

AAL

PROGRAMME

AAL FORUM 2019

EXECUTIVE SUMMARY

SMARTER IMPLEMENTATION OF DIGITAL SOLUTIONS
ENHANCING ACTIVE AND HEALTHY LIVING

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ANOTHER FANTASTIC AAL FORUM

by Peter Saraga, President of the AAL Association

Welcome to this Executive Summary, a publication we have compiled following another successful AAL Forum, this year held in Aarhus in Denmark. By summarising the many workshops, presentations and debates and by speaking to delegates and exhibitors over the three days of the forum, we hope to have gathered valuable insight into the many lessons learned and are able to share many of the brilliant ideas expressed.

I would first like to take this opportunity to thank our hosts in Aarhus. As well as providing such a welcoming atmosphere and dynamic space for the forum, the organisers brought together the largest number of delegates and exhibitors we have ever had at a forum before. It was testament to both the passion all those involved in active and healthy ageing have for AAL, and the success we are having in bringing brilliant people together to effect real and positive change in how older people live their lives today.

Another important element of the forum this year was the involvement of the European Innovation Programme on Active and Healthy Ageing (EIP on AHA) who brought their Conference of Partners to the event as co-organisers. This strategic collaboration helped us all focus on common interests during the forum just as the EC is considering plans for a future partnership programme to address the challenges and seize the opportunities of Europe's ageing population in the coming years.

The AAL and the EIP on AHA were able to set out their visions for this future at the second plenary session as well as during joint workshops and you can read a summary of these discussions in this publication. It is clear that an ongoing collaboration will be a key part in any new partnership programme as all involved in the active and healthy ageing ecosystem continue to work together.

Ecosystem was one word that was on the lips of all delegates throughout the forum following the keynote address of Julie Arts of the Presencing Institute. Julie introduced the concept of how organisations like AAL could benefit from an ecosystem approach as a



possible way for us all to work together in the future. It was an approach that really resonated as discussion around AAL's existing successful and vibrant ecosystems took place at the many workshops.

This year's forum also saw the successful introduction of two new approaches to understanding the market-readiness of AAL solutions. In our Elevator Pitches session, projects were able to pitch their solutions to experts who critically assessed both the solution and the approach to pitching it. Meanwhile, our new Citizen Accelerator exercise saw participants concentrate on implementation strategies, overseen by experts and users who judged which product was most ready for the market. The winning product was simply brilliant!

Implementation was another core theme that ran through the forum, with many workshops focused on business modelling for AAL projects and our AAL Lean Startup Academy providing projects with expert business advice on finding priority customers and establishing a value proposition through the correct channels.

As we look to rekindle the memories of another fantastic forum in this publication, I ask you all to carry on with the brilliant work you are doing and keep letting us know your thoughts on the future. With Horizon Europe getting closer, AAL is developing a new vision for ageing well in the digital world – and we want you all to be part of this journey with us.

AAL FORUM 2019 SUMMARY

The AAL Forum 2019 took place in the city of Aarhus in Denmark – a city world-renowned for having embraced technology to help older people live happy, healthy and fulfilling lives in their own homes for as long as possible.

Hosted by the Municipality of Aarhus and taking place at the impressive Aarhus Congress Centre, the event welcomed 700 delegates to take part in exciting talks, interactive workshops, a buzzing exhibition displaying the latest technology and services, and many other opportunities to be immersed in the world of active and healthy ageing in Europe.

The event in 2019 was made special by the fact that, for the first time, it was run in collaboration with the European Innovation Partnership on Active and Healthy Ageing (EIP on AHA). This collaboration was reflected in three joint workshops as well as plenary discussions involving both parties.

Perhaps the most important aspect of this coming together, however, was that it allowed for ongoing discussion about a future partnership programme that will address the opportunities of Europe's ageing population beyond 2020 – a theme that was prevalent in talks throughout the forum.

Kicking off on Monday evening at Aarhus City Hall, the scene for the forum was set by keynote speaker Julie Arts from the Presencing Institute, who outlined the concept of an ecosystem approach for the future of AAL. "This approach ... becomes relevant when you are leading profound social change in a complex system," she explained. "This will help inspire AAL to reorganise itself as it prepares to tackle the challenges we face without simply doing what we have always done."

AAL president Peter Saraga also spoke at the opening ceremony, highlighting the importance of the collaboration with EIP on AHA at this pivotal time for Europe. "We are coming together at a crucial moment, when decisions on future partnership programmes at EU level are being taken," he said. "We are looking together at how we should address the challenges and seize the opportunities of Europe's ageing population in the future."

The first plenary session on Tuesday was a debate on the policy and philosophical implications of the ageing demographic revolution. Hosted by Fernanda Freitas, the discussion covered a variety of topics, with the panel members providing personal insights from their regions as well as taking questions from the audience.

Wednesday's plenary session took a similar form, but this time it was once again a collaboration between AAL and EIP on AHA, with representatives from both bodies as well as the EC and More



Ivan Kjær
Lauridsen

"We are coming together at a crucial moment, when decisions on future partnership programmes are being made"



Fernanda Freitas

Years, Better Lives (MYBL) discussing the possibility of a future partnership for dealing with demographic change in Europe. It was a topic that dominated much of the forum, and strong views were asserted from all sides.

The session ended on a positive note, with all sides agreeing that from the lessons learned over the past few years, the new partnership will undoubtedly be stronger and more effective in dealing with challenges and opportunities that an ageing population presents. As AAL's own Klaus Niederländer put it, "Europe has a responsibility to employ its skills, experience and knowledge to identify priorities for support services and activities for our older citizens".

The exhibition hall was once again the focal point of the forum for networking, meeting and seeing the best that Europe has to offer in the world of active ageing. Set over two floors, it consisted of a wealth of projects and other actors demonstrating their latest products, services and ideas to the people there. For the first time ever, AAL provided a number of guided tours through the exhibition, with participants able to select their area of particular interest and meet like-minded people. Poster sessions also took place during the event, allowing people to showcase their work with a short presentation.

An award for the best exhibitor was given this year and, after careful consideration by the judges, was given to omiVista Mobii, a self-contained portable system that enables any room to be transformed into an interactive floor. The company has led the way in providing intergenerational projections in homes, hospitals and specialist centres since 2005. With a dedicated team of engineers, designers and health-care specialists they have created a bespoke range of products that provide meaningful activities for all ages and abilities to encourage movement, active participation and shared enjoyment.

Many of the forums in previous years have been preceded by a hackathon, which takes place in the days preceding the event and provides a space for





creative minds to come up with new ideas for products and services that help older people live happier and more independent lives. This year, however, the format was shaken up, with the new Citizen Accelerator taking its place. Over two days, seven companies were given feedback and market validation from experts and citizens to give them better product-market fit. At the end, each company then had to pitch to a jury, with the three best then going on to pitch at the closing ceremony.

The first ever AAL Forum Citizen Accelerator Award was eventually given to Danish company Manigrip, for its multifunctional grip which allows those with limited hand mobility to hold small, narrow objects such as cutlery or paintbrushes while ensuring a good, stable grip.

As ever, the workshop sessions this year were all well received with a high

level of interaction through a mixture of presentations, group discussions, 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.

Highlights included a number of joint workshops co-hosted by AAL and EIP on AHA, as well as an "elevator pitch" session in which several projects had six minutes to sell their idea to a panel of investors.

With the forum finally drawing to an end on Wednesday evening at the closing ceremony, awards were dished out and speeches were delivered, with the overall feeling that the event had once again been a great success in pulling the community together and delivering ideas for now and the future. With next year's forum taking place in Nice, it is highly likely that we will be seeing many of you again next year!

The AAL Forum 2019 began in Aarhus with the opening ceremony on Monday evening, which welcomed everyone to the city and introduced some of the main themes of the forum through the two keynote speeches.

Marco Marsella

OPENING CEREMONY

The opening ceremony of the AAL Forum 2019 took place in Aarhus City Hall, designed by legendary local architect Arne Jacobsen. The building merges natural, organic and regional elements into an impressive example of Scandinavian Modernism, and provided an inspiring backdrop for initiating delegates into the event that would take place over the next few days.

Fernanda Freitas reprised her role as moderator of the forum after having previously filled the post at the 2017 edition in Coimbra. After a short introduction from her, it was over to Ivan Kjaer Lauridsen of the AAL Forum Committee to give thanks to those who helped organise this year's event. Aarhus, Denmark's second city, is a fantastic example of a city that has embraced technology to help older people live happy, healthy and fulfilling lives in their own homes for as long as possible. After been shown a video extolling the virtues of the city, the vice-mayor Kristian Würtz also said a few words to welcome everyone present to the city.

The first keynote speech came from Bengt Andersson, senior advisor at the Nordic Welfare Centre, who talked about how we can improve our methods for implementing welfare technology for older people across Europe. The issue of implementation has always bubbled in the background of the AAL Forum – the technological solutions and services exist, so why are they not being used?

Andersson used the Nordic countries as an example of how things can be done better when it comes

to implementation. Norway has been particularly successful in this respect, and it has come from a combination of detailed national and regional plans for introducing technologies and services that are known and have been shown to work. He summed up his speech by saying: "The issue has so little to do with technology, and so much to do with how we organise and implement change. Sometimes it can hurt to change – but change we must."

Following some entertainment from Aarhus' own Lungekoret – a choir consisting of people dealing with lung conditions – the second keynote of the evening was given by Julie Arts from the Presencing Institute, who outlined the concept of an ecosystem approach for the future of AAL. "This approach becomes relevant when you are leading profound social change in a complex system," she explained. "This will help inspire AAL to reorganise itself as it prepares to tackle the challenges we face without simply doing what we have always done."

To finish the evening, Marco Marsella, head of the "eHealth, Well-being and Ageing" unit at the EC's DG CONNECT, gave a speech outlining the commission's vision for the future of ageing in Europe. "It is great to see the two communities [EIP on AHA and AAL] coming together to discuss the best ways to bring innovation to older people," he said. "We live now in a changing environment, and the digital transformation of our society has to be a big priority. This will be done through access to data, and ensuring people are empowered to use digital tools to better manage their health."

KEYNOTE

BENGT ANDERSSON

Every year at the AAL Forum brings a discussion about why technology and services created for independent living are not being used as much as they could be. The keynote speech from Bengt Andersson, senior advisor at the Nordic Welfare Centre, sought to provide some answers to this eternal conundrum, as well as some examples from the Nordic region of how implementation can be done well.

Everyone wants to live a longer and healthier life, and technology is one of the best tools for helping us do so. There is no better example of someone rising to the challenge of using new technology in their old age than Dagny Carlsson, who at the age of 99 took a class in using computers, and then started a blog a year later. Dagny's blog is today more popular than ever, and at the age of 107 she is considered an "influencer" in her home country of Sweden.

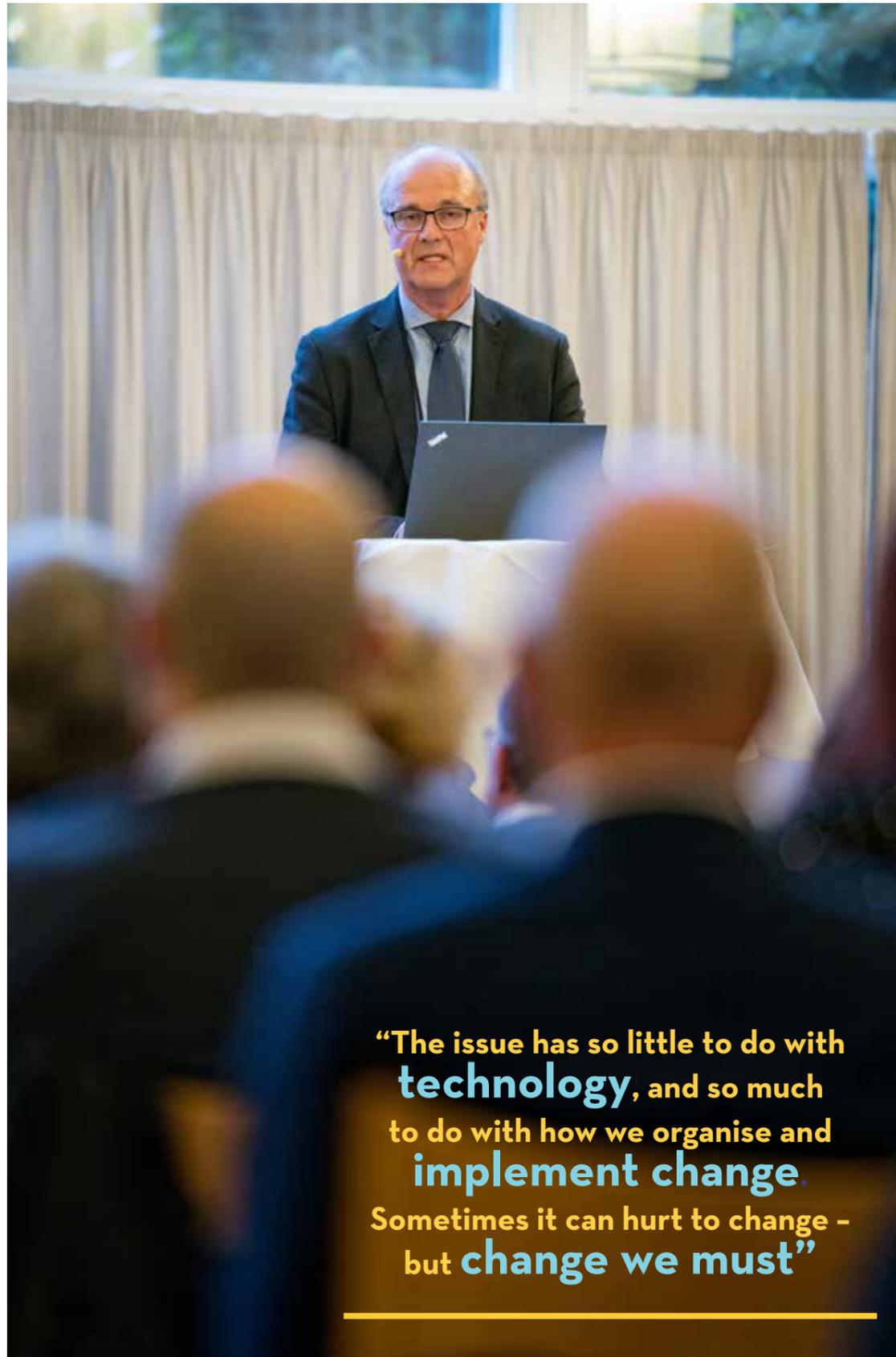
But despite all of the technology and services that have been created to help people live longer, healthier and more independent lives, much of it remains critically under-used. Implementing these tools so that they are used by a large proportion of those who need them is often the greatest challenge, which was the theme of the keynote speech from Bengt Andersson of the Nordic Welfare Centre at this year's forum.

The Nordic region, like many others, has an ageing population, with life expectancy one of the highest in the world. 20 per cent of people in the area are over the age of 65, and in some regions this figure is closer to 35 per cent. The globally praised Nordic welfare model relies on there being a healthy balance between those of working age and those that are retired, but the shifting demographics of the region suggest that this model could collapse if no changes are made to the way things are done in the near future.

The incoming shortage of staff for health and social care means that the Nordic countries have been increasingly looking to technology to alleviate the need for so many people to work in this domain. Andersson's work for the Nordic Welfare Centre has focused on change management and tools for improving implementation of useful technologies and services. As he put it, "it's not about the technology itself – it's about changing the way we work so that we bring this technology into organisations in a successful way".

One project that Andersson has been working on over the past few years is the CONNECT tool, a handbook that aims to drive the progress of welfare technology forward and increase the general level of knowledge in this area. It provides a nine-step process for improving implementation and was made to help those working in change management. "The culture in organisations is often resistant to change," explains Andersson. "If people have been doing something in one way for many years, they will often question the need to change it. This is why it is important that welfare technology is able to deliver the same level of service quality while increasing the amount that it can be done."

Another project from the Nordic Welfare Centre is Healthcare and Care with Distance-spanning Technologies, which has involved a survey of the whole of the Nordic region to find well-established examples of digital



"The issue has so little to do with technology, and so much to do with how we organise and implement change. Sometimes it can hurt to change - but change we must"

solutions that work. These are solutions that have already been implemented and are being used within municipalities, county councils and regions in the Nordic countries.

One outcome of the project is a publication which lists 24 of the most interesting solutions to have been found. The solutions cover a number of topics and needs, from fall sensors and night surveillance webcams for people with dementia to automatic medicine dispensers, but the one thing that they have in common is that they have all been successfully implemented in their regions or municipalities.

Andersson's work also focuses on identifying tools to support the implementation of distance spanning technologies at a regional level. All five Nordic countries have national visions and strategies for eHealth and welfare technology, but there is a lack of detailed plans at the regional level. Andersson's home country of Sweden has the aim of being world-leading in implementing these technologies by 2025, but as he put it, "how do we measure this, and how are we going to get there?"

It is Norway that comes out on top in this respect. Out of 422 municipalities, 340 of them are in the National Welfare Technology Programme, a collaboration between the Norwegian Association of Local and Regional Authorities and the Norwegian Directorate of Health. These municipalities are working a strategic way, using a roadmap for service innovation and welfare technology. This has stemmed from a concerted push from the Norwegian government, and the roadmap they have created is comprehensive from top to bottom.

Andersson finished his talk by highlighting the fact that in the 12 or so years that he has been working in the field of welfare technology, the same technologies are still being used. "What we really struggle with is getting these services delivered and implemented to at least the same quality and with increased quantity," he said. "The issue has so little to do with technology, and so much to do with how we organise and implement change. Sometimes it can hurt to change – but change we must."

KEYNOTE

JULIE ARTS

Talk of AAL ecosystems resonated throughout the Forum in Aarhus following a keynote address by Julie Arts of the Presencing Institute. Arts outlined the case for realigning how organisations like AAL operate to bring about the fundamental shifts in society we need. "All of us will need us - we are the system" she said, and the AAL audience rather liked that.

Julie Arts began her keynote address by getting personal. She told the audience that she was motivated to speak to the AAL community because she knew how she wanted to age and to die – like her grandmother. This was a woman with many children, grandchildren and great grandchildren, who had always lived in one place so had an active and well-connected social life. She was financially secure and whenever she needed anything, there was always someone there to help. She died at the age of 96, at home at 3pm after finishing "the only medicine she ever trusted", a large glass of cognac. "Isn't that how we all want to go?" Arts asked the audience before quickly acknowledging that this story is certainly not available to many people in today's world.

Arts was certainly sure that this sort of ageing would not be how she would grow old. She doesn't have children and so won't have grandchildren and great grandchildren around as she ages, while she does not live in the city where she grew up and so doesn't have this close, social network on hand. She doesn't know what her old age will look like. One thing she is certain of, however, is that she doesn't want to be afraid of old age.

"Of course, being 'old' is different for everyone, but I think we can agree that for many, you are 'old' when you

are 'needy'," she continued. "And the problem is that if I am honest, I think I am a little afraid of what may happen in my old age, if I get needy - so that is why I am here."

As well as the personal context that framed her address, Arts also explained its professional context and the work of The Presencing Institute (PI), with whom she works, alongside its founder Otto Sharma. The PI focuses on societal transformation, which involves applying principles of change and transformation to institutions and organisations, learning from this to create new knowledge – and one of these principles is the ecosystem approach. "I believe there is a feeling growing in society that something is wanting to shift, like it wants to upgrade its own operating system," Arts said as she began to go deeper into this approach and the main focus of her speech, using this operating systems analogy for how society is organised.

"For our society, operating system 1.0 is very input and authority centred," she explained. "OS 2.0 is very output and efficiency centred, OS 3.0 is outcome and user centric, while 4.0 co-creative and ecosystem focused. These things co-exist, but I feel that at the moment there is a dominance of OS 2.0 and 3.0 in society but there is a longing to shift towards OS 4.0 and an ecosystem approach."



4 Stages of Systems Evolution, 4 Operating Systems

OS	HEALTH	LEARNING	LEADERSHIP	GOVERNANCE
1.0: INPUT & AUTHORITY-CENTRIC	TRADITIONAL DOCTOR-CENTRIC	TRADITIONAL TEACHER-CENTRIC	CENTRALIZE	HIERARCHY
2.0: OUTPUT & EFFICIENCY-CENTRIC	EVIDENCE-BASED MEDICINE	TEST DRIVEN & BULIMIA LEARNING	DECENTRALIZE	COMPETITION
3.0: OUTCOME & USER-CENTRIC	PATIENT-CENTRIC MEDICINE	LEARNER-CENTRIC	MULTI-STAKEHOLDER	NETWORKS
4.0: CO-CREATIVE & ECOSYSTEM-CENTRIC	STRENGTHENING SOURCES of WELLBEING	ACTIVATING DEEP SOURCES of LEARNING	ECOSYSTEM ACTIVATION	ABC: AWARENESS-BASED COLLECTIVE ACTION

Arts then applied this theory to health and how we can chart the evolution of approaches to where we are now, with OS 1.0 being the traditional doctor-centred approach. "Whatever the doctor said was true."

"That moved to OS 2.0 and evidence-based medicine – the moment it could be proved, then it worked and if you couldn't prove it, it didn't work and wasn't even considered. OS 3.0 became patient-centred medicine and a rising awareness that proof wasn't the only thing and because it works for one person it would not necessarily work for everyone. So, there was a move to consider the patient and who you are and what you need.

"With OS 4.0, we are going to look at how a society creates the conditions for health and wellbeing instead of only defining health and health care

as a way of responding to a problem. The question becomes how can we organise society, so that in every layer of society, health and wellbeing is raised because of the conditions and not because there is a system."

To explain more clearly how the ecosystem approach would work, Arts elaborated on this health OS model by applying it to teaching. "An ecosystem

approach looks at how we can activate the source of learning from the beginning, which is very different to teaching things to pupils based on the year or category which they are in. How do we create from the beginning and throughout life the capacity to learn, to adapt, to be in a world and society that changes constantly so that we have the capacity to adapt, to move, to learn to be a human being and contribute to that society?"

Leadership and governance is central to how we organise our society and so Arts also applied this operating system theory here, describing the four different systems; with 1.0 as a system of centralised leadership and organising society in a hierarchy, 2.0 as a de-centralised approach with competition as a central principle, with the fastest, richest, strongest rising to the top. These two are both ego-systems in that we look after ourselves. 3.0 is a multi-stakeholder model, which brings people and opinions together to solve problems and tackle challenges that cannot be done by individuals. Networks in this system are central to its success.

"We then have ecosystem activation, which is OS 4.0," Arts then explained. "This is an inversion of the hierarchy and this is what we call awareness-based collective action – and others call co-creation, innovation. But the awareness-based aspect of this is crucial – it is coming together with the intention of creating wellbeing for all, and not just for me or only for profit and we can all contribute to that."

Although Arts is convinced that there is an "itching" towards a shift to OS 4.0 across society, she is not advocating a wholesale change in how society operates right now. "Everything co-exists here," she said. "All four systems are part of each of us and all are part of society, but when you are working towards profound social change in a complex system, as AAL is doing, then you must start to consider this ecosystem approach. How many of the projects that AAL have funded over the years have been embedded into society, have become the new normal, instead of just nice projects doing interesting work?" she asked as her talk then moved to focus on how organisations like AAL can start to shift the way they operate to become more effective in leading the societal change that is needed.

Arts acknowledges that making changes like these, while working in

complex and established systems is not easy but by looking closely at what an ecosystem approach has to offer is a valuable exercise, particularly for an organisation like AAL which is now considering its future and how it can organise itself to tackle the challenges society faces in terms of its ageing population, which may not be possible if it simply continues to do things the way in which it has always done.

So, what is an ecosystem? It is a fundamental question in this discussion that Arts chose to help explain by using a definition offered by the English botanist Arthur Pentz, who wrote in the 19th century that: "An ecosystem is a community of organisms that interact with each other and with their environments by competing and collaborating over the available resources in order to thrive. In doing so, they co-evolve and jointly adapt to external influences."

While this definition clearly refers to the natural world, for Arts, it also speaks about social ecosystems. "When I speak about an ecosystem approach, people often think that this is just part of nature and that I am taking my inspiration from nature –

that I am looking at how nature works and copying that for our society," she said

She replies to this sentiment with a reminder that we are all part of nature, we are as much nature as a tree or elephant. "The ecosystem approach is as much about realigning with natural processes, trying to find new ways of working, new ways of organising ourselves that are a little more natural than some of the structures we have created so far, as it is with nature itself," she said.

Arts uses the metaphor of a forest to explain further her definition of an ecosystem approach and of ecosystem leadership. "Tending a forest is very different to creating and maintaining a public park. You still intervene in a forest," she explained. "You may clear areas where trees have grown too big or there are too many of them in an effort to encourage other organisms to thrive, for example, but you don't know for sure what will happen and that is very different to the park, where you plan, intervene and do things how you want and that is how it stays.

"The difference in the ecosystem

approach in society is how we attend to the network, how we attend to the people we are serving – one is a stakeholder approach and one is an ecosystem approach."

This brings Arts to the heart of the message for AAL – explaining this difference and how this approach could be applied to organisations like AAL and a more institutional world of change.

She uses the example of the UN and its sustainable development goals for 2030 for how large institutions are looking at shifting their approaches. "The technologies are there to achieve these goals, the stakeholders are engaged and have met – yet we are some way off from achieving the SDGs," she said. "Something is not working in that the solutions that are there and would solve some of the identified problems are not being adopted.

"What is clear is that there is a big gap between having brilliant people creating brilliant technical solutions and having them implemented and integrated into countries and accepted by all communities. Do

they align with who they are, what they need and what life looks like for them? Were the governments in the countries where they think they should be doing this or that actually talked with and worked with? Often, this is what was missing.

"I am not saying that 2.0 is bad and 4.0 is good necessarily, but it is important to know what the difference is and how to intervene and where to intervene and what type of organising principle serves what purpose.

"In terms of the multi-stakeholder approach, the UN does have many brilliant multi-stakeholder processes and yet they don't always achieve what they set out to do and get the results they think they will get. Multi-stakeholder processes are good for complicated systems and complicated challenges that need people to come together – experts, people with opinions that need to be listened to so that you can address the problem and fix it.

"This approach brings people together so that all the opinions and ideas can be gathered together and a solution can be created. And there is a big awareness of the need to incorporate the needs of the user into this approach as well, while collaboration and participation are also important words, too. Participation can mean anything from asking people their opinions and taking these opinions on board to actual involvement of users in the creation process, and it has become more important in this multi-stakeholder approach. Finally, in a stakeholder environment it is possible and perhaps necessary to have a complete overview and control of what is happening in the network."

Having established how this multi-stakeholder approach, adopted by organisations like the UN and to some extent the AAL, works, Arts was now able to outline how the ecosystem approach differs and how

it may be adopted. "The ecosystem approach is extremely valuable in a complex system, which is very different to a complicated system," she said. "Instead of a system which brings together the right experts and stakeholders to figure out and solve a problem with one or possibly a series of solutions, complexity is not something that you solve or fix.

"When dealing with complex challenges or problems, we address them by shifting patterns. It may sound abstract, but it is a very different approach because you go into the system and you have your sensing mechanisms and you constantly shift patterns. This is a very different approach than trying to fix problems. An ecosystem is there. It is not created or organised and so it is a matter of giving it your attention, tending it, creating the right conditions for it to grow. Working in social complexity means that we are the users as well. All of us will need us – we are the system.

"Co-creation becomes a force here and it is so hard. It is coming together with our expertise, our interests, our funding and what we want to do and what we want to create – but we are going to co-create this together and this brings it to another level and this is hard. It is about trust, dialogue, sharing – but when issues of IP and finance also come into play it is really hard."

In terms of AAL, Arts was clear that adopting an ecosystem approach will be hard, too. In a complex system like AAL it will always be difficult to be aware of the whole. "We all want to know everything that is going on in our world," she said. "But there is a difference to being aware of everything in your system to knowing everything that is going on in it. In an ecosystem as complex as AAL, you will never know everything that is going on; you will never know that everyone is aligned around that one vision statement – by the time everyone is,

the world will have changed again. Some letting go will be needed between being aligned and working together and knowing everything that is going on."

Arts believes that a successful ecosystem is about shifting patterns – not trying to develop that one thing that is going to fix it all. Finding these solutions is not the difficult part and it is more about letting go to allow innovation to happen to see what is working. "It's by looking at a collection of innovations that things start to change and not because someone has found 'it'," she said. "There is not one 'it' for the challenges we face."

Arts also talked about some specific challenges being addressed by AAL, in particular, the social divide and the digital divide and she described these as symptoms of what society is facing. It is essential, she believes, that we need to look at the root causes of these symptoms rather than dealing with the symptoms themselves.

"We have created the structures that give rise to these symptoms, so we need to examine the structures – the root causes. If you want to address the symptoms so they are sustainably, profoundly and disruptively shifted, then you need to go to the root causes.

"But how many times have organisations hit a brick wall, got in consultants who put in place different structures that change how things work, but nothing changes? If you don't know what the root causes are, you can create different structures over and over again and nothing will change. You need to look below the waterline and look at the things that we assumed to be true.

"So, what are the beliefs around health that we want to question? What do we think and assume to be that we may need to consider again? It is about creating the art of intervening, but also the art of diagnosing."

THE SEVEN PRINCIPLES OF ECOSYSTEM LEADERSHIP

1. The power of intention and long-term aspiration

– When you have a network or ecosystem that is in a large area, like Europe and beyond, it is good to know that there is a clear, shared intention. This long-term aspiration helps guide us in our work.

2. In an ecosystem, you are organised with multiple centres, with global activators and connectors. There are several cells and (sub)teams that collaborate, co-create and lead and this leads to cross pollination, through the exchange of ideas and dialogue.

3. Ecosystems are made active by becoming visible through clear information, through stories and with good data. It is important that the system is visible to itself, that people in it are aware that they are part of it, share the same vision, that they are not alone.

4. This is all an ongoing process, which is very different to creating a linear project. You constantly have

new members coming in, new laws being passed, new problems arising. It's messy, which makes some people nervous, but some navigate messy quite well.

5. Ecosystems are all about relationships. It is the relationships that make them rich and create their foundations. Relations are at the root of ecosystems.

6. Navigating in the mist – this is all about holding on to what you know and embracing what you don't know. We don't know where this is going as we can't know what will happen in 10 years' time.

7. Prototyping the future. Prototyping is learning by doing and by experimentation, so it's not figuring it all out, finding the answer and then implementing it. Try something out, do it small, learn fast and adapt immediately. Scaling up is NOT standardising. Just because it works in one region doesn't mean it should be implemented everywhere.

AGEING SOCIETY FROM POLICY TO PHILOSOPHY

The first plenary session brought together three regional representatives to talk about how our ageing population will necessitate many changes in the way we deliver health and care, but will also require changes in how we think about ageing.

Ageing societies are a reality today, not a far distant possibility. This increase in longevity doesn't just concern individuals – it is changing our societies as a whole. Demographic change has become one of the main societal challenges of our time next to climate change and rising social inequalities.

An ageing society means a profound rethinking of how we look and deal with those increased later stages of life – particularly for Europe, where there are historically strong welfare states with universal healthcare systems. This rethinking will be about all areas of life, such as work after retirement (including intergenerational entrepreneurship), lifelong learning to be able to progress in an ever changing world, and taking care of oneself more at home and in the community and less in the public care system. In short, a new social contract needs to be developed for the 21st century.

In the first plenary session at the forum, three panellists from different backgrounds discussed what is at stake for all of us as individuals and society and how do we deal with it, and what this means from a philosophical perspective for the individuals and society when having to rethink an entire life plan. This moved into discussions of how societies, mainly at the local and regional level, are planning to tackle this. The session opened with a story told by Manuel Villegas Garcia, Minister for Health of the Murcia Region, Spain. He recounted an anecdote about Antonio, a retired 73 year old, who was one day waiting with his grandson for the school bus. Suddenly, Antonio had difficulty speaking and lost strength in his left arm. Recognising the initial

symptoms of a stroke, he reached for his mobile phone and activated an app, which gave his location to the emergency services. Even though at this point he was unable to speak properly, an ambulance was with him in ten minutes, which took him to the hospital and initiated the stroke protocol. He was treated with thrombolytics, responded well to treatment, and after 10 days was back at home without any after effects.

Today, through his application from the Murcian health service, Antonio has access to his electronic health record, which he can use when travelling to visit his son in Germany. The app can be used to monitor the control and dose of his medication, and he can find out information about pending appointments with his nurse, his neurologist. He can make enquiries to his doctor which will be answered within 48 hours, and can attach photographs of physical alterations that might be caused by his medication.

Stories like this demonstrate the power of smartphones to deliver healthcare and useful information to older people. These services probably saved Antonio's life, stressed the minister, and we should be aiming to roll out more services like this to continue the digital transformation of health and improve quality of life for millions of citizens. Karin Christiansen, senior researcher at the Faculty of Health, VIA University College, congratulated the minister for these achievements, but pointed to the fact that there were many conditions in place that made this possible. Having a mobile phone, a big family who cares for you, and being digitally literate are all things that most younger people take for granted, but this is not the case for many older

people living in Europe. Geography and infrastructure play a big role in what is available to people, and although some older people are capable of using technology and care a lot about their health, for others this is not true. "We need to take into consideration the different circumstances of people from across the spectrum," said Christiansen. "The economic, social, physical and intellectual capacity of older adults varies greatly, and so we need to make sure that we do not leave people behind."

Hanne Roed, Vice-Chairman of the Regional Council of Central Denmark, said the question of how citizens can be supported is always a difficult one. "As a politician, the biggest problem I face is that on the one side we have people like Antonio, who are capable of looking after themselves to a certain extent, and on the other hand we have people who require a lot more support and therefore cost a lot more money. We have so many technological solutions available to us that can be implemented – the factor that holds us back is cost."

Karin Christiansen spoke of the dichotomy between enthusiasts for technological solutions and sceptics, but said that the picture was not as black and white as that. This grey area is also relevant when it comes to data. "I have spoken to a physician who has said that as a doctor he would be happy to access and use a lot more data for predictions and better decision making, using data as a support system for daily judgements. In some ways, data could help us to bring about more preventative measures for people's health and to avoid further costs in the future.

"On the other side, he said the people are often anxious about data being used for the wrong purpose, so we need to think carefully about what data we actually need. Data sharing security needs to be considered at all times. Also, though we often talk about technology framed within the language of empowerment and independence, this is not always how people view it, and we need to ensure that technology cannot be used as a means for legitimising cuts in the social sectors."

Manuel Villegas Garcia continued on this subject, talking about the measures that the Murcian government have taken to ensure that people's data is safe. A comment from the audience mentioned that even though many of the measures being implemented by Murcia are free to use, there are still people who cannot even afford the smartphone needed to access them. The minister said that although this was true, the government did provide public spaces where people could gain access to the same services even if they didn't have a smartphone.

Hanne Roed suggested that in Denmark, they have made it possible to loan equipment such as smartphones and laptops to people who need it. "One of the treatments we have available for people with mental illnesses is to have remote therapy over a computer screen or using Facetime," she said. "We give computers to these people so that they can do it and they have all found it really useful."

However, as Karin Christiansen said, this is still a big expense and does not represent a solution for many people in Europe. She also mentioned that with solutions such as these, there need to be supporting mechanisms in place to help people use the technology. "With telemedicine, you often see that if people do not have a good experience the first time because they did not understand how to do it, they will get insecure about it and not use it again. Technology cannot stand alone – we need supporting mechanisms, with people providing care and help where needed."

As the plenary session drew to a close, with continued discussion driven by questions from the audience, it was agreed that while technology is driving rapid change in the field of healthcare and support for older people, there will always need to be a human element involved to ensure people embrace these technologies. And the price of using technology to support older people cannot be to let those who are poor or less capable of using technology to slip through the cracks.

IT'S SHOWTIME

With 68 exhibitors gathered in Aarhus, the AAL Forum 2019 exhibition was the largest in its 10-year history. The two floors of exhibition space provided AAL projects the platform to promote their work and highlight their successful results, while companies from all over Europe were also able to promote their exciting products and services designed for older people.

The AAL Forum 2019 brought together 68 exhibitors for a wonderful show of research results and successful products and services. Hundreds of delegates filed through the exhibition floor and engaged in valuable dialogue and the exchange of ideas that created a real buzz.

The exhibition was also open to special guided tours that proved very popular. Expert guides took participants to a selection of stands, where the exhibitors had five minutes to present their products, with another five minutes given over for questions and answers.

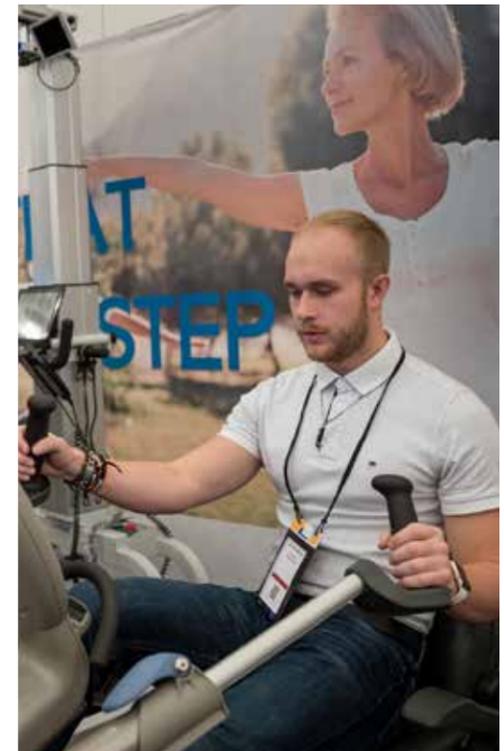
The exhibition was divided into four key areas. The training sector focused on technologies that can help you stay fit or get in shape, physically as well as cognitively. Safety and security technologies included solutions that detect if a person has fallen, that help people avoid falling, that help you to locate a person who has gone missing, and that allow people to call for assistance if they are in need of help or that help them to feel safe and calm.

Active living, work and communication was another important section, highlighting products and services that help people of whatever age live more independent and socially connected lives, helping many at risk of being lonely stay in touch with friends and family.

Of course, health and care was well represented by companies and AAL research projects, and showcased ideas and solutions that are designed to help those who care for older people when that need arises - and in turn how these ideas help people remain in their homes for longer.



“The technology we got to see shows a real market growing and that is encouraging”





“It was so **refreshing** to see so many different **products** that can and will have a real **benefit** for older people and their families”



“It has been **interesting** going around talking to **different stands** and getting **viewpoints** from industry, education and **different research**”



“There are clearly a great many very **clever people** working in the AAL sector - and that will be **good for us all**”

THE EXHIBITOR PRIZE

This year, a special prize was given to omiVista Mobii for the best product or service in the exhibition as voted for by a panel of seven citizens.

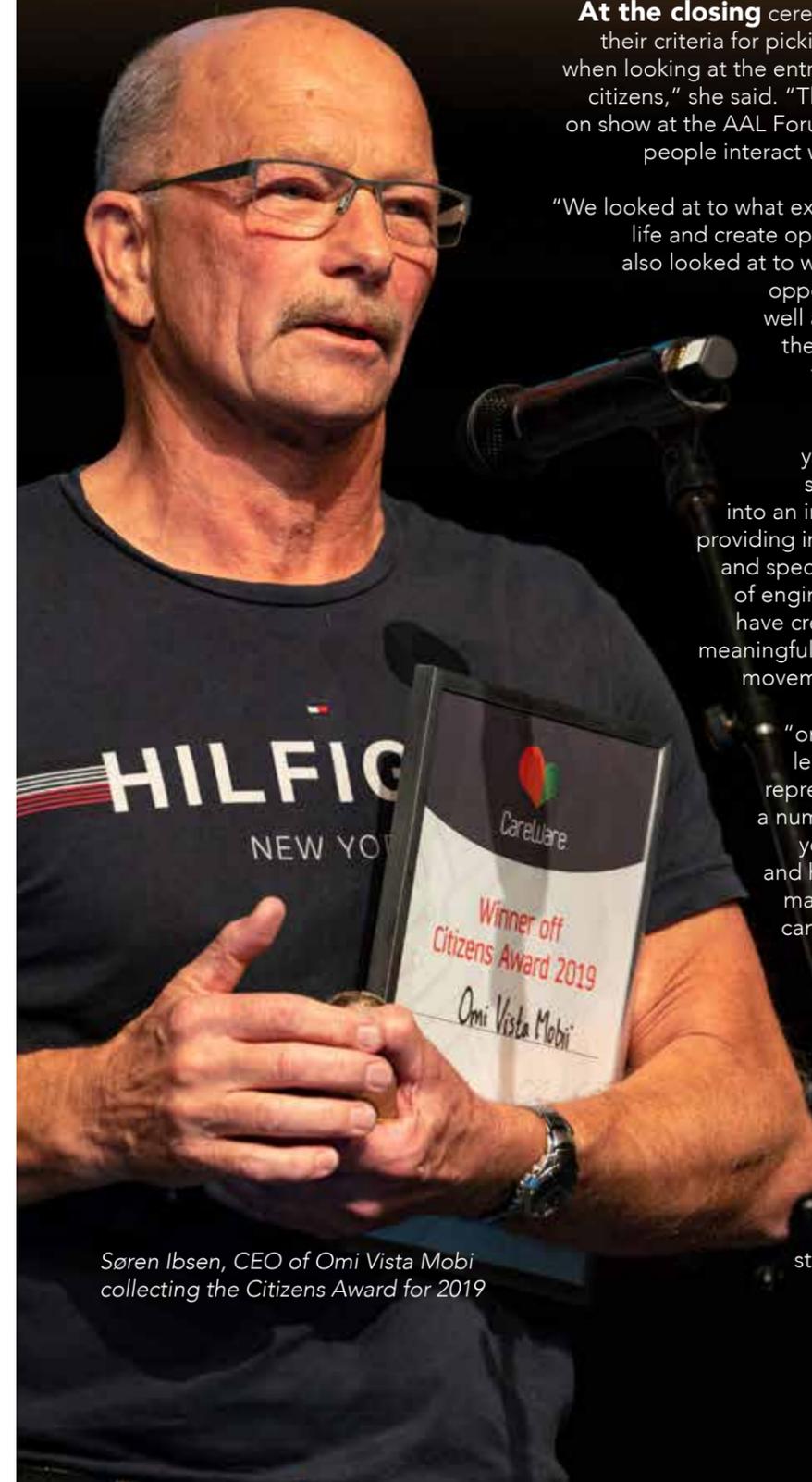
At the closing ceremony, a representative of the citizen panel gave their criteria for picking the winner. “The most important thing for us when looking at the entrants was to see how the product serves us – the citizens,” she said. “There were lots of amazing products and services on show at the AAL Forum this year, but in the end it is the way that real people interact with these products that measures their success.

“We looked at to what extent the products contribute to an independent life and create opportunities to improve the life of the citizen. We also looked at to what extent the products contribute to increased opportunities for participation in a social context, as well as how easy the products were to use. Based on these points, and on the discussion we had among the panel afterwards, we came to our decision.”

The award for the best exhibitor was given this year to omiVista Mobii, a self-contained portable system that enables any room to be transformed into an interactive floor. The company has led the way in providing intergenerational projections in homes, hospitals and specialist centres since 2005. With a dedicated team of engineers, designers and health-care specialists they have created a bespoke range of products that provide meaningful activities for all ages and abilities to encourage movement, active participation and shared enjoyment.

“omiVista Mobii brings people together to play, to learn, but most of all to have fun,” said the citizen representative. “It can be used by all generations on a number of platforms, and can be used to train both your body and your brain. It can be personalised, and helps to bring back good memories, stimulating many senses at the same time. Most importantly, it can help people living with dementia to remember more and to have a good time.”

Accepting the award, the representative from omiVista Mobii said: “We have seen many of you at our booth over the last few days, and we hope you had as much fun as we did. We want to train people with their motor skills and train people with their cognitive skills, but most of all we want to do this in a way which is fun. We saw that the judges had a lot of fun when they came to see our stand, and it is a particularly great honour that we have been awarded this prize by the citizens.”



Søren Ibsen, CEO of Omi Vista Mobii collecting the Citizens Award for 2019

AN ECOSYSTEM APPROACH

One important AAL workshop asked delegates to talk openly about what they thought of an ecosystem approach for the future partnership programme the EC is considering for active and healthy ageing in Horizon Europe. In a fascinating conversation, many took the opportunity to support this approach as the best way to take advantage of the work AAL has already done and the legacy it has created.

One of the central themes running through the AAL Forum 2019 was the very future of AAL itself. As the EC considers how a future partnership programme in active and healthy ageing for Horizon Europe in will look in 2021, delegates were asked to consider what AAL brings to the table and how it should ensure its impressive legacy is part of this future.

Of course, AAL isn't the only programme working to meet the challenges of Europe's ageing demographic and maximise the opportunities this brings, which is why the forum's partnership with the European Innovation Programme on Active and Healthy Ageing (EIP on AHA) at the event was so important, ensuring a wide variety of opinions were considered for the future and evidence that there is already an established ecosystem flourishing in the sector.

Indeed, at the core of this discussion was AAL's proposal for an ecosystem approach for ageing well in a digital world as a way to maximise existing relationships. The idea is to be able to prototype future service offerings to be tested and upscaled from the bottom up through collaboration amongst all stakeholders.

How to build this ecosystem approach was a question posed in a key workshop hosted by AAL and moderated by Julie Arts of the Presencing Institute. Arts had previously introduced the forum to the notion of ecosystems in her keynote address, when she also urged a shift in mindsets about demographic change.

The workshop was opened by AAL's Klaus Niederländer who framed the discussion with a call for open dialogue based on

shared experiences of the challenges and opportunities in active ageing. "We have seen many projects, many solutions and many frustrations over the years," he said. "I believe the reason we are all here is because we are all concerned, so now we want to share things, be curious and look at how we can all work together and go further in making the changes needed to deal with demographic change and how we age well in a digital world.

"We already see a vibrant ecosystem in Europe, but we want to find how we activate these and present a long-term vision for how we will work together in the future."

Having set the agenda for discussion, Niederländer passed the session over to Julie Arts, who began by establishing that the participants came from a wide variety of countries as well as occupations, from business to research, health sector to NGOs. This, she felt, was an important factor – a discussion providing good ideas from a wide cross section of involved stakeholders. The questions she then posed was simple: "What is useful for you if you are shaping the future of AAL? How convinced are you about an ecosystem approach for AAL right now?" A simple show of hands at that stage indicated that most in the room were receptive to the idea of an ecosystem approach for AAL.

Before letting the conversation in the group flow, Arts pointed out that there are many elements to an ecosystem approach and these resonate differently for different people – is it about the cells that exist and work together, is it about communication, is it about shared governance? The purpose of the workshop was, therefore, to listen to what people had to say and bring that



into subsequent forward thinking about the AAL's future.

The following quotations reflect the conversation that followed, during which many of the 55 people in attendance took the opportunity to talk about their experience with AAL, why they care about it, their thoughts of how the active ageing landscape is shifting and ideas about how future collaboration is needed to continue to develop ways to meet the challenges of our ageing population as well as continue to grow a vibrant market place for products and services that do just that.

"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"



A FUTURE PARTNERSHIP

As the EC decides on how any future partnership dealing with democratic change in Europe will look in Horizon Europe (HoE), key players gathered for an enlightening debate on the subject at the forum. Klaus Niederländer from AAL, Jose Martinez from EIP on AHA and Edvard Beem from JPI MYBL came together for this debate to present how they each saw the road to 'ageing well in a digital world' and how this should be addressed in HoE. They were joined by Birgit Morlion of DG Connect, who was able to provide a perspective from the EC.

Along with AAL, a number of European programmes have already contributed towards stimulating innovation for addressing Europe's demographic change in Horizon 2020. Now, a common concern about a European vision on ageing and care in HoE has motivated three of these initiatives, the AAL, the EIP on AHA and the JPI MYBL, to collaborate. The three are seeking a wider, more holistic and more comprehensive interpretation of ageing and care in an increasingly digitised world. With prevention at the heart of this thinking, thoughts are focused on skills development, employment, the environment, housing and mobility. This shared vision also covers the technological, social and behavioural frameworks that an ageing population will need in the future.

The discussion focused on three main areas, starting with what has been achieved by European partnerships over the past 10 years before moving to identifying the key issues that now need to be addressed. The session finished with proposals for a way forward in a new European partnership before opening the floor to questions from the audience.

Jose Martinez opened proceedings by outlining the achievements of the EIP on AHA over the past seven years, which, he says, have seen active ecosystems flourish through action groups that work to scale



“Now this thriving ecosystem is ready to evolve and be more organised”

up innovation and through the establishment of reference sites that structure investment in active and healthy ageing through strategic alliances between government, health providers, academia, business and civil society. “Our action groups have sold more than 200 systems in the last seven years, while our reference sites

have invested more than €4 billion into the regions,” he said. “Now this thriving ecosystem is ready to evolve and be more organised with better structures in place.”

Edvard Beem highlighted the work of MYBL's 18 European partners in promoting and funding research into making the more years we are now living better lives. “We want the greater life expectancy of citizens to lead to better lives, even for those with chronic diseases,” he said.

To do this, Beem emphasised the importance of the heterogeneity of the elderly needing to be taken into consideration through evidence-based policy making and a focused research agenda. But Beem



was also keen to point out the importance of the human element when approaching the challenges we face.

Using the example of the recent fire at Notre Dame Cathedral in Paris, he said that the huge response this received was because people did not just see a pile of bricks, but the human story behind them. “That was the true value of that building,” he said.

“And that is the same with what we must do. We can have innovative policy making and innovative new products, but if we forget to include the human element in what we do, then we will never bring these innovations to life.”

Klaus Niederländer picked up on this point, emphasising that AAL does focus on people and the value in what it has done over the past 10 years rests on what it has developed for people. “But despite the many products we have on the market around Europe, it is still a very small market and there are difficulties still



to overcome,” he said. “At AAL, we have moved from a research focus and developing products and services, to focusing on getting these to the market,” he continued. “In doing this, we see the need to make more use of the cooperative model we have developed. We cannot separate ourselves from demographic change; it is not them and us, but all of us.”

Niederländer outlined that for AAL, this shift in thinking brings in the ecosystem approach for finding ways in which we can all live well in a digital age. “Something has shifted,” he said. “Ageing well in a digital world is how we all want to live when we get old and how people just want to continue living life as they want to – and technology can help with that.

“That means putting people first, understanding ourselves better. If we understand our feelings and translate that into action, then we can move to develop better outcome-based business models and invest with social impact as the



aim. So, we need to get out of our own organisational ego system and move into an ecosystem – and it will be the end users, all of us, who need to be driving this.”

Birgit Morlion acknowledged the work the three organisations have done over the past years and the “experience, knowledge and expertise in AHA all three have in bringing supply and demand together, involving end users and bringing in policy to make things happen”.

“These three are working together for a new future for AHA – and all play an important part in translating the impact of technology,” she continued. “At a time of great change and high ambitions at the EC, we need to look towards the future and design it together. The time is right for a common voice.”

The idea of a common voice was supported by all three organisations, but all felt clarity was needed in terms of how each maintains the very strong identity

each already has. Jose Martinez explained how EIP on AHA and AAL have been working together to consolidate content and bring together the communities of stakeholders in an effort to move together towards a new partnership. "Some things are going to change," he said. "We have started to discuss this with the Action Group and the Reference Sites how they see themselves and what path we must take on an administrative level to be ready for the future. Importantly, we will be extending reference sites to cover more areas and bring in more people, but it is important now that we move together and support each other as we take these decisions."

Edvard Beem also acknowledged the need to share common goals and causes, saying that a clear vision was needed. "We are in a revolution and need a vision to come through the uncertainty," he said. "And there are important questions to answer. What is a good life for an older person with frailties? And what do we need to do to enable this good life? We are all working to create this, through policy and by establishing common pathways."

Klaus Niederländer used the opportunity to clarify that any future partnership will need to consider every aspect of all participants, their values and achievements. "This is not about just choosing a new name and carrying on as AAL," he said.

"We are using 'Ageing Well in a Digital World' as a working title but this is not all about what AAL stands for but about what citizens want and what we need to do as an ageing society. We are on a learning journey and we are in the mist but we share the same vision - to uphold ageing well in a digital world and demographic change.

"We have to be careful when talking of health and treating disease,

and focus on positive health by maintaining physical and mental abilities for people to be able to continue with good lives. To do that, we have to work together. It will be hard and things will change, but it will be worth it."

Edvard Beem followed this by acknowledging that people in the various communities already working in this sector are worried about losing their identity, reassuring those people by stating that the steps being taken now are all about sharing common goals and a vision for the future. "We are not merging to turn down our own initiatives," he said. "We will keep our identities but work together.

"We must focus on maintaining physical and mental abilities for people to be able to continue with good lives. To do that, we have to work together. It will be hard but it will be worth it"

Jose Martinez supported this and was clear that the EIP on AHA would maintain its position in any new partnership. "We have a very strong identity and it will be impossible to lose that," he said. "All our stakeholders are working on structuring their own futures as well as being part of a shared future.

Concluding this aspect of the debate, Klaus Niederländer started: "We can have more than one identity. We have three very strong

groups, with their own rules and ways of working. We are not closing this down we are building on each of these and creating something new and we will need a strong identity in order to be able to cooperate and succeed."

How the new partnership will look was also subject of discussion at the session, with many ideas being voiced from the panel and the audience.

In the EIP on AHA, for example, the action groups have been discussing what should be the priorities and one strongly emerging has been that of ethics and dignity – "the programme needs to be person centred," said Jose Martinez.

Meanwhile, the role of older people in the workplace has been a common theme for the new programme, especially bringing in technology more so people are able to take advantage of opportunities in the gig economy. "We have to fast-track extending working lives and interacting with technology in the workplace," said Edvard Beem.

Birgit Morlion was keen to point out that any new programme must be more efficient and cut red tape in order to speed up the route to market for new products and services. "The EC will try to cut red tape," she said. "We want recommendations and we will listen."

The debate concluded with a brief discussion on intergenerational solidarity as a keystone of any future partnership. "Ageing isn't about old people," said Klaus Niederländer. Ageing is about how we all work together to ensure people are not lonely or poor and those who need care for whatever reason get that care. Technology can help with that and so we need to create a new social environment that takes care of us – all of us."



THOUGHTS FROM THE FLOOR

Just some of the many opinions of AAL delegates

"The topic of AAL is too narrow. There needs to be a step before AAL and we refer to this step as "technical inclusion". We need to remove the fear some people have to engage with technology before they are ready to use it. It's not about technology, it's about people. We need to develop a profound social process around technology. People want to be with people and exchange with people - even if this exchange is about technology. We need to open up the way to AAL."

"I didn't know anything about AAL. How do I find out about AAL? Why should I use it? It must offer something positive for me before I use it. If people don't know what's on the market, how to use what's available? So, how can we improve the interface between the users and those who want to help them?"

"I have been working in trying to include technology in health and social care and the built environment. This is what people of all ages need – not just older people."

"In the future, the way we provide services to older people has to change and technology is the main way we can do this. Technology has to be developed by people who understand it. And it has to be useful to people. It can be one of the resources that supports family-based care, and also support people going through rehabilitation. I want to see AAL as an association that follows each of its projects from the idea stage right through to implementation. AAL needs to show the way."

"The idea that we need to push new technologies up there to make a difference is a problem, because we don't have the system in place to implement new technology or the finance in place to buy the products."

"Working in the European space, one often feels detached from the realities on the ground and how to bring things together. There is such a richness of concrete stories, we can make use of in people's homes, communities, regions and countries."

"The ecosystem is a social space in which we can share, experience & develop projects, ideas, stories - doing things together and overcoming difficulties."

"Whatever we do, whatever business plans we may have in place, at the end of the project there is no money left. If we go for investment, we need to prove that the solutions work, but who will pay for testing, implementation? It is a chicken and egg problem and I don't know how to combat that."

"Ecosystems are like a garden, so we need gardeners, observers, keepers to ensure it flourishes."

"AAL could foster local ecosystems. Ecosystems need to work in the community. People need to work together at that level and get to know each other. Then, an overarching structure can coordinate these ecosystems and then impact on public policy. AAL can provoke and resource ecosystems on the ground."

ELEVATOR PITCH PERFECT

This year's Forum saw the introduction of a new workshop, the elevator pitch, aimed at encouraging companies and startups to pitch their products to industry experts and members of the AAL community. At the same time, this exciting format looked to inspire us all into thinking about the real goal of reaching the market and selling products and services that will make a difference to people's lives.

The first elevator pitch workshop consisted of five, six-minute presentations, strictly monitored by the chair and aptly titled, selling an idea in six minutes. The room was full of eager delegates, excited to hear about the different approaches and how the different groups would tackle the challenge faced by many, of selling an idea to attract investment or make a sale. They did not disappoint.

The first pitch was delivered by a Medical Data Living Lab, which presented its idea of care robotics. Following an exciting opening and the showing of a short video, the co-creation lab was clearly discussed in terms of its multi-disciplinary, mono-disciplinary and interdisciplinary approaches. This leads to the successful development of products as was evident with the robot-like care-giving solutions that were produced with clients, care givers and companies in real life settings to ensure the problem and the solution were focused on at the same time. They were pitching for others to join the client-centered living lab: "The client is at the centre of the process – the client is on the table from the start – they not only use the products they are involved in the development from the start."

This is followed by the use of functional animation, when animation is used as a form of communication. The pitch discussed how we can inform and communicate with citizens on how to do things and what to use in a simple and engaging way. Animation was pitched as a simple way to speak directly with potential clients, care givers and end users.

The audience was interested to hear that the municipality of Viborg makes money available for people and companies wanting to communicate in innovative ways through their animation strategy.



"There are many taboos about ageing but it is still strange that one in three people suffer from urine incontinence, yet don't speak about it"

"He asked about death," was a statement that opened the third pitch of the session, and it was delivered by GAIN-PLAY, an innovative gaming company who has produced an end-of-life coach. The company has been working on games designed for the later stages of life, claiming that fewer than 30 per cent of people are able to speak about death and what happens after and there seems to be a big emphasis on euthanasia. This, as a result, causes a lot of discomfort, embarrassment and puts an increasing amount of pressure on formal and informal carers. The end-of-life coach project therefore developed a poetic environment where people can talk about existential and spiritual questions.

"We want people to figure out medical questions and more existential questions as well, so we have set out to nudge interaction between family members. The tool tries to enable these discussions and leads to better wellbeing. It also produces an emotionally valuable legacy, even after death. It is for all people and aims to create a concrete end of life perspective."

The fourth pitch changed the tone, giving the room to an entirely different approach and was delivered with passion by an invited delegate, who has also worked in many

different countries, experiencing the impacts different cultures can have on older adults. The pitch aimed to explore these cultures and these impacts.

To do this, she focused on males in the care environment, with a particular focus on masculinity in care and immigrant men. She presented her findings and looked at the fact that people giving care find it easier to relate to people from similar cultures. This, she proposed, should be taken into consideration when designing care services and the products of the future, with consideration into the cultural difference and impacts they may have.

"Latin America is a very class-based culture," she said. "People often don't consider themselves as care givers – they are often too embarrassed to say this. We need to think about who is caring for whom and how we think about care in society. We need to think about the fact we still live in a racial society."

This was a thought-provoking idea and inspired a heartfelt debate from delegates from different parts of the world.

The final pitch looked at the many taboos surrounding ageing. "The same number of people suffer from hayfever as suffer from urine incontinence," was the opening claim.

Passende-Continentiezorg, a pharmaceutical company, presenting these ideas, claimed "The hardest part of our work was to get answers on the problem of urine incontinence from the care giver and also the patient. There are many taboos about ageing but it is still strange that one in three people suffer from urine incontinence, yet don't speak about it."

This problem is blocking the company's efforts and it was put to delegates at the workshop that we need to do more to discuss the problem of taboos and implement change management into the workplace.

A healthy debate followed, one in which all panellists were able to further explain their ideas and potential collaboration opportunities. The session ended with agreement that events like this help to foster further insight and lead to real change.



THE CITIZEN ACCELERATOR

At this year's AAL Forum, the traditional hackathon format was reworked into an entirely new concept – the Citizen Accelerator. This took place over the two days preceding the forum, with the winner announced at the closing ceremony.

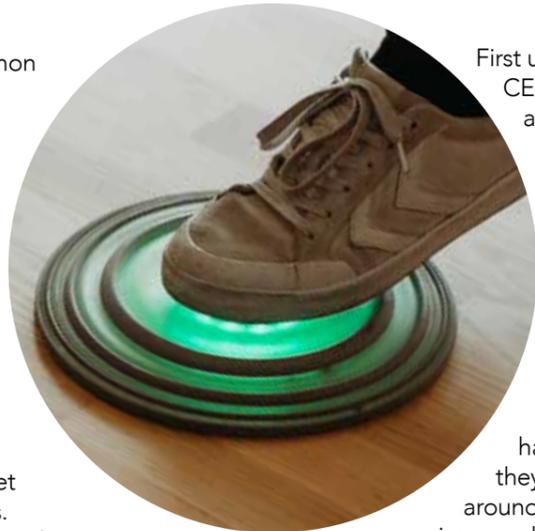
The classical goal of a hackathon is to produce new ideas for solving specific problems. But in the world of AAL, we don't necessarily need new ideas – in fact, we have ideas in abundance. What we don't have, however, is a huge amount of success in implementing these ideas.

The Citizen Accelerator – brainchild of Aarhus' own Lasse Chor – was a two-day event in which startups and scaleups were given qualified feedback and market validation from experts and citizens. Seven companies from Denmark, Sweden, Germany, Latvia, Italy and the UK were led through a structured process in which users and experts provided advice to ensure a better product-market fit.

Product-market fit – the degree to which a product satisfies a strong market demand – is core to the success of any startup, and essential to bringing the products to users in the best way.

Through different exercises, the panel of citizens and experts helped the startups and scaleups find a better product-market fit and accelerate their access to implementation in the market. And, through a series of workshops and mentor sessions, the startups and scaleups were provided with a wealth of useful information, after which they finally pitched their company to the jury.

At the end of the two days, the jury selected the three best candidates – including the winner of the first-ever AAL Forum Citizen Accelerator Award. All three of these candidates then had a turn to get on stage and present their product as part of the closing ceremony on Wednesday.



First up was Henrikke Kylén Pedersen, CEO and co-founder of Manigrip, a company which makes a multifunctional grip which allows those with limited hand mobility to hold small, narrow objects such as cutlery or paintbrushes while ensuring a good, stable grip. The product allows people to be free and independent to carry on living their lives in the same way as they did before without having to replace many objects and without having to give up any of the activities they used to do. 350 million people around the world suffer from hand mobility issues, whether they be due to arthritis, old age, nerve damage, muscular dystrophy, or other issues, and so this simple product has the potential to benefit many people.

Next up was Alfonso Escriche, CEO of Cerqana. Cerqana improves the autonomy of older adults and dependent people, especially those with Down syndrome, autism, dementia, Alzheimer's or other degenerative diseases, by adapting smartphones to the specific capabilities of the user at each moment of their lives. It also allows relatives or caregivers to check on the user remotely. The platform aims to overcome the technological barrier that many of these people experience, giving them greater autonomy and giving their relatives the relief of knowing they are safe, and that they will be immediately notified in case something happens.

Last of the projects to pitch was Aviaja Borup Lynggaard, the inventor of Hopspots, an interactive training tool consisting of 12 brightly coloured spots which can be spread out and jumped on and trodden on in various games. It is both a physical and cognitive training tool which makes use of all the senses.



It was Manigrip that was crowned as the eventual winner, but none of the participants in this activity went away empty handed. Each of them received valuable feedback from experts and citizens alike, and the whole experience provided an excellent networking opportunity for all of them.

One participant in the event said: "I was told that previous annual AAL Forum events had a student hackathon connected to it in the days that led up to the exhibition. Though this is an interesting approach, which can lead to innovative ideas, I'm more attracted to the Citizen Accelerator approach."

"With the Citizen Accelerator, you bring in startups that have had their first rounds of feedback on their vision, idea, development,

and business model. They have a more clear idea of what they want to achieve. With student hackathons there's a high risk that the students will not yet know how to use the attending crowd at the forum to produce leads to further development.

"There's also a higher risk that the students won't be able to continue with their business idea, since they're still studying, and would be forced to work on their company parallel to their studies.

"At the AAL Forum 2019 we found good leads into the Norwegian market, with strong candidates for a pilot programme. We also had positive indications from Austria, Switzerland, and the Netherlands that were interested in our standalone solution."

BRINGING TOGETHER SUPPLY AND DEMAND

Whether we like it or not, ageing affects us all, and so it is unsurprising that the community that surrounds technology for ageing well is a broad church. Stakeholders in the world of AAL range from the pioneering technologists who develop new solutions to the policymakers who try to bring these solutions to people. And then, of course, there are the older people themselves.

Although in many ways this diversity is a strength of the community, it also brings with it some difficulties. Communication between different groups of stakeholders is always a challenge – every group tends to have their own language for describing things, which can often lead to misunderstandings even when people are largely in agreement.

Facilitating discussions between these groups is often fraught with complications, and inevitably this leads to discussions rarely happening at all.

Taking a look around the exhibition hall and talking to people at this year's AAL Forum, it seemed that everybody had a story of how their research, business or organisation could benefit from better means of communication with the rest of the community. Bjarke L Panduro was in Aarhus this year representing brain+, a set of applications that support cognitive exercise and rehabilitation. "We are here at the forum for the first time to present our brain+ applications to the people here. These apps can be used to help people set their own

The AAL Forum brings people from all walks of life together. Care providers come to the event to meet people who are creating new products and services that can make life better for older people and the those who look after them. But can more be done to develop communication between these groups, and other stakeholders, to improve overall outcomes for end users?

cognitive targets and work towards goals that can help reduce the speed of cognitive decline.

"The main reason we are here is to try to connect with people working for care homes and hospitals to see if we can work with them. A lot of time and consideration has gone into the development of our apps, and so what we really want to do now is to get them to the people who need them most."

What Panduro described is emblematic of an issue that is brought up year after year at the AAL Forum – how to breach the gap between creating a useful technology and bringing about its widespread adoption. In many ways, this is to do with communication. Better communication allows for more people to find out about new technologies, but also facilitates the creation of technologies better suited to the needs of older people.

Matthieu Arenase, a policy and innovation advisor for the Dutch nursing home association tanteLouise, was also at the forum this year. "The forum gives me an opportunity to see

my colleagues from the various AAL projects I am in touch with and, just as importantly, people outside of the projects. This allows me to see what is going on in the community. We need to start thinking in different ways and get care technology into the system. Robotics is something we have been looking at for a while, but the ultimate solution is not there yet.

"So we have to involve ourselves in discussions with people working in this field. It works two ways: we help them by answering questions from a care home perspective, and then eventually they provide a useful service or product.

"From my point of view, you have to have products that have reached the market, or have nearly reached the market so that end users like tanteLouise can see the products and test them or use the systems in a real case scenario. This needs to be supported by AAL.

"When a project is almost there, you need support and financing to finally reach the market. I think they should put energy and funding into the different phases, so funding becomes



Communication is key in ensuring making sure technology moves to widespread adoption

available for projects and startups that enables them to penetrate the market."

Looking beyond the AAL Programme, which ends in 2020, the structure of a new programme is now being developed, and there will be a greater emphasis on communication and collaboration between stakeholder groups. The central concept of the new programme will be the idea of ecosystems – interconnected collaborations through which technological and social innovations can be quickly shared, as well as the experiences of using and developing them. The ecosystem approach will also help to address one of the major issues that the AAL Programme has

"When a project is almost there, you need support and financing to finally reach the market. Energy and funding should go into these different phases . . . enabling projects to penetrate the market"

faced in the past – bringing together supply and demand. For example, by creating the basis for close collaboration at all levels, stronger connections between tech businesses and social service providers can be made, which will encourage uptake of technology.

These ecosystems will also involve different groups of end-users, including administration and policy representatives. At the same time, AAL will promote meaningful interaction between all stakeholders in these ecosystems, allowing for substantial knowledge transfer, the growth of extensive supply chain networks, and a greater awareness of the needs of all stakeholders involved.

THE CLOSING CEREMONY

The closing ceremony at the AAL Forum is always a special occasion, but in Aarhus in 2019, there was a real buzz in the air as delegates gathered to hear announcements of winners, plans for the future and the host city for 2020, where we will all meet again!

The closing ceremony, hosted by Fernanda Freitas, took a look back on the many activities and talks that had taken place over the busy schedule of the previous few days. This began with a video of highlights which included words from the keynote speakers and workshop organisers, exciting technology from the exhibition, as well as footage of the brave delegates who got up early on the Tuesday morning to swim in the harbour!

Following on from this was an award ceremony held to recognise Europe's 77 new EIP on AHA Reference Sites. Reference Site status is granted to organisations who have shown excellence in the development, adoption and scaling up of innovative practices for active and healthy ageing.

Six regions were awarded special recognition for their excellence. Over 70 others came from all parts of Europe. Especially strongly represented were regions in the south of the EU, including Italy, Spain, Portugal, and Greece, as well as the Central Denmark Region. It was a great opportunity to celebrate the success of these regions who are key players in driving regional innovation in active and healthy ageing.

Three representatives from the successful Reference Sites were invited on stage to provide an insight into the work carried out in their regions. These speakers included Jelena Pavičić-Vukičević (Deputy Major of the City of Zagreb), Giulio Gallera (Lombardy Minister of Health) and Karsten Uno Petersen (Chairman of the Innovation Committee Member



of the Regional Council in the Region of Southern Denmark). Next up was the Citizen Accelerator Award. The Citizen Accelerator replaced the usual Hackathon event at this year's forum. Taking place over two days, seven companies were given feedback and market validation from experts and citizens to give them better product-market fit. At the end, each company then had to pitch to a jury, with the three best then going on to pitch at the closing ceremony.

The first on stage, and eventual winner, was Henrikke Kylén Pedersen, CEO and co-founder of Manigrip, a company which makes a multifunctional grip which allows those with limited hand mobility to hold small, narrow objects such as cutlery or paintbrushes while ensuring a good, stable grip. The product allows people to be free and independent to carry on living their lives in the same way as they did before without having to replace many objects and without having to give up any activities that

they used to do. 350 million people around the world suffer from sort of hand mobility issues, whether they be due to arthritis, old age, nerve damage, muscular dystrophy, or other issues, and so this simple product has the potential to benefit many people.

This year, a panel of citizens was invited to the exhibition to pick the best product or service from the exhibition. The leader of the panel was invited on stage to talk through their decision which, as she explained, was based on a number of criteria including usability, the extent to which the product helps to improve participation in a social context, and more.

After careful consideration by the judges, the prize was awarded to omiVista Mobii, a self-contained portable system that enables any room to be transformed into an interactive floor. The company has led the way in providing intergenerational projections in homes, hospitals and

Fernanda Freitas, Gerda Geyer and Ivan Kjær Lauridsen at the closing ceremony



specialist centres since 2005. With a dedicated team of engineers, designers and health-care specialists they have created a bespoke range of products that provide meaningful activities for all ages and abilities to encourage movement, active participation and shared enjoyment.

Representing the AAL Association at the closing ceremony was vice-president Gerda Geyer, who gave a recap of everything that had happened at the forum as well as giving some announcements for the future. This year's event had been a great success she said, with 700 participants, 65 exhibition booths, 32 interactive workshops, and countless other side events like the Citizen Accelerator and the AAL Lean Startup Academy.

But more important, she continued, was the overall purpose of the forum. A forum is a place that people can discuss, meet, exchange ideas and network with each other. All of this

had been at the centre of the activities of the past two and a half days, and Geyer thanked the delegates for participating in the success of the forum, the speakers and workshop leaders for their valuable contributions to the discussions, the city of Aarhus for hosting the event, and the forum committee for designing and organising everything that had happened.

A number of concepts emerged in several contexts this year: ecosystems and how to create them, change management, social impact combined with business, and more.

All of these concepts and ideas will be brought forward as part of the new programme that the AAL strategy working group has been designing over the last few months with support from the EC. Geyer asked everyone present that if they believe that there should be a specific initiative for taking care of promoting profound and long lasting innovation for the benefit of

older adults in this era of digitisation, then they should provide their input and feedback through the surveys currently being run by AAL. Geyer finished her speech with two announcements, the first of which was the final AAL call for proposals that was launched in January 2020. The preliminary title of the call is "Healthy ageing through digital solutions and ecosystems". The focus of the proposed solutions should be on increasing quality of life for older adults, but usage of the solution by other age groups is also welcome (www.aal-europe.eu/pre-announcement-of-aal-call-challenge-2020/).

Her second announcement was for the third edition of the AAL Challenge Prize, which was due to open in November 2019. The title this year is "Intergenerational entrepreneurship", with a focus on older adults seeking professional opportunities and looking to start their own businesses. Find out more here (www.aal.challenges.org).



QUICKFIRE PRESENTATIONS

The poster presentations at the AAL Forum 2019 all took place over one day and focused on the main forum topic, smarter practical implementation of digital solutions to enhance active and healthy living.

In three exciting sessions in just one day of the AAL Forum 2019, 27 poster presentations were made, covering AAL projects and their results as well as products and solutions already on the market.

Speakers had 10 minutes to profile their work using a digital display and emphasis was clearly made on showcasing successful solutions, the benefits and services these solutions

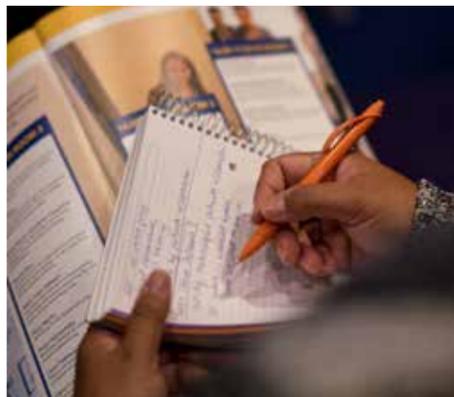
provide for older people and the care they provide in the community.

Several posters focused on dementia care and solutions for helping those with cognitive impairment to cope as well as support for those looking after them.

It is clear that there are many promising ideas that use technology in this growing sector and encouraging

to see how AAL is achieving great success in bringing this technology to the mainstream.

What was clear after all the sessions had taken place was that the implementation of technology designed to enhance active and healthy ageing comes in many forms - and there was plenty of food for thought for delegates to take home and apply to their own work.



WORKSHOPS

What happened at the 32 AAL Forum interactive workshops



THE VALUE OF THE SILVER ECONOMY USING THE GOLD OF THE FUTURE

Data is widely recognised as the 'New Golden Resource' of the 21st Century, offering both business and society the prospects of responsive and coordinated services. Cost effective and timely data can and should be used to protect and improve the health and independence of older people, their families and carers.

This session comprised presentations from a number of practitioners, industry and academics from various countries. They were provided with practical examples of how the appropriate use of data has been important in delivering benefits to older people. There was a focus on lessons learned from experiences in various policies and projects, including the pitfalls encountered and how those problems were overcome. The aim was to encourage awareness and confidence in these services in both the providers and the users through session discussions. In addition three participants were invited to present



one slide each with their views on this topic.

The debate which took place during the workshop dealt with particular issues including:

- Is bigger data always better data?
- Do organisations have the absorptive capacity needed?
- Do they have the development capability?
- Big Data is not 'a free lunch', so who pays?
- Have you got the leadership, talent management, and decision-making skills?

- How do you know users' views?

This session offered a unique combination of experience from its cross-sector presenter group. The use of big data and AI entails a higher degree of autonomy of technology, which may affect the freedom of people. Hence, this requires a new way of looking at the role and involvement of end users, alongside effective leadership and management by policy makers and service providers. Some specific examples were shown in the slides, others were described.

Big data, AI, ethics, and innovation for active ageing is a challenging combination. Nevertheless, the workshop showed that we can tackle the challenges through exchange of practical experiences, dialogue, and by creating room for flexibility and risk management. AAL (and EIP on AHA and JPI MYBL) can make a real difference by enabling each of these elements.

PUBLIC R&D FUNDING INSTRUMENTS AND MARKET UPTAKE



Public administrations

get money from the pockets of taxpayers and invest it in industry and researchers to perform R&D and stimulate innovation. They expect to increase the added value of products and services, strengthen the EU market, and multiply the invested money for the sake of citizens' wellbeing.

This workshop aimed to provide suggestions to the AAL Programme about how to improve the market impact of funded projects. Experiences from two perspectives were combined.

- 1) Based on the funding instrument: What are the experiences with funding instruments in relation to market uptake? Is there any funded instrument more adequate than others?
- 2) Based on practical experiences with market uptake in the field: What are the crucial elements in your business



plan for successful uptake of AAL solutions? How big has the risk been to move from prototype to market product?

The session began with an introduction by the moderators who shared their experiences. The moderator then took on the role of interviewers to collect experiences from the invited experts. Their answers served as inspiration for the remainder of the workshop. The workshop continued in subgroups where the participants could discuss and share experiences. The workshop ended with short reports from the subgroups and a general conclusion. Participants gave concrete examples,

such as this suggestion for a new approach to calls: When writing a proposal for an innovation project, the most time-consuming tasks are those related to consortium building and administrative documentation. Evaluation in two steps could simplify the work for participants: a first step elaborated by the coordinator with the description of the idea and the necessary participant roles. Only those selected from this first step will go on to putting together a consortium and a full proposal.

Participants in the workshop were experienced in R&D instruments in the Ageing Well field from diverse perspectives. A key output of the workshop will be a document that provides a consolidated overview of the suggestions made by the experts and the participants in the workshop. The key outcomes cover a wide range of topics which clearly highlight that a successful programme in terms of market uptake requires a comprehensive approach.



QUOTES FROM THE FLOOR

There were a great many views expressed at this workshop, which focused on gathering opinions about the future of AAL and the whole ageing well ecosystem.

Despite the diversity of opinion expressed, there seemed to be real consensus that the ageing well ecosystem is vibrant and successful in Europe, particularly at the local level. But there were also many statements about how things can improve in the future. All views will be published on the AAL website, and all will be considered when the new AAL partnership programme is being developed for Horizon Europe.

"We need to invest in the ecosystem," said one delegate. "At the start of AAL we had too much of a push of technology. Now with the involvement of the end users, we are now aligning things more with people's needs. So, we have the user and the development capacity in place – what we need now is a third element – the financial instruments, not to fund more research as we have enough of that, but to get things going and into the market. It is crazy that we understand the needs and have developed the solutions, but we do not have the capacity to implement."

Another delegate focused on the need to implement the technology we have to make a difference and it is here that the ecosystem approach will certainly help. "The idea that

we need to push new technologies up there to make a difference is a problem because we don't have the system in place to implement them or the finance in place to buy the products.

"So, should AAL have an ecosystem approach? Yes. But my idea is that each actor in an ecosystem needs to be self-reliant and have their own goals in a system that makes sense to everyone. The big question is what should AAL do in an ecosystem like this? Should AAL be just one actor in a whole ecosystem or should it be the tree trunk on which everyone lives.

"I think that AAL should be just one actor in all this but if it wants to pin an ecosystem approach to the area, it will need to invest heavily in being there, it needs to be very present in the different regions of Europe and will need to be knowledgeable of the areas, helping projects and not just by putting money into them."

Finally, one person focused on the inevitability for us all – that we will get old and that should help us: "I have been working with older people and I am getting older myself. There is no way out! We need to understand technology, of course, but we also need empathy, so it is important for older people to work together with younger people. This is how we will get things done. With the birth rate declining and an older population, we need to learn."

THE COMPAAN TABLET, A SUCCESSFUL EXAMPLE OF E-HEALTH IMPLEMENTATION



Can technology help people become less lonely? The answer is yes! In Velsen, a small city in the Netherlands, 60 non-digital older adults received a Compaan, a tablet made especially for older people to strengthen their social network. The results were impressive. After six months, loneliness reduced from 85 per cent to just 25 per cent, with 64 per cent of users developing a more extensive social network both on and offline. This project has set an example of how other similar projects can achieve success in the Netherlands.

The workshop was led by Joost Hermans, founder of Compaan, who talked about the process of establishing the project, the objectives, the achieved results and what they mean, and finally what was learned. This workshop was aimed at people who are active in the social domain, civil servants, and representatives of professional caregivers, and provided insight into

the do's and don'ts of successful e-health implementation.

Joost Hermans previously worked in the hotel industry and in telecoms. It was his great aunt who inspired him to start the company. She always saw him using his smartphone, so one day said she wanted one herself. His family bought her an iPad, and spent a day showing her how to use it, but she couldn't do it. So Hermans decided to make it his mission to make a tablet that anyone can use.

The company has now been running for five years, and is active in five or six countries with thousands of users. The tablet itself is like a care hub with a big fun factor. It has many functions similar to a normal tablet device, such as sending pictures, messages, and video messages. It also has a few different ways to help people who are hard of hearing, and can do various medical things like blood pressure measurement. Compaan helps to spread the load of informal care,

allowing those living far away to get involved.

There is a specific care portal on the Compaan that allows carers to send them videos for specific ailments and do various other things. The family portal allows them to play games like Rummikub. The tablet has a wooden frame to make it look like older televisions, which reassures older people by making it not look to "technical".

80 per cent of users are women. They are often more communicative and want to be involved in communications with family. It seems that they are much more willing to accept technology. Helping people use the Compaan tends not to have anything to do with technical explanation. It is more about making people feel comfortable with it, even just with one function. This tends to give people courage to then try out other things for themselves and work it out.

OPPORTUNITIES & BARRIERS FOR THE IMPLEMENTATION OF IOT PROJECTS



The potential of the Internet of Things (IoT) is huge, offering the possibility of providing solutions that connect people with technology in a way that was not possible before. It includes many new digital health technologies, from apps to wearable devices to home sensors - devices that are expected to revolutionise healthcare.

The main objective of this workshop was to demystify Internet of Things projects by understanding what goes on behind the often shiny exterior of what technologies can do. In an environment of 'realism meets optimism', the workshop aimed to identify practical obstacles and how to overcome them. This was based on insights from industry professionals, real cases, as well as input from the participants.

Participants went away with a map of some IoT-enabled AAL projects across Europe, and a list of barriers and ways of overcoming these for implementation within their own projects.



IMPLEMENTING A NEW TECHNOLOGICAL WORKFLOW IN SOCIO-EDUCATIONAL WORK

The Aarhus Centre for Supported Housing has gained experience in implementing a new technological workflow in socio-educational work through an ongoing application process with virtual in-house support (support via video calls). This workshop aimed to share this experience of implementing virtual supported housing in a way that allowed participants to understand the benefits and challenges of a new technology.

An initial presentation discussed the value of the citizen, after which participants were invited to actively interact in practical exercises, thinking about: How do we reach when we get new tools in our hands? What happens if we are no longer the best and the brightest and if our tools are handled better by the citizens? What challenges do we meet when our socio-educational work is moved from a physical to a virtual space?

The Aarhus Centre for Supported Housing presented their experiences with implementing a new technology using the example of virtual in-house support, looking at the perspectives of the manager, the citizen and the employee. Afterwards the participants had some group reflections. The workshop ended with a brief joint reflection on organisational and economic parameters as prerequisites for successful implementation, as well as the need for development of qualifications, the importance of management focus, and long-term outcome perspectives when investing in new technological solutions.

The participants had to reflect on the two questions: 1) Do you recognise some of the points that were presented? 2) What are your three best pieces of advice for implementing new technology? These answers were collected after the workshop so that they could be made available to the participants as inspiration afterwards.



IMPLEMENTATION OF ASSISTED LIVING TECHNOLOGY IN ELDER CARE IN AARHUS

Technologies available for caregivers and older people are often not used properly, so how do we ensure that assisted living technologies are implemented and then used to their full potential? The municipality of Aarhus has 10 years' experience of implementing technologies in care homes, homes of the elderly and impaired citizens. This experience has resulted in the development of a specific process, including organisation, practice and other tools, to ensure the optimal use of these technologies in care for older people. This method is known as the Aarhus Implementation Model (AIM).

This workshop, led by implementation consultants Louise Kofoed Koppel and Susanne Riiser, presented this method based on both experience and theory, and invited participants in a dialogue to reflect on how to transfer elements of this successful method into their own technology.

The 45 minute workshop began with a presentation of the six elements of AIM, including highlights and examples of tools to consider in each element;

- Management power
- Organisation
- Resources and competences
- Communication and culture
- Equipment
- Goal and follow-up

This was followed by a group session in which each individual was able to reflect for two minutes about what they had learned, after which the group talked further collectively. Group findings and thoughts were then shared with the rest of the participants at the end of the workshop.

Overall participants felt that they were provided with a good overview of the elements of implementation. We need to dive further down to make it operational than a 45 minute-workshop allows.

A number of questions arose about AIM: How can we use AIM to address the gaps between sectors? We see different political focus and different use of different kinds of technologies. How can we obtain alignment for the patient/citizen across sectors (hospitals and municipalities)?

How can technology change the status of caregivers? It is not high status to work with caregiving, but the use of technology can be used to change this view. It is important to combine technology with the professional perspectives to use technology the right way and reserve the warm hands for where the needs are most urgent.

Many thought that the model makes very good sense, especially the aspect about the importance of space and resources to education and rehearsing. We tend to ignore this element.

SMART HEALTHY AGE-FRIENDLY ENVIRONMENTS AND A BLUEPRINT FOR THE DIGITAL TRANSFORMATION OF HEALTH AND CARE



One of the main objectives of this workshop was to discuss the Joint Statement on Smart Healthy Age-Friendly Environments (SHAFE) presented to the European Commission in November 2018, and to take next steps towards the creation of a white paper on SHAFE. As well as this, another aim was to further develop the Blueprint scenarios (developed within the European Innovation Partnership on Active and Healthy Ageing) to include SHAFE topics and to widen the Blueprint community.

The specific aim of SHAFE is to enhance the two main aspects of age-friendly environments – places and people – in the creation of eHealth and mHealth solutions, especially focused on quality and costs. The European "Blueprint on Digital Transformation of Health and Care for the Ageing Society" reflects the common policy vision of European policymakers, civil society, professional organisations and industry. As a shared policy vision, the Blueprint guides



the efforts of the EIP on AHA Action Groups and Reference Sites.

The first 30 minutes consisted of talks, including an introduction by the chair Javier Ganzarain, a presentation on Smart Healthy Age-Friendly Environments by the coordinators Carina Dantas and Willeke van Stalduinen, and a presentation on the Blueprint EIP AHA Scenarios by Veli Stroetmann.

After the presentations, break-out sessions on SHAFE and the Blueprint were held. The participants received

outlines of SHAFE and the Blueprint and tables with recommendations or discussion points on SHAFE and the Blueprint. A moderator then led roundtable discussions and a rapporteur noted the main outcomes of the discussions. At the end of the session the rapporteurs reported the findings from the roundtable discussions and a plenary discussion among the rapporteurs was held, led by the chair.

The participants debated vividly in the six discussion groups and were very creative in defining solutions. On SHAFE the participants defined several indicator groups, however numbers were not given by them. For example: they didn't indicate how many people should be trained, only mentioned the indicator. On the Blueprint the organisers received worthwhile insights on how to proceed with the development of the personas and the Blueprint.

The session concluded with a wrap-up and short presentation of the next steps.



ENGAGING THE NEW OLD

This workshop continued the thesis on the 3rd age of baby boomers presented at the AAL Forum 2018. Ton Koper presented new findings for recruiting this soon-to-be largest population group in Europe. The workshop was aimed at cities, companies and ICT projects who want to engage this group.

The baby boomers are the rebel generation. Notorious protesters who were never afraid to change things up and they are now changing the way we think about growing old. Many ageing boomers do not like to be called seniors.

As a pioneer generation, they wish to emancipate themselves from the conventional age culture of earlier generations. Koper's workshop helped people to learn more about their motivations, their needs and their potential for valuable contributions today.

The proportion of older people in the European population is growing fast. If we do not succeed in raising the participation factor of this target group at the same pace, the demographic burden and costs for younger generations will become unbearable. The workshop conveyed a new view on the potential of the next age generation, away from the old liability view towards a new asset perspective.

Europe is the oldest continent in terms of demographics. It has the oldest workforce and the majority of adult people live in retirement – this has never happened before. Our social systems are not designed to cater for this, and so there is a need to engage with the baby boomer generation. Their knowhow and experience can be leveraged to help move into the future. We need to recruit the power of age.

ASSISTIVE SYSTEMS EMPOWERING SENIORS IN THE WORKPLACE: CHALLENGES AND POTENTIALS

The European population is ageing, and it is inevitable that citizens will remain in their work environments for a longer period. However, these environments are complex systems where technology, interior and exterior design, ergonomics and user perception (behavioural and emotional) can either hinder or empower the silver workforce.

This collaborative workshop aimed to discuss and answer the question: how can we co-design digital solutions and assistive systems that empower seniors in the workplace?

During this informative workshop more than 45 participants collaborated, with the support of Professor Oliver Korn

and Dr Matteo Zallio, in a creative session aimed to stimulate critical thinking on how, when and where to use digital solutions in age-friendly workplaces.

The discussion with participants revealed that more research and development should be pursued within different workplace areas including production workplaces, service workplaces and desk-based workplaces.

Fear and prejudice and other people's consideration, resistance in innovating workplace, lack of confidence in establishing human relationships caused by fear of future disabilities and lack of learning skills

and decreased flexibility in improving knowledge for the future were some of the major feedback highlighted by participants.

An online informative survey revealed that 72 per cent of participants positively agreed on the support given by their workplace, while only 60 per cent expressed positive agreement on the support that the same workplace could give to a 60+ years old person.

The session was appreciated by the audience who gained understanding of potential assistive systems in a workplace as well as what factors might be critical in order to guarantee age-friendly workplaces for the future.



DO THE RIGHT THING: THE ETHICS OF DIGITAL HEALTH

The workshop began with an introduction on ethics and digital health. Some typical ethical challenges were shared. In the second part a hands-on dialogue model took participants on a tour through a wide range of ethical topics related to data-driven innovations. Two cases were prepared and four sub-groups were formed to discuss case specific challenges and opportunities. The workshop was concluded by discussing the findings and perceptions of using this multi-stakeholder dialogue model.

Sub-groups were given a case description where ethical issues were described and main values for this specific case were suggested. The background of the members of each group were very different. After reading and appointing someone who would give feedback to the group, the sub-group started their ethical tour using the Data Ethics Decision Aid model. There were data

related considerations and general considerations and following the model the listed questions gave directions on possible ethical issues. The groups actively discussed the case and were able to use examples of their own background. Some of the groups focused more on the data aspects and topics like 'accessibility of data' and others more on client related topics like 'autonomy of the client'.

Two cases were used: remote monitoring of elderly with chronic heart failure, and a position monitoring system for preventing dangerous situations. Each sub-group presented the kind of discussions they as a group had and shared their main findings. Workshop participants were positive about using the model. "In 30 minutes you can do a lot with the model", someone said. There was also an improvement mentioned. It could be useful to change the order of questions and first elaborate as a sub-group on the general considerations,

for example; is the technology not too intrusive instead of specific technology or data related questions. The fundamental issues should be addressed earlier in the model. In this way all stakeholders can get on board was the suggestion.

Participants were able to use the dialogue model to experience a new way of discussing ethical issues. New ethical issues in the case were detected and suggestions for improving the model were given. One example was dealing with autonomy with patients with dementia: this may be complicated and may be a specific issue in the AAL field.

Attendees experienced working with a practical tool and learned to see different ethical perspectives when working with data. They learned that ethics can be more practical than imagined and experienced the value of discussing ethics in an interdisciplinary group.

THE IMPORTANCE OF CREATING SHARED VALUE THROUGH INTEGRATED BUSINESS MODELS IN THE HEALTHCARE ECONOMY



This workshop aimed to inform the attendees that when the stakeholders in the healthcare economy want to realise a sustainable growth strategy, it is important to develop an integrated business model where they realize a clear impact through shared added value.

Inge Taillieu gave a presentation that went over the highlights of the conclusions and recommendations of the SHINE project. There was also a demonstration through the online tool that can be found at www.healthcare-economy.eu. Coordinator of the SHINE Project Dominique Bogaert then interacted with participants in the workshop by putting forward a number of propositions to which they could then respond.

The needs of patients must be at the centre of any innovation in the healthcare economy. That is why it is necessary that innovation focuses on the end user and that the end user is involved from the beginning when business models want to provide an answer to a healthcare need. It is a fact that patients are increasingly taking control of their health in their own hands.

Offering integrated care is gradually becoming a must in the European health sector. Integrated healthcare encourages those involved to increasingly coordinate their services, procedures and interactions with customers.

That is why we are evolving from closed innovation models to open innovation models that involve collaboration. Consequently, entrepreneurs in the health sector must increasingly work together to bundle and combine products and/or services to generate the desired impact.

Creating shared value (economical and societal) is an important added value. This is much easier when you have smart partnerships between healthcare organisations and businesses.

Value-based business models go beyond product or service quality at an efficient price but also want to provide the user with a better health result at the right price, which is related to the product-service combination offered.

WHAT ARE THE ROBOTS DOING HERE?



This workshop focused on the question of robots' effects on citizens and professionals as they enter the field of many aspects of the services provided by Aarhus Municipality. Robots will inevitably be a part of the future services we provide for citizens, but what does this mean? This workshop questioned the effects that robots have on citizens and professionals as they enter many service areas. Participants were invited to experience meeting a robot and reflect upon their own feelings toward this object which is in place to interact with humans.

The Centre for Supported Housing

and the Centre for Assisted Living Facilities in Aarhus have collaborated to develop the Cognitive Training with Robot project, to examine whether citizens with mental health issues can profit from targeted cognitive training. Many who suffer from mental health issues have varying cognitive challenges either caused by their illness or long-term use of pharmaceuticals.

The workshop aimed to initiate this reflection on robots with Louise Hansen, project manager, presenting its results. Post-doc Søren Tranberg also demonstrated a robot and presented on the interactions

between humans and robots before coming together with participants for a concluding discussion. The participants were invited to meet and interact with two robots and reflect on their own feelings toward this object.

Participants reacted in many different ways towards the robots, and it showed that although the technology behind these robots has come a long way, interaction between them and humans is still limited and does not flow easily. However, they have already proven that they can be useful for a number of tasks in which they need to interact with humans.

REGIONAL INNOVATION SCALING-UP (JOINT SESSION AAL/EIP ON AHA)



"As a region, knowing that another region has achieved something helps you to become braver with regard to your own ambitions."

More than 100 people joined together in the Congress Hall to discuss the scaling up of regional innovation. There are a variety of high-quality services available to the 77 recently awarded Reference Sites of the EIP on AHA including partnering, funding opportunities, early intelligence, and institutional relationships. These services will enable a 'marketplace' which will offer numerous opportunities to collaborate across regions and scale up innovation through twinning programmes, information exchange and especially decentralised events. Mutual learning will be key.

The ProMIS network of Italian Reference Sites is a great example of how to improve collaborative initiatives in active and healthy ageing at national level, foster the scaling up of innovative activities and align investments in health innovation. The network uses simple techniques such as the organisation of information days, thematic workshops, and newsletters. ProMIS has enabled the number of Italian regions active in the EIP on AHA Reference Sites to grow from 10 to 15 and there are many opportunities for this model to be replicated in other countries in Europe.

Moving down the regional level, the Campania region Reference Site in Italy faces considerable demographic challenges. Inspired by contemporary challenges,

Campania is working in nine working groups. It also has ambitions to launch a digital innovation hub on which it is working closely with Confindustria Campania.

The European Commission presented the concept of Digital innovation hubs and highlighted their importance within the future Digital Europe programme. These hubs will provide technological expertise and experimentation facilities to enable the digital transformation of industry and the public sector in the Digital Europe programme. Many hubs are already supported by the European Commission. In the future, between 130-280 digital innovation hubs are planned. They will be able to seek grants which can last for at least seven years and in which the Member States will co-invest. It is a great opportunity to start preparing and organising locally, regionally and nationally.

Funka discussed the need for accessibility in ICT projects. The WHO says up to 15 per cent of people have a registered disability. If we are lucky enough to live a long life, our functional abilities may nevertheless still change. Accessibility is therefore key. Including accessibility measures reduces the cost of digital implementation projects. For example, when the Swedish National Health Service improved the accessibility of its website, the costs of its phone calls went down by 23 per cent.



BORN IN FLANDERS - RAISED TO SUPPORT GLOBAL AGEING

In this interactive workshop, speakers with key roles in areas of 'idea over concept' and 'solution to market' discussed how they work in the Flemish ecosystem of active and assisted living to help grow and develop ideas into market-ready products or services.

Central to the Flemish innovation approach is the cooperation between SMEs and other complementary stakeholders. This is aimed at integrating entrepreneurship, scientific knowledge, end user engagement and customer expectations. Due to a limited internal market, Flemish SMEs are also forced to focus on internationalisation within their business models quicker than usual.

Participants were given the opportunity to share ideas and thoughts after hearing about best practices that have been developed in Flanders related to living labs, local and regional networking, and how to support entrepreneurs and SMEs in developing active and assisted living technologies.

A 'future sketching' session then took place, which involved

the audience working together to define what a similar approach might look like in their regions – what might be missing and/or what strengths or challenges they might face.

One of the case studies from Flanders that the audience was asked to reflect upon was for LiCalab, a Belgian organisation that supports businesses and organisations in the health and care sector by testing and validating innovations with end users, in their own living environment.

LiCalab focuses on technological innovations, nutritional concepts, exercise and revalidation, mental health and informal care. Its experts provide advice on ideas at the early stages and through its contacts in the health sector, provides access to a comprehensive care ecosystem.

By helping clients find partners in the health sector, knowledge institutions, businesses and governments LiCalab provides access to a huge end user base that can be invaluable in the testing of products to make sure they go from idea and potentially to the market.

MYTHBUSTERS - EMPOWERING PEOPLE WITH DEMENTIA

VR-GLASSES AS AN ACTIVITY FOR PEOPLE WITH DEMENTIA

The Mythbusters workshop provided a great insight into some of the most common myths surrounding dementia. The workshop looked to change the audience perspective on what it means to have dementia, what people with dementia need to be able to participate in normal daily life, how we can all support people with dementia and what technology developers should try to incorporate when innovating and bringing new ideas to the table.

The case study used was a project using virtual reality (VR) glasses within care-homes in Aarhus, Denmark. The aim was to leave the audience with a better understanding of how to optimise their ideas and to gain inspiration from the VR glasses project. It didn't disappoint. The project was presented by Ms. Louise Rønne Bengtson, who has made several 360 degree videos, which are being used as an activity for people with dementia within several nursing and care homes. These are being used individually and in groups and delegates found it interesting to see which types of videos worked for people with different types of dementia.

It was also interesting to see the reaction of the audience, following an interactive quiz, after which a number of points about dementia were clarified. These included dementia not being a disease but a syndrome, and dementia not even being an official diagnosis in the DSM-5 any more: neurocognitive disorders, a decline in cognitive abilities, is a normal ageing threat, and it is the psychological and cognitive challenges of everyday life that are the main cause of symptoms



of dementia. Regression in dementia can be reversible with the right support and people with dementia can still learn new things, if they want to and this is best achieved using repetition and not cognitive tasks. Early in the dementia process the cognitive performance of people is surpassed by their emotional performance and nostalgia is a mechanism used to cope with reality.

Participants learned from research by Vilans (NL) that most IT-solutions are too complicated to be used by people with dementia, and that autonomous lifestyle monitoring systems and robots seem to work better. Buttons and screens are confusing.

Finally, it is family members and professional caregivers who are better to target as users for solutions, especially if the solutions in question

are communication platforms. People with dementia have emotional needs that are best supported by letting them do normal activities that make them:

- express creativity
- feel needed and wanted
- feel proud
- define who they are
- keep them active
- satisfy their needs
- feel alive

Many of the workshop participants acknowledged this by answers, tips and experiences that put an emphasis on the following approaches as being important: social interaction (7), meaningful activities (6), love (5), empathy (5), entertainment and fun (4), time (3), understanding (3), co-design of products or services with end users (4), involving relatives or spouses (3), making things personal (2).

GETTING BIG PUBLIC AND PRIVATE PLAYERS TO BUY AAL SOLUTIONS

Although this subject may be one that has been addressed and discussed many times before, it didn't stop this workshop being full of fresh ideas and new approaches. The session was structured around three main points: How are we going to improve the success of AAL projects in the market? How are we going to take advantage of former AAL projects? How are we going to build a really powerful and vibrant ecosystem around the silver economy and the AAL programme itself?

This was done through a dynamic presentation from Iñaki Bartolomé, CEO Ideable & Kwido, who was supported by guest speakers, Ana Luísa Jegundo (Cáritas Coimbra) and Simone Stückler (exthex GmbH). The presentation followed an interesting structure, encouraging a lot of thought and debate surrounding the key issues, which were:

- How do we improve the success of AAL projects to the market?
- Should startups be the natural leaders of the projects?
- What can we do with existing AAL projects, and how can we take advantage of them?
- Should we build a powerful and active ecosystem around the silver economy from the AAL Programme and how would we attract important external stakeholders to this ecosystem?
- We often miss some important companies, such as insurance companies. They are natural investors of AAL solutions, so how can we engage with them in order to improve the market success of the whole AAL community?

This inspired an open debate,



which resulted in some interesting conclusions. The three speakers presented the different questions to the audience and offered their own point of view based on their heterogeneous experience.

Some of the conclusions from the workshop included:

- It's important to engage all the partners from the beginning to create a sustainable business model for the resulting project.
- The projects should finish with a product closer to production to avoid the gap between the project and commercialisation.
- Startups should be involved but the financial burden of these important projects is too heavy for them sometimes. They need more access to investment or even a need to engage with larger companies.
- It's important to engage other stakeholders, outside of AAL itself, as potential clients, prescribers or early adopters.
- There's also a big gap between

software development and product creation. Maybe larger, more established companies should also participate in AAL projects.

- It would be interesting to create a database to look for older projects, case studies, technologies involved, etc. to offer access to all the generated knowledge in former projects.
- There are different smaller initiatives around Europe, related to the silver economy. We should all join forces in order to obtain more visibility and to create a real ecosystem around this sector.
- Market regulations make it difficult not only to get success in the market but also to get investment, as investors foresee the potential problems of the solutions in the market.
- We need to solve real problems and needs from real potential clients. So we need to connect to those needs, make them public and then create projects and products to solve them.



EXPERIENCES OF SMEs IN AAL PROJECTS

TURNING AN AAL PROJECT INTO A SUCCESSFUL BUSINESS CASE

Even though promising technologies and services are being developed during AAL projects, this does not automatically lead to successful products that appear on the market. In addition, adoption rates might be low in the end and scalability is difficult, but what else besides writing a good business plan is of importance?

The workshop was run by Johan van der Leeuw, senior advisor healthcare technology and expert telecare / home automation care at Vilans, and Dr Henk Herman Nap, senior researcher innovation & eHealth at Vilans and visiting senior researcher Human-Technology Interaction at the Technical University Eindhoven. In this workshop,

the essential steps in developing and executing a good business plan were mentioned and in-depth insights shared about experiences and lessons learned from the past. Presentations from the SMEs Sensara, Tinybots and ASCOM helped to share their experiences and provided participants with ways to learn for themselves.

Together with the participants, insights on essential conditions were discussed, from the development of an idea to the final product that will be marketed. There was a special focus on the relationship with end users, the broader public, care organisations and other stakeholders like insurance companies and municipalities.



MUNICIPALITIES FOSTERING THE IMPLEMENTATION OF ICT SOLUTIONS

For the successful implementation of ICT solutions in the real world, it is extremely important to have the support and financial backing of the people in power at a local level - the municipalities and local councils. They can help foster the implementation of these solutions as they have close links with all sectors within the local community.

The objective of this workshop was to work collaboratively together to produce a road map for an aged-care ICT solution operator, in this example the Cogvis AAL fall-detector, to implement their solution in a municipality, the municipality of Riga. This 'real' scenario was a great way to look at the various obstacles and barriers that exist and the proven approaches to working with municipalities and securing their backing.

It was a lively session, during which a special emphasis was placed on developing a list of persuasive arguments to be used by entrepreneurs to persuade municipalities to support the ICT innovation.

Following the presentation of the structure of the social care system in Riga, from Mr. Martin Moors of the Riga municipality, and a look at a case study and a demonstration of the equipment being used at the Big Family House, an insight was provided into how the AAL solution is being used and the MAMA-OK project. This gave the audience a clear example of how to implement technology at the municipality level.

After this opening session, the workshop became more interactive. The 44 participants were split into two groups and active discussions were mediated by workshop coordinators. The main task was to create the road map, a list of actions to perform and a list of arguments to use when approaching the municipality. All delegates, including Ming-Chyi Pai from the National Cheng Kung University, Alencica Rozaj Brvar from SIH EEIG (Slovenian Innovation Hub) and Ana Bernardo Suárez from the Regional Ministry Of Social Rights And Welfare, Government Of The Principality Of Asturias made valuable contributions, and this allowed for the correct balance to be considered and resulted in some conclusive actions for others to follow.

A clear roadmap and a practical document were produced, which you can read at the links, below. These will now be used by municipalities and operators for developing ICT-based solutions in different European countries and a number of arguments that should be used when approaching the municipalities and what to consider when formulating your pitch.

This of course requires further testing and implementation but provides a solid base and one that should lead to more ICT solutions being deployed.

[AAL Workshop 19 Outcome Road Map](#)
[AAL Workshop 19 Outcome List of Arguments](#)

CREATING BETTER CONDITIONS FOR SMES THROUGH PCP

This workshop, which focused on a case study from Northern Ireland demonstrated an example of how to create better conditions for SMEs through pre-commercial procurement (PCP). It was a valuable explanation and insight into how things could work and the benefits to both SMEs and the public sector.

The objectives of the workshop were to showcase:

- The benefits of PCP and how it is used to address public sector needs, through innovative solutions developed by the SME sector in Northern Ireland.
- How the public sector can create better conditions for SMEs by bridging the seed funding gap through PCP.
- How SMEs can create and retain intellectual property that will be commercialised to deliver business growth.

The workshop took the form of presentations followed by a panel discussion with audience participation, which led to lively and productive debate, as well as informative questions and answers.

Elaine Colgan provided the first overview of PCP and this gave the audience a good idea of how the discussion would follow during the workshop.

Julie-Ann Walkden then discussed the application of the process during a Horizon 2020 project, which took place in Northern Ireland.



Dr Anthony Lindsay then shared the experiences of his company, Healthcare Analytics, in using the PCP process and how they collaborated with stakeholders and the public sector to develop and deliver their innovative solution.

Finally, there was a discussion session for the panel with questions from the floor. The workshop interaction was through open questions from the audience and a discussion with the panel of three speakers.

As a result of this interaction, the group learned that there were a couple of potential collaborators for both the government and healthcare speakers and the company representative in the audience.

An offer was also made for study visits to Northern Ireland for other European regions that may be interested in adopting the PCP model and using it to improve conditions for SMEs.



A DESIGN APPROACH TO MAXIMIZE ADOPTION OF AAL SOLUTIONS

This workshop aimed to answer the question: what can we learn from design theory in developing the implementation approach of AAL solutions?

This subject was introduced by Martijn Vastenburg in a short presentation on design theory. He also discussed some examples of AAL projects to show why we believe the implementation roadmap could benefit from a design approach.

The workshop was attended by a good number of participants, allowing the group to split into four case studies for the interactive part. Using a step-by-step approach introduced by Priscilla Esser, each group tried to design an implementation roadmap for an

existing healthcare solution. The results were diverse, but promising. It was clear that a user-centered design approach to an implementation roadmap could improve the fit with stakeholder needs, but it requires a shift in mindset.

People skilled at design struggle to focus on developing the roadmap rather than the solution itself. People skilled at implementation strategies struggle to focus on the stakeholder needs on an individual rather than an organizational level.

The results encourage the workshop facilitators to continue applying a design approach to the implementation strategy in future AAL projects, to increase long-term adoption of solutions.

DEMOCRATISATION OF THE IOT. OFF-THE-SHELF TECHNOLOGY TAILORED FOR EVERYONE



Smart age-friendly environments are a well-established concept, and the introduction of accessible IoT appliances offers an opportunity to empower older people. This workshop attempted to demystify the use of off-the-shelf IoT appliances for smart age-friendly environments by considering the choice between open and closed solutions and some of the consequences of that choice for end users.

In a collaborative session, participants connected with other expert stakeholders to stimulate creative thinking through practical examples using popular IoT-based appliances and services. They also developed awareness of how to enable older adults to design their own smart age-friendly environments.



The session was conducted in four main stages. It began by showcasing the use of a number of popular smart IoT appliances and how they can facilitate the development of accessible task-based systems to assist activities of daily living. This was followed by a demonstration of how such appliances can be integrated into an intelligent rule-based system with reference to the open systems approach.

On the basis of the demonstrations, a brainstorm session was held which aimed to create discussion among participants about new potential use cases using intelligent rules-based systems for IoT appliances. Finally, feedback was collected from the participants about the relative utility and usability of different combinations of these technologies.

DIGITAL FRONTRUNNERS – MINDSET & SKILLSET IN THE NEW DIGITAL REALITY



The combination of mindset and skillset in digital innovation is key to disruptive technology and key to becoming a digital frontrunner. This workshop clearly highlighted this and gave participants the opportunity to gain an insight into an action-learning course called the Digital FrontRunners, where managers, leaders and employees alike recently met in a cross-pollination project to gain insights into the opportunities, implementation and perspectives of new technologies and smart solutions.

During the course, the 50 participants went through five FutureSalons where they were guided through presentations and reflection exercises to reach a better understanding of the interplay between mindset and skillset.

This workshop kicked off with a panel discussion and was shortly followed by dynamic dialogue amongst participants. The panel discussion saw two participants from both sides, the mindset and the skillset. Søren Hejne Hansen, the CEO of InnoHow (Follower and Moderator) presented their products and what they have been doing and Michael Carlsen, Head of the Centre for Children Needs, City of Aarhus (participant and influencer) looked at how this concept can be used in daily work.

Following the presentations, the workshop broke up into group sessions and the question of “How to get digitalization into our daily working life” was asked. It was a valuable session that looked at why we do this and why we use technology.

As the diagram above shows, it was clear that the technology must make work easier and should often be introduced with no alternative. If members of staff are used to using an old system or are familiar with a specific process, then unless the old is removed it is harder and more unlikely that the new technology will be adopted and fully supported by all. There needs to be motivation for people, the need to want to use the technology, a clear “what-is-in-it-for-me” mentality and it has to work. During this session, how to think when looking at introducing new technology within a workplace or in a care home scenario became more clear – remove the old, keep it simple and easy to use, make it beneficial to the users and provide a clear incentive or motivation.



INNOVATION TO MARKET – I2M JOINT SESSION AAL/EIP ON AHA

The AHA market represents a great opportunity. The number of people aged 65+ will double from 2010 to 2060 - so this provides a positive outlook for the AHA Market.

Bringing together supply and demand in the world of active and healthy ageing is key to make the most of this positive outlook. This workshop session launched the support services provided by the I2M Plan, which is addressed to both buyers and solution developers. The plan's purpose is to accelerate the adoption of suitable AHA solutions.

I2M addresses the AHA market. It explores the types of AHA-related

investments made in Europe by both public and private sector organisations. It identifies the gaps that exist between demand and supply which create barriers to sound deployment.

Three goals dominate the objectives of I2M. They focus on scaling-up solutions and exploring market opportunities; driving innovation forward; and ensuring a higher success rate of market uptake. Bringing together supply and demand is clearly key.

Four upcoming initiatives featured large:

- Join the eHealth HUB platform.

- Are you a healthcare organisation looking to implement an Active and Healthy Ageing digital solution? Submit your need and we will match you with potential providers. Get involved in match-making activities.

- Take part in the Call for I2M Adoption Awards. The awards will be given at the Digital Health and Wellness Summit and included in the @FYFN Mobile World Congress in Barcelona in February 2020.

- Attend the training sessions for procurers, one of which will be held at the 2019 EHTEL Symposium. A topic addressed was successful adoption of healthcare innovation.



EARLY ADOPTION AND IMPLEMENTATION THROUGH COLLABORATION AND TESTING

During this workshop, delegates learnt how the partners behind the Test and Development Centre for Welfare Technology in Denmark are working to gather insights into methods applied on the ground. The objective was to give participants knowledge on getting connected to the public sector within health and welfare quickly, providing a vital route to early adoption.

It began with a short introduction to the Test and Development Centre by Peter Astrup followed by an introduction to the product being discussed by the DigiRehab CEO, Niels Heuer.

After the introduction a number of quick-fire questions were put forward to the audience, How would the product work in everyday use/ daily routine training with citizens?

How would the product fit into your organisation? How could the product give value in your organisation?

In the springboard session the attendees gave DigiRehab their views on its potential and challenges for the product to work within their respective organisations.

This was done through a quickfire Q/A session that resembles a springboard methodology.

DigiRehab is a Danish company which has developed a digital solution where caretakers can train and rehabilitate elderly people. The solution does not require occupational therapists to be present, thus saving money on personnel.

Apart from this, the training sessions give elderly people more personal

strength and thereby less need for help from the municipality/care organisation.

The workshop delegates then heard from the Viborg Municipality, who provided insight into how a company can test and implement a product within a municipality.

This proved to be very interesting and provided attendees with basic insights into the methodologies that both Viborg Municipality and the Test and Development Centre for Welfare Technology use when collaborating with companies.

As well as this insight, delegates were also introduced to a novel, working and validated technology that can be implemented in their own organisations and provide real value to elderly people.

SELECTION, TESTING AND IMPLEMENTATION OF WELFARE TECHNOLOGY IN COPENHAGEN



The aim of this exciting workshop was to help people learn about the City of Copenhagen's valuable experiences with the selection, testing and implementation of sensors and transfer technologies.

The Health and Care Administration in the City of Copenhagen follows different systematic processes when it selects, tests and implements welfare technologies. Companies present technologies to them from which they select those that match the needs experienced every day in nursing homes, home care and rehabilitation centres.

From this selection, they then test welfare technologies in their Living Labs where there is easy access to employees and citizens making it ideal for quick initial tests. This

means welfare technology can be tested on all types of operating units, depending on where they are to be implemented.

This workshop taught its participants about the challenges faced and the solutions found in the City of Copenhagen in terms of the selection, testing and implementation of sensors and transfer technologies. Everyone who attended gained new perspectives about involving employees and citizens in the test and development process.

There were discussions about the difference between technology-driven and need-driven process, and the organisers spoke about how to implement technologies on a large scale.



EVALUATING SOCIAL TECHNOLOGY FROM DEMAND. A KEY FACTOR TOWARDS MARKET SUCCESS

As discussed in many of the workshops before this one, the topic of involving the end user in the design and production process is one that has been an important part of AAL's evolution and an integral part of many projects but sadly, not enough.

This workshop did a great job of bringing this issue to light by presenting the importance of the final user's involvement during the product design process, looking not only to create new products or services that are useful for the end users but also how to maintain a successful business.

After the initial presentation of the current facts, the current situation, problems, and any general recommendations, participants were

asked to group with people from different backgrounds and profiles to come up with examples of initiatives, businesses or products that were successful or that had failed. The goal was to analyse why they succeeded or failed, to extract general rules that could and should be applied in their own organisation as best practices.

The workshop was made up of people from research institutions, the public sector, private companies and end users (health centres, carers etc). This ensured the groups had a fair representation from each sector and therefore helped present an accurate picture.

The idea was for the participants to share examples of success stories and times when products and services

failed within their organisations and then collectively analyse why they succeeded or failed.

After an initial discussion, the different groups shared their conclusions and a debate was open, discussing key reasons that could be translated into procedures or recommendations we must implement or avoid in our design phases. Two main examples were put forward; Orientatech as an example of a benchmarking initiative that followed good practices and CerQana, as an example of a company analysed by Orientatech.

It was clearly seen that those companies and examples that did involve the end users in the design process had a greater success rate than those that didn't.

PRIVACY-AWARE AND ACCEPTABLE LIFE-LOGGING SERVICES FOR OLDER PEOPLE

This workshop took a closer look at the lifelogging technologies that are used in a number of AAL projects. Lifelogging technologies can enable and motivate individuals to capture data about themselves, their environment and the people with whom they interact. In contrast to the advanced technical development in lifelogging technologies, knowledge about the willingness to adopt such technologies and to be supported by digital services is still considerably underdeveloped.

This lack of understanding has significantly reduced the transfer of these developments to innovations that have a social and economic impact.

Successful rollout of self-tracking technologies requires the acceptance of users and their openness to not only tolerate technical approaches, but to integrate user-centred technology in their personal life. Moreover, the General Data Protection Regulation establishes the obligation for technologies to meet the principles of data protection by design and by default.

This special session aimed to discuss all of these issues and provided a forum for people to voice their opinions about the motives and barriers that limit user acceptance and make the deployment of lifelogging services for AAL difficult.



ETHICS, DATA AND PRIVACY PROTECTION: WHO WILL TAKE RESPONSIBILITY AND HOW DO WE PROCEED TO A COMMON FRAMEWORK FOR IT-AHA IN EUROPE?



The goal of this workshop was to raise discussion on how we can make sure that older – mostly non-tech-savvy – people who use non-medical technology solutions are ‘safe’ where it concerns their data and privacy. Policy making at a European level on the ethical framework is one way to protect them. It is also essential to raise their awareness, so they are able to make ‘safe’ choices themselves. Discussing how to achieve these two sides of the same coin was the objective of the workshop.

The session started with an introduction delivered by Elisa Irlandese (DG CNCT, European Commission) that outlined the challenges to be discussed and explained the workshop methods and speakers.

There were then two keynote speeches of 15 minutes each. Ellen Steenmeijer and Stephanie Koenderink presented the perspective of the end-user awareness and Carina Dantas introduced the need for European policy making.

After these introductions, there was room for 45 minutes of group work on these two issues and 10 minutes at the end for participatory discussion. The main outcomes of the discussions were as follows:

On end-user awareness:

The audience agreed that there are issues about trust that surround data sharing. In some countries it is difficult for public authorities/administration to collect reliable data from the users because the population does not trust these stakeholders. Local public authorities should have a role in the dissemination of the ethics, data and privacy protection legislation under each community in order to keep the society informed and safe.

On European policymaking:

The central discussion on the creation of a European Ethical Framework for non-medical devices reflected on the fact there is still an unregulated market on all the digital solutions that are not medical devices but still work with personal data and ethical issues.

The topic had the full attention and interest, coming both from the representative of the European Commission and from two official participants from the AAL Programme. One of the latter suggested to take this as a proposal to a future AAL support action and the EC will take these conclusions to DG CNCT for further reflection and potential actions.



ENABLING IMPLEMENTATION DECISIONS. ASSESSING THE EFFECTIVENESS OF AAL

The workshop aimed to promote exchange of experiences amongst stakeholder groups involved in evaluations, raising awareness for sound evaluations among all stakeholder groups and assessing criteria for successful implementation decisions of AAL solutions. Through discussions among different stakeholder groups, a (research) agenda to close gaps in existing instruments should be defined.

After welcoming the participants and outlining the workshop goals and agenda, the workshop started with an introduction round to gain an overview of the participants, their level of expertise and their role in evaluations. In an interactive discussion session, expectations regarding evaluations and the questions on whether and how evaluations support innovations and scaling-up were discussed.

Next, tools and methods supporting evaluation activities were introduced in impulse presentations. First, the projects EvAALuation which supports multi-level studies and capturing

impact on individual, institutional and societal levels was presented by Julia Himmelsbach, Markus Garschall, Robert Ofner, and Johannes Oberzaucher. EvAALuation offer a comprehensive indicator set and measurement tools including quality of life, social, social system, economic and scientific as well as design and technology objectives.

Next, MAFEIP, a web-based tool whose purpose is to estimate the health and economic outcomes of ICT enabled social and health innovations to support evidence-based decision-making, was presented by Francisco Lupiáñez-Villanueva and Frans Folkvord. The main purpose of MAFEIP is to calculate the costs of an intervention and take into account its effectiveness to provide stakeholders with a more complete picture. In an interactive discussion, the tools were discussed with the participants. In the context of the introductory discussion, the focus was on whether the result variables meet the needs of stakeholders and, conversely, whether show enough awareness.

During the interactive sessions, participants confirmed a high relevance of evaluation studies for implementation decisions. Moreover, evaluations should not only confirm striven impacts but results should also inform technology development. Scientific results contribute to decision making in all phases of a project enabling iterative technology development, decisions for further supporting and contribution to projects and implementation decisions.

A key point in discussing evaluations is the definition of success of a system or what needs to be measured. Methods must focus on any meaningful variable, ranging from quality of life to costs. There is no universal answer to what's most important. Ideally, methods serve as toolkits that stakeholders can use and select interesting aspects for their evaluation questions. In addition, as only a restricted budget for evaluations is available, there is a need for methods and tools, such as EvAALuation and MAFEIP, supporting cost-efficient study implementations.



A PLAYFUL APPROACH TO SOCIAL WELL-BEING

Playing games with elderly people can be fun. It can facilitate communication between people belonging to different generations. In this way digital games can enhance social inclusion, prevent loneliness as well as give caretakers, relatives and volunteers a tool that can be used to spend some entertaining time together.

But many existing games are not suitable for elderly people. They are too finely grained, too fast or just too complex. More importantly, there is no game that suits everyone. Individual preferences, physical limitations and mental capabilities influence the type of games people prefer to play.

This workshop was organised in three parts: an introduction, a game design workshop, and an informal discussion. In the initial part, Marco Soldati and Markus Recher from Fachhochschule Nordwestschweiz presented the history and the current status of a research and development project in which they create computer games for elderly people and their relatives. The games are intended for multiple players and include personalised media from the life and environment of the players. The games trigger communication between players and give

relatives a tool at hand to make visits at the elderly home more attractive.

In the second part, about 25 participants were divided into five groups according to their interests. The groups were asked to invent a computer game they'd love to play, and which would be suited for elderly people. The ideas were sketched on a poster and presented to the other teams in a small exhibition.

The third part was a discussion about games but was cut short due to time restrictions.

After the workshop, while tidying up the room, one of the organisers came in and mentioned, that most people left this room with a smile on their face!

New insights were gathered about how people from other domains think about games for seniors. It was particularly interesting to observe how the different teams collaborated. For instance, the research and education group took a completely different approach to the healthcare team. Once more it became clear how important it is to listen to as many people as possible when designing games for elderly people.

7TH WORKSHOP ON MOBILITY SOLUTIONS: AUTONOMOUS VEHICLES



The workshop presentation

"Smart Wheelchairs – Methods and Applications" held in context of the "7th Workshop on Mobility Solutions: Autonomous Vehicles" at the AAL Forum 2019 in Aarhus, presented state of the art developments for (semi)- autonomous electrically powered wheelchairs. Academic and commercial developments include topics such as indoor and outdoor mapping, obstacle avoidance algorithms, user interfaces for special needs, and studies that prove the usefulness and effectiveness for a wide variety of users.

During subsequent discussion rounds with the participants of the workshop, a broad range of questions was addressed, e.g. "What are other kinds of micro-mobility devices?", "Do driving assistance systems rely on modified environments?", and "How can we ease the subscription and financing steps for potential smart wheelchair users?".

Participants of the 7th Workshop on Mobility solutions agreed on two major statements/questions relating to mobility assistance for elderly or impaired people. The first question in mind asks "How do we accelerate the distribution of smart wheelchair technology to the public?".

Discussions showed that the step from academic solutions to commercialisation is impeded by the funding's "valley-of-death" during complicated and expensive certification and evaluation that have to be conducted in context of clinical trials.

The second question asked "Why are smart wheelchair systems so expensive?". Answers to this question, that had been gathered during the workshop, mentioned the complex development process (including research on a variety of technical subtopics), the relative small number of sold units, and an uncertain financing of these devices by private or state-driven insurance institutes.

AAL

The logo for the AAL Programme features the letters 'AAL' in a bold, blue, sans-serif font. Below the letters is a stylized yellow swoosh that curves upwards at both ends, resembling a smile or a bridge. Underneath the swoosh, the word 'PROGRAMME' is written in a smaller, blue, sans-serif font.

PROGRAMME

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