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## POTENTIAL CHALLENGE FOR THE AAL PROGRAMME CALL 2016: “HOW CAN ICT/SMART TECHNOLOGIES CREATE AGE FRIENDLY ENVIRONMENTS (OUTDOOR)?”

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### PROBLEM RELEVANCE

ICT infrastructure will reshape the urban and rural environment to respond to 21st century challenges. Due to a growing number of elderly people, it is a necessity to create SMART outdoor environments that are aware of the special needs of all their citizens, including the needs of aging populations. ICT developments will therefore play an important role to enhancing the quality of life and wellbeing for older citizens, meaning that their activities are not limited to their home – but in an entangled society. Vibrant and creative communities drive economic, social and cultural development. Governments rightly focus on renovating existing cities and cultivating new ones to act as a catalyst to progress. This is now taking place on an unprecedented scale, with governments providing the right infrastructure and developers launching projects that will change the urban landscape and consequently will also influence the rural areas. Citizens can benefit from enhancements to the services they use enabled by smart infrastructure. Ageing well is also about continued active and satisfying social life. Thus, the possibility to go out and interact with society allows them to maintain a certain quality of life. The physical and social environments are key determinants of whether older people can remain healthy, independent and autonomous long. To the contrary, social isolation increases death risk in older adults. Despite the social participation decreases with age, the participation levels can be significantly increased with adequate motivation and support. Older adults are a source for the society (families, communities and economies) if they are living in an appropriate environment that considers their needs. Older adults require supportive and enabling living environments to compensate for physical and social changes associated with ageing (WHO-Guide: Global age friendly cities).

Using ICT technologies to create age friendly environments contribute to respond to specific needs of aging population and to support independent elderly living.

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### UNMET NEED

"Watching television is the only social activity that increases with age. This tendency shows that cultural activities are not extended to include older adults. More developed activities should allow seniors to be informed, understand their environment, organize themselves and play a positive role in activities" (AALIANCE - Ambient assisted living roadmap).

"Walking is sometimes overlooked as a means of transport, despite the fact that it is fundamental to any journey. Everyone has to walk, even if it is just from the front door to the car or bus stop, around the house, or around a museum. As people become older, or if they develop impairments, they become at

greater risk in pedestrian environments, finding them increasingly difficult to negotiate. There are often design conflicts involving street furniture, signage, lighting, rest areas, amenities, vehicles and road-crossing to consider, but also information about location (positioning), finding the right way and accessible routes. Although there is a tendency for seniors to move around in their own car, there are numerous reasons to maintain and improve public transport systems and raise the awareness of alternative transport options among older people. Using public transport can be stressful for older people e.g. ticket machines are very complicated to use." (AALIANCE - Ambient assisted living roadmap). Age friendly cities need to be safe and secure for older adults. The demand is high in cities. In rural areas, the challenge is different, but higher especially in term of socialisation. In rural areas mobility becomes one of the most important issues for the elderly (share services, delivery services, etc.).

According to the WHO (Global Age-Friendly cities: a Guide), cities must provide the structures and services to support their resident wellbeing and productivity in particular for older adults.

Older adults need to be informed of what is happening in their city to feel part of the community. The offer from the city to older adults needs to be attractive to motivate them to have social interaction. Thus, the city should provide an efficient environment by reducing the barriers provided by the aging process.

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## MARKET OPPORTUNITY

It is assumed that municipalities will invest in the near future wide spread to enhance the IT infrastructure (glass fibre connections etc.) and provide smart technologies (traffic light sensors, smart road signals etc.). This will give a boost to develop smart applications and services to support different target groups such as older adults living in and near the cities. With a buying power of over €3,000 billion Europeans over 65 represent a huge market potential. In Europe 72.2% of the Population was localized in cities and it will grow to 78.3% in 2030 (WHO - Guide: global age friendly cities). In developed countries, the share of older adults in cities will multiply 16 times from about 56 million in 1998 to over 908 million in 2050 (WHO - Guide: global age friendly cities). Thus, rearranging cities as an age friendly environment will have a positive impact in the life of a high number of the older adults. Moreover, the number of people in the EU aged 65 or over is set to nearly double, from 85 million in 2008 to 151 million in 2060. At the same time, 80% of older people in developed countries already live in urban areas (AGE platform Europe). In cities, it is estimated that among those aged over 65, between 5 and 16 % report loneliness, derived from social and physical isolation and 12 % feel isolated. These figures are likely to increase due to demographic developments including family dispersal and the ageing of the population. 68 million people in 2005 had several forms of age-related impairment and it will grow to 84 million in 2020. ICT solutions dedicated to age related impairment are also a good market opportunity e.g. sensory aware street furniture, traffic lights etc.

The solutions could be sold to local and regional authorities or private individuals, to companies e.g. retail supplying goods, taxi services etc. The ICT solutions could reach the market in AAL frame time, if the cities can provide the necessary infrastructure.