

# Technology Strategy Board

Driving Innovation



## Assisted Living Innovation Platform



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**The Assisted Living Innovation Platform is delivering a wide-ranging programme to enable the ageing population and those with long-term health conditions to live with greater independence.**

**People are living longer, and this is a cause for celebration and a testimony to the advances made during the last 50 years in healthcare and technology, but the number who will have long-term conditions, and as they grow old become frail, is set to increase. At the same time, the number of economically active people who can finance health and social care is falling. Today's care models are unsustainable, and this is a major concern for the social care and health services in the UK.**

**The Technology Strategy Board is working with the Department of Health (DoH), primary care trusts, research councils, local authorities, academia, industry and third-sector organisations to develop technologies and services that will enable individuals to receive support at home.**

The Technology Strategy Board launched the Assisted Living Innovation Platform (ALIP) in November 2007, with additional funding from the DoH's National Institute for Health Research, the Engineering and Physical Science Research Council, and the Economic and Social Research Council. We are investing jointly with these organisations and industry to address the challenge of assisted living. We are funding projects until 2012, with the intention to deliver an impact for many years beyond.

## What is an innovation platform?

Global society faces many challenges. By applying technology and innovation we can help to meet these challenges and at the same time open up new opportunities for business.

Innovation platforms focus on specific societal challenges where Government is taking action through policy, regulation, procurement or fiscal measures. By improving co-ordination between the key players from industry, academia and government, innovation platforms can identify barriers to meeting the challenge, map possible routes to overcoming the barriers and align activities to support innovative solutions. The aim is to deliver a step change in the ability of UK businesses to provide solutions for the global marketplace, boost UK economic performance, and provide higher-quality public services.

## Why assisted living?

The demand for support of those with long-term health conditions is set to grow rapidly over the next 15 years and beyond. If the NHS and other UK organisations are to continue to offer high standards of health and care services, they will need to make more use of technology to provide more home-based care and self-care.

In a recent government survey over 30% of people said they suffer from a long-term health condition. This group accounts for 52% of all GP appointments, 65% of all outpatient appointments and 72% of all inpatient bed days.

Many small 'demonstrator' projects, in the UK and globally, have explored using technology to build on existing services and provide high-quality support for people in their own homes.

These trials have shown that telecare and telehealth can enable those with less acute needs to stay healthy, manage their conditions, and reduce their levels of dependence and need to be hospitalised while continuing to be monitored by care professionals. The trials have not, however, provided a compelling case for the structural changes that are needed to implement telecare or telehealth in the public or private sector.

The DoH's Whole System Demonstrator (WSD) programme, reported to be the largest randomised case control trial of telecare and telehealth in the world, will provide much better data about cost and clinical effectiveness by 2012, but it is not focused on resolving technology issues.

## The priorities

To identify ALIP's priorities, we held consultations with other organisations, published a technology roadmap, and held priority-setting workshops. An industry-led steering group continues to guide us on priorities. It also includes representatives from the Department for Business, Innovation and Skills (BIS), the DoH and academia.

Priorities include the need to:

- transfer and share knowledge between different industry sectors, health and care professionals, and users
- tailor assisted living technologies and services to the needs of each user
- design technologies and services that are desirable and affordable
- design technologies and services that are interoperable and work anytime and anywhere.

We also recognise that scaling up will be a challenge and that lessons from the WSD programme will need to guide future research.



## The first projects: near-to-market R&D

The first nine projects we funded resulted from a collaborative R&D competition in November 2007 that represented over £6m of joint funding from the Technology Strategy Board, DoH and the research councils. The projects focus on user-centred design and home-based systems. The total funding, including investment from the companies involved, is over £12m.

Seven more projects are being funded following a second competition in 2008 called 'A smart care distributed environment'. These projects have been allocated a further £7m in joint funding. They are looking at the need to develop telecare and telehealth solutions that are interoperable and can take better advantage of new digital communications technologies, broadband and wireless.

## Knowledge transfer

Many of the technologies needed to provide home-based care are already available. These may need to be updated or improved, and our R&D programmes are addressing this.

There is a need to share information about advances in telecare and telehealth. Successful trials have been conducted throughout the UK, but many healthcare professionals within the NHS and other interested parties do not hear about these successes. There is also a danger that projects duplicate work that has been carried out elsewhere.

The ALIP knowledge transfer programme is addressing the technology issues raised. We will disseminate good practice, align priorities and effort, and reach the wider community of people and organisations concerned with assisted living technology. Our Health Tech and Medicines Knowledge Transfer Network is also working with the WSD Action Network, which is engaging with the health and care professions.

## Standards

Industry has raised questions about technical standards for telehealth systems, particularly regarding digital communications. The Continua Health Alliance, a coalition of healthcare and technology companies, is looking at standards but needs to reach beyond the industrial members that make up its subscribers. Our knowledge transfer network is ideally placed to provide support.

We must ensure that standards for the provision of services are also addressed. We are engaging with the Telecare Services Association (a major representative body for the telecare community and industry in the UK), as well as the Continua Health Alliance and third-sector organisations to shape the agenda for this topic.

## Future projects

The Innovation Platform will also address issues such as quality of life, and health and wellbeing, to ensure that home-based devices and services are relevant, acceptable, scalable and marketable.

Subjects for basic research are:

- business and economic modelling – because adopting new ways of delivering health and care in both the public and private sector involves complex management and organisational change where the benefits are difficult to quantify, and
- social and behavioural studies – because people and the imperative for improved quality of life remain at the centre of our strategy.

This will lead to new research over the next two to three years.

## Who are we working with?

Large societal challenges cannot be tackled by the Technology Strategy Board alone. We need to work with other key players to align our programmes for maximum effect. Our partners include:

### Government

- central government departments (eg DoH and BIS)
- regional development agencies and devolved administrations
- research councils
- European Commission (Ambient Assisted Living Joint Programme)

### Industry bodies

- Telecare Services Association
- Continua Health Alliance
- R&D organisations
- knowledge transfer networks

### Others

- universities, academics
- third-sector organisations
- The Whole System Demonstrator Action Network

## Further information

Further information is available in the Assisted Living Innovation Platform section at [www.innovateuk.org](http://www.innovateuk.org) and from [graham.worsley@tsb.gov.uk](mailto:graham.worsley@tsb.gov.uk)



*The Technology Strategy Board is a business-led executive non-departmental public body, established by the Government. Its role 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 quality of life.*

The Technology Strategy Board  
North Star House  
North Star Avenue  
Swindon  
SN2 1UE

Telephone: 01793 442700

[www.innovateuk.org](http://www.innovateuk.org)