

No Isolation – Written evidence (INQ0039)

SECTION 1 – Introduction to No Isolation and KOMP

1.1 Introduction/summary

This evidence is handed in on behalf of No Isolation, a social enterprise developing technology to reduce social isolation and loneliness. [In 2018 the UK Government's loneliness strategy "A connected society: a strategy for tackling loneliness" dedicated page 45 to No Isolation's work and the role technology can play in reducing loneliness.](#)

No Isolation has developed two products, a telepresence robot called AV1 for children who are socially isolated due to long-term illness. AV1 is a distance learning avatar, representing the child in the classroom when they can't be physically present.

KOMP, No Isolation's second product, and the main focus of this evidence brief, is the one-button screen designed with and for the 15.6 million seniors (75+) in Europe who are not online due to physical barriers like visual impairment or lack of comfort with using technology.

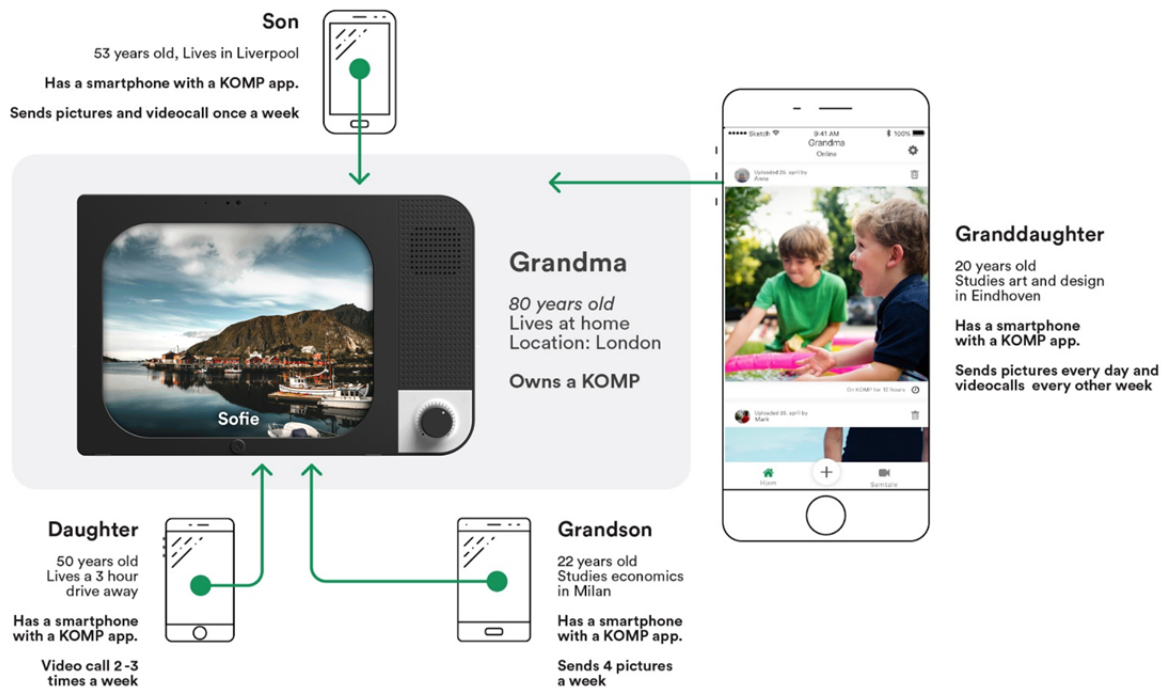
Our evidence brief addresses question 6 and 7 in the call for evidence:

6. What technologies will be needed to help people to live independently for longer, with better health and wellbeing? What is the current state of readiness of these technologies, and what should be done to help older people to engage with them?

7. How can technology be used to improve mental health and reduce loneliness for older people?

1.2 What is KOMP?

KOMP is designed with and for the 15.6 million seniors (75+) in Europe who are not online due to physical barriers like visual impairment or lack of comfort with using technology. KOMP decreases social isolation and loneliness amongst some of the most vulnerable groups of seniors - those with little to no digital skills. [KOMP Beta user Marian was broadcasted on BBC \(from 08:53\)](#) and KOMP Beta user Alice was broadcasted [in the Belfast Telegraph](#). The current state of readiness is TRL 9, which means that KOMP is ready for full scale deployment.



1.3 Innovation, co-creation and impact

Existing ICT solutions for elderly do not take user design and friendliness into account, and many seniors struggle with using existing communication solutions and complex interfaces with apps and pop-up windows, as well as with the capacity and ability to learn novel digital skills. KOMP is different as the design and development of KOMP lie embedded in a thorough and extensive user experience design process – KOMP is designed together with the end users (senior 75+) during a crucial research and testing process.

KOMP is a one-button communication device that is often placed in a seniors living room allowing family members to send messages, pictures and video call via an app to their loved one. The prototype, beta version and production version of KOMP have been successfully tested in Norway, the Netherlands, and the UK, and the simplicity and user-friendliness ensure that this device allows for technology-adverse seniors to feel included in their family's lives and decreases loneliness.

The economic savings and benefits to society of KOMP are tremendous, as it is estimated that preventing loneliness amongst lonely, elderly (75+) EU citizens equate to €116 million over the next ten years. Moreover, if KOMP prolongs the time one senior can continue living in their own home with only 6 months, this translates to a saving of €24 000 per case.

1.4 Winner of Nesta's Smart Ageing Prize

[In 2018 KOMP won Nesta's Smart Ageing Prize](#), a competition that identifies and highlights the most promising solutions in Europe using IT to enable active aging. The main theme for 2018 was products and services that use new, digital technology to help seniors to fully participate in their own social lives.

SECTION 2. What we know about the impact of KOMP on seniors' levels of loneliness and well-being

2.1 The impact of loneliness on mental and physical health

Loneliness is a subjective, negative feeling based on a mismatch between desired and achieved levels of social contact (Perlman & Peplau, 1981). Research shows that loneliness can have a detrimental effect on an individual's mental and physical health (Nygqvist et al., 2016; Steptoe et al., 2013; Forsman et al., 2011), leading to an accelerated risk of depression (Cacioppo et al., 2006), cognitive decline (Donovan et al., 2017; Kuiper et al., 2015), heart disease, stroke (Valtorta et al., 2016) and premature death (Holwerda et al., 2016; Tabue Teguo et al., 2016).

2.2 Factors related to loneliness amongst seniors

Like others, seniors feel lonely for various reasons; diminishing health (Barstad & Sandvik, 2015), loss of partner and living alone (Thorsen & Clausen, 2017), and a fear of disturbing their busy family members are factors associated with loneliness (Hagen, 2011; Greenhalgh et al., 2013). Studies, however, show that the size of their social network does not impact on their feelings of loneliness. On the other hand, expectations do, and especially expectations to the quality of relations with family and close friends (Thorsen & Clausen, 2017; Greenhalgh et al., 2013).

2.3 Seniors using ICT report feeling less isolated due to the connections they make with relatives and friends

A meta-analysis of studies looking at the effect of information and communication technology (ICT) in reducing loneliness and social isolation, concludes that communication technology increases both the quality and quantity of contact between seniors and their loved ones. In addition, mastering ICT products increases seniors self-confidence. They feel "connected to information", "young" and "part of the modern generation" (Chen et al., 2016; Ages 2.0, 2015).

Research furthermore shows that when ICT is used to maintain contact with family and friends it can lead to a decline in loneliness, depression and an increase in overall well-being. Video-calls have shown to have long-term effects in alleviating both depressive symptoms and loneliness for elderly residents in nursing homes (Tsai et al., 2010; Tsai et al., 2011).

2.4 Many seniors are unable to use generic communications technology

The literature suggests that seniors are part of the digital divide; a distinction made between those who do and do not adopt technology (Mitzner et al., 2010). No Isolation estimate that as many as 15.6 million EU citizens 75 years and over are not online either due to physical barriers like visual impairment or lack of comfort with using technology (No Isolation, 2018). Generally, current literature shows that seniors are open to using technology, but that there are interface barriers to use (Vaportis, 2017, Geriatrik sykepleie, 2018). Few products are tailored for people with none to limited digital skills, and they struggle with buttons (Vaportis, 2017), too many features (Mitzner et al., 2010), safety concerns (Mitzner et al., 2010), or that touchscreen designs are incompatible for elderly users (Culén & Bratteteig, 2013). One study showed that after 4 months of learning how to use a tablet, half of the senior

participants were *still not able to perform specific tasks* (Alvseike & Brønnick, 2012). As many seniors have little knowledge of technology and tablets, use is dependent on the care personnel taking responsibility and control over the activity (Geriatrisk sykepleie, 2018).

2.5 Observations on the users of KOMP

As of September 2019 there are close to 900 seniors in Norway, Sweden, Denmark, the U.K., and the Netherlands using KOMP to stay in touch with their families. To this date, KOMP has been part of more than 10 pilots. Testimonials from our users' are evidence that KOMP's simplicity and user friendliness ensure that the users do not need to expand their technology skills. Users attest that "[I didn't think it would be this easy, you only turn it on and off](#)" and that "[I was not nervous about trying when I heard there was only one button](#)".

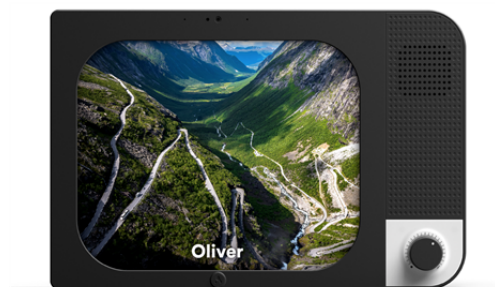
In addition, the product has a positive impact on their well-being. The KOMP users tell that "[it's lovely to see my grandchildren and great grandchildren](#)", that KOMP has "[impacted my day-to-day life](#)", "[made me feel seen by my family](#)" and "[eased my feelings of loneliness](#)". Importantly, KOMP has not replaced established communication practices, such as telephone and face-to-face contact, but instead prompted the contact and given families more to speak about (Brænden et. al, 2018).

2.6 Oslo Metropolitan University has evaluated KOMP

Oslo Metropolitan University (OsloMet) has conducted the first independent user survey of KOMP. The survey is based on 43 telephone interviews with users and relatives, four home visits and participant observation. The interviewees were elderly people who have or have had cancer, and some were also affected by cognitive failure and dementia. The researchers conclude that KOMP has increased the quality of life among the senior users, amongst other because "*Our survey clearly shows that KOMP leads to more family contact. It also demonstrates that it changes the interaction in a way that makes it richer and gives the user more stories to contribute to conversations with relatives* (Oppedal, Askheim & Haldar, 2019: 50)".

What No Isolation wants to know and currently work on

We receive a lot of interest from universities that want to examine the impact of KOMP and KOMP is currently part of four research projects, looking into its effects on seniors and their families. Below is an overview of ongoing research projects.



2.7 Overview: KOMP Research Projects

University	Structure and topic	Outcome
University of Oxford	Have applied for funding to examine if 1) video-technology (through KOMP) has an effect on loneliness, and 2) how KOMP can be adapted for seniors with dementia. Shortlisted for both projects.	Peer reviewed articles and "KOMP Dementia"
Oslo Metropolitan University (OsloMet)/ WATT (Welfare Access Through Technology)	OsloMet has initiated an interdisciplinary research group of 13 people based at the Faculty of Social Sciences. The interdisciplinary research group are doing longitudinal studies of KOMP targeting people in social isolation, researching the (long-term) effects and the ability of technology to secure social inclusion. The research topics include the effect of KOMP, "best practice" use cases. Have secured funding for a three-year postdoc position starting in May 2019. Read more here .	Target of 2 peer-reviewed research articles by 2020
Norwegian Cancer Society and Oslo Metropolitan University	The Norwegian Cancer Society was granted €50,000 by the Norwegian Directorate of Health, during a national call for "Test of technological tools to mobilise against loneliness amongst seniors". The goal is to evaluate if KOMP prevents loneliness amongst seniors, by maintaining and increasing seniors ability to preserve their social network. The data collection and reporting is done by Oslo Metropolitan University. Read more here .	Research report published in Q2 2019
Ålesund Municipality and Norwegian University of Technology and Science (NTNU)	According to Ålesund Municipality and NTNU, video-calling has proven useful for maintaining contact between seniors in care homes and family members. However, Skype and tablets have proven to be challenging to use and NTNU is now testing if KOMP is a better option. Read more here .	Article to be published Q4 2019.

19 September 2019

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