AAL Market Observatory Digital solutions for ageing well – market perspective

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This presentation

- Overview of the AAL market
 - Market size
 - Drivers
 - Customers
 - Opportunity areas
 - Challenges
 - Investors and stakeholders
- How to speak to investors

How big is the AAL market in the EU?



AAL market (statista, 2017): Products and services for networked emergency alarms, accident detection, activity monitoring (by means of sensors) and comparable **connected products that are aimed to support independent living for the elderly**.

How big is the global AAL market?



The largest AAL markets in the EU (Statista, 2017):Germany - 31% (C58m)UK - 21% (C40m)France - 13% (C24m)Italy, 6% (C11m)

What is the AAL market? - Drivers

- The AAL market seeks to deliver solutions designed to help both healthy and frail older people live better, independently and enable them to make better health choices
- The AAL consumer market is a **growing market**
- Demographics:
 - The ratio of people in the EU that are aged 65 or above compared to the people aged 15-64 is expected to increase from 28% in 2015 to 50% in 2060
 - 6% of the EU population over 60-year-old suffers from dementia
 - The number of people with dementia will increase from 10m in 2015 to 13m in 2030 and 19m in 2050
- Increasing consumer interest in healthy ageing and selfmanagement (e.g. Fitbits, smartphones)

The AAL market is an innovative market - Drivers

- **Technological developments** have expanded the opportunities to integrate different types of technologies in smart home, telehealth and telecare market
 - **Sensor technology** provides electronic data for a wide range of AAL solutions
 - **Reasoning technology** aggregates, processes and analyses (sensor) data
 - Acting technology executes actions or operate components of the system, e.g. raises an alarm in case of an emergency
 - Interacting technology facilitates human-machine interactions
 - **Communicating technology** enables different components of a system to exchange information

Penetration of technology

• Increased use of smart products by older people and their carers: e.g. smart TV or wearable technology

Who is the customer? - AAL business model canvas



Product development and testing, ICT and personnel costs, logistics costs, marketing costs, installation and maintenance

Includes subscription fees, usage fee, product sale, or leasing

How can you make an effective **value proposition**? Connect the needs and wants of your target consumer group!

Universal design vs User-Centered-Design

Where are the opportunity areas? – an investors' perspective

- Use sensor technology to help unburden the healthcare sector
- Understand the needs of formal and informal care givers:
- Help overcome physical limitations
- Focus on solutions that keep people active and healthy:
 - Help remember and connect to an experience
 - Connect a need to an interest
- Integrate your solution in the home
- Develop platforms where services can be integrated
 - Enable social connectivity and interaction

Use sensor technology to help unburden the (regulated) healthcare sector

- **Integrate** simple sensors (e.g. wristbands) and data processing technologies, and artificial intelligence
- Apply technology to support monitoring health and care of older people
- Examples:
 - SensFloor Med for gait analysis
 - CareMat Sensor Mats for fall prevention



Understand the needs of formal and informal care givers

- Simple communication services/platforms that make information and older people careservices easily available for informal carers and gives them the support to organise themselves
 - Examples: smart emergency calling systems, personal assistants, intelligent monitoring systems



2PCS is a mobile safety watch for indoor and outdoor use

- Alerting and locating system designed for the duties of professional care addressing the safety and independence of persons in care
 - Help save time and costs and unburden care givers
 - Age friendly and dementia supportive with a user-centred design

Help overcome physical limitations

- Smart Cane detects fall, inactivity and alerts caregivers and family
- Exoskeletons help people with mobility disorders to be upright and mobile e.g. PhoeniX Exoskeleton and Honda Walking Assist



Help remember and connect to an experience

- Activ84Health: the user selects a street on a map, and then get the visual experience of cycling through that location, from a stationary bike
- **Storyville Studios**: the user plays picturebased games strengthening social connections through storytelling

Personalised user experience to fit to the users' needs, motivations, and abilities

• How can the investor know the consumer will like the product? Test with older adult focus groups and/or feedback from users





Connect a need to an interest

MiRo,, an companion robot and flexible programmable platform that facilitates independent living





Pepper, a humanoid companion created to communicate in a natural and intuitive way

© Consequential Robotics

Integrate your solution in the home





- Smart power sockets are fitted in kitchens of older people living alone to measure ambient conditions and the use of kettles, microwaves or other electrical devices
- The app screen shows changes to patterns of activity that could indicate the risk of hypothermia, dehydration, malnutrition, power loss and unattended falls
- *How it works:*
 - The Wellbeing Monitor analyses the data every hour to identify unusual changes that could indicate a problem
 - If required, Kemuri sends SMS messages or alerts to vulnerable people's families or response centres

Enable social connectivity and interaction

- Platforms where services can be integrated
 - The YoooM network, ConnectedVitality, connects older people via distinct platforms
 - Family contact and activities
 - Care contacts and a support network
 - Older adults who have shared interests in hobbies and personal experiences
 - Video communication network
 - Older people can log on to and connect with others
 - Up to 50 people can simultaneously participate in one group videoconference
 - Encrypted network with a dedicated server



Investors and stakeholders

Big technology players:

- Televic N.V. (Belgium), Vitaphone GmbH (Germany), Siemens AG (Germany), Schneider Electric S.E. (France), Legrand SA (France), Telbios (Italy), Philips N.V. (Netherlands), CareTech AB (Sweden) and ABB Group (Switzerland)
- Tunstall:



Investors and stakeholders

- Private banks
- Insurance providers e.g. BUPA
- Crowd funding e.g. Kickstarter and Indiegogo
- Incubators and accelerators e.g. XLHealth (Germany), Healthbox (UK), MOEBIO (Spain)
- Venture capital Investors (VCs)
 - Capricorn Venture Partners



Capricorn Venture Partners NV was established in 1993 as a joint venture. Since December 1999, Capricorn Venture Partners is a fully partnerowned **independent investment advisory and management company**.⁸⁸

Capricorn Venture Partners look to invest in European companies that focus on large international markets, with defendable IP and a **proven technology base**.⁹⁰





Capricorn Venture Partners look to take minority stakes, with initial investments between **€0.5 – 5 million** in the first or second VC rounds.⁸⁹



Challenges and barriers

- Challenges:
 - Lack of recognition of the 'AAL market' amongst investors
 - *Question on who pays? Public vs private sector; older person vs family*
 - Historic focus on treatment and not on prevention
- Barriers:
 - Complex regulatory environment, lack of interoperable solutions, common standards and data sharing
 - Privacy and security concerns
 - Relatively low technical/digital skills of older people and care givers
 - Market fragmentation
- Track record of AAL call project participants:
 - At least **40 % of AAL JP funded project participants** commercially launched an AAL solution or component and/or plan to launch an AAL solution or component in the next two years (Technopolis, 2016)

How do you speak to investors? "5 minute pitch"

- Explain the problem that you want to solve what is the need?
- Explain your solution and value to customers what is your unique selling point?
 - Do you have a demonstrator project or a tested solution?
- Outline the opportunity and market size
 - Target market size should be sufficiently large scalability
- Explain why you need financing
 - How much you need? What do you need the money for? How/when do you plan to pay back?
- What is your business model?
 - B2C, B2B, B2G
 - *How do you sell your product/service? evidence that this works!*
- Describe your current stage and plans for the future
- Describe your team tech vs business skills

Background to the AAL Market Observatory project



$technopolis_{\tt [group]}$

Thank you

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