B5 Finland

B5.1 Current situation

Telecare

Social alarms

Social alarm services are provided across the whole country as part of social welfare and health services. The Finnish Act on Social Services basically gives all citizens who are in need of care a right to get social alarm services if needed. The municipalities may either provide the services themselves or in cooperation with neighbouring municipalities, or purchase from private or third sector service providers.

Social alarm services in Finland are provided both to people living in ordinary housing in the community and to those in service flats or sheltered housing. It seems that responses are provided by social care staff and/or informal carers.

There is no precise data available on the take-up of alarm services in Finland, although it can be estimated as being somewhere in the order of 8-10% of older people aged 65 years and older. End-users of the alarms living in ordinary housing in the community are charged an average €25 a month by municipalities. In service flats and sheltered housing, social alarm services are included in the payment for housing.

Wireless social alarms systems offered by the private sector are now emerging, such as Everon Personal Safety Applications.

More advanced Telecare

There is no formal telecare system in Finland, although the capacity is in principle available across the country through the social alarm infrastructure. Usage levels are still low and there are mainly pilots and trials taking place. However, there seems to be some degree of mainstreaming of new telecare products in sheltered housing and also for older people living in ordinary homes. One such product is Vivago Care’s wellbeing watch, a commercially available solution that is marketed both to home users and to providers of sheltered or institutional care. If it registers a significant change in the user’s activity level it automatically sends an alarm to the alarm recipient. The product is now marketed in a number of countries and there are apparently somewhere between 10,000 and 20,000 users.

The mobile-based Everon service offers additional features that can be considered to be elements of more advanced telecare. It has its own service center which automatically controls at 1-minute intervals that everything is fine with the user. (http://www.everon.fi/eng/index.html)

Other relevant initiatives include HOME (KOTIIN), a project under the InnoELLI programme which aims to generate, develop, test and productise TV-based guidance and advice services and interactive programmes (CaringTV), which will enable the elderly and their caretakers to manage at home; and SenioriHaavi, which aims to create - in cooperation with municipalities, businesses and the third sector - a service and networking portal for South Finland to support the elderly and their caretakers.

There are also older people who live alone who have alarms and other telecare devices owned by themselves. Generally it is their relatives (mostly children) who have bought the equipment, and the connections are between users and relatives, neighbours or a private service providers like Everon Personal Safety Applications (www.everon.fi). In these cases communal services are not used and the charges are paid by people themselves. There are no statistics available on the overall extent of this aspect of the market.

Home telehealth

The use of telehealth in Finland has started to expand in a limited and patchy manner across the country - monitoring of vital signs and blood glucose levels along with the monitoring of movement are spreading in home care. Internet-based access to services is also of growing importance. Although the technology is widely available in principle, uptake in home healthcare has been low to date.
One interesting example in Finland is Goodit m-health, which uses a mix of mobile phone, PDA and Internet to support homecare for diabetes patients; evidence suggests considerable cost-savings through reduction in complications and the high costs associated with these once they arise.

Of more general interest is the FinnWell programme (2004-2009), a government-funded programme that had the objective to promote health and wellbeing through technology applications and service innovations. This supported RTD in various areas of relevance for home telehealth. The FinnWell Programme was funded by the Finnish Funding Agency of Technology and Innovation (Tekes). There is a short pamphlet in English "Passion for Life" about the FinnWell programme: http://www.tekes.fi/eng/publications/Passion_for_life.pdf).

There is now a new programme "Innovations in Social and Healthcare Service System" just about to start. The programme aims to renew the social and healthcare production processes, improve the availability of services and their quality and effectiveness and promote new business opportunities in the area. The programme will strengthen the cooperation between the Ministry of Trade and Industry, the Ministry of Social Affairs and Health, the Ministry of Finance, the National Institute for Health and Welfare (THL), Tekes, Sitra and the Finnish Slot Machine Association RAY in developing social and healthcare services. There are not yet any projects in the programme yet.

Overall, however, it seems that there is currently no developed policy on home telehealth in Finland. The organisational structure of healthcare in Finland is reported to be a barrier to take-up, with an absence of clear incentives and/or working arrangements that would encourage provision of home telehealth services.

**Smart homes**

In general, it is claimed that the majority of sheltered housing for older people in Finland is smart housing to at least some degree (although this may apply to more institutional models rather than to standard 'service flats'), and incorporates numerous smart systems such as barrier free design, automatic fire alarm systems, alarm phone with wrist bands, automatic light switches and door opening systems, as well as sometimes occasional additional sensors.

The flexible smart home umbrella project from the University of Technology in Helsinki created a new way to build smart homes. This project developed new technology, planning and building methods. More generally, however, other smart home developments seem to have been limited to a few pilots so far.

Examples of pilots/trials or other initiatives include:

- **SENIORTEK Service House Concept:** This involved development of a combined monitoring and alarm system for service and sheltered housing. The concept is of one, easy to use system that works everywhere, without a need for multiple sensors around the home. The system can be built in a modular manner to cater for evolving needs of residents. It is used via one user interface on a workstation or by DECT-phone.

- **InnoELLI Senior Programme:** This involves a number of funded projects. The idea is to create integrated service models that would enable public, private and third sector organisations to adopt a new working method and provide technology-enabled cost effective services. The projects included the following (others are included in the telecare section).

- **DISKO - The Independent life of the dementia patients:** to develop technology-based solutions for dementia patients and their caretakers, to help them cope in a domestic setting.

- **The Sea, Archipelago and Saimaa ELLI - Technology based services in everyday life of elderly people:** to combine different technology-based aids and devices used in welfare and the care of the elderly, in order to provide activities that will support the resources of the elderly.

- **Technology based solutions to support the elderly, TAAS-project:** practical measures to ensure elderly people's safety and ability to function; technical space solutions that facilitate active living for the elderly; information on public, private and third-sector services; new developments will be tested in pilot studies. The testing will bring together users, service providers, developers and
researchers.

- Flexible smart home umbrella project: This provided an umbrella to several projects that have worked to develop new ways to build smart homes. New technology, planning and building methods were developed, and several hundred people lived in a number of target buildings.

- Future Home: The multicultural Future Home research and development project aims to predict and anticipate the future design of habitation, and related industrial design and human environment design, producing new information and practical applications. Over twenty postgraduate students are working on their dissertations in the projects and graduate school of the Future Home Institute (University of Art and Design in Helsinki).

It seems that Nokia has become interested in smart home ideas linked to mobiles. A new Nokia Home Control Center wireless smart home system has been developed to bring the home management under the control of a mobile device. This is currently mainly to control your home when you are away from home but it may be that interest in environmental control to increase independent living for elderly and disabled persons will evolve from this. (http://www.slashgear.com/).

B5.2 Reimbursement

For social alarms, end-users of the alarms living in ordinary housing in the community are charged an average of €25 a month monthly by municipalities. In service flats and sheltered housing social alarm services are included in the payment for housing.

An emerging issue as regards costs is related to the fact that for the standard service provided by municipalities the connection is via an ordinary wired telephone line. However, now that the mobile networks cover the whole country, operators providing wired phones are running down their services. Even older people are using more and more mobiles - mobiles remember the numbers and there are many other advantages for older people as well. For a social alarm connection, however, they have to keep a wired telephone as well. This means that, besides the monthly charge for the alarm service by the municipality, users have to pay normal wired telephone connection and usage charges, and the decreasing wired network usage and importance means more expensive fees.

As regards more advanced telecare, by law end-users are not supposed to be charged for the equipment in social services. In pilots and trials end users don't pay anything. If the telecare services are in use in service flats or sheltering housing, the charge is included in housing payments.

Users are currently not expected to be charged for telehealth services as they are mainly still at development stage and are thus supplied through pilot and trial schemes. At present all services are publicly funded. If mainstreamed, home telehealth would have to fit within the mainly publicly-funded, publicly-provided healthcare system. This is a decentralised system with primary care provided directly by municipalities and hospital care by hospital districts covering a number of municipalities (mainly paid for by municipalities also). There is a lot of variation in level of services across municipalities. Presumably home telehealth services would also follow the usual practice Finland, with a growing but still relatively small user co-payment requirement under the mainly publicly-funded and publicly-provided healthcare system.

B5.3 Drivers and barriers

For social alarms, public provision as part of extensive homecare services has been the main concrete driver. More generally, the rising number of older people, increased retirement rates amongst social care staff and a policy of independent living for both older people and people with disabilities are reported to have been underlying drivers.

Levels of supply and take-up are quite high by European standards, so no strong concrete barriers, as such, seem to be operating. More generally, however, it is reported lack of awareness and attitudes among both service providers and potential users may be a limiting factor.
There is quite low provision and take-up of telecare to date. However, product innovations (especially the Vivago wellbeing watch) have been market drivers, and have been implemented / taken-up as telecare services.

It is reported that lack of specific financing has been a barrier to development to date. More generally, it seems that other aspects of the social care of older people may have been given more attention than telecare to date.

No specific concrete drivers for home telehealth have been identified. Instead, it seems that more general trends linked to the ageing population and the increased need for care as a result seem to be the main underlying driver in the development of telehealth services in Finland. Home monitoring and internet applications are seen as most promising growth areas at present. Successful trials have been identified as a critical success factor for market development.

The organisational structure of healthcare in Finland is reported to be a barrier, without clear incentives and/or working arrangements to encourage home telehealth.