

TECHNOLOGY STRATEGY BOARD

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CHRONIC HEALTH AND CARE CHALLENGES TO BE ADDRESSED THROUGH GROUND-BREAKING RESEARCH PROJECTS

New technology is to be developed that aims to meet the demand for more independent living from the elderly and people suffering from long term conditions.

The development of technology-based innovative solutions is to be accelerated following the announcement today of government funding for nine innovative research projects, which will see a total investment of £11m.

The projects will bring together the best UK expertise from industry, the health and care professions and universities. The collaborative projects will result in research and development in areas such as:

- in-home two-way video technology for the supply of health information and for tele-consultation with health professionals;
- an automated, non-intrusive, intelligent monitoring system for the elderly and disabled;
- the development of an innovative real time gait training system for people with an abnormal gait;
- the evaluation of the potential benefits of proactive preventative telecare and telehealth systems.

The Technology Strategy Board will invest over £5m in the initiative while the Department of Health will contribute a further £500,000. This investment will be matched by funding from the companies participating in the research.

Explaining the background to the initiative, the Technology Strategy Board's Chief Executive, Iain Gray, said: "The impact of living longer, the quality and potentially increasing cost of care for those with chronic long term conditions, and preventing health problems like obesity, are major societal and economic challenges. However, such challenges also give us the incentive to develop innovative solutions."

"Through our investment in these exciting projects, the Technology Strategy Board is helping to bring together the UK's world class expertise to research and develop innovative technologies in a key area for the UK" he added, "The technologies to be developed will bring social and economic benefits to the UK, and will have global potential. We are delighted to offer our support."

This is the first investment in research and development by the Assisted Living Innovation Platform, which was launched in November 2007 and brings together government, business and the research community to address health and care

challenges caused by the welcome impact of living longer, but the increasing demand for care for people with long term conditions.

Notes to Editors

1. The Technology Strategy Board is a business-led executive non-departmental public body, established by the government. Its mission is to promote and support research into, and development and exploitation of, technology and innovation for the benefit of UK business, in order to increase economic growth and improve the quality of life. It is sponsored by the Department for Innovation, Universities and Skills (DIUS). For more information please visit www.innovateuk.org.
2. Innovation Platforms are funded and managed by the Technology Strategy Board. They are a new way of working for government and business. Each focusing on a specific area of opportunity, innovation platforms are designed to address major policy and societal challenges. They bring together government stakeholders and funders and engage with business and the research community to identify appropriate action. In this way, policy, regulation and government procurement are aligned in support of innovative solutions. Through this approach, Innovation Platforms aim to deliver a step change in UK performance, in the quality of public services and the ability of UK businesses to provide solutions for the global marketplace. There are four other existing Innovation Platforms – Intelligent Transport Systems, Network Security, Low Carbon Vehicles and Low Impact Buildings – and the Technology Strategy Board is committing to introducing five further Platforms over the next three years.
3. The Department of Health funding is being provided from the National Institute for Health Research (NIHR) invention for innovation (i4i) R&D programme.
4. The projects to be funded include:

Title: VirtEx

Summary: The project builds on current best practice technology and services in the fields of telecare and telehealth, by extending care systems to include a range of new devices around the home, adding a set of data-intensive care services through selective adoption of high-bandwidth infrastructure. The intent is to build a virtual community of connected carers and cared-for, with the aim of delivering flexible community-based care, preserving social inclusion, maintaining healthier lifestyle and independent living by encouraging change in behaviour.

Partners: Tunstall Group Limited, DigiTV, Fold Housing Association, Housing 21, University of Sheffield

Title: Health hub; user centred design, development and integration with the built environment

Summary: The project provides a framework to advance UK Assisted Living provision to the stage where barriers of scale have been removed, user centred design, legacy planning and future building needs identified in readiness for full scale demonstrators in 2012. The project brings together key players needed to integrate assisted living technologies into the built environment.

Partners: BRE, Wates Living Space, Microsoft Ltd, NXP Semiconductors UK Ltd, Foundation for Assistive Technology, Medilink West Midlands i-Health, Royal Institute of British Architects, Willmott Dixon Construction Limited, Cisco Systems Limited, Sasie LTD, British Telecommunications Plc, Tunstall, Centihealth, Hereward College

Title: Gait Trainer

Summary: This project will develop an innovative real time gait training system for people with an abnormal gait. The target application includes the elderly, disabled or people recovering from an injury, who have an unsteady gait. The system will comprise a sensor module with embedded software worn on the ankle which calculates the stride rate and stride length and a wireless link to a mobile phone with a real time display for the user.

Partners: European Technology for Business Ltd, The London Knee Clinic, University of Bath

Title: TV-based Video Telephony Platform for Assisted Living and Tele-Health

Summary: This project will provide affordable in-home two-way video technology for tele-support, supply of health information, and tele-consultation with health professionals. The requirements and initial market deployments of this technology will be driven by a complementary tele-health initiative led by the Airedale Hospital Trust, who have already systematically deployed video conferencing equipment for clinical consultations.

Partners: Advanced Digital Innovation Limited, Red Embedded Design Ltd, BTL Group Limited, Airedale NHS Trust

Title: PEACE - Personal Care Environments delivering support for vulnerable people

Summary: Building on a significant, operational telehealth/telecare deployment, PEACE progressively incorporates functions proven in other domains to provide integrated health & social care, allowing health and social care professionals & lay carers to work in harmony to maximise patients' quality of care/life.

Partners: Docobo Ltd, Southampton City PCT, HW Communications Ltd, Help The Aged, Informing Healthcare, Chubb Electronic Security Systems Ltd

Title: Assisting the Elderly and disabled Generation using a behaviour modelling Intelligent System (AEGIS)

Summary: To provide an automated solution to monitor the wellbeing of the elderly in a totally non-invasive manner, we propose to develop an automated intelligent monitoring system operating as part of a security and energy monitoring system, providing a unique non-intrusive, added value system.

Partners: Critical Data Ltd, Cortex Controller Limited, Care UK plc, Lloyds Pharmacy, XIM Limited, PERA Innovation, University of Bradford

Title: An evaluation of the potential benefits of proactive preventative telecare and telehealth systems

Summary: The installation of personal Telecare systems that allow remote collection, analysis and evaluation of activity and vitality data. The development of a software knowledge database that will allow the early identification of well-being issues through activity monitoring and interpretation. Using existing equipment (e.g. movement sensors, blood pressure monitors, etc) we will transmit data to an expert system that will highlight early intervention opportunities, thus reducing care home and hospital admissions and allowing early hospital discharge whilst increasing patient and carer confidence.

Partners: Tynetec Limited, Aid-Call Ltd, Darlington Borough Council, Intrahealth Ltd, Newcastle University, Your Homes Newcastle

Title: NOCTURNAL (Night Optimised Care Technology for UseRs Needing Assisted Lifestyles)

Summary: NOCTURNAL addresses the needs of people at the early stages of dementia to provide therapeutic support and guidance during the hours of darkness. The primary objective of the work is to provide new technological capabilities that support more sophisticated service offerings to be marketed by Fold Telecare.

Partners: Fold Housing Association, University of Ulster

Title: Intelligent Design Engine for Assisted Living Technology (i-DEAL)

Summary: This proposal focuses on the evaluation of electronic assistive technologies to support industry partners in the design and development of "fit for purpose" products. This novel approach aims to map technology requirements against end user needs and develop user performance specifications for each product or concept put through the evaluation cycle.

Partners: Medilink West Midlands, Icue Care, Giga Systems Ltd, Safe Surgery Systems Ltd, Health Exchange CIC Ltd, Coventry University

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