WORKSHOP REPORT

Change management as a success factor in the implementation, scaling up and transfer of digital health & social care solutions

A satellite event to the 14th AAATE Conference 2017

12/09/2017 - 10.00 - 15.45

St Mary’s Conference Centre, Bramall Lane, S2 4QZ Sheffield (UK)

Demographic change requires regions to deploy on an increasingly large scale digital health and social care solutions to keep the costs of care sustainable without reducing its quality. Unfortunately, many attempts to develop innovative solutions have shown success at pilot level, but difficulties in the actual deployment stage. The same holds true for the transferability of solutions from one region to another: what works well in one place, might not work well in another.

Among the factors that explain these difficulties there are many that deal with change management and it is clear that digital health and social care solutions are not merely “add-on’s” to existing care plans, pathways and ways of working. Successful deployment requires deep changes in the ways of working of people, and organisations together with new care recipient relationships.

For these reasons, we gathered a group of 15 experts to assess some of the success factors related to organisational change and how these factors have been managed during the up-scaling and transfer of successful experiences. The presentations centred around tools that can help to understand how to support implementation, scalability and transferability of digital health and care solutions in the UK and in Europe. Speakers shared experiences in the deployment of person-centred technology that are supporting care recipients in their self-management and independence, including remote monitoring. And participants had the opportunity to discuss the aging process and what we expect for ourselves when we get old – from healthcare and technology.

A major conclusion was that eHealth and eCare solutions are hardly successful if they are not part of changing care systems and service environments. Changing these systems and environments need adequate creative organisational management as very often these processes are not linear, but determined by cultural, political and human factors, among which the resistance to change, but also the lack of training and screening of change agents at all levels.
MINUTES

The workshop was kicked off with introductory words by Evert-Jan Hoogerwerf, past president and board member of and project officer for AAATE, as well as head of Sector projects for Innovation of AIAS Bologna. He set the scene and gave some context on why change management is a factor of success in the introduction of digital health and integrated care before handing over to Leo Lewis, Senior Fellow of the International Foundation for Integrated Care.

Leo Lewis challenged the keynote speaker George Crooks, Chief Executive of the Digital Health and Care Institute in Scotland’s national innovation centre for digital health and care, to explain the barriers and enablers to introducing technology into the way we provide healthcare today.

George Crooks started by pointing out that the healthcare discussion in Europe today is all about hospitals. And while most sectors in our life have been digitalised, the way health services are delivered has changed very little over the past 70 years.

A second mistake we make, is to focus on the technology, when really it is the health service we design for the patient that should be the point of focus, even if it is then delivered by technology. Today, the most important factor is still face-to-face care, but to handle the challenges of an ageing population, we will need to tab into the potential of all the channels available to us: Internet, TV, telecare, SMS, video, phones…. However, experiences made i.a. in the united4health EU funded project have shown that if you do not invest the time and effort to educate and support patient groups to use these new tools and channels, technology alone cannot work wonders.
Professor Crooks then cleared up five common myths about digital health:

Myth 1: People don’t want to use digital services for healthcare

- The reason patients are slow to adopt digital healthcare is primarily because existing services don’t meet their needs or because they are of poor quality.
- Non-digital channels will continue to be relevant and important, so digital channels will have to be embedded in a well-thought-through multichannel concept.

Myth 2: Myth 2: Only young people want to use digital services

- In fact, older patients (those over 50) want digital healthcare services nearly as much as their younger counterparts.
- More than 70% of all older patients in the United Kingdom and Germany want to use digital healthcare services (but they either don’t know how or such digital services are not available).
- There is a difference between the kinds of digital channels older and younger patients want to use.
- Older patients prefer traditional digital channels such as websites and e-mail, while younger patients are, unsurprisingly, more open to newer channels such as social media.

Myth 3: Mobile health is the game changer

- The practice of healthcare supported by mobile devices is often hailed as the future of digital services in healthcare. But surveys show that demand for mobile healthcare is not universal. It is therefore not the single critical factor in the future of healthcare digitization.

Myth 4: Patients always want innovative features and apps

- Health systems, payers, and providers often think they need to be innovative when designing their digital-service offerings.
- The core features patients expect from their health system are surprisingly mundane: efficiency, better access to information, integration with other channels, and the availability of a real person if the digital service doesn’t give them what they need.
- Highly innovative services, better apps, and more social media are far less important to most patients.

Myth 5: A comprehensive platform of service offerings is a prerequisite for creating value

- When going digital, many institutions think it is necessary to “go big” before they can achieve anything.
- They believe they must build a comprehensive platform with offerings along the entire spectrum of services.
- Start smart and act fast and accurate and cater for the REAL needs of your service users.

Digitalisation of the society and aging have also been highlighted as the two main challenges in the White Paper on the future of the EU (published in March 2017), said Horst Krämer, Programme Officer at the European Commission’s Directorate General for Communications Networks, Content and Technology (DG CONNECT).
The European Commission has launched a public consultation on the transformation of health and care, which was included as part of the Digital Single Market mid-term review. By the end of 2017, the Commission plans to adopt a Communication addressing the need and scope of further measures in the area of digital health and care, in line with legislation on the protection of personal data, patient rights and electronic identification, centring around 3 main pillars:

- citizen’s secure access to and use of health data
- advancing research, disease prevention and personalised medicine
- citizen empowerment and patient-centred care

While the proposals in the Digital Single Market mid-term review aim to ensure that the digitisation in health and care will benefit EU citizens (providing them with better treatment, prevention and early diagnosis of diseases) and deliver more sustainable health and care systems across the Union, we currently face several challenges:

- limited access to health records across borders (citizens and professionals)
- no secure infrastructure to exchange health data across borders to advance research and personalised medicine
- low integration of digital health tools with health & care services

The most sensitive topic is of course the use of data in health and care. But it is also important to consider how we involve citizens in health conservation and health and care services and how we provide them access to health data that is held by providers or authorities.

Data from the Special Eurobarometer 460 on "Attitudes towards the impact of digitisation and automation on daily life" (2017) shows the current disconnect between what citizens expect from their health and care systems and what these offer in practice: a majority (52%) of citizens would like to have online access to their medical or health records, but a mere 9% of hospitals in Europe allow citizens some access online to their own patient records, and most of those only give partial access.

The EU can and does help to move the digitalisation of health and care forward. The Data Protection Directive and the Cross-border Healthcare Directive for example, are important pieces of legislation that lay the ground for scaling up of digital health and care. Furthermore, the European Commission can provide a common vision and commitment, the necessary networking and collaboration among stakeholders in the different member states, the support of new business models and facilitation of bringing innovations to market through the EU funding schemes.
and investments. However, it needs the political commitment of all stakeholders to ultimately make the
digitalisation of our health and care systems work.

This point was also supported by Cees van Berkel, principal scientist at Philips Research in Cambridge UK: “If you
want to make this kind of innovation work, it needs to be broad
based but person-centred.”

He explained Philips efforts in creating a platform for population
health management. Key elements in building such a platform are:

- understanding the population
- recognise there are different healthcare systems
- monitoring population dynamics per region
- collecting socio-economic and financial data on

population

Philips has carried out several trials on integrated care with the
UK National Health Service (NHS) and has found three aspects to be key: it has to be identified what kind of care is
needed, where to deliver it and how to ensure the continuum of care. And patients need support in navigating the
healthcare system.

A complementary service was presented by Brian Donnelly, expert in planning and delivery of assistive technology
(AT) services and founder of CECOPS CIC, the UK based not-for-
profit standards and certification body. The core of CECOPS
services is a self-evaluation and continuous improvement
software for planning and providing AT services called iCOPS®.

An important aspect in moving towards integrated care is to
understand how the new will integrate with the old. All
countries have legacy systems and no one can afford to start
from scratch. Here is where the iCOPS® system can come in and
assess the readiness of specific health and care systems to
introduce digital services, then develop a change management
action plan, and help organisations to implement a system that
aiming at continuous improvement.
Continuing on, **Tony Dedeu**, Director of the Agency for Healthcare Quality and Evaluation of Catalonia (AQuAS), brought the audience back to the beginning with the question: “What was healthcare like before eHealth?”, before diving into the lessons learned from the deployment and upscaling of eHealth solutions in Catalonia.

From the 1990ies to the early 2000s, Catalonia had four health plans that did not even mention eHealth. Only in 2008 a first Strategic Plan on eHealth was introduced, a refreshed Strategic Plan on eHealth in 2012 and finally an Information Systems Master Plan in 2017.

The challenges to introduce eHealth were manifold, but so were also the conclusions drawn from the experience. For eHealth to be successfully implemented it needs:

- leadership and a multilevel strategy by the government
- alignment, motivation and awareness among all stakeholders
- financing incentives

In the ensuing discussions, participants distilled three key factors of success in the implementation of eHealth and integrated care solutions:

- it must be understood why there is a need
- the key stakeholders for the introduction of an eHealth solution must be identified
- these stakeholders play an important role in translating the narrative into action (i.o.w. translate the idea into an actionable service that benefits the person)

Despite healthcare not being a European mandate, the European Commission has generous funding programmes and can in particular facilitate the information exchange between regions. Products and services can be promoted across borders, but the challenge remains how to integrate them in the local systems. These are aspects explored in particular in two Horizon2020 projects, in which AAATE participates as consortium partner: ProACT and IN LIFE.

**John Dinsmore**, Health Innovation Lead/Deputy Director of the Trinity Centre for Practice and Healthcare Innovation (TCPHI), explained how change management is handled in ProACT, a project that looks at patient centric integrated care ecosystems to understand and manage multi-morbidity.
We all know that changing behaviour is difficult. But it is particularly difficult to introduce change in health and care systems due to the complex relationships between a wide range of organisations, professionals, patients, carers and families.

ProACT looks on one hand into the barriers to change in general and the introduction of eHealth solutions in particular, that are encountered on an individual level between identified stakeholders rather than on an organisational level. Such barriers on individual level can include fears around the use of technology, a lack of awareness about existing solutions, a lack of training in self-management, reduced physical capability and many more. On the other hand, ProACT also wants to identify the scale of change and a timeline of change that can realistically be achieved.

Key lessons drawn from the experiences made in ProACT so far are:

- Understanding the Complexity: Managing change is about handling the complexity of the process. It is about evaluating, planning and implementing operations, tactics and strategies and making sure that the change is worthwhile and relevant.
- Behavioural Change is key: Even small changes can have a positive impact, especially if the change involves an action that is repeated often.
- Political and management buy-in: During and post trial to understand the real impact of ProACT will require strong leadership and motivated staff at organisational level, with a desire for continuous improvement through the use of ProACT.
- In digital health: It is never a choice between technological or people-oriented solutions but a combination of all.

Arlene Astell, Professor of Neurocognitive Disorders and Director of the Berkshire Memory and Cognition Research Centre at the University of Reading, continued by sharing the experiences made during the IN LIFE project with regard to change management.

The goal of the IN LIFE project is to connect a wide range of ICT solutions for older adults with cognitive impairment into common open reference architecture. 19 services at different technology readiness levels were deployed at 6 pilot sites and tested with a minimum of 2000 participants.

Professor Astell gave brief descriptions of one particular setting in each of the 6 pilot sites and about the change that occurred through implementing the ICT service.

In the Greek Guardian Angel hospital, a mobile app to monitor heartrate, ECG, breathing rate, posture and activity, blood pressure and weight was introduced. The participants were 93 patients, 73 family carers and 33 healthcare professionals. The healthcare professionals were trained to
recruit users and demonstrate the functionalities of the app. The main challenge was that both professionals and end users needed much more training than anticipated.

In the Slovenian pilot site, a wrist watch for fall detection was deployed in private care homes. 150 older adults and family caregivers participated. Two workshops were carried out – one for the end users, one for the staff, family caregivers and volunteers – to explain the use of the wrist watch. The challenges encountered were on one hand the need for one-to-one training and constant support, and on the other hand some technical aspects such as the battery life, the wrist watch not being waterproof, the readings being too small, the audio signals not loud enough, the manipulation of the device difficult for users with reduced dexterity.

In the Netherlands an online exercising programme was tested in a day-care centre for older adults. 9 clients participated. The initial idea was for clients to do this online exercising programme at home, but unfamiliarity with technology, spotty Wifi, and lacking computer literacy made this difficult. In the end, the online exercising programme was carried out as group activity in the day-care centre. Again, the need for training and personal support was underestimated.

168 people with cognitive impairment, 253 healthcare professionals, and 11 informal caregivers tested the CIRCA service for communication & socialisation support in Swedish care homes and day-care centres. The staff was trained as well as the end users at individual and group level, yet there was need for constant support. Main challenges were the consent and evaluation process since the end users are people with cognitive impairment, technical difficulties such as spotty Wifi and usability issues with the devices (tablets) and again the underestimated need for training and support.

In the UK, CIRCA was also tested in 10 residential care homes and day-care centers. 152 people with cognitive impairment, 20 staff, and 20 family members participated. Again the activity was rather carried out in the group and technical challenges were the spotty Wifi connection and the size of screen and device. The UK experience also showed that a good actual implementation on the ground is fundamental and that the agreement and enthusiasm of the care home staff is important to make it work.

These experiences in five EU countries have led to four common conclusions:

- training cannot be overlooked – not just at the beginning, but constant all the way through
- don’t assume that it is only the old people who need training, also the staff and carers need it!
- organisations need to be prepared to provide ongoing support
- Wifi reliability is not to be given for granted

In the discussions following the presentations above, it was mentioned that one of the key roles the European Commission can play in the scaling up of integrated care in Europe, is the facilitation of cross-border exchange of information and experiences. The SCIROCCO Tool to assess the readiness of regions and organisation for integrated care fits into this need. It looks at health and care systems in 12 European regions and has developed an assessment
Andrea Pavlickova, European Service Development Manager at NHS 24/Scottish Centre For Telehealth and Telecare in Scotland, kicked off the explanation about the SCIROCCO Tool by explaining its deployment in the knowledge transfer between regions. Notably, the SCIROCCO Tool asks:

- What actions have the more progressive regions taking in order to be successful?
- What can we learn from these pioneers about how to overcome barriers and accelerate results?
- What are the transferable elements of good practices / interventions for scaling-up?
- Can these lessons be structured into a conceptual ‘maturity model’ that could help aspiring regions to speed their own adoption?

Interviews were conducted in 12 European regions. The gathered information was analysed and a list of “indicators” or “characteristics of maturity” were identified, which then served to develop an assessment scale. This assessment scale allows to evaluate the readiness for change in the region to introduce integrated health and care services and can be used by regions in the form of an online self-assessment tool.

**Tool to assess maturity requirements of Good Practices**

*“Technology Enabled Care Programme” - Scotland*
Using this self-assessment tool, the regions obtain a maturity model showing their individual readiness for the introduction of integrated health and care services in the form of a spider graph. The spider graph makes it clearly identifiable in which areas the region lags behind. Furthermore, the graph can be compared to that of other regions and role models can be found, e.g. regions that are strong in the areas where my region is lagging behind.

Another important aspect in the SCIROCCO self-assessment is that all stakeholders in the region need to agree on their score in the spider graph. This necessitates information exchange and discussions among the stakeholders, which in itself already allows to break up the usual silos (doctors, nurses, administration, health authority, caretakers...) that exist in health and care services.

Following Andrea’s overview of the SCIROCCO tool, Lisa Lundgren, Project Director and Development strategic officer for the development department of Region Norrbotten in Sweden, and Jon Txarramendieta, Project Manager at KRONIKGUNE - Research center on Chronicity in the Basque Country, shared the practical experiences with using the SCIROCCO tool in their regions. Their overall conclusion is that while the regions find the use of the tool complicated at first, they all admit its usefulness in the end. In particular, the discussions among the regional stakeholders were considered valuable, since they provide a better understanding of the position/work/service/role of the different health and care stakeholders in the regional organisations and provide a holistic context that allows the stakeholders to understand how they fit into the bigger picture.

Wrapping up the workshop, David Prendergast, social anthropologist and UX Lead at Intel Labs Europe, listed and elaborated on some of the most significant issues that had emerged from the presentations and the discussions during the day. He started by discussing some of the change theory models he was aware about and how getting deeper into change management one becomes aware of the complexities involved, including the resistance to change.
Many people might have a sort of tendency to push back and these mechanisms have to be taken into account whenever we do social analysis around the implementation of eHealth and eCare solutions. Involvement and training of staff thus becomes key, but also of informal caregivers and technology users themselves. Prendergast elaborated on the need to understand how older adults learn in different situations and on the need that the complexity of the technology proposed should be dynamically related to the level of their digital competencies. This is important as the motivation is related to the ability to cope with difficulties, which means that technology failure for the motivation of a novice is devastating. Surprisingly, still many projects fail because of relatively stupid technological problems, related to Internet or software bugs. According to Prendergast, we probably also need more data for the evaluation of evidence about how, when, and how much and for what reason technologies are used and what are successful experiences.

Regarding change in organizations, Prendergast mentioned the need to involve all stakeholders at all levels and to avoid a top-down process, and he highlighted the need to find champions at all levels in the organizations. He further highlighted the need for service providers and their clients to design for future needs. Many older adults do not plan until health events. Stakeholders, by the way, according to Prendergast are not only people within the organization, but also outside the organizations, such as the world of policy, institutions, insurances, etc. Their attitude towards change needs to be analysed as well, including the barriers that might exist. Regarding governments, he gave the example of privacy issues that need to be addressed timely.

Regarding the redesign of care systems, Prendergast elaborated on some of the issues raised by Van Berkel, how to redesign care and help organizations and clients navigate care in order to get the right care where it is needed against the lowest possible cost. He mentioned ePrescriptions as an important area where precious time lost in administrative issues can be saved. Finally, he discussed the role of information flows in redesigned care systems.

Coming to his conclusions, Prendergast highlighted the need to completely rethinking care systems and the service environment, being more more community-based and based on the concept of ageing in place. Such processes require consideration of all stakeholders, including Cinderella services, the deconstruction of the concept of “professional”, consider change management in ecosystems without direct line management but with a strong ability to early detect potential biopsychosocial needs and to care for the carers as well.

The seminar was organized by the Association for the Advancement of Assistive Technology in Europe (AAATE) and the Horizon 2020 project consortia ProACT and IN LIFE, with support of the European Commission and the collaboration of EHTEL (European Health Telematics Association), the Scirocco project consortium, EASPD (the European Association Services, Needs and Jobs - EASPD).
European Association of Service Providers to Persons with Disabilities) and the ECHAlliance (European Connected Health Alliance).

The seminar was organised as a satellite event to the 2017 AAATE Conference, addressing the global challenge of meeting the needs of the increasing number of people who could benefit from Assistive Technology.

More information:

- AAATE: [www.aaate.net](http://www.aaate.net)
- IN LIFE: [http://www.inlife-project.eu/](http://www.inlife-project.eu/)
- EHTEL: [https://www.ehtel.eu/](https://www.ehtel.eu/)
- Scirocco: [http://www.scirocco-project.eu/](http://www.scirocco-project.eu/)
- EASPD: [http://www.easpd.eu/de](http://www.easpd.eu/de)
- ECHAlliance: [https://echalliance.com/](https://echalliance.com/)
PROJECTS SUPPORTING THE SEMINAR

ProACT Project

ProACT (Integrated Technology Systems for ProACTive Patient Centred Care) is an EU-funded Horizon 2020 project. ProACT targets Europe’s 50 million multimorbid patients to proactively self-manage and offset the EU’s annual €700 billion cost of chronic disease management. ProACT aims to develop and evaluate an ecosystem to integrate a wide variety of new and existing technologies to improve and advance home-based integrated care for older adults with multimorbidity, including associated co-morbidities. The ecosystem will connect four key care and support models central to understanding and implementing effective, continued and coordinated patient centric care (including self-management). These models are 1) homecare (including informal care); 2) hospital care; 3) community and social care and 4) social support networks.

For more information please see: http://proact2020.eu

IN LIFE Project

IN LIFE (INdependent LIving support Functions for the Elderly) is an EU-funded Horizon 2020 project. IN LIFE will offer all-around, personalised, multi-faceted existing ICT solutions and services addressing diverse daily activities (eating, physical activity, commuting, mental stimulation, communication, social interaction, etc.) to users with cognitive impairment living in their own home or in sheltered homes, as well as to their formal and informal carers. The main targeted groups are older people with Mild Cognitive Impairment (MCI), early and later stages of Dementia, cognitive impairment and co-morbid condition, as well as formal and informal caregivers. Emphasis in the project is placed on elderly and carer interactions, communications and care scheduling and monitoring. The main IN LIFE innovation stems from the implementation of ICT-based services into a large scale pilot platform which will be tested in Greece, Slovenia, Spain, Sweden, The Netherlands, UK (totally over 1,200 users in all sites, plus roughly 1,100 carers). All sites will cover holistically multiple services for elderly citizens with different kind of cognitive impairment, but each will have different focus areas and diversity in ICT solutions offered. All sites are running strong AAL research activities, thus allowing IN LIFE to benefit from existing infrastructures.

Expected Results. The primary and most significant impact of IN LIFE will be of societal nature, focusing on the Quality of Life of the elderly citizens with cognitive impairment and on the advancement of their care.

For more information please see: http://www.inlife-project.eu/

SCIROCCO Project

A key achievement of the European Innovation Partnership on Active and Healthy Ageing (EIP on AHA)’s B3 Action Group on Integrated Care has been the development of a conceptual model for regions to assess their readiness for integrated care – the B3 Maturity Model. SCIROCCO aims to develop the Maturity Model into a validated and
tested self-assessment tool that will facilitate the successful scaling up and transfer of good practices in integrated care across European regions.

The project will explore how matching the complementary strengths and weaknesses of regions can deliver two major benefits:

- A strong basis for successful twinning and coaching that facilitates shared learning;
- A practical support for the scaling up of good practices that promote active and healthy ageing and participation in the community.

SCIROCCO will help regions to identify:

- The level of maturity required for the health and social care system to adopt a particular good practice;
- The actions that more progressive regions have taken in order to be successful;
- Lessons learned from these pioneers to overcome barriers and accelerate results;
- The process of information sharing on lessons learned to help other aspiring regions to speed up their own adoption of integrated care.

For more information please see: [http://www.scirocco-project.eu/](http://www.scirocco-project.eu/)
SEMINAR PROGRAMME

10.00 Opening session
  - Welcome on behalf of AAATE and introduction to the day
  - Keynote: The need to change! George Crooks (Scotland’s Digital Health and Care Institute)

10.30 Session one: The digital transformation of the health and social care sector: opportunities and challenges
  - Horst Krämer (European Commission, DG Connect) Policy objectives for an ageing Europe
  - Cees van Berkel (Philips Health Care) Business opportunities in the era of digital transformation
  - Brian Donnelly, Executive Director (CECOPS) How to plan, commission and provide good quality and effective Technology Enabled Care Services

11.30 Session two: Change management as a factor for success: lessons learned from the deployment and upscaling of eHealth solutions
  - Antoni Dedeu Baraldés (AQuAS/Government of Catalonia)

Discussion time

12.30 Session three: Including change management in project strategies
  - John Dinsmore (Trinity College Dublin) representing the ProACT consortium
  - Arlene Astell (University of Reading) representing the IN LIFE consortium

13.00 Lunch Break - networking

14.00 Session four: Scaling Integrated Care in Europe – What does it take? The SCIROCCO Tool to Assess Readiness for Integrated Care and experiences with its use. (Session managed by the Scirocco consortium in collaboration with EHTEL)
  - With contributions from: Donna Henderson and Andrea Pavlickova (NHS 24, UK), Stuart Anderson (University of Edinburgh, UK), Jon Txarramendieta Suarez (Kronikgune, Spain) & Lisa Lundgren (Region of Norrbotten, Sweden).

15.15 Discussion and Q&A to all speakers of the day

15.30 Concluding remarks – David Prendergast (anthropologist at INTEL)
15.45 End of seminar

Chairs: Evert-Jan Hoogerwerf & Leo Lewis (AAATE)
Chairs + Keynote speaker

**Evert-Jan Hoogerwerf** is past president and board member of the Association for the Advancement of Assistive Technology in Europe, for which he also works as project manager. As head of the Sector projects for Innovation of AIAS Bologna onlus his interest are in the transformation of health and social care in the digital society. He further chairs the Person Centred Technology group of EASPD members (European Association of Service providers to Persons with Disabilities) and is the founder of the ENTELIS network.

_E-mail: hoogerwerf (at) ausilioteca.org_

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**Leo Lewis** was welcomed to the International Foundation for Integrated Care Team in early 2013 as a Senior Fellow leading IFIC’s work in a number of EU funded ICT enabled eHealth and integrated care projects. In addition, Leo was also a member of the IFIC team collaborating with WHO Europe in the development of their Coordinated and Integrated Health Services Delivery: Developing the Framework for Action. In February 2016, Leo was appointed as Promoter of the EIPonAHA B3 Action Group on Integrated Care and joined the ProACT EU project as an adviser in May 2017. Leo is an experienced programme manager having working in academia, the NHS and Welsh Government leading eHealth, chronic conditions management service improvement and research projects. She also works for AAATE as an advisor for eHealth related issues.

_E-mail: leolewis (at) btinternet.com_

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**George Crooks** is currently the Chief Executive of the Digital Health and Care Institute, Scotland’s national innovation centre for digital health and care. He leads an organisation that is tasked with delivering innovation in digital health and care that will help Scotland’s people to live longer, healthier lives and create new jobs for the economy. DHI provides opportunities for Scotland’s public sector, academia, charities and industry to co-design digital solutions to some of the country’s biggest health and care challenges.

He was previously the Medical Director for NHS 24 and Director of the Scottish Centre for Telehealth & Telecare. George was a General Medical Practitioner for 23 years in Aberdeen latterly combining that role as Director of Primary Care for Grampian. George is on the Board of the European Connected Health Alliance. He is currently a Board member and past president of the European Health Telematics Association, and is on the Board of the European Foundation for Critical Care. He leads the Integrated Care Action Group on behalf of the European Commission within the European Partnership for Active and Healthy Ageing. He is Chair of the Scottish Digital Health and Care Innovation Programme Board, focussing on the adoption and delivery, at scale, of technology enabled care services across Scotland. He is also an adjunct Professor of Telehealth at the University of Southern Denmark.

_E-mail: George.crooks (at) dhi-scotland.com_
Session one

Horst Krämer is a Programme Officer at the European Commission’s Directorate General for Communications Networks, Content and Technology (DG CONNECT). His portfolio includes the digital innovation in health and care, the Silver Economy, Age-Friendly Smart Living Environments, eHealth and mHealth as well as research and innovation projects and topic coordination in the Horizon 2020 framework programme. He is the Commission’s correspondent for the Joint Programming Initiative "More Years, Better Lives", a collaboration network for the alignment of national research programmes on demographic change. In the European Innovation Partnership on Active and Healthy Ageing, he follows the Action Group on Age-friendly Buildings, Cities and Environments. Before joining the Commission, Mr Krämer worked as an editor, project manager and account manager in the field of public affairs, digital communication and e-Government. He holds Masters Degrees from the Universities of Bath (Contemporary European Studies) and the University of Frankfurt (Cultural Anthropology, Business and Linguistics).
E-mail: horst.kraemer(at)ec.europa.eu

Cees van Berkel is principal scientist at Philips Research in Cambridge UK. A mathematician by training he has worked on technology and business development across topics from electronic displays to in-vitro diagnostics. He is currently interested in leveraging and improving the evidence base for supporting people in self managing chronic disease. For this, Philips Research works closely with existing and prospective Philips customer sites internationally to design optimized programmes and build sustainable business case.
E-mail: cees.van.berkel(at)philips.com

Brian Donnelly is an expert in planning and delivery of assistive technology (AT) services, at strategic and operational levels. He worked within the (UK) National Health Service for approximately 15 years, and latterly worked as an adviser to the Welsh Government. Brian is an accomplished author, having written extensively on a variety of AT services including the first-ever International Code of Practice for Planning, Commissioning and Providing Technology Enabled Care Services (e.g. digital health, telecare). He is experienced in the development of whole-system standards, governance and regulation frameworks. Brian is the founder of CECOPS CIC, the UK based not-for-profit standards and certification body. He has also developed unique self-evaluation and continuous improvement software for planning and providing AT services, iCOPS®.
Brian is qualified in Purchasing & Supply (CIPS), various management related topics, is a registered PRINCE2 Practitioner, and holds an MSc (with distinction) in Health & Social Care Management.
E-mail: brian(at)cecops.org.uk
Session two & three

Antoni Dedeu Baraldés is the director of AQuAS. He is MD (University of Barcelona), a specialist in Urology and Family Medicine and he has graduate and postgraduate studies in Health Economics, Primary Care and Healthcare Management at the Universitat Autònoma Of Barcelona, Universitat Pompeu Fabra and universities of Manchester and Edinburgh. He has a professional experience of more than 20 years at the international level. Over a period of 15 years he has collaborated to several international organizations, among which the WHO and the European Commission. He has been director of international relations of the Departament de Salut de Catalunya. He is currently president of EUREGHA (European Association of Regional and Local Authorities). He’s been the director of the research and social innovation centre of the Scottish government.

E-mail: tdedeu (at) gencat.cat /direccio.aquas (at) gencat.cat

John Dinsmore (Trinity College Dublin) is the Health Innovation Lead/Deputy Director of the Trinity Centre for Practice and Healthcare Innovation (TCPHI); and Lead PI for Trinity College Dublin within the European Institute of Technology (EIT). His roles involve building and leading teams to research and develop in a wide range of healthcare areas, including: Digital health (including connected health); Behavioural change and health technology use; Proactive chronic disease (including multi-morbidity) self-management and/or management. With a background in health psychology. Dr. Dinsmore has secured significant competitive research funding and promotes his work widely through international conferences, events, media and journal publications. Presently Dr. Dinsmore is the Coordinator/lead PI of the H2020 ProACT project. Other examples of national, European and international research projects Dr. Dinsmore has been involved with include: DOCTRID ASSISTID (FP7), BREATHE (EU AAL CALL 5) and the Hegarty Fellow Programme (Michigan State University (MSU)).

E-mail: dinsmorej (at) tcd.ie

Arlene Astell is Professor of Neurocognitive Disorders and Director of the Berkshire Memory and Cognition Research Centre at the University of Reading. She is currently Ontario Shores Research Chair in Community Management of Dementia, at the University of Toronto.

Arlene’s has over twenty years’ experience developing and evaluating interventions, to support people to age as well as possible, particularly people living with dementia. She is a Work Package Leader in AGE-WELL (http://www.agewell-nce.ca), the Canadian NCE on technology for later life, where she is leading the work on User Needs. She is also a CCNA (Canadian Consortium on Neurodegeneration and Aging) investigator developing personalised technology interventions for people with dementia living in long-term care homes. In the UK, Arlene is Work Package lead for the pilot sites in IN-LIFE, a Horizon 2020 consortium evaluating technologies to support older adults to live well at home with cognitive impairment.

E-mail: arlene.astell (at) gmail.com
Sessions four

Donna Henderson is Head of International Engagement of NHS 24 in Glasgow. She qualified as an Occupational Therapist in 1988 and worked as an operational and strategic manager of a range of health and care services in local authority positions in Scotland. In 2006, she began to specialise in supporting the development of telecare services in Scotland, including working as a consultant for the Scottish Government’s Joint Improvement Team. Moving to work as a Service Development Manager in the Scottish Centre for Telehealth and Telecare, she led the Telecare workstream of the national Technology Enabled Care Programme, as well as a European programme of activities. In her present role, as Head of International Engagement, Donna leads NHS 24’s European Engagement Team. Donna is Lead Coordinator of the Co-ordination Group of the European Commission’s European Innovation Partnership on Active and Healthy Ageing (EIP on AHA) B3 Action Group on Integrated Care - the largest of the 6 EIP on AHA Action Groups – since 2012. Donna has been a Board member of the International Foundation for Integrated Care since 2014. She is Project Co-ordinator for the EC’s Public Health Programme funded project, SCIROCCO.

E-mail: donna.henderson1(at)nhs.net

Andrea Pavlickova, European Service Development Manager at NHS 24/Scottish Centre For Telehealth and Telecare in Scotland. Andrea is responsible for the European engagement and management of the European projects focusing on the deployment and scaling-up of integrated care solutions in Europe. She is also the coordinator of the B3 Action Group on Integrated Care of the European Innovation Partnership on Active and Healthy Ageing (EIP-AHA), specifically working on the development of ICT solutions to underpin the delivery of integrated care services in Europe. Andrea also focuses in her work on knowledge transfer, implementation of Memoranda of Understandings and exchange of good practices at national and European level to stimulate scaling-up of innovative solutions in health and care delivery. She studied at the University of Matej Bel in Slovakia where she was awarded MA and PhD in International Relations and Diplomacy. Andrea also continued her studies at the University of Northern British Columbia (UNBC) in Canada with a curriculum focusing on International Development.

E-mail: andreapavlickova(at)nhs.net

Lisa Lundgren works as the project Director and Development strategic officer for the development department of Region Norrbotten with e-health and innovation as primary areas of responsibility. Primary fields of work consists of the development of processes for innovation and e-health as well as handling more strategic matters within the areas such as change and innovation management. This entails also planning, initiating and carrying out larger innovation, e-health and development projects, which includes coordination towards stakeholders and partners, regionally, nationally and internationally where applicable.

E-mail: lisa.lundgren(at)norrbotten.se
Jon Txarramendieta is a Project Manager at KRONIKGUNE - Research center on Chronicity, Basque Country, Spain. He holds an Engineering in Industrial Organisation (University of Deusto, 2010) and a Master degree in Health Management (Deusto Business School, 2015). In 2017, he obtained the Expert Course in Health Services and Chronic Diseases Research (University of Alcalá, Madrid). He has experience in the implementation of health services in national and European project context. Currently he is involved in different EU-funded projects.

E-mail: jtxarramendieta (at) kronikgune.org

Stuart Anderson is Professor of Dependable Systems. He works on resilience of socio-technical systems, and how Social Science and Informatics provide a unique perspective on the conception, design, deployment and operation of computer-based systems. He is active in the EIP on AHA B3 group on health and care integration and works with EHTEL on Service Innovation in Health. He led the development of the Scottish Digital Health Institute proposal. Currently he works on the SCIROCCO project tools.

E-mail: soa (at) staffmail.ed.ac.uk

Concluding remarks

David Prendergast is a social anthropologist and UX Lead at Intel Labs Europe. David directs the Dublin ‘Internet of Things’ Living Lab and Intel’s Autonomous Vehicles and Older Adults Research Project. His most recent volume ‘Aging and the Digital Life Course’ edited with Chiara Garattini was awarded 2016 CHOICE ‘Outstanding Academic Title’ by the American Library Association and described by the Huffington Post as one of the ‘two most fascinating books on ageing in the 21st Century’.

E-mail: