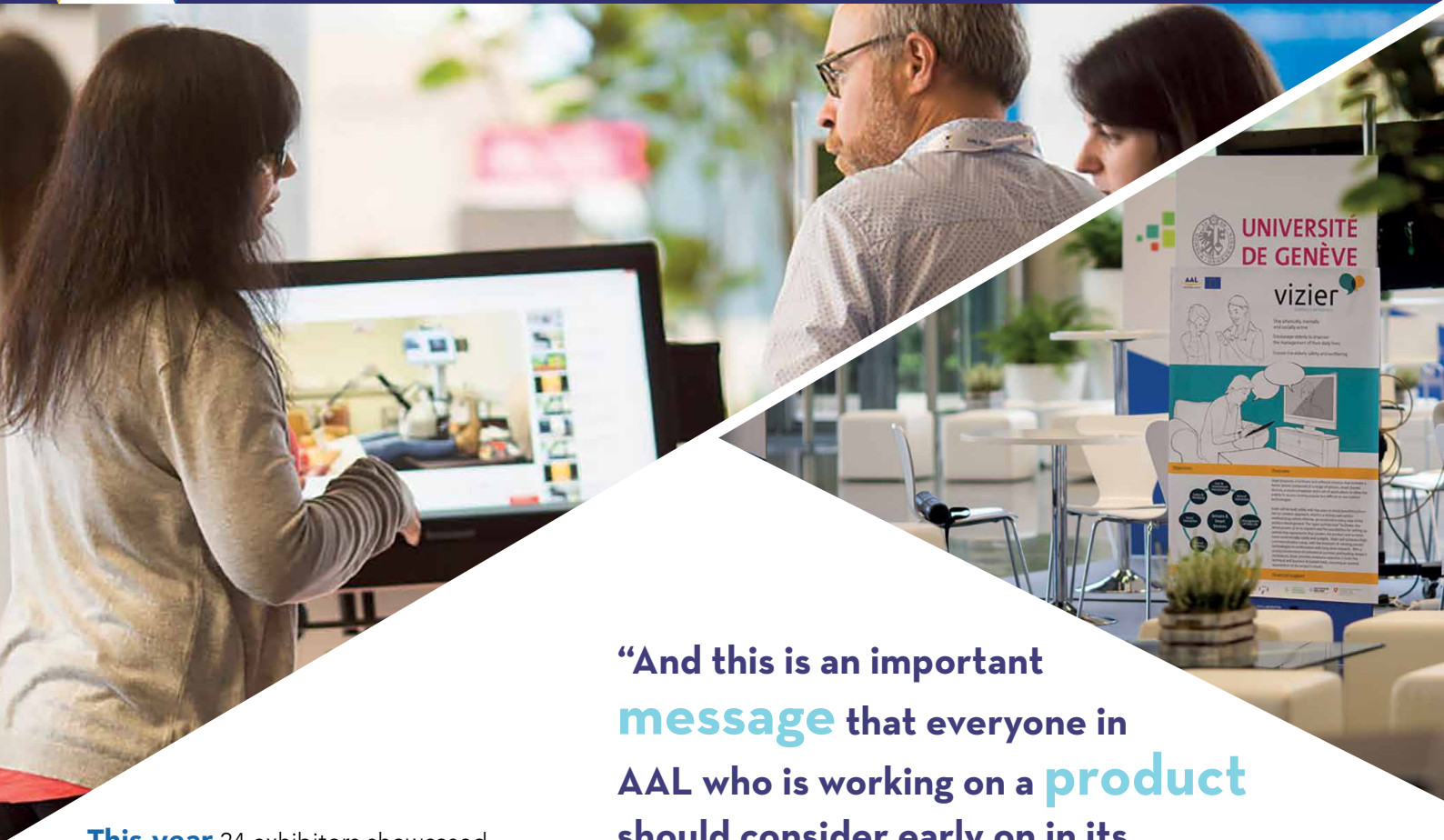
The AAL exhibition space this year at the Euskalduna Conference Centre in Biscay did not disappoint. Teeming with hot-off-the-press concepts, ideas and products, it was hosted in a beautifully modern hall where delegates and exhibitors alike were able to immerse themselves in an environment where they could interact with the processes, developments and outcomes of many AAL projects and businesses. The demonstrations and hands-on testing brought people together in discussion and created lasting connections.

After the success at last years' forum, the Stand Award Prize returned to add another dimension to what was being exhibited by putting the exhibitors to the test, giving them the opportunity to present their products and services to end users, reinforcing their commitment to engaging with their target audience.

Across the two days we spoke to many of the exhibitors to hear their thoughts about the research developments in AAL, discuss some of the topics circulating the floor this year and hear from investors and industry experts about what they were seeing







**This year** 24 exhibitors showcased their products, services, technologies and expertise to foster collaborations, share knowledge and reveal some of the latest advances in the field of active and healthy ageing.

There was a great mix of new exhibitors and those who had attended before, covering the countless areas that make up the complex “ageing well” domain. Forum participants had the opportunity to test out virtual reality prototypes, simulated home environments, 3D games and AI technologies. There were also a number of exhibitors from businesses and institutes that offered a high level of expertise and knowledge in the areas of health, ageing, care, technology and science.

The diversity of exhibitors created a unique atmosphere that fostered a number of central topics around the products and services, which were discussed across the exhibition. One in particular addressed a common concern amongst AAL technologists; how can our products keep up with the speed at which technology develops?

When speaking to the exhibitors about this challenge, the team behind the Cogvis

“And this is an important **message** that everyone in **AAL** who is working on a **product** should consider early on in its **development**, because it’s one thing getting to market, it’s another thing **staying on the market**”

project explained how new technologies are being developed “approximately every four to five months and AAL has to compete to prevent their products becoming obsolete in the early stages of their lifecycle.”

With Cogvis, their most recent product – an intelligent fall sensor that is fitted to the wall – took a while to get to market, but it now successfully has a place. What took them time (and ensured the product’s stable market life) was its design, which can be easily updated with the newest sensor technology.

“We had to think how we could introduce flexibility and adaptability to ensure our product had a long lifespan and remained relevant and competitive,” said Cogvis. “And this is an important message that



everyone in AAL who is working on a product should consider early on in its development, because it's one thing getting to market, but it's another thing staying on the market."

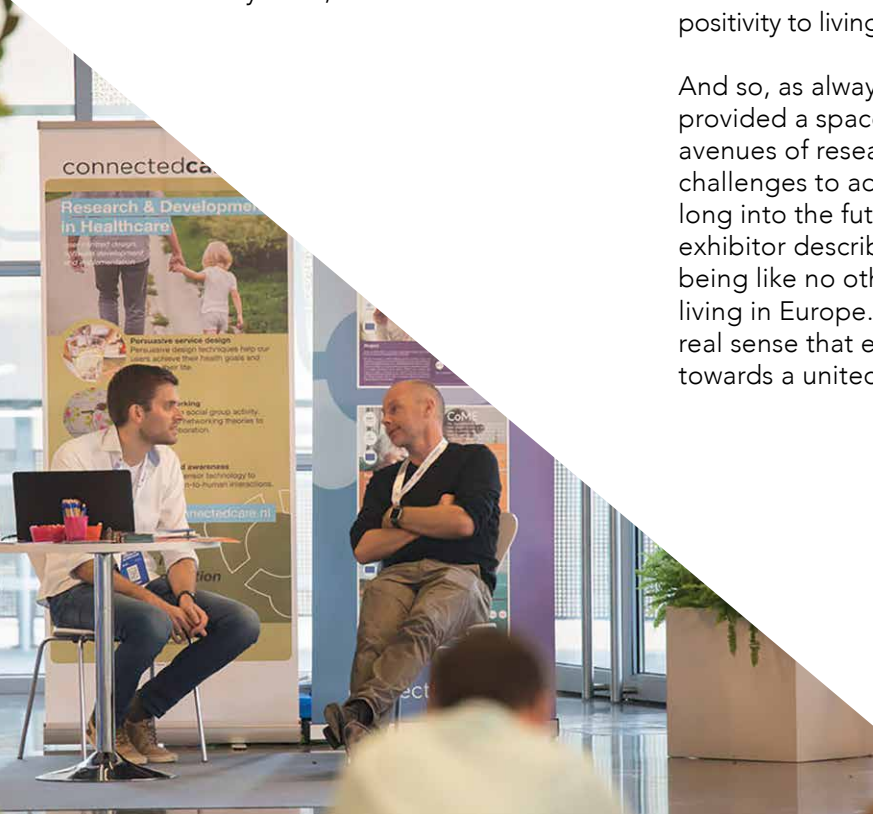
As well as having the opportunity to share their experiences among the other delegates, exhibitors also had a lot to learn themselves, especially from the number of investors who visited the forum with a keen eye and valuable advice for what the market is looking for.

One investor from Spain, who wished to remain anonymous, reiterated his desire

to see more products and services that reflect how people, whether they are 40, 60 or 80, want to live longer, more fulfilling lives. "The elderly are underestimated and there is a huge problem with people seeing getting old as a bad thing. But in fact, all it is, is that the new older generation want to live their lives how they want to and that means not living in care homes.

"People who are older than 50 want to live for longer and they want new products that allow them to enjoy these extra years," he added. "If that's what they want, then that's what I want. I need products that bring positivity to living longer."

And so, as always, the AAL exhibition provided a space for new ideas, new avenues of research and emerging new challenges to address beyond 2020 and long into the future for ageing well. One exhibitor described the AAL exhibition as being like no other on active and assisted living in Europe. She said, "There is a real sense that everyone here is working towards a united goal of making sure we



fulfil our ageing desires, in many different ways, but fulfil them together. And that is what sets this exhibition apart from others - it's the variety and the unified passion."

#### This years' exhibition was made up of:

**Ideable Solutions** – software company displaying Kwido platform for elder care and zocaalo project

**Vilans** – eWare project improves the lifestyle of dementia patients and their informal care givers based on lifestyle monitoring and social robotics

**Canadian Institutes of Health Research / AGEWELL** – Canada's federal funding agency for health research

**European Commission** – presenting European research and innovation projects and the Horizon prize for better mobility of older people

**AAL Programme** – the funding activity aimed to enhance the quality of life of older people

**DFB** – Bizkaia Regional Council is leading a strategy to promote Age Friendly Environments

**Luxembourg Institute of Science and Technology** – maestro is a sustainable reference framework

**iHomeLab** – Swiss think tank and research lab for building intelligence in the fields of AAL, human system interaction and smart energy management

**Cogvis / fearless** – experts for intelligent analysis of 3D data and images / intelligent fall sensor

**2PCS Solutions Gmbh** – safety and managing alerts technology for inpatient and ambulatory care

**Carinthia University of Applied Sciences** – linking technologies and social environment through Living Labs

**University of Applied Sciences Vorarlberg** – GREAT uses technology to gather data over time and build calculated light, sound and aroma fitted to dementia sufferers' homes

**Quadram Bioscience Institute** – Quisper supports personalised nutrition services for developers delivering health and wellbeing apps

**ConnectedCare Services** – MedGuide improving how people with dementia take medication and how professionals assess symptoms and update medication

**Fraunhofer Portugal AICOS/ Gociety** – Market-ready solutions to support elderly through abnormal detection and prevention

**Diatomic / Instituto Pedro Nunes** – H2020 project establishing a sustainable ecosystem to facilitate digital innovation in the field of microelectronics and smart systems

**ACROSSING / De Montfort University** – easy-to-use technology infrastructure for assisted living in smart homes through a network of 26 leading EU research groups/ industry partners/user organisations

**Austrian Institute for Technology** – takes the leading position in the Austrian innovation system for the next generation of infrastructure related technologies

**University of Geneva** – international landscape of research in information science

**University Hospital Geneva** – Palette Platform aims to help retired adults develop new interests and create new networks outside of their old work

**Vienna Business Agency** – goal to strengthen innovative companies in Vienna

**Tecnalía** – mission to transform technology innovations into GDP by generating business opportunities for industry

**ActiveAdvice** – ICT-based environment providing state-of-the-art collection on available AAL services and technologies offered at regional, national and international levels

**MyMate** – generating a novel elderly user-centred care paradigm based on real life situations





# STAND AWARD PRIZE

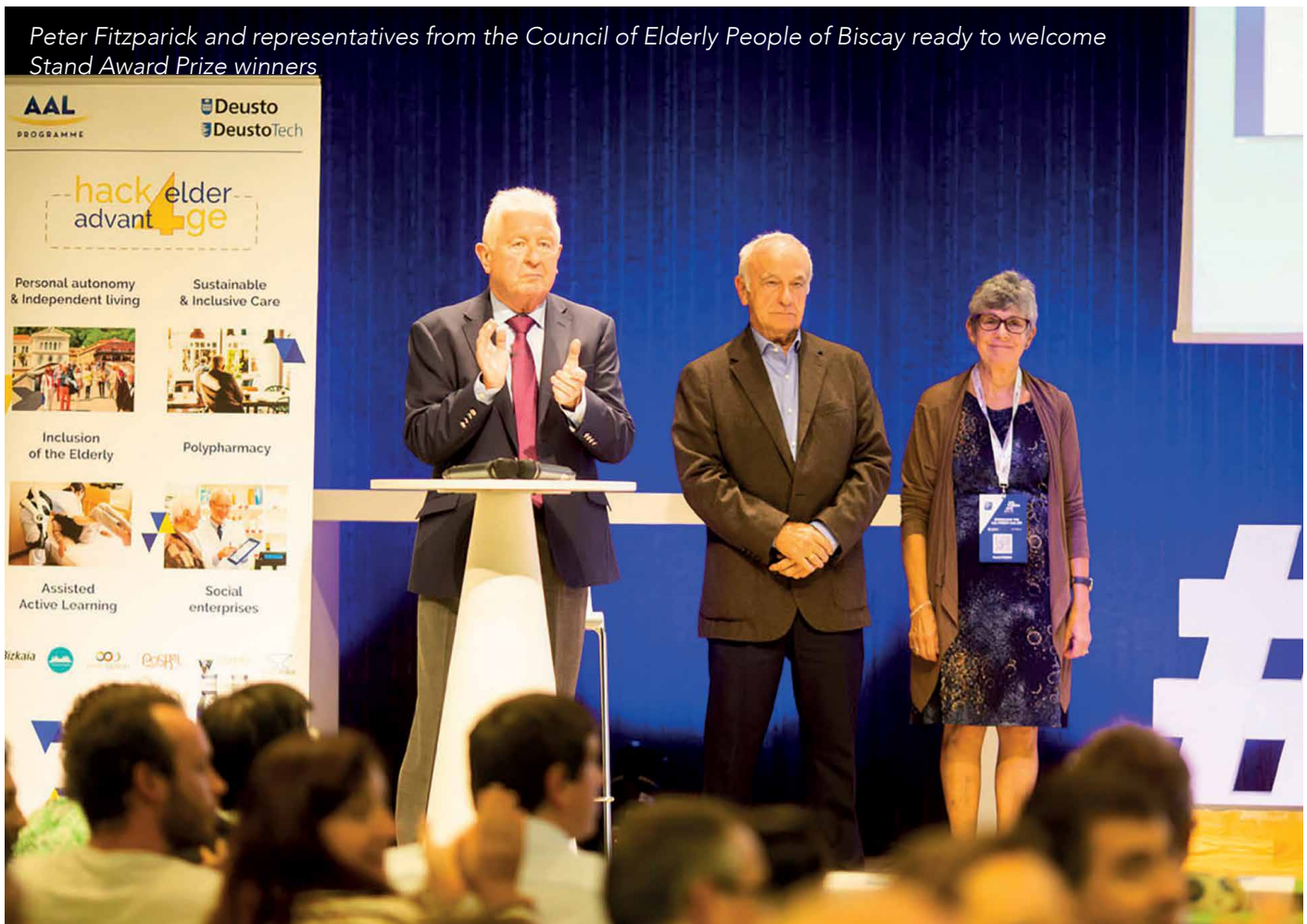
On the second day of the forum, seven older people from the Council of Elderly People of Biscay and a number of 60+ year-olds visited each stand on the exhibition floor to hear a presentation by each exhibitor before they had the hard task of choosing their favourite product or design at the forum

**This competition** sees each exhibitor deliver a seven-minute presentation to a jury of nine older people, about their product or service. Though this challenge can be tense and difficult in places, this year there were also scenes of laughter, concentration and genuine appreciation from both exhibitors and the jury.

Juan Miguel Romeo from the Council of Elderly People of Biscay had a "wonderful" time looking around the exhibitors and finding out about their interesting proposals on how they will "alleviate the challenges

elderly people face when residing in their own homes by maintaining good connections with their family,". A regular user of the internet, tablets, smartphones and other technologies, Romeo was keen to get stuck in and find a product or service that he could see him and his friends enjoy using.

After visiting each of the stands, the jury had the difficult task of picking the one product or service that they felt best met their needs. The winner they chose for the 2018 Stand Award Prize was University Hospital Geneva - *see page 31 to find out more.*



Peter Fitzparick and representatives from the Council of Elderly People of Biscay ready to welcome Stand Award Prize winners

## WE MUST ADAPT TO EACH LOCAL MARKET

We caught up with Frédéric Ehrlé from the University Hospital Geneva on his experience of exhibiting at the AAL Forum 2018 and winning the Stand Award Prize

Centre: Frédéric Ehrlé receiving the 2018 Stand Award prize



**Our project** is mostly software based and consists of a website specially designed for older adults which allows users to propose and join social activities in order to create communities. At our exhibition stand we displayed a presentation on a TV screen to explain how the platform works and its benefits to end users and customers.

We found exhibiting very useful as it provided very good visibility for our product and attracted many interested customers and possible collaborators. When we were pitching to the Council of Elderly People of Biscay we felt at ease because our approach is always to collaborate with our elderly target

users at the start of new developments. Moreover, it was a very rewarding experience to do it in this format, at this event and we received some great feedback, particularly in winning the Stand Award Prize.

It was good to see the reactions of the older people to our presentation and it was good feedback for us to see whether what we are doing aligns with people's expectations. They also pointed out some specific issues, such as gender equality, that we hadn't necessarily considered but are still extremely important.

In terms of the forum itself, we have been in previous years and feel that every forum is different and brings a different energy to AAL. It is constantly evolving towards greater maturity. The forum this year was very well organised, and we appreciated discovering the particular cultures of the different regions, which provided an important message for us – we must adapt our solution to the specifics of each country's market.

# 'AAL DISRUPT'

Ton Koper is the president of the board of the Swiss powerAge Foundation, an organisation that is looking to be the first trading platform for experience. As an end user and panellist at the AAL Forum, Ton explained the importance of repositioning AAL's unique pool of skills and talents to ensure the idea of age and ageing well changes



**"Changing the way we age is a must,"** said Koper when asked what he thought of AAL beyond 2020. We need to change how AAL positions itself.

There are so many baby boomers and they are living so long that no country is rich enough to pay for them. We need to start really thinking about what baby boomers can offer with regards to their own skill sets and how we ultimately age well in the digital age.

"We need to go to the big companies like Google and Facebook with ideas saying, look we have something for you for your older users. The end user should become the producer. Baby boomers are anti-authoritarian – it's in their DNA to do things themselves. This is the idea of the prosumer - the shift in power and possibilities that will change how we age and prevent us from becoming adults in a disastrous surrounding."



The powerAge Foundation is a market-ready example of how we can do this and think outside of the ageing demographic box and effectively use the resources available to us to make a positive impact on society. The powerAge Foundation's Experience Bank is at the beginning of its 2019 take-off looking to tap into the huge wealth of opportunity Koper believes our ageing society has and yet which very few of us know how to do deploy.

"We're living in a digital age that offers so many new possibilities and so we have founded a joint bank of baby boomers, each with 40 per cent of the shares, where we – end users – can put our experiences, our human capital together and exploit this age wealth asset."

The Experience Bank is for citizens aged 55 to 80 and rewards them for actively getting involved in the community and benefitting the silver economy. The first task, Koper said, was to make an asset allocation on experience-based skills, which have been split into three sectors: art skills, soft skills and passion skills.

"These sectors allow end users to think, I really want to do things! It's a bucket list for participation, actions and jobs that I never thought of but now I really want to do," said Koper. "Second, this bank opens up and makes the market place more accessible for end users and finally, end users have a wallet to decide what they want to do with their experiences on the market.

"They might think that with this wallet I have the opportunity to donate money, with another one I am going to ask for payment for something, another I am going to exchange for two-hours experience working as a bookkeeper, and this one I don't need money but instead I want to be among people sharing experiences and ultimately staying in contact with society," added Koper. "That's the trick, giving control back to the user."

Koper believes that allowing end users to play a bigger role and helping them find their unique set of art, soft and passion skills gives them the reins to their own independence, leading to healthier living whilst strengthening an otherwise suffering economy.

With AAL beyond 2020 as a key action for the 2018 AAL Forum, Koper's Experience Bank and the concept of the age wealth asset is an opportunity Koper believes AAL should not miss. He said that, "AAL should know that it has a large community of knowledge and experience, all focused on active and healthy ageing, which is unique worldwide and should not be ignored. However, in order to go forward AAL needs to reposition its target.

**"We shouldn't talk about ageing. Instead we should talk about longevity – it's less discriminating and far more positive"**

"AAL could do this by focusing on giving meaning and purpose to everyone in Europe, and not just technologies. We shouldn't talk about ageing. Instead we should talk about longevity – it's less discriminating and far more positive. Then there's the need to be more active in using the exclusive skills and talents of those in the AAL ecosystem 365 days of the year."

At this year's forum however, Koper has seen change, he said, "People are reacting, questioning more things and there's a lot of playful interactions."

Right: Ton Koper

# VIEWES FROM THE FLOOR

From the workshops to the plenary sessions, the exhibition floor to the matchmaking event, there were a plethora of opportunities for delegates to get involved, voice their opinions and share their experiences with AAL regulars to new-timers. We spoke to many attendees at this year's AAL Forum to hear their thoughts on everything about the forum, the future of the programme, the eye-catching demonstrations and another insights into what they got up to to help propel AAL products and services to those who need it

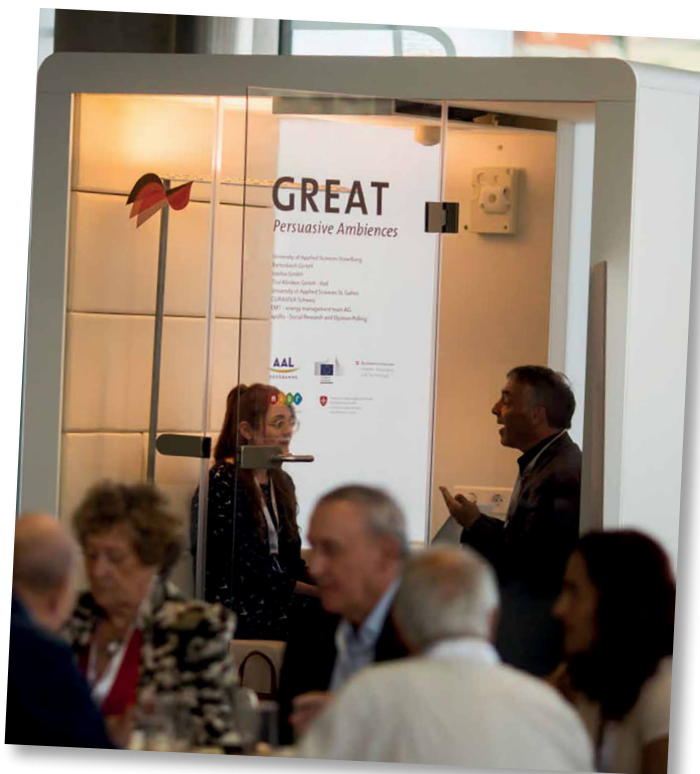
**"A narrative shift needs to take place. We need to break out of the idea of AAL being a community, it's outdated. AAL should embrace and encourage risks and collaborate at a much higher degree and across more countries."**

Jackie Marshall-Cryus from Marshall-Cryus



**"We've had numerous conversations about ageing prizes and we will continue to do so and I feel there is a real groundswell of interest. I know that the real commitment to finding the solutions to support an ageing population is there. AAL is still deciding on what to do next with this approach. It works for them. It gives them another way to fund ideas in this sector away from the traditional project funding route and it's much more tangible and happens at a quicker pace and gives them a broader variety of innovators to work with so it really enhances the work that they do with research - being able to see something dynamic, quicker that supports the work they are doing and validates it as well."**

Constance Agyeman, Head of International Development and Communities at NESTA



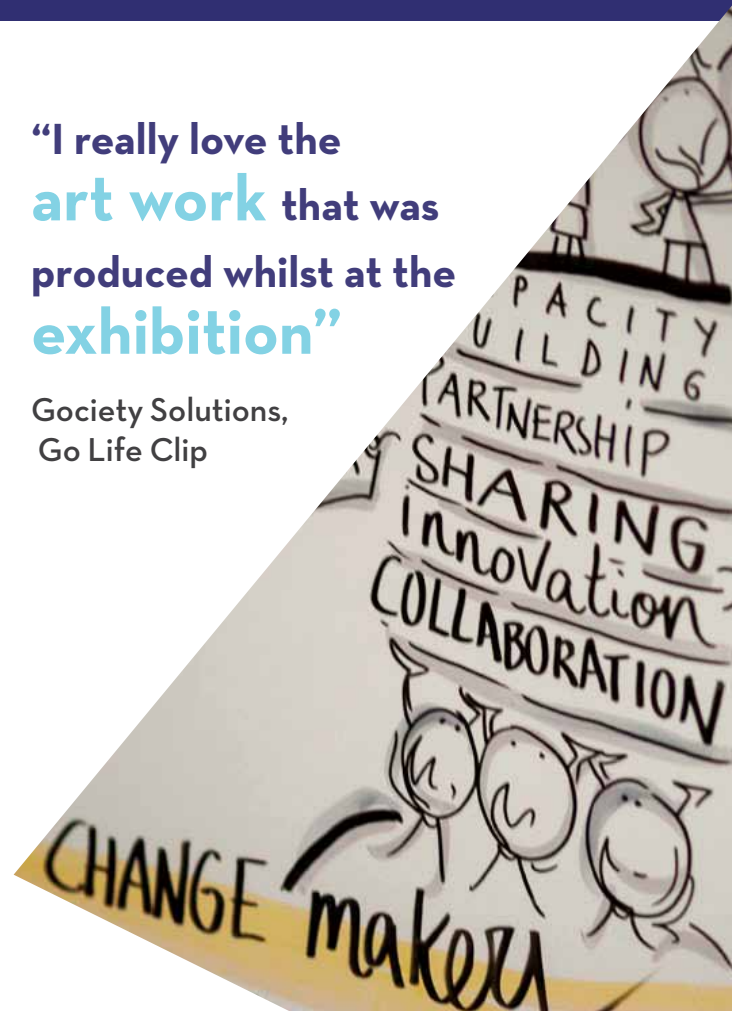
**"It's also not assisted living, it's empowering living."**

Ton Koper, Swiss powerAge Foundation



“I really love the **art work** that was produced whilst at the **exhibition**”

Gociety Solutions,  
Go Life Clip



“We first developed our product for younger children with learning difficulties and we kept getting people coming to us asking whether we’d support catering for older adults or people with dementia. We applied for an Innovate UK Design Foundation grant to do some human-centred design work and found that some parts were a good fit and some that weren’t and so we created something new for older adults.”

**Refresh**



“There is a lack of cooperation between big global companies, they aren’t at the conferences or part of the consortium. AAL projects need to be part of bigger companies as doing it alone and addressing disabilities will not cut it.”

**Yael Benvenisti,**  
**Mediterranean Tower Ventures**



“We came here for inspiration, it’s our first time here. It’s been really helpful to see how neighbouring and European countries have approached the problem of ageing and see different solutions and insight from people already dealing with technology projects.”

Slovakia Consulting Company



“We came to the forum because we wanted to talk about the importance of home technology innovation and how to build the communities to do this innovation because it’s not an easy market.”

**Jean-Christophe Vanderhaegen, director general, Building Federation, Belgium**

“For years we are developing technology nobody wants, we need to find a new paradigm for innovation”

Unnamed delegate

“My impression is that we are too focused on the product, the tech solution, the gadget. New innovations are great but it will not be adopted on the market if there isn’t the triple A - improve impact, improve use of resources or improve experiences.”

Ester Sarquella, Tunstall Healthcare

“Older people in most countries are left behind and they don’t really expect not to be left behind.”

Sylvia Beales member of UN Stakeholders Group

“Apps shouldn’t be designed for the young and the old. We worked on a new tablet device and created a new app. But then the end-users told us they wanted Whatsapp. Everyone uses it so why shouldn’t they. Apps should be useable for the young and the old collectively. Design shouldn’t be limiting.”

Social Networks for the elderly

“We try to make the citizens act as the designer - they become designers of their own solutions. There are challenges on including the different range of people and inclusion is society and so we need to avoid a non-inclusive approach. To solve these issues we have to enable designers to design products and services in a way that the end users can modify easily in their own environments.”

Citizenr, Matteo Zallio



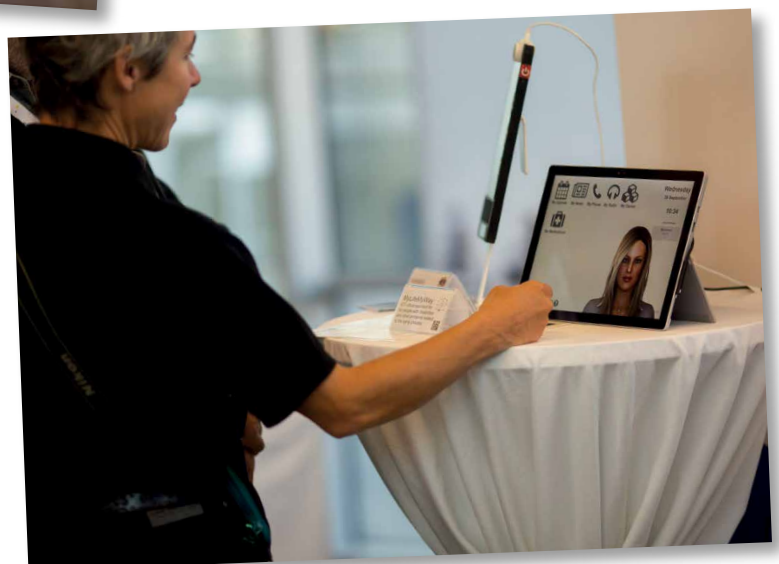
“AAL Exhibition is an excellent **opportunity** to get an overview of the products that are actually in **development** in the **AAL field**”

Johannas-Schaefer, iHomeLab



“For all your life, you have the choice to say yes or no to anything, and people will accept that decision. Why, when you reach a certain age, should you have to say ‘yes’ when you actually mean ‘no’? When we think about our users, we have to realise that ‘them’ is actually ‘us.’”

Unnamed delegate



“I am confident that AAL will be able to address the many challenges we face as an ageing population because the interest is there to provide spaces for sharing and promoting change. This is essential, because all of us are involved - all of us will age and so we are all looking at ways for us to age well and how we can be happy and healthy.

I am trying to build a network focused on the co-housing phenomenon and I am sensing from the forum that there is a growing interest in this, particularly for older people. But we don't have the network to develop models and discover whether models that may work in northern Europe will work here in Spain, for example. Legislation is different, the culture is different, so we need spaces where we can meet, interact and share experiences - and AAL can and should help form that network. AAL will be able to bring together all the stakeholders involved and this will help us develop the policies, timetables and roadmaps needed to expand co-housing opportunities across the whole of the EU.”

Christina Questa



“Caregivers are the next users of the current ICT projects and so their participation in the exploitation phase of a products development is highly recommended to both increase their belief in the benefits of using the technology for their patients and in contributing to a more sustainable silver economy in the future.”

Workshop 12

“We saw AAL has a huge opportunity for us with regards to creating and building partnerships”

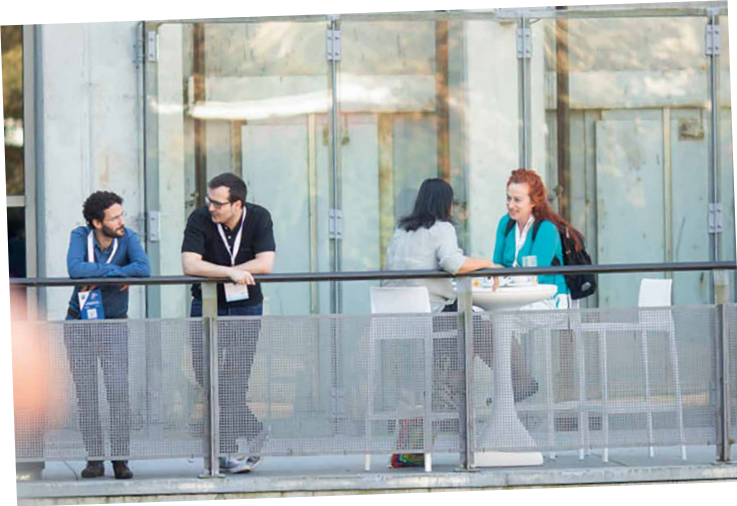
Eduardo, 20-75

“Is AAL pitching its support for entrepreneurs at the right level? Could it raise its game and focus perhaps on support for high growth potential start-ups with an already proven market offer?”

Unnamed delegate







“Today, being digitally competent means that people need to have competences in all areas of The European Digital Competence Framework. This framework looks at communication and collaboration through digital technologies, how to create and edit digital content, data privacy aspects and identifying problems in a digital environment. AAL technology needs to understand the potential risk competence associated with the products and services it creates.”

### Workshop 8

“The variety of participants in the workshops added another element to them. The input on various topics was often different to the ones the workshop coordinators had considered themselves, and different to other participants’. This was great. You got a sense of new insights and perspectives all the time.”

**Unnamed delegate**

“In our workshop, **participants** were actively helping put together PROGRESSIVE’s report on **smart ageing**. Their involvement, inputs and comments will have real relevance in the development of the project in AAL.”

PROGRESSIVE



“Rich and **relevant** input was provided at our workshop. The contribution of around **50 participants** has meant we have some great feedback to build on to start building a **future** AAL programme.”

Klaus Neiderlander

“What I really got from the forum was the immediate feedback of people to KOMP. Would it work for my grandma? Would it work in any local area, for local authorities? This was good to hear as I believe that if we are going to do something about loneliness, then it is not one channel that will do that - it needs to be a joint effort.”

Catherine Karlson , Komp



“The use of the **technology** - what it does and how it helps - is much more **important** than the technology itself and I am **optimistic** that we are starting to understand that. If that is the case, then all this technology will **succeed**”

Didier Sapy

“The golden solution to stigma is to increase contact with the stigmatised group. It is of the utmost importance in design that the designer empathises with the user, which in our case is older people. We should therefore be observing, listening to and co-creating with older people in order to maximise our level of contact with them and truly understand their problems and desires.”

Alain Denis, Yellow Window

“I came to the forum to share best practice ideas and to network about innovation and this was useful because what we have seen many times is that technological innovation doesn't meet the market very well. It is not user-focused enough. As a representative of the providers who support the users, those developing the technology need to be talking to me as well as older people themselves.”

**Didier Sapy, Representing 500 not-for-profit providers of home care and nursing homes in France**

# WE NEED THE RIGHT PARTNER TO GET TO MARKET

**iHomeLab is the Swiss think tank and research centre for building intelligence and conducting research in the field of AAL and human interactions. Rolf Kistler, electrical engineer and head of ambient assisted living research at iHomeLab, took part in the AAL Forum 2018 exhibiting the Lucerne University of Applied Sciences' iHomeLab, demonstrating the significance technology plays in the success of the AAL Programme. Kistler explains his work with AAL, how things have changed over the years and what he thinks would be a crucial development in how AAL projects are formed**

**The project iHomeLab** is a research group of 25 people and approximately half are concerned with active and healthy ageing. The group has been a part of AAL for around 10 years and runs an estimated 10 to 15 projects.

When I think about the development of AAL over these years I know that I have learnt a lot since the start. Although I come from a technological background, I have found that the longer I am involved with AAL the further I seem to be moving away from technology and actually getting closer to the people, the end users.

I believe this is something the whole community has also learned – that in the end, what it comes down to if you want to get your product to market are your end users, their behaviour, their wishes and the value you offer them.

I think we all underestimate the complexity of the market, but I believe we are getting there and I am seeing AAL companies that are successfully launching services and products.

In terms of technology, there has been a shift to using it to bring services to people and connect them. Personally, I find that there are a few projects I am really drawn to and these are those focused on the orchestration, synchronisation and collaboration of different stakeholders. It's about keeping everyone in sync and allowing them to communicate amongst each other.

There is huge potential in these new assistance technologies, like Alexa coming to market. There is also potential in machine learning and in pattern recognition as a way of seeing how people behave at home and even being able to predict incidents – to actually know before somebody falls or is in danger of falling so something can be done about it in time. This is evolving quickly, which means it's becoming cheaper to install in apartments, which is great news.

The AAL Programme is excellent at fostering these developments and ideas. From my experience with iHomeLab I cannot deny that AAL has helped – we have many projects funded through the programme and we are doing good work. From the AAL2Market activities, to the workshops and the business coaching, we are involved in a lot.

We are looking to change one thing, however and I hope AAL will help us with this and that is changing how we form our consortia. There needs to be a really strong and motivated business partner on board every time and this partner needs to be invested in the project so that when it finishes there is someone to take lead in taking the product or service forward.

I believe this partner needs to be an SME who can commercialise a product or a strong end user who has access or even power to buy or commission a service and bring it to their customers. This distribution is crucial, and you need to have them on board from the start to have a good chance at the end.



Rolf Kistler



# CREATING CHANGE IN THE AAL ECOSYSTEM

Creating the right conditions for technology to change people's lives for the better, from older people and carers through to the technology providers that can help them, requires careful consideration of the sector from all perspectives. The second plenary session brought together representatives from all key stakeholder groups to discuss where we should be focusing our efforts on

**Europe still** faces significant challenges if it is to make digital solutions fulfil their potential in contributing to the triple win of improving quality of life for older people, sustaining our health and care systems, and strengthening the respective European industrial base.

The aim of the second plenary session was to highlight the importance of ecosystems within regulated health and care markets as well as in the growing consumer-driven silver economy as key enablers for deploying and upscaling digital solutions. The session brought together a team of five panelists from various backgrounds to shine a light the crucial role of each set of stakeholders and how they are interconnected.

Ton Koper of powerAge, a web-based trading platform that allows people to buy, sell and trade experience, was the first of the panel to give a short presentation to the gathered audience. He described why he thinks the silver economy is in need of a new narrative. The baby boomers have finally come of age, he said, and they will be bringing their rebellious nature to proceedings as they become the biggest end user group of AAL products for the next 20 years.





Just as they rejected traditional values and redefined what it was to be a teenager as they were growing up, the generation of people born between 1946-1964 are now carving out a new cultural niche for 55-80 year olds who are still active and fully participating in society. Koper believes that AAL should be catering for these people and empowering their active lifestyle. This will entail solving technical challenges, such as how to facilitate access to real-world experiences through technology, as well as regional challenges to do with integrating older people into the community in a more seamless way.

**“It can provide people who need care with the means to stay at home independently, taking the strain away from their carers”**

Ana Ramovš, managing director of the Antona Trstenjak Institute of Gerontology and Intergenerational Relations in Ljubljana, Slovenia, talked to the audience from a number of standpoints, including as a member of the European Association for Carers, as a researcher, and as a medical doctor. Whereas Koper before had focused on the active population of older people, her talk was more on the nature of dependency in old age and the care that is needed. Living longer also means we are living longer with chronic conditions. Rates of loneliness and isolation have also risen, partly due to the trend of younger relatives moving further afield than ever before.

The role of informal carers is becoming more and more important now – around 80 per cent of care is done by them. Without them, the system would not be able to deal with the needs of older people – no





Left to right:  
Peter Fitzpatrick, Sergio Corzo, Ivan Lauridsen, Cristina Bescos, Ana Ramovs, Ton Koper

country is rich enough to provide all of this formally. However, at the moment, the informal carers themselves are lacking in resources, with only a few European countries providing any sort of education to them. Many of them are also swamped by the financial, physical and mental strain that is associated with a life spent looking after someone while still working and providing for a family.

There is a lot of potential for supporting informal carers using technology. It can provide people who need care with the means to stay at home independently, taking the strain away from their carers. It can also help out in the physical, social and

educational aspects of care, both for older people and the people looking after them.

Ivan Kjær Lauridsen, head of health and assisted living technologies for the municipality of Aarhus in Denmark, stated the importance of semantics when talking about how we develop technology for ageing. He referred to Jeremy Myerson's keynote speech in which he mentioned prioritising "goals and desires" rather than "needs and requirements". Kjær runs an organisation called the Centre for Freedom Technology, which was inadvertently named by one grateful user who described how the technology had allowed him to reconquer some of his life





again. Interoperability was another feature that Kjaer advocated for AAL technology. The technology we buy must fit into the infrastructure that we have already, otherwise we will have fragmented services that are not connected.

The session then moved into a discussion with questions being pitched to the panel, the first of which was: how do we move the narrative about ageing from being a liability and a burden to an asset and opportunity? Koper believed it will always be both sides of the coin, and this is unavoidable. The challenge overall has to be to make more out of more years. Older people need to continue to grow on a

personal level, they need to be able to make more money so they are not cast into poverty, and there needs to be a way of balancing the contribution of older and younger people as society demands it in the coming years so that the burden is not placed too heavily on the next generation.

Ramovs expanded on the topic, expounding technology as an absolute necessity for our society to turn the issue of an ageing population into something positive and sustainable. It can not only prevent the development of problems amongst older people, but also help provide care for them when they need it. Technology can be the longer arms that we will need to provide support for both older people and carers themselves. New social networks are also the ideal way to fight social isolation and create new connections between people who are vulnerable.

Next to pitch in on the conversation was Sergio Murillo Corzo, general manager for personal autonomy promotion for the Biscay Regional Council. He mentioned the opportunity that longer life offers for providing future prosperity. The people of Europe are well positioned to start creating these new technologies and to spread them all over the world, he said. By combining the human and economic perspectives on the issue, we can create something positive for everyone.

Cristina Bescos continued on the economic side of the discussion by giving the example of the company she works for, Philips. Companies should strive to lead change, but they also have to be able to transform to suit the needs of the market. Philips has existed since 1891, and has made a diverse range of products ranging from lifeboats to televisions. Suddenly, in the last five years, they have once again had to transform themselves and are now moving into the field of health and wellbeing, and made €17 billion worth of sales in the sector last year.

The session overall provided a clear end-user focus and perspective for innovation regarding healthy ageing and wellbeing. Everyone working within the framework of AAL should take heed from the collective wisdom of the whole spectrum of stakeholders involved in the field of active ageing.

# IS MARKET SUCCESS REALLY THE ONLY MEASURE OF SUCCESS?

**Guido Kempter, from the University of Applied Sciences, Vorarlberg, has been attending the AAL Forum for more than 10 years. We caught up with him at his exhibition stand where he was with his project GREAT, which has developed a product that equips a room with light, sound and scent modules to create room ambiances that support people with dementia, at the right time and for the right amount of time. We wanted to know how things have changed over the years**

**Guido Kempter's** stand at the AAL Forum Exhibition was certainly one of those that attracted attention. The stylish, windowed box contained seats, soft lighting, ambient sounds and relaxing smells. People queued to have a go to see if they could manage their stress levels. Kempter was certainly happy with the interest delegates were showing in his work.

*An AAL delegate explores the sights, sounds and smells of the GREAT box*

“This forum has been a good format, with plenty of breaks in between the workshops for networking and discussion,” he says. “I have noticed that people are really interested in everything on the exhibition floor, including my box, which is encouraging, too.”

Although Kempter was happy with the interest in GREAT, his project designed to support people with dementia, he wasn't picking up anything new about the direction in which AAL is heading during the many conversations he was having or the workshops he attended.

“I have worked for a very long time in the AAL community and most of the things I am hearing here are not very new,” he says. “I know AAL's strategy – to develop products that are close to the market – and it is a good strategy. But it is not good to be using market success as the only indicator of success,” he continued. “AAL needs to define other indicators to describe the success of individual projects and the programme as a whole as well. Of course, market success is very important, but it is not the only measure of success.”

It was a common viewpoint many were expressing around the forum; but what is the answer when the brief for AAL has been to fund projects to create the products and services that make a difference to people's lives – in other words, products and services that people actually use and pay for?

“The problem as I see it is that with every call we are going more and more into this market focus for success,” explains Kempter. “I believe they need to talk to all stakeholders involved in AAL projects as well as all those using AAL products, ideas and solutions to find out what they want. It is not necessarily true that all these stakeholders will buy solutions, but, for example, social scientists and medics are now thinking about the ideas we all have and can use them in their own ways. That is a success.

“In the past, these people did not accept the idea of ICT and technology in their fields, but now they know the potential and they are using this. That is also a success.

So, they don't buy the products, but they are using the ideas while the products they are buying are not necessarily AAL products but other technological solutions – and that is not necessarily a failure.”

Kempter believes that he has seen a lot of repetition in what AAL projects produce over the years and this trend does not seem to be changing. “What you see now if you look around the AAL Forum exhibition is that all projects have produced very similar products and it seems that this is always the same with AAL,” he says. “I think we need to analyse these products and solutions and see what we have. For example, we have 10 smart home solutions at the AAL Forum this year. We need to analyse carefully where the difference is between these solutions – not necessarily to find the best one because all have good aspects and not-so good aspects.

**“I have worked for a very long time in the AAL community and most of the things I am hearing here are not very new...”**

“And products develop over time. For example, we have been working on our solution for 10 years and in that time, we have made significant changes and improvements, from every viewpoint – technological, usability etc. So, we must analyse not only the market success factors but all the other development successes that make something better over time. That way we can learn from each other and not develop the same things.”

Kempter wants AAL to organise that much-needed analysis, but not necessarily be the organisation that carries it out. “I believe the analysis should be performed by the community within AAL and not AAL itself,” he says. “They could invite all the partners with relevant products here to analyse what are the success factors of all the developments within AAL over the past 10 years. I think then we would see more progress.”



# WORKING TOGETHER TO TRANSFORM HEALTH AND WELLBEING

**Cristina Bescos is the European programme manager at Philips Population Health Management/Telehealth. She attended the forum to speak at the plenary debate about the growing community of change makers, providing the dialogue with an industry perspective on how AAL fits into the whole sector of health and wellbeing across the board. Before joining the debate, we caught up with her to find out more**

**AAL: What motivated you to attend the AAL Forum this year?**

**Cristina Bescos:** I came to the Forum on behalf of Philips Healthcare to talk about the industry perspective in relation to innovations in the area of AAL, as well as in the broader sense of innovations relating to the health of the population as a whole, so anything that deals with people, elderly people, people at home, chronic illness management and so on. We see all these challenges merging together and so we should not just be focussing on them individually, like managing chronic illness or dealing with fragility, but we should be looking to provide solutions to the population whatever their need.



Cristina Bescos

**AAL: And what is Philips' position. What is Philips working on within this area?**

**CB:** We are working in many different areas, normally providing solutions that really look at the needs of the population and then developing different products and services mainly in combination with other providers. So, we develop solutions for medication management, for supporting independent living at home, for the prevention and detection of falls, while at the same time, combining all that with more clinical, medical services.

**“We are really looking at healthcare and wellbeing as a whole and AAL is a component of that”**

**AAL: How do you propose a company like Philips will work with AAL? How do you tie it all in?**

**CB:** For us, AAL is just one part of the solution, it's not the solution alone. We are really looking at healthcare and wellbeing as a whole and AAL is a component of that. AAL's work in looking at seniors is a crucial part of it, because we are all going to be seniors and we also know about the

demographic change and the explosion of chronic diseases at that age. So, we are looking at it as a segment that is a really important part of our innovation programme and also about our policy about healthcare and wellbeing. So, what we say is, health has no barriers.

**AAL: What does an event like the AAL Forum teach us in this respect?**

**CB:** There are always very innovative products at the AAL Forum and it is useful to see these and to talk to all those working in this field. For me, the most exciting thing is this combination of profiles that exists here - you can see people from research, from education, from the implementation side, from the providers and from technology - and you can learn a huge amount from this mixture of conversation. That is the best thing here.

**AAL: What do you think the projects and the people at the AAL Forum learn from an enormous organisation like Philips?**

**CB:** Philips is an innovation company that started more than 120 years ago by developing lightbulbs. We are now completely dedicated to being a health and wellbeing company, and so what we have learnt is that in order to survive you need to transform, while, more and more, you also need to co-operate with others.

We have a different way of doing innovation and I think that's the same for those here and those involved in the AAL space. The whole concept of developing innovation on your own or it being done by the developers or new innovators

on their own, all that is not valid any more. So, I think the transformation we are having in the big companies, it is this that we can see happening to AAL and those at the forum who work in this space.

**AAL: Are you optimistic about the future in terms of active ageing in Europe and as our own population grows older, optimistic that we can do something about it so we all live better lives?**

**CB:** I think Europe really is the leader in what is the social and wellness system of the world. Because of that I really believe that we can also be the leaders in terms of digitalising that. I think we have a lot to learn but a lot to show the rest of the world, too, and I'm very optimistic that we can definitely do it in Europe but also with co-operation with others globally.

# MATCHMAKING – A MEETING OF MINDS

**The matchmaking sessions at the AAL Forum bring people together to discuss potential collaborations**

**This year** the matchmaking event was coordinated via the AAL Forum 2018 App and was an effort to bring industry, researchers, investors and other key AAL stakeholders together for private meetings to discuss and share ideas and thoughts on potential collaboration.

The App allowed interested participants to create an online profile before the event, outlining what they were looking for or what they could offer potential partners. As always, the event proved highly popular with meetings taking place throughout the forum.

From the 291 people who downloaded the App, that's more than half of the 530 who attended the AAL Forum 2018, 110 people accessed the matchmaking area. This number amounts to 20% of all Forum attendees using these matchmaking services. Out of this 110, 47 people exchanged an impressive 298 chat messages. That's not to say there wasn't an abundance of other

collaborations, meetings and discussions that took place between AAL delegates outside of the App who also used the matchmaking facilities, but the App statistics were very encouraging.

One participant expressed how pleased she was with the people she had been matched with and the productivity of her meetings.

"This is my first year coming to the AAL Forum and I immediately thought the matchmaking space was a fantastic idea that I wanted to be a part of," she said. "Whilst also trying to find my way around, I knew I wanted to get stuck in straight away as I am looking for financial support and general experience and advice on our product.

"The sessions were really productive, while the forum as a whole had a nice atmosphere that meant you were always meeting and connecting with people, but the added level of formality through the App set-up and the designated area meant the right discussions could be had in a more formal setting, which really worked for me. I had one meeting that was extremely helpful and I believe it was beneficial to both parties and will be continuing our collaboration after the forum.

"I would recommend this service to anyone looking for those more personal chats as you never know what opportunities it can open for you both."





## MATCHMAKING CASE STUDY

### 20-75 project

Eduardo Fierro established a start-up that is developing a project called 20-75, which connects young people with the elderly through a housing platform based on living agreements that are low cost. Fierro caught up with AAL to discuss his first time at the AAL Forum and how the matchmaking and collaboration opportunities are progressing his business.

20-75 is a project in its infancy – it's only been live on the market for a month – and it is attempting to solve the issue of expensive accommodation for students, while at the same time tackling the loneliness some elderly people face when living alone. The project has created a housing solution that allows the generations to house-share by matching older people with available space with students wanting somewhere affordable to live.

The project is sensitive to the fears some older people may have about technology, the security of their personal data and privacy, so it starts the process with a very human touch. The older person first registers their interest with the project and then a home-checker is sent to meet them at their house to explain the programme and collect all the data needed for their profile. Only if the person is then happy is this data then uploaded to the 20-75 platform and the match-making process can begin.

"All the power is in the hands of the elderly person," explains Fierro. "They choose the student they want to live with. We collect data on their interests, the type of student they're looking for, how they live etc. so there can be a reliable, direct match they are happy with."

The project identified two main risks that needed to be solved to ensure the platform worked for all. The first was the digital competence of some of the older users they were hoping would use the platform. "To solve this, we introduced the home-

Eduardo Fierro



checkers to take away the technology from the users," says Fierro. "They can take control of their own online profile if they wish, but we help them get going which also helps put their minds at ease."

The second risk the project felt it needed to address was related to the fear older people may have in taking the leap into sharing their home with someone else and trusting a platform like 20-75. "We need public authorities, influencers and associations on board and connected," continues Fierro. When they have trust in the system, they will promote us and build this trust basis for us with our potential users."

20-75 saw the AAL Forum as a tremendous opportunity to spread the word about the platform and the opportunities it offers older people to combat feelings of loneliness they may feel. "We came here so we could talk to and meet with many different stakeholders from every level in society – and that's what's happened," says Fierro.

"I spoke to the European Commission about the issue of the fragmented housing market across Europe and how we go about setting regulations. And we have also had the opportunity to start building vital partnerships through AAL projects in order to solve the barriers between the different markets more easily, with contacts from many different areas.

"And, using the matchmaking service, I matched with someone from Krakow who is interested in our project and so we have planned to develop a scheme to compare and follow the same steps we have taken here in Spain in other countries, whilst also taking into account their differences.

"We have also had some positive interaction with public authorities, establishing contracts with seven townhouses in different areas of Spain so that they can start prescribing our solution to their older residents, and we have been talking with the regional government to discuss global and local partnerships, so we can scale-up.

"The forum has been a great place to develop these ideas with the right people."

# SOCIAL INNOVATION

**Professor Stefan White** and Dr Kim Foale of Manchester's Place Cal picked up second place in the Smart Ageing Prize together with €10,000. The project has developed a community-based listings platform but is more than a simple tech solution. By involving the community itself and in training people to be involved, they see it much more as a social innovation.

"Most people see tech as being bundled into an object, like a smartphone," says Dr. Foale. "For us, it's a combination of training and capacity and using the things that are already out there to enable you to do what you need to do. So, tech for us is an enabler.

"It's strange because concepts like agile and lean design mean finding the right things at the right time for development, but in practice this doesn't always work out. There is often a real divide between the product team and the tech team as they seem to inhabit different worlds. Bringing a sociological perspective to things means we can be on the boundary – and for us that meant the three strands of our project could run together – the development of the software, the training and the neighbourhood strategy.

"Many see digital exclusion as a separate issue to technology. Focusing on social technology means we focus on digital exclusion as well – so having the tech in place as well as ensuring we have all these different groups online, so digitally transforming neighbourhoods – and that makes the world a better place."

Having won the AAL Smart Ageing Prize, Professor White is positive about the future. "We want to convince organisations to change a small part of how they operate," he said. "So, for example, instead of a council maintaining its own centralised listings, it can use the money to train people in the community to be able to do that themselves. Organisations need to be able to quantify what they spend on social investments that have now monetary return and then invest in systems that enable it to be done more efficiently and collaboratively in the community.

"Sadly, the foundations are not there for that type of work, so the next stage will be to join the different community programmes up, bringing together housing programmes, social and welfare partners, for example, to coordinate efforts and if we can do that in Manchester, then it can work across Europe. Winning the Smart Ageing Prize will certainly help that – it gives us real kudos."

Dr Foal agrees that the relationship they now have with AAL will be important. He said: "What's been great is realising how far ahead of the game we are in terms of things like co-design and thinking of the whole neighbourhood and social transformation, rather than the individual, so we would be very keen to work with AAL to push that forward."

## WE NEED A PARADIGM SHIFT IN AAL

**Jean-Christoph Vanderhaegen is the DG at the Building Federation of Belgium, co-founder of European Association of Homes and Services for the Ageing and European Centre for Research and Education in Ageing Services. He was at the AAL Forum to talk about non-technological innovation. We caught up with him before he spoke**



**The last** time I was at the AAL Forum was at Lecce in 2011 – and the presentations there were about getting products to market - and it's still the same today.

People are developing the technologies and then the aim is to put the resulting product or service on the market. What I want to try to show with my colleagues from the healthcare sector is how we, as a community, can do this type of innovation.

It's not a traditional sector. You don't know your customer because in our sector, your customer is not the person who will use the technology, but those providing the service – physicians, insurance companies, nursing homes and public authorities. AAL hasn't necessarily got its thinking wrong – it's just that this is a very difficult market, so what I am looking for are some good examples of good practice to find products or new services that are working well that we could then replicate throughout Europe. It's all about new services and how we can do more with less and we want to share that.

There should be a paradigm shift in AAL along these lines.

# HACK4ELDER ADVANTAGE

**For two days prior to the 2018 AAL Forum kicking off, a talented group of 60 excited and eager international developers and designers got together to take part in the annual AAL hackathon event, this year Hack4Elder advantAGE. After 30 hours of intense work the seven teams pitched their prototypes to an international panel of judges**

**Continuing with** its success from previous years, the hackathon was once again a popular event at the AAL Forum, bringing together teams of developers, designers, entrepreneurs, researchers, healthcare professionals and elderly people planning, creating, pitching and demonstrating how their prototypes improve the present and future quality of life for elderly people to an international team of experts.

Though it was an intense 30 hours to allow the seven teams to bring an idea to life, the collaborative sessions and innovation pills – eleven five-minute talks given by international experts – promoted intersectoral, interdisciplinary and intergenerational creativity, and new ideas that have real market potential were developed.

Organised by the University of Deusto in Bilbao, the seven projects addressed almost all of the categories of smart solutions for ageing well such as personal autonomy and independent living, sustainable and inclusive care, inclusion in society, training and coaching and involving the elderly in social enterprises.

At the end of the two days the teams presented their concepts and products to a selected jury of six from the UK, Ireland, Spain and Poland. After some hard deliberations, the judges whittled the teams down to third, second and first place.

The winning entry was TOGETHER, and they looked to improve social services through telecare. Based on momentum (the teams' own app product already on the market) TOGETHER offers services to the over-70s by sending daily questions about emotional and medical health, gathering data on who needs assistance at home, and monitoring activity to prevent problems occurring. By doing this, TOGETHER can

automatically schedule the tasks for the relevant teams of care givers and involve the community in the TOGETHER way of caring.

Sara Ponce, research advisor of the International Research Projects Office (IRPO) of the University of Deusto and coordinator of the Interdisciplinary Research Platform on Ageing and Wellbeing and her teammates Katia Lavin, IRPO and Toñi Caro head of IRPO helped organise Hack4Elder advantAGE with researchers of the International Research Platform on Ageing and Wellbeing and were delighted with how this year's hackathon went.

"It was a challenging yet incredibly satisfying event to organise and manage," they said. "All participants and experts were open-minded, kind and deeply committed to the just cause we all share, realising the elderly's full potential and added value in society. In fact, watching them grow together, learn collaboratively, cooperate for a common goal in order to develop those seven projects that provided diverse solutions for the elderly, their families and care givers globally, was an astonishingly gratifying experience for the organisers."



*One of the teams involved in the hackathon discuss progress*



Centre stage - TOGETHER



## THE WINNER

### TOGETHER

José, Mariana, Jesus and Daniela make up the winning hackathon team TOGETHER and they explain how they found the whole experience.

#### How did you find the AAL Hack4Elder advantAGE experience?

Focusing on the older age group and how to use technology to improve the lives of older people is a perfect field if you want to build interesting projects. But also, the hackathon provided a collaboration platform between givers, the elderly, medical professionals and software and hardware engineers which has been a very good way to foster innovation for real situations.

#### Explain your 30 hours at Hack4Elder AdvantAGE

From the beginning we had the opportunity to collaborate with others, and so we really used this to adapt our chatbot to meet new challenges. We met Daniela and Mariana who are in charge of a caregiving institution in Romania and they gave us insight into what change needs to happen in the caregiving sector. Based on their need for improved optimisation of resources, we worked together to review mememtum's abilities in sending questions, tests, gathering information about medical, emotional and physical activity and created

TOGETHER with a more open access to knowledge using conversational interfaces.

The hackathon challenged us with a time restraint in which we had to exploit our individual knowledge efficiently and effectively right from the get-go. Specifically, we had to come up with a set of questions to gather the right information from the over-70s living alone i.e. Do you need help cooking or shopping? Do you need a medical visit? We had to test and connect this Q&A database with the chat bot and so we had to designate tasks pro-actively.

#### What are the positives you can take from this experience?

Working on TOGETHER has been very smooth and focused on building something that the users really need, and we have achieved that. We have also come to realise that chat bots with Whatsapp-like interfaces are a good tool to use to communicate with others and gather useful information. The hackathon also allowed us to see other projects in action, and the innovation pills have been a fantastic help, they have inspired our team to identify new approaches to service delivery that we have taken away with us.

20-75



## RUNNERS UP

### 20-75

An intergenerational co-housing social business led by Eduardo Fierro and Haize Trueba, that evolved during the hackathon with the contribution of Deusto University's PhD student Sofia Zahia, and input from Paula Garagalza a retired banker, as well as several elderly people who attended as end users.

### Join Me App

A training and coaching app for assisted active learning, care and inclusion developed by Deusto University's computer engineering student Aitor Urgarte and Praminda Caleb-Solly from Bristol University, in response to the challenge proposed by the Bristol Red Cross, represented by Adam Leng, Heather Heathfield and Deborah Fisher.

*Join me App*





# CLOSING WORDS

**At the** closing ceremony of the forum the hackathon winners were announced, the Stand Award Prize winners were revealed, prizes were given and congratulations were made to all who played a vital role in this year's successful event.

With spirits high, anticipation then rose as the host of the 2019 AAL Forum was announced. Ivan Lauridsen had the honour of announcing that Aarhus, Denmark was to be the location of next year's forum and he stepped up to show his town's promotional video and say a few words about what he hopes will happen in 12 months time. You can read what he had to say, below.

And so another brilliant year for the AAL Forum came to an end but not before Bilbao stepped up with one last treat up its sleeve in the form of the award-winning Basque Country folk band, Korrontzi. The band, a fusion of folk music and Basque ancestral and traditional sounds and dances, mesmerised the audience with their dynamic performance. After an excellent show and with spirits high, delegates were then led towards the closing party where the last of the delectable Biscay cuisine was served and where everyone could raise a glass to another successful year.

## LOOKING FORWARD TO THE AAL FORUM 2019

**We spoke to Ivan Lauridsen on his experiences working as head of health and assisted living technologies in the municipality of Aarhus, Denmark, and on what we can begin to anticipate from the AAL Forum 2019**



*Right: Ivan Lauridsen speaks about plans for the AAL Forum 2019, which is being held in Aarhus, Denmark*

**After working** in the active and assisted living domain for many years, Ivan Lauridsen has noticed that there is a gap in the market for cheaper technology and for technology that is more appealing to care systems. "Technology," says Lauridsen, "is one the best ways we can meet the challenges of society's changing demographic but at the moment it is so often not being implemented or used as effectively as it could be by care services across Europe. That's why we, since 2002 in the municipality of Aarhus, have been making it a priority to use and develop technology based on what our citizens want.

"We have found that the most satisfied people in the municipality are those who have and use technology on a regular basis. But more needs to be done to harness this attitude towards using technology and share useful and effective products and services locally, regionally and across Europe," continues Lauridsen. "In fact, it's the relatives and caregivers who are most sceptical of some



technology designed for older people, and that is why we need to change the semantics of what technology for ageing well represents.”

Research in Aarhus has revealed that people want technology in their lives and so the municipality is very much committed to putting the people first when it comes to designing, developing and creating technology that benefits us as we age. Lauridsen hopes to be able to transfer this model of listening to older people and understanding their goals, desires and needs, and implement it as one of the main themes of the AAL Forum in 2019, which will help drive the development of assisted technology in the programme.

“When it comes to AAL technology innovations, AAL projects need closer integration with the end users and to involve them at every stage of the application process in order for the technology to match their requirements and be successfully implemented on a larger scale,” he says.

To help with this, there are a number of objectives that Lauridsen would like to establish at the forum in Aarhus. After this year’s “excellent diversity of workshops,” he hopes to “organise workshops that are as equally compelling” but also base them on themes that really look at how to generate technology based on citizens’ needs, the processes that make it possible to implement citizen-led technology, and how technology actually meets these needs.

Lauridsen also aims to increase the participation of end users at the forum and in the plenary sessions he wants to innovate by pre-selecting some end-users to participate via virtual technologies, similar to Skype, to “integrate their opinions and their needs in the forum on another level by giving them a physical voice and making that voice heard by everyone at the event.”

As well as increasing end-user involvement in this way, Lauridsen is also keen to emulate the way in which the city of Bilbao and the region of Biscay were involved in the Forum 2018. “The



involvement of the city and those in the region involved in the active and healthy ageing scene far exceeded my expectations,” he says. “I want there to be similar cooperation between Aarhus and the Danish National Rehabilitation organisation to create a united and progressive structure related to ageing well at next year’s forum.

“When considering an active and healthy life at home, rehabilitation technology is sometimes one way to achieve this,” he continues. “Although AAL technology is not often developed as a rehabilitation tool, I think this collaboration will provide an interesting premise to how the AAL community thinks about what it means for the end user to live a healthy, independent life.”

The forum at Aarhus will draw on many successes from this year’s forum to ensure that the networking opportunities are just as prominent. “That way we can really focus on the importance of developing society and the services society needs by looking at what citizens want – the Aarhus way,” concludes Lauridsen. “We need to look at what we all, as older people and future older people, have in common as well as our differences, so that AAL can learn to generate and implement the technology that is both needed and wanted.”



# WORKSHOPS



A short summary of every workshop that took place during the AAL Forum 2018

If you would like to make further contact with any of the workshop coordinators and speakers, please contact AAL at, [communication@aal-europe.eu](mailto:communication@aal-europe.eu)





# WORKSHOP 1: MUNICIPALITIES AS AN ENABLER FOR AAL MARKETS

**Municipalities that take responsibility to care for their older citizens seem to find it easier to coordinate the implementation of AAL solutions into their community, in turn enabling older adults to live independently at home for longer. This participation from the municipalities not only fulfils the needs of the older residents but saves the municipality money on running and maintaining residents' homes**

**Understanding** the significance of those municipalities that actively care for their residents was the incentive of two small Swiss towns, Speicher and Trogen with a collective total of over 1,300 over 65-year-olds. However, one major barrier that the towns have come across has been the implementation and design of AAL products and services due to the broad scope of end-user requirements in rural settings. To tackle this, a survey was composed in the two towns to better understand the desires and needs of their older citizens and their family members. With the results the municipalities plan to implement a strategy that successfully supports their older citizens with appropriate AAL solutions.

In the form of a World Café setting, the workshop aimed to discuss the use of a survey-format to collect information in detail on the needs of the residents, and to explore how to go about strengthening the argument for an AAL-based smart environment in rural communities in order to implement this strategy across Europe. Three main topics were discussed in the workshop:

- Internationalising the strategy – what is relevant outside of Switzerland?
- Market – is the chosen approach of municipalities acting responsible for their elderly citizens and as general contractors to support them, the right way to improve market success of AAL products and services?
- Small and rural settings – what makes them different to big-city approaches and how do you deal with these different challenges?



Urs Guggenbühl (Competence Centre AAL) led the workshop with the help of keynote speaker Paul Köning. The group work revealed valuable insights into the AAL activities that are taking place in other municipalities around Europe.

These insights will help better formulate an AAL strategy for the municipalities of Speicher and Trogen and help to define some new pilot projects based on initiating a network of AAL active municipalities around Europe. There has already been interest from Dutch, Danish and Slovenian municipalities.



# WORKSHOP 2: DESTIGMATISATION IN THE SILVER ECONOMY: DESIGNING PRODUCTS FOR THE SILVER AGE WITHOUT STIGMA

There is a lot of stigma that surrounds getting old and what it means, and supposedly looks like, to get old with many definitions associated with stigma. One such definition in the Oxford Dictionary describes stigma as, "a mark of disgrace associated with a particular circumstance, quality, or person." What is not well-known however, is that there is a significant role that design can play to help destigmatise ageing and develop products and services that end-users really want

*Alain Denis*





Diana Goderich

**The workshop** on destigmatisation in the silver economy was run by Alain Denis and Diana Goderich from Yellow Window, a design agency that supports actors to differentiate and innovate their products and services. Working with the user is at the heart of what they do and so with their expert knowledge in ageing and design Denis and Goderich led participants on what it means to remove the stigma on ageing and equip society, industry and business with the right tools to fight stigmatisation in their own processes.

Using a number of references, including Carver and Garza's 1984 research on stereotyping, ageism and gender, Denis and Goderich looked at the many influencers in society where we are unknowingly stigmatising older people.

The Carver and Garza case study looked at a brief description of a car accident of an elderly driver. As predicted the 'elderly' label led people to conjure up descriptions of physical and mental inadequacies that we assume are associated with old age – poor sight, frail and weak, slow reactions. Whilst ageism (the act of treating someone unfairly) and sexism also play a large role in design processes, both impacting the end

users in various negative ways, these are just a handful of the many layers to design that need be carefully considered in order for products and services to be successful and appropriate.

Workshop participants were given exercises based on these areas of stigmatisation to stimulate awareness and make them see beyond the need of the target group and create real and sincere value in their products and services. One scenario looked at the task of someone waking up with a hearing problem. Groups came up with solutions based on tactile stimulation – a massaging pillow and a vibrating blanket – that did not stereotype or stigmatise but still desirable and valuable.

Though the AAL audience was bias to the needs of the end-user, there was still very much a heightened awareness of stereotyping through design and where it can be found and thus avoided. Through the various discussions and group work, participants' understanding developed to provide them with tools and methods to prevent stigmatisation in their own projects by asking questions to oneself on the personal impact of a product or service, and who are you really designing for?

# WORKSHOP 3: CO-DESIGNING FUTURE EUROPEAN COLLABORATION ON 'AGEING WELL IN A DIGITAL WORLD'

The AAL Association is currently developing a future European partnership programme proposal with its members for the next Future Programme, Horizon Europe. Europe is facing accelerating economic, social and healthcare challenges from demographic change. AAL believes it can make a real contribution to the research and innovation processes that are currently part of the EU, by capitalising on the networks and collaborative support actions developed by AAL and other European programmes. To do this, first the AAL Association wants to hear from its members

**Coordinated by** Klaus Niederlander, director of AAL, and Nicola Filizola, communication and public affairs officer of AAL, the workshop provided AAL stakeholders with an opportunity to consult the AAL programme committee about their needs and ideas for future European collaboration.

With the view of interconnection, collaboration and the beginning of new exchanges, the workshop gave participants a chance to take control by presenting and voicing their own stories, experiences and personal and business views on where European collaboration is necessary and/or desirable with regards to ageing well in a digital world.

*Workshop moderator, Ralf Otto*







**“...the workshop gave participants a chance to take control by presenting and voicing their own stories...”**

Based on what a future European collaboration should look like regarding focus areas and types of support based on these real experiences, there were a number of points stressed on the future progress of AAL by workshop participants:

- The absolute necessity of inclusiveness of actors in the co-design approach
- The shift from a technology focus towards a more holistic innovation approach considering the different socio-cultural environments
- The challenge of linking up the different intervention levels i.e. local, regional, national, European
- The importance of strong networks and community building
- The unique positioning of Europe as the ‘old continent’ as a strength and opportunity.

A number of future European collaboration areas and support measures were developed and summarised collectively:

- Integration of special calls into the future European programme
- Need to provide a European policy dimension in the programme
- Make use of AAL Programme’s skills and talent pool
- Development of new narrative and shift of programme target group priority
- Better coordination of existing funding programmes.

AAL stakeholders will continue to be involved in this consultation process with the aim to create a co-creation process for future programme development. It has been noted that the importance lies in providing decision makers with a strong narrative in future partnerships, and strong political support from member states.



# WORKSHOP 4:

## CITIZIGNER: INCLUSIVE, USER EMPOWERMENT

**Emerging technologies, connected devices and IoT-based appliances means we are living in a world where information and data are extremely accessible but less easy to be controlled and owned. Nevertheless, there is still a gap in enabling end users to really benefit from marketable AAL solutions by giving them more input into what is being created. John McGrory and Matteo Zallio from Dublin Institute of Technology discussed an innovative approach, "Citizgner", placing citizens as designers**

**Citizgner is** a concept that looks to reduce the gap between the user and the product or solution by empowering a new generation of designers – all citizens - to develop new and upgrade existing services and products for themselves. When products and services are usually designed for the user there is often an attempt to them at the centre of the process, when in fact most of the time they are usually only partially active and the user comes away dissatisfied with this process.

Though User Centred Design (UCD) is one model of design that looks to achieve this, it is still only related to how a designer can accomplish the users' needs. However, the Citizgner approach is focused on changing perspective and allowing the user to become the real maker and creator of their own solutions.

To get to the heart of what a Citizgner is and why they are needed, participants of John McGrory and Matteo Zallio's (Dublin Institute of Technology) were given the opportunity to collaborate and share their ideas on a number of issues for example, why there is still a gap in the development processes of AAL, what it meansto, and how to become a Citizgner.

Citizgners are potentially all citizens from children, young adults, middle age and older persons and can be an enabler of his own solutions. What designers, policy makers and engineers have to do is meet these needs of a diverse population and offer a high degree of flexibility on the individual changing needs of every single citizen.



*John McGrory presents on the process behind Citizgner*

Workshop discussions, which effectively raised awareness of this new innovative concept, revealed that participants understood and accepted the concept easily with some key outcomes concerning:

- Delivering information and raising awareness on the Citizgner concept through the use of accessible infographics and icons to enable people to access information easily
- Develop a language / idiom that is usable and understandable
- Enhance user experience and design for emotion in order to involve users in the 'design your own solution' thinking
- Improve the concept of Citizgner with key points or guidelines.

Participants were said to have gained knowledge on how to interact with users during research projects and received an overview of the main topics around inclusive design and participatory design to help them in their own processes.

# WORKSHOP 5: JOINING UP AGE-FRIENDLY SMART HOMES AND SMART COMMUNITIES: VOICES IN STANDARDISATION

**Smart technologies, appliances and services that make up a smart environment need to be interoperable, secure, usable and accessible in order to be used by older people and adopted by the market. Standards can be great drivers for achieving these requirements and the PROGRESSIVE project is doing just that by encouraging a new way of thinking about standards for digital products and services**

**Frederic Lievens'** (PROGRESSIVE project) workshop gave control back to the participants and allowed them to define the characteristics and products, technologies and services in smart homes and communities that address older users' needs. They were made to think about a number of key points such as: how current AAL and smart home solutions address the issues of security, accessibility and interoperability; to understand the importance of standardisation in AAL products and services; to market and to identify areas where there is a need for standards in order to feed this information back to national standard bodies for policy messages.

The PROGRESSIVE project's ethical framework guide on user co-production and interoperability framework was used in the workshop, as well as case studies from Kai Schnackenberg (City of Hamburg) and their Hamburg smart community scheme, and Stephan Schug (EHTEL) on the concept of interoperability as an essential enabler for ICT, to help introduce how important it is to involve users to better understand what smart living could be in the future, if adapted correctly.

To enable workshop participants to elaborate on their new-found thoughts, Estelle Huchet and Ophelie Durand from AGE Platform

Europe introduced a breakout session to get them thinking about the significant challenges and complexities of an individual's situation at home and the use of ICT in their daily lives, based on case study neighbourhood maps (furniture, vehicles, urban features etc.) and persona's, provided by Nestore project.

The workshop group agreed that there is a lot of diversity in one person's living scenario and habits and that these needs can evolve over time, suggesting in fact that people are not locked-in to specific systems but that their environment needs to meet these changes.

The workshop organisers noticed that very few of the participants were aware of existing standards and initiatives and do not have the means to meet the ethical tenets identified by PROGRESSIVE. However, the workshop underlined the significance of what this project is doing in raising awareness of the important role standards can play in addressing the individual challenges of end-users living independently in his/her neighbourhood.

Furthermore, the workshop enabled PROGRESSIVE partners to test the project tools (standard database, interoperability frameworks etc.) to inform the imminent launch of STAIR-AHA which will push for greater involvement of older people in the standardisation process of ICT-based products and services in active and healthy ageing, with valuable means to consult the AAL community.



*Estelle Huchet initiates a breakout discussion*



# WORKSHOP 6:

## TURNING ALEXA INTO AALEXA: HOW TO UTILISE CONSUMER PRODUCTS FOR ACTIVE ASSISTED LIVING

There is a plethora of consumer products on the market that have dual potential in who they are targeting. Voice recognition, smart wristbands, fitness apps and home tablets just scratch the surface of possibilities based on products that are already extremely successful on the market for other purposes. But what is stopping these products being used for AAL-related target groups?



**Certain consumer** products on the market can be used for the new old generation as a dedicated market segment, suggest researchers from the University of Innsbruck led by Kristina Förster. However, there are certain challenges and issues related to dealing with consumer technology for active assisted living purposes that should be addressed. To set the scene on how consumer products can be used by AAL, three keynote speakers presented dedicated consumer technology to workshop participants: Martin Illecker (SIS

Consulting GmbH) - speech recognition; Cornelia Schneider (Salzburg Research, Austria) – smart wristbands and fitness apps; Darja Perko (Eurotronik Kranj) – nurse tablet for further development towards consumer home use.

To help participants open their minds to further discussions, six consumer technologies were established to foster new ideas on the potential AAL use cases and the challenges these products would face as AAL products.



*Kristina Forster presents the six consumer products her research identifies as having potential in AAL*

- **Speech recognition** – virtual friends, cognitive games, quizzes.  
Challenges - background noise, different dialects, grammar.
- **Smart home systems** – behavioural monitoring, home status monitoring.  
- Safety issues on the breakdown of infrastructure, maintenance, paradox of making end-users feel safe only at home.
- **Smart wristbands and fitness apps**  
– diabetic patients, walking speed, gamification, complexity of movement.  
- Accuracy means fall prevention isn't good enough, privacy concerns, data ownership.
- **Home tablet** – reading app, video communication, facial analysis for diagnostics, neighbourhood networks, memory games.  
- Handling and usability, location of tablet, support.
- **Social networks** – time banking, connection with friends, skills sharing.  
- Big data depot, losing personal and physical contact.
- **Mobile service apps** – share cars, flats, food, exchange recipes, events, meeting people, volunteering.  
- Data protection, IT literacy.

Each station developed detailed and interesting discussions around the topics with fruitful debates related to the marketisation, usability and legal or ethical concerns regarding the use of consumer products. Participants explored in detail a variety of interesting application cases within the AAL field and openly spoke about the critical challenges related to implementing these technologies such as, reacting to smart home monitoring changes and the issue of data privacy.

# WORKSHOP 7: AAL AUSTRIA SUPPORTING THE AUSTRIAN ECO SYSTEM FOR DEMENTIA CARE BY AAL SOLUTIONS

**AAL Austria is part of the Austrian innovation platform for establishing intelligent assistance for people in their daily lives, and the Austrian ecosystem plays an important role in AAL solutions for dementia care. Maria Fellner alongside Liselore Snaphaan and Sandra Schüssler exchanged their experiences working on dementia care in Austria and made comparisons with the Netherlands to create discussion on best practice examples based on different regions**

**AAL Austria** and the Austrian Dementia Care Strategy, 'Living Well with Dementia', is structured into seven objectives. The first object, to promote participation and self-determination for people with dementia and their caregivers, was the main focus of the workshop and was introduced by Maria Fellner, Joanneum Research – Institute DIGITAL.

Following this, Sandra Schüssler from the Institute of Nursing Science at the Medical University of Graz discussed the feelings, knowledge and perceived needs of people with dementia regarding care robot support. Schüssler pointed out that there is currently a lack of studies that test robots in real-life situations, such as in care homes, but that it is vital that these tests are undergone with people with dementia and to better understand their personal experiences. With this understanding, at the beginning of 2018 a study was taken interviewing 23 persons with dementia and 11 focus groups (16 relatives, 20 nurses, 16 dementia trainers) to understand the settings of home care, nursing homes and day care centres.

Results reveal that the perceived needs of persons with dementia in high priority cases include: danger avoidance, keeping active daily, communication, learning ability, mobility/body posture. Therefore, persons with dementia look for robots that motivate them regarding autonomy at home by giving them instructions instead of doing it all for them.

In comparison to the Austrian Dementia Care Strategy, the Dutch ecosystem 'Innovate Dementia 2.0', presented by Liselore Snaphaan, CGzE, places the person with dementia at the head of the table to bridge the gap between innovations and its use in real-life faster and more effectively. It is a user driven ecosystem with sustainable innovations that use a multi-stakeholder



Maria Fellner

Liselore Snaphaan

approach including users, healthcare institutions, knowledge institutions and government bodies. Users are involved at three stages during this innovation process: i) need-assessment phase; ii) development phase; iii) testing phase.

Drawing on both examples, it was concluded through audience participation that another way to facilitate the willingness and eagerness of end-users to participate and learn more about devices is through their engagement in Living Labs and home testing.

Many workshop participants went on to share their own experiences with dementia care in their region, for example, a dementia-friendly city in Graz and Carinthia in Austria, dementia-friendly lighting in the project Bartenback GmbH, and role-play based training approaches for caregivers in the project SUCCESS.



# WORKSHOP 8:

## RISK COMPETENCE IN AAL AND TECHNOLOGY INNOVATIONS AS VIEWED BY USERS AND POLICY

**In AAL technology innovations there are various risk competences that need to be properly identified and avoided and better understood by the AAL community. With the help of a host of speakers, Maggie Ellis, EKTG coordinator and managing director at West Square Associates, looked to illicit an open debate on the issues and views of speakers and participants alike on the risks related to the use of technology for helping us age well**

**In our** current world it is important that developers and designers understand and are aware of the new risks that are associated with advanced technologies that create unknown risks for human health and well-being of all citizens. To help understand the concept of the workshop more clearly, a definition of risk competence was provided by Alain Thielemans (AAL Treasurer and VLAIO): risk = the potential to lose something of value; competence = the collection of skills and abilities that are applied against risk to result in a positive outcome.

Following Thielemans' introduction on some of the important risk competences that need to be considered in AAL technologies, five speakers took to the floor to present their views on this topic. The five speakers were - Rait Kuuse (Social policy, Estonia); Ai Lian Lim (Bellevue Hospital and Prof. NYU School of Medicine); Liz Mestheneos (Founder Member 50plus Hellas); Birgit Morlion (DG Connect); Henk-Herman Napp (Vilans Company).

From the presentations and the active debates they fostered, it was clear that though innovation is positive it can and does hold many risks that cannot be ignored, and order to prevent these risks occurring in AAL processes, a risk competence guide for the different stakeholders should be created.

**“By engaging the end-user in all aspects of the technical development of products and services, the risks related with development and adoption can be decreased”**

Based on various stakeholders, Maggie Ellis, EKTG coordinator said that risk is viewed and dealt with very differently which makes it harder to regulate. When it comes to academia, innovation and risk is part of their business model, whilst in industry it is questionable as to whether businesses acknowledge or take into account the direct risk of other stakeholders. At a user organisation level, it was debated that they are more risk adverse than risk competent, whilst public bodies concentrate heavily on accelerating the adoption of innovation and not the risks.

It was collectively concluded that when it comes to risk competence in AAL there are a lot of scenarios and situations each and every stakeholder needs to personally manage and mitigate when adopting new AAL and technology innovations to help increase the adoption aims and opportunities of the products and services on the market.

Many of the risks that older people are facing are evolving from old risks to new risks but there is insufficient awareness of these changing risks by stakeholders. By engaging the end-user in all aspects of the technical development of products and services, the risks related with development and adoption can be decreased. It also means that there should be improved education and training to reduce the risk of ICT adoption but also, through good governments these risks should be watched and complications avoided to ensure the right products are created for end-users.

# WORKSHOP 9:

## THE ART OF THE BUSINESS CASE

Successful acceptance of new AAL technologies on the market requires 'selling in' to a multitude of stakeholders and one efficient tool of communication to do this is the Business Case. Flavia Jensen from Heveas ApS and her colleague Soren Jensen used real-life practical tools to put together the ideal business case using individual cases to show workshop participants how to create a successful business case when dealt with a short time frame



**The session** on the art of the business case centred around participants using a tool kit template created from the back of Flavia Jensen's and Soren Jensen's own experiences working in stakeholder analysis looking at things such as total cost of ownership, activity bases costing and business process re-engineering based on a real-life case in Denmark on the clinical assessment of dehydration. The tool kit was used to help participants understand that a quality business case can be made in a short period of time if done correctly and it was studied step-by-step.

The tool kit is split into two main sections: People & Process; Process Improvement. In the People & Process section, participants had to identify the process and then what the different tasks are and who is involved and what their level of involvement is in the process. The second section, Process Improvement, consisted of participants identifying the cost of the tasks in the present activity, the cost of ownership of new devices and the cost of the new activities involving these new devices with a final calculation of cost saving of this new device.

It was noted that whilst none of the audience were practitioners in elderly care and had no practical knowledge about how clinical assessment of dehydration (this was the real-life case study from Denmark), they were able to redefine a new process where a dehydration device could be used as well as see the importance of conducting a stakeholder analysis based on all the activities in a process. They were also able to distinguish the difference between hard issues – cost and compliance, and soft issues – quality of life, happiness, citizen satisfaction and home care personal satisfaction.

By evaluating the tasks based on the process, the people involved, the cost of the tasks and then making the same process with a new device or service, really allowed participants to build a business case with solid information on the benefits from a business perspective of adopting a new device or service. It also gave them a better understanding on the feasibility of making a business case in a short period of time and the significant impact it can have to creating a successful and marketable product.

*Right: Flavia Jensen helped groups with their business cases*

# WORKSHOP 10: GROWING THE AAL MARKET: ENSURING EFFECTIVE DEPLOYMENT OF REAL-LIFE SOLUTIONS

The AAL market in Europe has the ability and opportunity to grow and transform though there are both many challenges and potential strategies for developers to make this a success. Technopolis Group has been commissioned by the AAL Programme to support the setup of a new AAL Market Observatory and both Paul Simmonds and Kristine Farla brought their expertise from this company to provide businesses, entrepreneurs and investors the chance to discuss business development opportunities and challenges with a panel of experts

**Technopolis Group**, represented by Paul Simmonds and Kristine Farla, led a panel of expert investors and marketers: Yael Benvenisti (Mediterranean Tower Ventures), Jackie Marshall-Cyrus (Marshall-Cyrus), Iñaki Bartolomé (Ideable Solutions), Igor Aristizabel (Tecnalia-Ventures). Each panellist began by providing participants with several personal remarks about their own expectations of the AAL market and to the future development of AAL markets and the role of the AAL network within this wider endeavour.

As well as the panel of experts there were two representatives of larger businesses (Philips and Tunstall) and a UK-based investor present in the audience that Farla said added great value to the debates.

The discussions were packed with interesting challenges and statements between the panellists and the participants. There was one strong view in particular proposing a need to have a more segmented view of the markets especially as the over 50s are one of the largest and most powerful market segments and so AAL should not be limiting itself to products for the frail elderly. In addition, it was mentioned that AAL is preventing further success based on the title, 'AAL' which references 'assisted'. By moving away from the notion that ageing is miserable and debilitating, the programme can be more

ambitious, hard hitting and pursue riskier and more successful solutions and hit the market harder.

It was said that AAL should be more open-minded and look outside of the AAL community, as there are many potentially interesting solutions in other sectors, space for example, that could be spun- or tapped-in to for new AAL services and products, and for broadening the market for international cooperation opportunities.

On the other hand, one workshop participant provided a more positive message that angel investors are becoming increasingly interested in the application areas of active and healthy ageing, which is currently a massive hot-topic in London with substantial funds being made available. Bigger companies are struggling to innovate as quickly or as openly as smaller firms and require start-ups to cope with the rate of technical change and innovation and they have a big role to play in taking these to scale and helping entrepreneurs reapply themselves to the next big idea.

It was concluded that, for AAL to continue to be market successful the programme needs to give more weight to its leadership role within the community and be more determined to open up opportunities to work with other networks and programmes across Europe and the world.





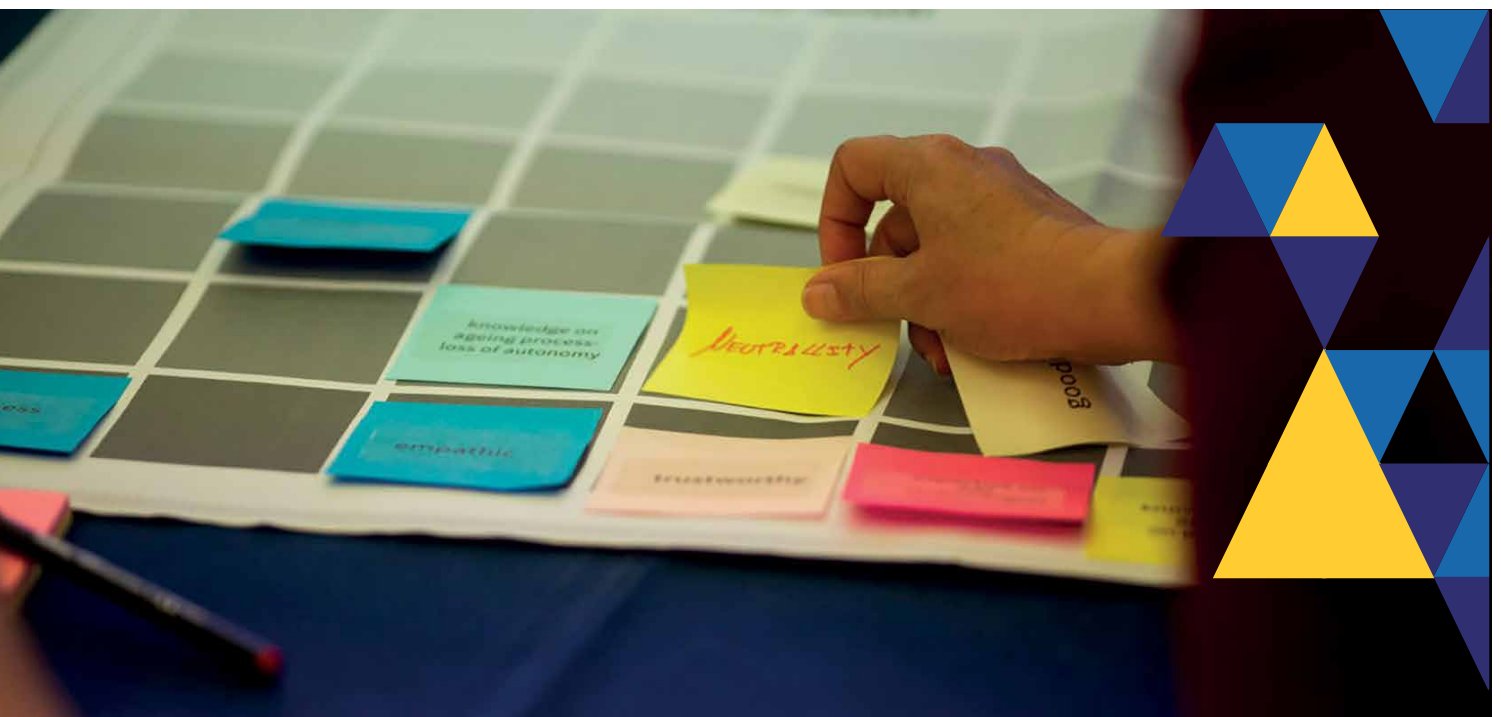
# WORKSHOP 11:

## HIGH TECH HIGH TOUCH: AUTHORISED ACTIVE ADVISORS AS MEDIATORS BETWEEN AAL PROVIDERS AND CONSUMERS

**ActiveAdvice is a project that aims to deliver a fully-functional ICT environment with specific web and mobile services for older adults and their relatives, as well as professionals, in inclusive design and construction engineering across Europe. The project argues that an articulation between the real and the virtual world is necessary for advisory service provision in the AAL field, as a means to jointly improve the users' experience and promote user empowerment**

**Authorised active** advisor was created to be the human addition to the electronic ActiveAdvice platform and assist users to make the most out of the platform. The active advisor would work as the mediator between the consumer and AAL providers by helping the end-user with the process of decision making. To help define this concept, Daniel Heery from Cybermoore coordinated the workshop to generate and provoke debate on participants ideas and inputs in accordance with different national and local real-life situations.

To help shape the concept of an authorised active advisor participants had the opportunity to exchange ideas, perspectives and experiences amongst one another by looking at two points: 'Wall of values' – to understand what makes a good active advisor and what competencies and values one should have; and 'The experience of being an authorised active advisor' – identify the key features and values that should sustain the activity of an active advisor. Diogo Abrantes, Rita de Sousa and



*Workshop participants get hands-on when creating their 'Wall of Values'*



Soraia Teles (CINTESIS), Diotima Bertel (SYNYO) and Alain Denis (Yellow Window) helped with this group work.

After looking at the Wall of Values, the workshop discussed how as mediators between the end user and AAL providers, it is important to carefully consider what the values, competencies and characteristics are and should be of an active advisor as they need to strike the right balance between both parties. Some of the features mentioned of an active advisor include being an expert on AAL technologies, being trustworthy especially from an end-user's point of view as they want to make sure they're in safe hands, open and frank, have good knowledge of ageing and the surrounding opportunities and challenges, be empathic and respectful, have discretion.

Based on two personas (Eva, 85 and Pierre, 51), the session participants looked at how Eva and Pierre would go about finding their advisor and then get in contact with

them, how the advisor would build trust with them so they would take their advice, the advice process itself and then what the decision would be and follow-up process of this decision to better understand the experiences required of an active advisor.

With participants from Italy, Spain, Switzerland, Bulgaria and the Netherlands from different professional roles such as company directors to researchers, there were very many unique experiences and particulars that meant each had their own features and ideas of an ideal active advisor which both validated and provided new concepts for a future code of conduct for Authorised Active Advisors.

# WORKSHOP 12: SMART HEALTHY AGEING FRIENDLY ENVIRONMENTS AND THE ROLE OF CAREGIVERS IN THE DEPLOYMENT OF ICT-BASED APPROACHES

Innovative approaches, methods and solutions, including social innovations and ICT are essential if society is to support and enable people to live independently and to remain physically and mentally active as they age. In particular, age-friendly environments and ICT play an important role in preventing or delaying the onset of disease and functional decline. This workshop looked to highlight how essential the engagement of caregivers is in this development

**Two initiatives** that focused on an age-friendly environments (AFE) approach were developed in 2018: Thematic Networks Smart Healthy Age-Friendly Environments (SHAFE); and EIP-AHA CW5, the caregivers' role in ICT development and exploitation for AFE. From Willeke van Staalduinen (AFEdemy) and Gil Goncalves' (INVOA+) perspective they wanted to discuss with

participants and prioritise the main lines drafted on SHAFE for the Joint Statement and as for CW5, the goal was to validate the preliminary results and collect feedback for its Green Paper.

Javier Ganzarain (AFEdemy), Inma Uzkundun (Grupo SSI), Carina Dantas (Caritas Coimbra) Raquel Sousa (INOVA+)



*From left to right: Ana Jengundo, Carina Dantas and Javier Ganzarain*



*Inma Uzkudun*



and Ana Jegundo (Caritas Coimbra) all presented their individual stances and approaches on the healthcare issues, the main recommendations for the Joint Statement and the intermediate results achieved by the EIP-AHA CW5 in order to compile a summary of recommendations on SHAFE and gather insight on the Caregivers' on ICT for AFE.

#### **SHAFE recommendations summarised**

Creating a European strategy on SHAFE would provide guidance to understanding people and places with concrete steps to follow however, there are concerns that there could be a 'not-invented-here' syndrome whereby if it's not invented locally then people will not adopt it. To move forward there needs to be cross-sectoral and -national cooperation with databases of studies and initiatives, and crucially, there needs to be continuous funding. AAL can sometimes hinder continuity because countries can decide to withdraw, therefore there needs to be powerful and reliable business models for public and private investment flexibility. Lastly, though some agreed SHAFE should only invest in societal challenges, many

believed that this is too narrow and should include broader research for more innovation.

#### **A summary of the list-of-actions questionnaire by Caregivers working on ICT for AFE**

It was very much agreed that the involvement of both informal and formal caregivers should be ongoing and be beneficial to decrease the lack of digital literacy and health literacy in society. Their involvement can cause a ripple – teach their relatives/friends etc., however training is needed to reassure caregivers their jobs will not be replaced by technology but instead engage them during all stages of the ICT projects. Also, caregivers' involvement in the exploitation phase of a project should be paramount as they should be seen as part and parcel of the solution by using the technology but also, they can help push the product to market faster. Lastly, it was noted that to implement a strategy, costs and benefits and funding need to be shared between the different stakeholders and a common agenda followed across authorities and care providers.



*From left to right: Willeke van Staalduinen and Raquel Sousa*

# WORKSHOP 13: CONNECTING VALUES, CONNECTING MARKETS: A WORLD CAFÉ TO DISCUSS DEVELOPMENTS IN DEMENTIA BUSINESS

The personal history of people with dementia is a valuable source of information and the values they have formed in their early adult years are especially important as guiding values for their current behaviour. However, the market for services and products for people with dementia and the ones around them, is complicated. The AAL project MI-Tale was used as a case study to provide insight into their business model canvas to help other dementia projects define their business cases

**The MI-Tale** (AAL) project is aimed at the development of an interactive game and app that will trigger and record the memories and the personal stories of people with dementia to help dementia patients and their caregivers. To set the scene of the workshop, Dolf Becx (Consultancy Zorg Giersbergen) spoke about the challenges of dementia from a caregivers' point of view, Marije Blok (National Foundation of the Elderly) presented the challenges from an end-user's point of view and Stefan Schürz (LIFEtool) spoke about the proposed solution and the MI-Tale prototype.

Based on the MI-Tale's case study and business modal canvas, along with the help of Nina van der Vaart (National Foundation of the Elderly), speakers took aside separate groups to discuss three topics of their compact version of the business analysis to help participants conduct a complete analysis based on a number of key areas: Customer segments and relationships; Value proposition and key activities; Costs structure and revenue streams. The discussions revealed:

### **Customer segments and relationships**

In the care sector it's worth considering whether the product may also be interesting for other kinds of cognitive impairments among both young and old patients, whilst in the consumer market there should be focus on those who can help older people use the game – students,



schools, libraries etc. to collaborate relationships.

*Stefan Schürz  
and Marije Blok*

### **Value proposition and key activities**

In MI-Tale's case, the project contributes to increased socialising, brain training, self-awareness, feelings of mutual understanding between friends and professionals, connecting generations and the intrinsic value of recalling and sharing memories.

### **Cost structure and revenue streams**

Benefits of working with telecom providers to allow you to focus on the software whilst they provide the channels. There is also the concept of memberships to trigger clients and attract them to different tiered memberships with additional features. Or work with existing programmes to help integrate the product or services in schools for example, and get municipalities to distribute it throughout the area.



# WORKSHOP 14:

## MASTERING THE STEEPLECHASE: HOW TO OVERCOME MARKET BARRIERS AND SUCCESSFULLY LAUNCH AAL SOLUTIONS

**Maximillian Bernard's session was a workout-session intended to help participants overcome the market barriers that is the steeplechase of launching AAL solutions to market. Based on literature, research and practical reports the objective was to discuss and share experiences to aid in the development of new strategies and methods to make it easier for AAL products and services to be market successful**

**Maximillian Bernard**, (University of Innsbruck), looking to discuss the market barriers of AAL solutions was joined by Felix Piazzolo who did a brief presentation on 2PCS GmbH's way to the market, Thomas Böckelmann who spoke about the challenges of different distribution channels for ICT devices for several target groups, Martin Kampel highlighted his experience with the fall detection sensor fearless, Urs Guggenbühl added additional information on how to reach out to customers using living labs, Johannes Hilbe who highlighted certification issues connected to launching their product on a medical market, and Stefan Okruch looked at IPRs and how important it is to involve legal assistance for every partner as soon as possible.

A fishbowl discussion was established after these short keynote presentations to enable a constructive discussion among a large group of participants, and the two main topic discussions were as followed:

- Sales channels: AAL products are complex and need a great deal of explanation and so partners need to be committed to train and support their customers. To maintain strong support the B2B market is seen as an easier entry point as only a few contact points are needed to reach a lot of end-users. And to raise customer acceptance it's important they are involved during all phases of the product development.
- Encouraging the use of AAL solutions: The majority of end-users are not tech savvy and so a product needs be designed

so that it is user-friendly, for example, easy installation and low maintenance. Innovative business models could solve these issues – this is being tested in France where postmen fulfil small maintenance services for those in need.

Bernard said that the key outcome for participants was the spreading and sharing of valuable real-life experiences and either appreciating they are not alone and face similar issues or setting them up for potential problems they might face in the future.

Keynote speakers highlighted important difficulties they came across when launching on the market which established rewarding discussions in a variety of facets future AAL products might face for example: mass production – how to finance the production of your product and tools; legal issues – getting your product certified; test environment v real life – a system that works fine in a controlled environment might react completely different when tested in the real world; distribution channels.



*Thomas Böckelmann*



# WORKSHOP 15: MARKET FOR REMOTE CARE SERVICES

In 2011 the telecare service became a competence of the Basque Government after previously being allocated to the local councils and it is now a single service for all the population. To understand what kind of services and technology can be introduced next in a regulated market of remote care services, Jofre Tenorio used the H2020 EMPATHIC project as a working model example to obtain a map of factors to allow the adoption of ICT technology by remote care services and identify unmet opportunities for technology within virtual assistants

**Jofre Tenorio** (Osatek) has a lot of experience providing technical assistance to the Basque Telecare Service and from this experience and knowledge of EMPATHIC, a project laying the foundation for future generations of personalised virtual coaches to help elderly people live independently, he provided the workshop with relevant insights regarding the technology that has been introduced into the Basque country and the processes it went through to get to market.

Four capacities were developed within EMPATHIC based on two important social needs -undesired loneliness and cognitive



*Itziar De Lucuona,  
law and bioethics  
specialist and lecturer*



“The monitoring of **emotional patterns** can reflect **physiological** or social changes **suffered** by the user for example, **cognitive impairment** is associated with **anxiety or apathy**”



impairment - with the aim to provide potential solutions to predefined user needs in four capacities:  
 Emotional traceability of the user;  
 Alert of risk through spoken dialogues;  
 Well-being and personalised plan; Motivational coaching through spoken dialogues.

To really get to the depths of how to get more remote telecare services, Ester Sarquella (Tunstall) and Itziar De Lecuona (University of Barcelona) helped participants explore these four capacities based on the predefined user needs – undesired loneliness and cognitive impairment, and questions were asked:

- Which of the capacities may provide value from a professional point of view and why?
- Which is your preferred capacity and why?

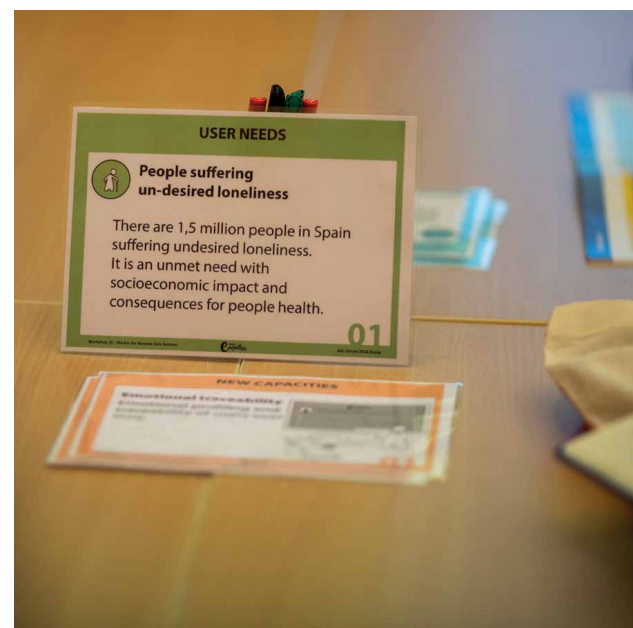
Regarding early detection of cognitive impairment, the following capacities were prioritised in order:

**Emotional traceability** – emotions can be detected by voice and integrating the solution in a call centre or on a tablet provided to the user. There were arguments for changes in recording patterns. The monitoring of emotional patterns can reflect physiological or social changes suffered by the user for example, cognitive impairment is associated with anxiety or apathy.

**Alert of risk through spoken dialogue** – the capacity to detect inconsistencies in dialogue structure and implement questionnaires through this dialogue. It would be a good tool to provide support to health professionals and for use as screening methods.

Regarding the suffering of undesired loneliness, the main capacity selected was:

**Motivational coaching through spoken dialogues** – it’s important to provide guidance and motivation to the end user but also to provide guidance to the caregiver to help reduce their work burden. It was also mentioned the significance of using the tools to stimulate human interaction and interconnect communities, and not replace it with a mechanism.




# WORKSHOP 16: THE JOB MARKET OF AAL: WHICH CANDIDATES ARE WE LOOKING FOR?

**A growing market like AAL cannot sustain itself without developing a roadmap on how to educate or find experts and so from expert opinions and collaboration a qualification list for future AAL job applications was proposed in this workshop in order to tap into the issues of the job market of AAL**

**Experts from** six organisations gave discussions to share cutting-edge, co-design methods and collaboration techniques that participants could take away to understand what candidates in the job market are looking for. Jean Hallewell (University of Applied Sciences Upper Austria) opened by comparing where we once were and where we are now regarding job opportunities. Marcus Garschall (AIT Austria) stressed the growing importance of scalability as an asset and the shift from disabilities to more of a focus on everyday assistance. Piera Sciamia (E-seniors France) discussed how important the availability of products is. Nina van der Vaart (Nationaal Ouderenfonds) spoke about interdisciplinary and listening to others. Claudia Oppenauer (Medical University of Vienna) pointed to the aspects of time and how flexibility could be lost during changes in the AAL Programme structure. Franz Werner (University of Applied Sciences Campus Vienna) also spoke about how AAL is changing to a phase of innovations rather than diverse explorations, and therefore there is the need for larger teams with more focused skill sets.

An innovation toolkit was used in the workshop, designed by Lancaster University, alongside a skillset wallet. This cartoon metaphorical wallet was used to collect inspirations and visions from participants before these items were used to express possible skills for job particulars. The items in the wallet included things like, credit card, key, an award certificate.

One of the key skills that came to fruition from this skillset wallet was that of interpersonal skills. When it comes to translating knowledge, understanding and lessons, it is important to have individuals with the right skills to do this well. Another was aesthetic skills, as in the current situation administrative and programming skills dominate the field however, it is important to integrate skills such as those that are able to process grassroots innovations and for inspiring trust. Lacking these skills are just part of the reason some AAL projects with new technologies do not achieve success.



When it comes to knowing what candidates the future AAL job market is looking for, participants found it hard to say. It was shared that there will be many new and different challenges to face and the demographics will most likely change again. Life changes, hobbies and retirement will be key initiators for new ideas which means that job opportunities are open to those who are aware of the diversity of the target audience and are well educated on stereotyping and stigmatisation. Not only will they need to be open about the end-user, job seekers will have to be open to collaboration amongst one another, to be open and honest with a bottom-up approach to share benefits. For AAL to achieve success, their employees will need to be more well-rounded and open-ended.



# WORKSHOP 17:

## MEDICAL DELTA LIVING LABS: DEVELOPING SOLUTIONS FOR E-HEALTH AND CARE-ROBOTS

*This workshop could not be held due to unforeseen circumstances*

**Medical Delta** is a network of partners active within the Life Sciences, Health & Technology sector. It's assembled a dynamic network of scientists, healthcare professionals, bio- and medical technologists, entrepreneurs and other partners. By facilitating interactions and cross-disciplinary collaboration, innovations can be developed for current and future challenges in healthcare, and the Medical Delta Living Labs is just one way they are doing this. The network serves as a catalyst for practical, innovative and economically viable healthcare solutions.

Led by Rian Rijnsburger, programme manager at Medical Delta Living Labs, and coordinated collaboratively with Caroline Duterloo, Janneke Vervloed and Helen Silvius, also from Medical Delta Living Labs, their expertise and knowledge on end-user innovation will show participants what the Living Lab (LL) approach can mean for AAL solutions for acceleration to the market. They will show how LL services can add significant value in the innovation process and use successful examples of LL projects related to care-robotics and e-health.

The workshop will use the World Café format to collaboratively discuss two important topics: care robotics & ageing well, e-health & ageing well – in order to learn what the needs and problems are that healthcare institutions, patients and older adults face, and to initiate an action plan with LL services to help accelerate the

possible technical solutions to solve these challenges.

Afterwards, there will be time to join in a mini matchmaking exercise between interested stakeholders and participants to share more personally, new ideas for AAL products and solutions. From this session with figures from European innovative companies, governments and health care institutions taking part, the workshop will look to raise an international consortium of relevant stakeholders around care robotics and e-health. The team at Medical Delta Living Lab will look to help build and collaborate with international projects in relevant real-life settings and end-users in the South-West region of the Netherlands and ultimately co-create new products and services for ageing well.



*Janneke Vervloed, Caroline Duterloo, Rian Rijnsburger, Helen Silvius*

Rijnsburger has sent out the workshop slides to all potential attendees, including potential project starting points. If you would like to be involved or for more information, please contact Rian Rijnsburger at:

**[rian.rijnsburger@medicaldelta.nl](mailto:rian.rijnsburger@medicaldelta.nl)**

# WORKSHOP 18: EMBRACE! HOW DO YOU GET ELDERLY CUSTOMERS TO EMBRACE YOUR IOT SOLUTION?

Many projects come with perceived good solutions that really tackle the issues of someone getting older. However, as is the case in most scenarios, the solution is usually not the answer. When it comes to deciding on solutions for older people, pride is one of the biggest factors to consider – no one wants to admit that he or she is lonely, depressed or forgetting things, and losing these abilities does not mean losing your pride. This workshop looked at how to get end users to want and accept IoT solutions

**Ellen Steenmeijer** (Anne4Care) looked to enlarge the awareness of other companies and organisations on how to get end-users to really embrace an AAL IoT solution for themselves, a key challenge in AAL. To do just this, the team at Anne4Care developed a simple and effective method called, Embrace!, which was demonstrated and used in the workshop. Daniel Bolliger

(iHomeLab), Marcel Heerink and Michiel de Jong (Windesheim University of Applied Sciences) also added their experiences and failures to the opening presentations.

The Embrace! method, which was established based on the experiences and failures of Anne4Care’s success, is made up of seven steps which were discussed

*Ellen Steenmeijer listens in on group discussions*



amongst participants based on their own experiences and how the seven steps could help, be improved or added to:

- Don't offer them help, but ask for their help – You are dependent on them, not the other way around.
- Manage expectations and be honest – Do not oversell, you still have lots to learn.
- Make use of ambassadors – That are enthusiastic and match your target group.
- Make it fun! Gezellig – In the design and being involved in the project.
- Create ownership – Make people feel responsible and have significance.
- Don't forget the family caregivers – Involve them, don't just inform.
- Don't forget the professional caregivers – Involve them, don't just inform, but be aware you can impose a threat to their work.

A couple of participants relayed similar experiences that their projects had a clear idea of how they wanted to 'help' older adults and communicated this to them but experienced recruitment, engagement

and motivation problems during the testing period. Looking at steps one and four of the model the group agreed that looking at what may motivate end-users to participate, e.g. interests, be of use, escape isolation and be sociable, might give better results than focusing on their forthcoming deficiencies.

Another participant described a successful project and believed their approach followed the Embrace! model but still had problems exploiting their final product. Discussions centred on steps six and seven, that often it is not the primary end-user that buys or recommends the product and that it was vital to consider from the onset who the most likely buyer will be and what will encourage them and limit them to buy – national funding, legal systems etc.

A number of improvements to the Embrace! model were also mentioned: the snow-ball effect, start small and incentivise to attract new pilot members; and find disruptive professionals who will embrace your disruptive solutions much easier and take them to market.





# WORKSHOP 19:

## SOCIAL ROBOTS – HOW TO ENSURE USER ACCEPTANCE IN THE HEALTH MARKET

Social robots hold a lot of connotations and create a lot of debate that can hinder their marketability. However, by adhering to both design guidelines and organisational methods such as key drivers and expected price ranges, social robotic projects could achieve greater success at market entry. This workshop asked questions related to the marketability of social robots

**Oliver Korn**, director of the Affective & Cognitive Institute at Offenburg University, aimed to lead debates on what human-robot-cooperation should look like and where cultural and organisational hurdles limit their marketability. To do this, Korn had the help of Martin Gmür (UID) and Anne Jacobsen (Autodesk) to present on best practices and industrial applications for social robots. Afterwards, to ignite debate amongst participants, an intense and significant interactive session was established.

Using a five-point-Likert scale, the quantification of opinions was collected based on the audience raising an arm to signal their support. The spectrum of acceptance was with regards to market preferences on what social robots should do/be like/include etc. based on 11 questions. 19 questions were prepared but intense discussions meant these weren't completed. The audience first answered each question and then discussed, to avoid semantic priming.

To help raise emotion and thought for the questions, specific social robots created by ACI was presented, as well as the documentation of three on-market robotic systems – PARO, Care-O-Bot and SINA. Examples of the questions include:

- How much would you be willing to pay for a health robot that monitors you in your home, helps you get up if you fall and ensures communication with a doctor in emergencies?
- Which of the following factors will influence the purchase decision?
- Should robots have arms?
- Having a social robot will be a status symbol like today owning a sport car.

Most questions opened debate and were partially controversial, Korn said, as was intended. Results showed that several aspects which are technically feasible such as robots resembling humans, do not actually match user requirements (within the views of the workshop audience), and that were strong divides on how far robots should go in their abilities and mobilities. If a robot is able to pick something up, what is it to say that it is able to use this mobility in harmful ways, for example. Or with respects to robots' future emotional capabilities, there are both positive and negative views of having this function that need to be justified.

Korn concluded that, social robots have many barriers that make it hard for them to make it to market, especially when it is considered how much one robot should be able to do or limited to do for the end user and their surrounding care services. Korn is creating a follow-up study with the results to promote the evaluation of market entry barriers.



Oliver Korn

# WORKSHOP 20:

## CO-CREATING IOT ECOSYSTEMS FOR ACTIVE AND HEALTHY AGEING

IoT technologies are becoming increasingly pervasive and will enable a new generation of services for older adults, especially in the active and healthy ageing (AHA) domain. However, effective exploitation of IoT technology in the AHA community has to comply with certain accessibility, usability, acceptability and data protection requirements. To match such concerns, the participation of all stakeholders to the service concept design is crucial and this workshop hoped to raise awareness on what IoT can offer the ageing society



Itziar Álvarez

**In order** to raise stakeholders' awareness about the amount of potential IoT holds and how they can be involved in a co-creation research exercise to elicit new thoughts and points of view, Paolo Ciampolini (University of Parma) and Pilar Sala (MySphera) looked to sensitise and prepare the audience before actively involving them in a co-creation sample session by exploiting the stimuli previously discussed.

With the help of representatives of public and private care providers and end-users, including Sergio Barrionuevo and Itziar Álvarez, the demand-side expectancies of

the IoT ecosystems were discussed in relation to the accessibility and usability, the connection with relatives and caregivers, and the main interoperability and data-management issues using examples from AAL-JP projects such as Noah, IoT exploitation for home monitoring, and H2020 projects such as ACTIVAGE (large scale piloting of IoT technologies). Emphasis was placed on how to effectively share and exploit data coming from 'things', rather than from hardware devices.

There were four main discussion areas related to an IoT perspective impact: Complexity management; Data security; Caregivers' motivation; End-user engagement. Questions centred around what the possibilities and obstacles are related to these topics, and what possible solutions there are i.e. activities, tools needed, stakeholders to be involved, time duration and how these will finally benefit the end-user. Based on these topics, the possibilities and obstacles, solutions and benefits of IoT were discussed.

- Possibilities: opportunities related to the higher levels of inclusion IoT offers to caregivers and patients alike. Whereas, many of the obstacles were recognised in terms of users lacking in digital literacy which can hinder the use of the product or service, also, questions as to whether the IoT solution responds to their needs and engages with the end-user effectively.
- Solutions: with regards to connecting caregivers through IoT through dedicated home sensors that capture expressive features of daily activities (hygiene, food, mobility, communication etc.), medical device.
- Benefits: quality of life was mentioned the most, sensors can connect to the home Wi-Fi to avoid dedicated network of sensors, a Cloud infrastructure continuously transforms raw data into meaningful information. All of this data can provide more information and therefore knowledge on what services are needed.

The need for user-participated design and co-designing processes was strengthened by these discussions with some inspirational and unique thoughts being shared. In particular, it was noted by Ciampolini that the IoT topic draws a lot of interest and fosters many experiences that can be shared for the benefit of the community.

# WORKSHOP 21: MATCHING AAL PROJECTS WITH EUROPEAN AND INTERNATIONAL AGENDAS FOR SMART, SUSTAINABLE AND INCLUSIVE DEVELOPMENT

A series of initiatives are taking place around the world to build living environments that are smart, resilient, healthy and inclusive. A great deal of EU-funded innovation projects, including AAL projects, have contributed to these smart and age-friendly agendas, but other links with global and European agendas remain often weak, making these projects and initiatives miss opportunities to feed into each other. Workshop 21 looked at this further

**Estelle Huchet** and Ophélie Durand from AGE Platform Europe looked to collaborate with participants and review how AAL and other innovation projects could better contribute to the achievement of European and international strategies for smart, sustainable and inclusive societies. A panel of experts introduced the session with basic knowledge transfer around the most relevant policy agendas related to innovation for ageing well before joining participants in roundtable discussions:

- Silvia Beales discussed the UN Sustainable Development Goals (SDG) and current discussions at international level;
- John Ketchell introduced smart cities from the perspective of different standardisation initiatives at EU level;
- Horst Krämer provided a snapshot on EU programmes and policy agendas for post 2020 and the EC's ambition about ageing, smart environments.

To improve the links between projects and the above-mentioned agendas,







Estelle Huchet

Horst Krämer

discussions looked at the attempts made by innovation project partners to adopt a sustainable and inclusive approach in their projects. Here were some of the key points and conclusions:

- Little awareness in the audience about international and European agendas for sustainable societies highlights disconnection between stakeholders leading technological developments and those addressing societal challenges.
- Too few incentives invite project leaders to align with these agendas and usually fail to mention the policy frames justifying the existence of the funds.
- A way forward with concrete tools and methodologies by participants to adopt a sustainable approach with policy check-lists potentially using those to monitor the SDGs.
- Recommendations identified could help frame the next AAL funding programme by making sure calls refer to key policy agendas to incentivise projects and develop multi-stakeholder partnerships and formally recognise project contribution to reward good-practice.
- The need for a common language and targets for measuring sustainability and inclusiveness between technologists, innovation projects and policy frameworks if projects are expected to show tangible results.
- A willingness from both parties to cooperate further for improved societal impact but acknowledgement that there is a long way to go and will require each project leader to question their practice and challenge the overall ecosystem to better imbed funding schemes in these policy agendas.

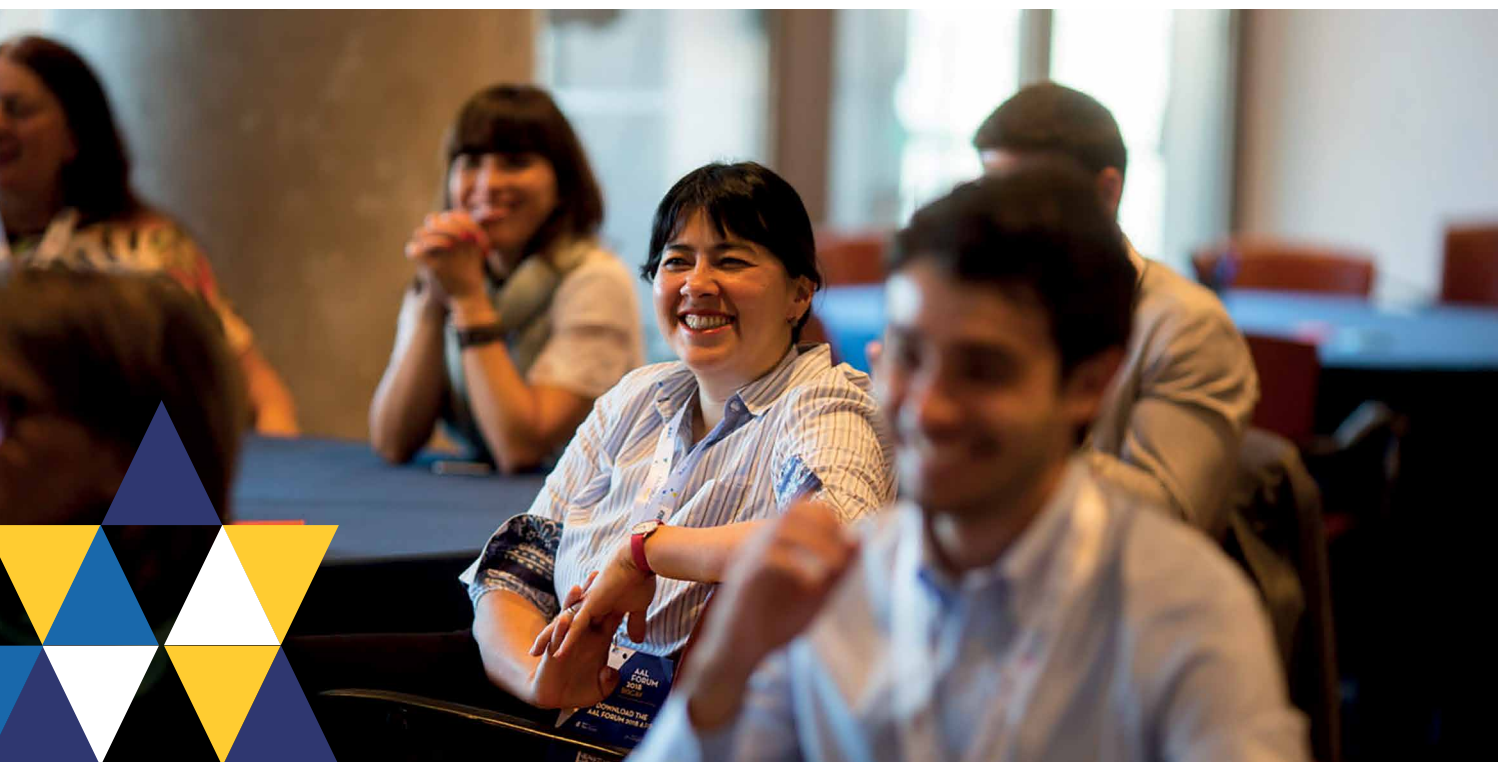
# WORKSHOP 22:

## THE NEED FOR NON-TECHNOLOGICAL AND SOCIAL INNOVATIONS IN THE DIGITAL AGE: HOW TO DEVELOP MULTIDISCIPLINARY COMMUNITIES AND NETWORKS

The IT industry and the nursing homes sector are two separate worlds. For these two sectors to successfully intertwine, innovations need to happen together involving all stakeholders and target groups. The purpose of this workshop was to discuss with participants the importance of social and human communication networks amidst the rise of new technologies for our ageing society

**IT industry** and nursing home sectors are non-collaborative. Currently, the healthcare and ageing sector seem to think in terms of people, wellness and care-providing and not technology, but instead favour social innovation which, according to them, implies mostly Near Zero technology. Innovation in nursing homes is not only about developing 'sexy' new technology appliances but it is also about being receptive to new partnerships.

The ECREAS platform was presented as an example of how those working in the healthcare services can be brought together to collaborate, connect and share best practices, knowledge, experience, new ideas and latest research results through technology. However, as well as this struggle that is apparent at a local level, there is still not enough being done to connect different countries and different healthcare providers and bring them







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all together to enhance the performance and commitment of care workers. A number of speakers shared their experiences.

Jean-Christophe Vanderhaegen, vice chairman of European Association of Homes and Services for the Ageing opened up the session by saying that there are a lot of R&D and pilot projects but no consolidation, there’s a lot of a technology-push but little demand-pull, and because the healthcare sector is not a consumer-directed market there are a lot of diverse needs that stakeholders must take into account when creating ICT for them.

Freek Lapré provided strategic insights of the healthcare sector and the application of technology here including AI, robotics and home automation. He discussed how the DIY revolution is potentially making residential care largely unnecessary and how there is a desperately needed paradigm shift from institutional to residential; professional care to co-creation with family; medical focus to social and service; one size fits all to lifestyle focused.

Didier Sapy gave further insight into sustainable development in nursing homes as many are confronted with problems linked to the economy such as the requirement for a more rational use of resources and the increasing expectations of older persons and their families. The need for a new global vision to place humans at centre stage and consider them active partners in the support they receive to improve the well-being of society as a whole.

Informal discussions that closed the session revealed a number of interesting conclusions. By creating new interdisciplinary collaborative networks with diverse stakeholders there is a chance to help tech start-ups flourish however, both IT and healthcare sectors need to create new business models based on these cross-sector collaborations for these networks to work. The models should be created and promoted at a European level for it to be implemented as best practice at local level.



Jean-Christophe Vanderhaegen



# WORKSHOP 23: ADOPTION OF THE AAL SOLUTIONS. WHY REGIONS DO CHOOSE THESE SOLUTIONS?

**Nicolai Kobliakov from Senior Group, led this workshop with the aim to work collaboratively with participants to create a road-map for caregivers on how they can persuade older people to use ICT solutions, based on AAL-developed examples, and persuade municipalities to implement and support these innovations**

**An introduction** was given by Nicolai Kobliakov, with the help of Martin Moors (City of Riga), on the case studies and demonstration of equipment from Big Family House – a family style care development for the elderly which sees carers living with the residents in housing that has been adapted for caregiving operations. This living situation is fitted with technologies to make it easier for older people to live safely and independently: Rondish (bed detectors), Cogvis (falls), Pull-cord Alarms, Smart Mother (sleeping patterns); and Mama OK which is an automatic fall and medication control service. Participants were tasked with creating a road-map – a list of actions to perform, including a list of arguments – that would help see solutions such as those adopted in Big Family House succeed more often.

During debates, it was collectively agreed that the problems traditionally experienced by municipalities in launching innovative products were as follows: no money; the money is already allocated for big players, need to support existing structures, no active people in the municipality, lack of active operators, social care staff have poor digital skills compared to healthcare.

Participants were then tasked with putting together a working road-map which was drawn out into a practical document to be used by municipalities and operators for developing ICT- based solutions in different European countries in the near future. 14 steps were included in the road-map, here are a number of them:



Nicolai Kobliakov

- Accept the fact that a straightforward scheme in this case doesn't work
- To draw out the correct scheme
- To convert the product into a service
- To identify the persons in a municipality who are interested in innovations
- To identify 'ambassadors' that will help talk to municipalities such as an association of pensioners or GP's
- To identify the independent expert bodies that can add value to your proposal
- To prepare the economic rationales for the municipality

The arguments that were given for municipalities choosing AAL solutions include: saving money, being the first with this solution, interesting solution, the implementation of ICT will decrease spending for social care and medical care.



# WORKSHOP 24:

## ADOPTING AAL SOLUTIONS INTO REAL LIFE

Every AAL project comes across many challenges and pitfalls when trying to implement their services and products in real life and this includes problems that arise during a project's lifecycle. Though this might be the case, this workshop looked to highlight the many opportunities that exist for the adoption of these products and services on the market. It just needs the right steps to be fulfilled and guidelines to be created to help future successes

**Two AAL** projects were used as uses cases for the adoption of AAL solutions onto market: Ella4Life – a virtual personal assistance (avatar) that helps older people stay healthy and live more pleasant independent lives both at home on a tablet and on the road on a smartphone or watch. The avatar has voice recognition with a fun and friendly interface and will interact with in-house sensor technology (close a window, turn a light on, play music). SENIOR-TV – a software platform for providing formal and informal caregivers services through TV apps for older adults who live alone. A smart TV with third-party applications for social, medical and entertainment purposes to foster a high-quality, long and healthy life.

These two cases were the basis of workshop participants identifying potential solutions on how to sell these and similar products to market, but also to identify potential problems. Giorgos Kostopoulos (Gluk Advice BV), Luiza Spiru (Ana ASLAN International Foundation) and Mircea Marzan (Ana ASLAN International Foundation) helped tables come up with their findings which can be summarised:

- A common comment was that these solutions were too complicated and too ambitious by promising to do a lot that is still a stretch from reality.
- Big technical challenges (voice recognition) were identified that still haven't been solved by the bigger companies and so how has AAL achieved this?
- Worries regarding who was going to maintenance these solutions and

update the content.

- Too complicated to be handled by elderly people so could actually reduce user interaction.
- IT products could increase the loneliness and social isolation of the users.
- Outdated compared to existing products on the market. They would be ideal if presented four years ago.
- A limited market.
- Too many AAL projects offer similar things.
- Privacy issues on data.
- Too expensive – pricing doubts.

The workshop and introductory presentations were described by participants as being realistic and very close to real life which allowed them to really get stuck in picking the two cases apart to find their strengths and weaknesses, which are reflected in many of their own products and services.



Mircea  
Marzan and  
Luiza Spiru

# WORKSHOP 25:

## 6TH WORKSHOP ON MOBILITY SOLUTIONS

**Mobility is a key ability for senior citizens to enable them to actively participate in and feel included in society. Diminished physical and cognitive abilities can cause a loss of confidence and orientation in outdoor situations, so that elderly persons often prefer to stay at home. This workshop discussed how to effectively implement mobility solutions**



Christoph Stahl

**To help** those who are older who need help there needs to be mobility and transportation ecosystems that follow the paradigm of door-to-door mobility chains, with greater understanding on the required abilities and competences to use them. Christoph Stahl, senior research associate at Luxembourg Institute of Science and Technology opened with a keynote on the research projects that have previously presented in this workshop series to set the scene for the 6th edition of his workshops, this time, on the implementing the right mobility solutions to give confidence and freedom back to elderly citizens.

Luis de Matos, CEO of Follow inspiration also presented on autonomous robotic mobility solutions, such as the wiiGO, for retail markets to describe the current situation in terms of available products on the market for mobility robots, and Daniel Bieber, ISO Institute in Saarbrücken spoke about the Mobisaar project which gives support to elderly and disabled persons in rural and urban areas.

To actively contribute to discussions on the elements of a mobility ecosystem, participants were organised into three groups to discuss three topics and share knowledge and opinions on the abilities and competences that are required to use each of the solutions:







- **Public transport in rural areas**

**Solutions:** Electric e-cars, volunteers to help lift share, dynamic route allocation, local bus companies with flexible timetables, wearable sensors to find bus stops, improved bus timetable information, integrated ticketing systems for one trip.

**Requirements to use public transport:** Knowing bus stations, difficulties in cities, ticket solutions, no internet to obtain information, do not have smartphones/apps.

- **Pedestrians and mobility platforms**

**Solutions:** Segway, powered wheelchair, kick scooter, tricycle, e-bike, exoskeleton with navigation aid, tourist trains, golf carts, infrastructure for bike lanes etc.

**Requirements:** Public transport to have easy access for bicycles etc., accidents occur with e-bikes as people have not been educated on how to use them correctly, traffic gets more complicated with different size and speed of vehicles with regulations unknown, information about obstacles and accessible routes.

- **Autonomous and robotic vehicles**

**Solutions:** medical help by drone, rehabilitation robots, Tesla autonomous cars, autonomous robots/cleaning robots, last mile delivery robots.

**Requirements:** Infrastructure - houses and stress must be changed to suit the needs of robots, accidents could occur with broken sensors etc., more knowledge, legal and ethical frameworks need to be improved, building of trust for intelligent transport.

The workshop revealed that there are a large variety of electric support devices that the elderly can use too, such as mobility scooters and pedelecs however, there are navigational and speed-awareness issues. For rural areas state financial aid is needed to allow people to be more mobile without using their cars and technology won't necessarily help. With regards to future transportation, the interaction with autonomous vehicles will require new knowledge and skills and a new level of trust.

# WORKSHOP 26: IS IT POSSIBLE TO AUTOMISE FEEDBACK FROM TECHNOLOGY; A CASE STUDY FROM AARHUS

**There is a wide selection of technologies for those suffering with outreaching dementia and for those who are troubled or not themselves. Aarhus municipality has tested different technologies, driven by data which is highly evidence based and this workshop looked at the collection, analysis and processing of this data, and the specific results of the project**

**Aarhus Municipality** is the second largest municipality in Denmark and the Centre for Assisted Living Technologies seeks to test, develop and implement assisted living technology solutions to provide citizens with increased independence, improved working conditions and a better economy. Aarhus has participated in R&D activities as an end-user organisation trying to find the best solutions in digital health and care. The strategic scope of the project is based on data management from assisted technology which provides automatic feedback through sensors.

Based on the introduction on Aarhus, Ivan Kjaer Lauridsen, head of the Centre for Assisted Living Technology, and Søren Pallensen's, project manager at Centre of Assisted Living Technology, posed a number of questions to the audience of researchers, SMEs, public organisations, caregivers, universities, consultancies and local governments attending the workshop: Which organisation are you from? How do you use data? What data is needed in the future? How do you create value? What are the ethical dilemmas and legal obstacles?

The following discussions revealed interesting results. With regards to the question on actual use of data, participants spoke of how innovations can be different as there is a lot of data with many different options as to what to do with it. For example some data can be used for research, physiological to measure and detect stress, hospital data, health related, data from users, personal identification, economic, data from living labs etc.

The focus on data needs for the future looked at holding field trials with caregivers and users, on the work and support of caregivers and on health costs for the city. It was suggested that social activities could be held to gather data on loneliness, on the use



of public facilities, on media monitoring and the need to collect data on the physical, social and emotional state of the municipality to be aware of future scenarios.

When discussing the ethical dilemma matters of privacy, data security, storage and GDPR it was mentioned that those who provide data should be rewarded for doing so to make it more appealing and safer.

Overall, Sonja Hansen, European Project Officer at Centre for Assisted Living Technology, Health and Care, Aarhus Municipality, who helped coordinate the workshop said that the outcomes from these results were productive and will provide basis for future work in the municipality of Aarhus.



# SEE YOU NEXT YEAR!

Aarhus, Denmark





# ACTIVE AND ASSISTED LIVING PROGRAMME



Each national funding agency of the AAL Programme appoints a National Contact Person who is responsible for the respective national activities for organising and implementing the AAL Programme.



For more info on how to contact them, please visit our website at [www.aal-europe.eu/contacts](http://www.aal-europe.eu/contacts)



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