

Technology Strategy Board

Driving Innovation

Assisted Living Innovation Platform

July 2008 (including Smart Care
Distributed Environment)

Technology Strategy Board

Driving Innovation

The Technology Strategy Board is...



A national body supporting business innovation

for business benefit

for economic growth

for quality of life

About us

- An arm's length executive body
- Sponsored by the Department for Innovation, Universities and Skills (DIUS)
- Working across government
- Partnership with research councils, regional development agencies and the devolved administrations
- Focused on **business innovation** and the **application** of technology
- Investing around £1bn in 2008-2011 (with partner contributions)

Our Approach

- Independent; business-led
- 610 years of business experience
- Investing strategically - with grain of the market
- Broad view of innovation
- International outlook
- Willing to challenge, take risks
- Make things simpler

Our criteria for investment

- UK capacity to develop and exploit the technology
- The right potential for impact in the right time frame
- The size of the global market opportunity
- A clear role for the Technology Strategy Board to add value

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Our strategy

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Connect and Catalyse
A strategy for business innovation
2008-2011

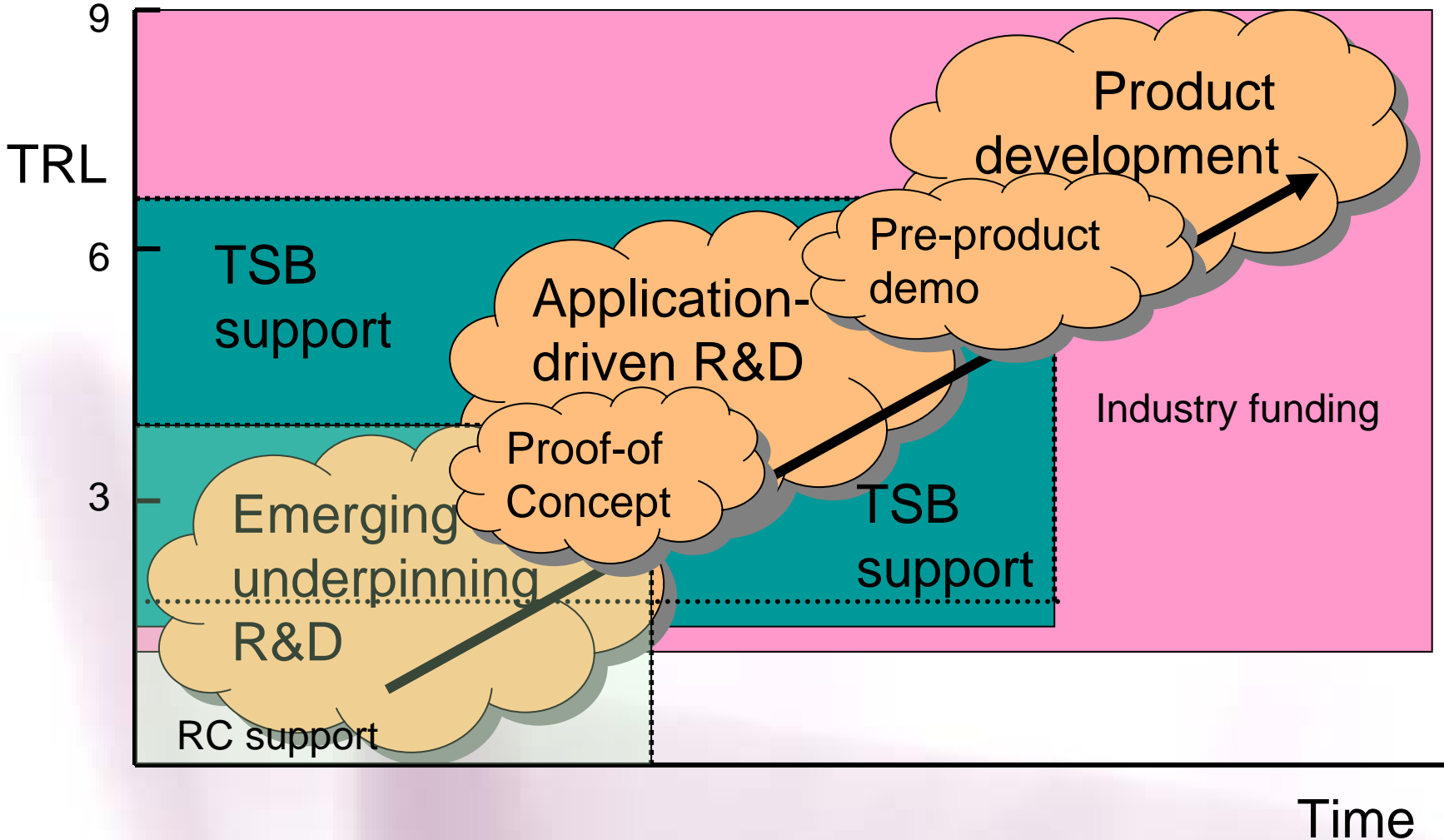
Three themes

Challenge-led innovation

Technology-inspired innovation

The innovation climate

Continuity of Funding



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Assisted Living Innovation Platform

An Introduction



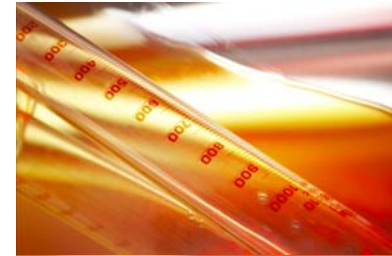
What is an Innovation Platform?

- They address a major policy and societal challenge, by
 - ..understanding Government's intended use of regulation and procurement to address challenge
 - ..engaging with business and the research community to identify appropriate responses and their development needs
 - ..supporting programmes to deliver innovative solutions

Assisted Living

The challenge

- The UK population over 65 is expected to almost double to 16.8 million by 2051...
- ...and the number suffering from long-term conditions will rise from 18.5 million to 20.6 million by 2020
- 75% - 85% of worldwide healthcare spending is on chronic disease management
- The global remote healthcare market is worth about £394M; predicted to grow to £4,000M by 2010



Assisted Living

The response – Department of Health

- “Our health, our care, our say” – 2006
 - to become more responsive to patient needs and prevent ill health by promoting healthy lifestyles – includes provision of care closer to and at home
- The Preventative Technology Grant – 2006-8
 - to initiate a change in the design and delivery of health, social care and housing services and prevention strategies...
 - to enhance and maintain the well-being and independence of individuals.
- Whole system demonstrator programme
 - Newham, Kent and Cornwall. Large scale - case controlled.
 - Devolved Administrations?



ALIP – Original High Level Vision

- Work with DH to support roll out of White Paper Whole Systems LTC Demonstrator (Procurement)
- Work with DH and other key stakeholders e.g. **devolved administrations** to identify challenges impeding large scale roll-out of Assistive Living technologies. Making it better and cheaper.
- Work with DH and other stakeholders to define longer term future technology needs/requirements
- Adopt a joint approach to technology development.

Aim of the Assisted Living IP

- The aim of the platform is to significantly advance the technology to meet the demand for independent living from those suffering from chronic conditions (e.g. CHD, COPD, Type 2 Diabetes, Alzheimer's) in particular the increasing demand from the increasing number of the elderly. Our job is to give the technology greater capability, make it easier to use and cheaper.
- Current care models are unsustainable, and major changes will be needed.
- This presents a major opportunity for companies involved in the existing telecare market, and for new large players e.g. BT, Intel, IBM, Pfizer etc. and for SMEs.

The Technology Roadmap January 2007– Headlines

- Communications: addressing isolation, increased interactions between individuals and systems. Improved user interfaces, navigation and location (mobility?).
- Data Processing: Data mining and data fusion
- Sensors and Devices: increasing the range of functions and improving performance and design
- Cross cutting issues: Security and authentication, systems reliability and integration and interoperability
- See:
<https://www.technologyprogramme.org.uk/extranet/competitions/InnovationPlatforms/ALIP/Documents/AL%20Roadmap%20Jan%202007.doc>

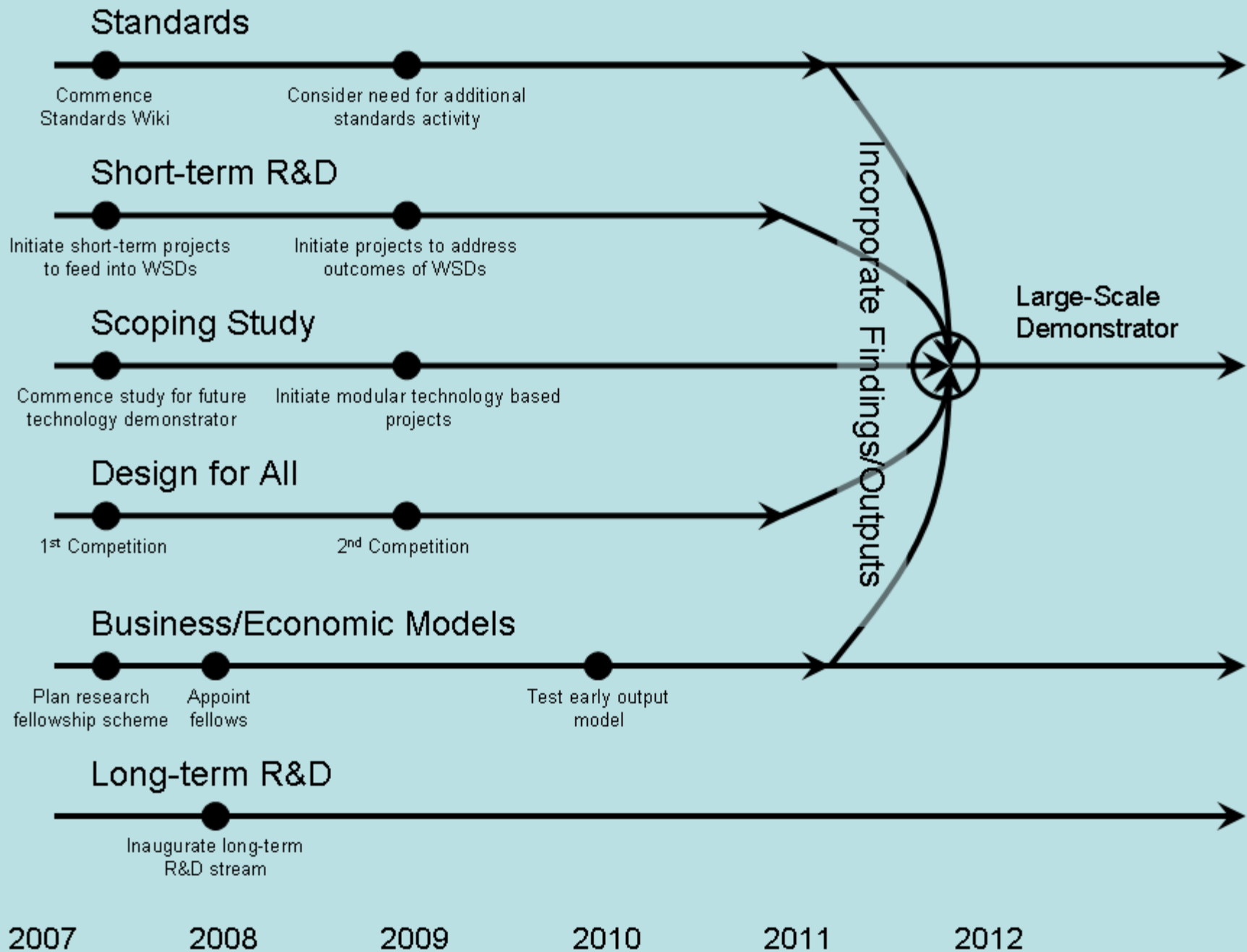
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Activity Summary

Implementation Plan

Knowledge Transfer



Assisted Living Innovation Platform

- so far

- 1st Competition working with the DoH (NIHR), EPSRC and ESRC, £6.5m competition covered user-centric aspects of Assisted Living, including data processing, sensors and systems issues – 9 projects to be announced soon. Successful applicants have their offer letters.
- Working with ESRC and EPSRC a call was held for research fellows to evaluate economic/business models for Assisted Living. No successful bids.
- 3rd Competition looking at the digital communications and connectivity issues, building a “Smart Care Distributed Environment”
- Will fund successful UK participants in the European programme - AAL 169.



Smart Care Distributed Environment – The connectivity issues.

- It is anomalous in the age of mobile phone roaming, (being able to call and bill between different mobile networks and network technologies such as 2G and 3G, and Wi-Fi or Wireless LANS using technologies like Skype), and integration of mobile phones with satellite tracking (GPS) that devices for assisted living, such as falls monitors, cease to function outside the home.
- More so that a device installed in one location e.g. at home, will not work in another home.
- Competition announced early July 2008. Closing date 4 September. Info day 7 August.

Smart Care Distributed Environment

Projects funded under this initiative must:

1. Bring together leading edge expertise in telecommunications with assisted living, telecare and telehealth, combining an end 2 end systems approach in communications with an end 2 end systems approach in assisted living from referral and assessment through user-centred service design to response. Clearly demonstrating how the project responds to user needs and challenges in the area of smart care distributed environments.

SCDE Projects must:

2. Take forward existing and recently completed digital communications research nearer to implementation, bearing in mind that technology based projects will not be supported without an exploitation pathway in assisted living.

Projects derived from a smart assisted living housing background should seek to link numbers of existing smart installations, and undertake experimentation on large numbers of parameters.

Projects can lead to demonstrations of new technology, that are sustainable and upgradeable, but technology demonstrators, (or smart housing projects) on their own will not be supported.

SCDE Projects Must:

3. Identify the barriers to use of multiple networks to deliver assisted living services, and provide solutions.

Technology barriers solved will require implementation through to the standards bodies to ensure global exploitation and interoperability.

Modelling at the technology level and business level required through to a validated proof of concept test bed. This could be combined with other commercial services facing the same barriers.

ALIP Knowledge Transfer Programme

- Working with Health Technologies Knowledge Transfer Network, supporting:
 1. Themed meetings, e.g. around security and privacy
 2. Coordination of technology and clinical networking activity e.g. supporting Whole System Demonstrators Action Network* See www.wsdactionnetwork.org.uk
 3. A specialist stream in an annual conference
 4. Development of a web based “map” of assisted living activity
- *Also working with SPARC (academic network), New Dynamics of Ageing (research programme), CSIP (Care Services Improvement Partnership), FAST (Foundation for Assistive Technology, NCIL (National Centre for Independent Living)

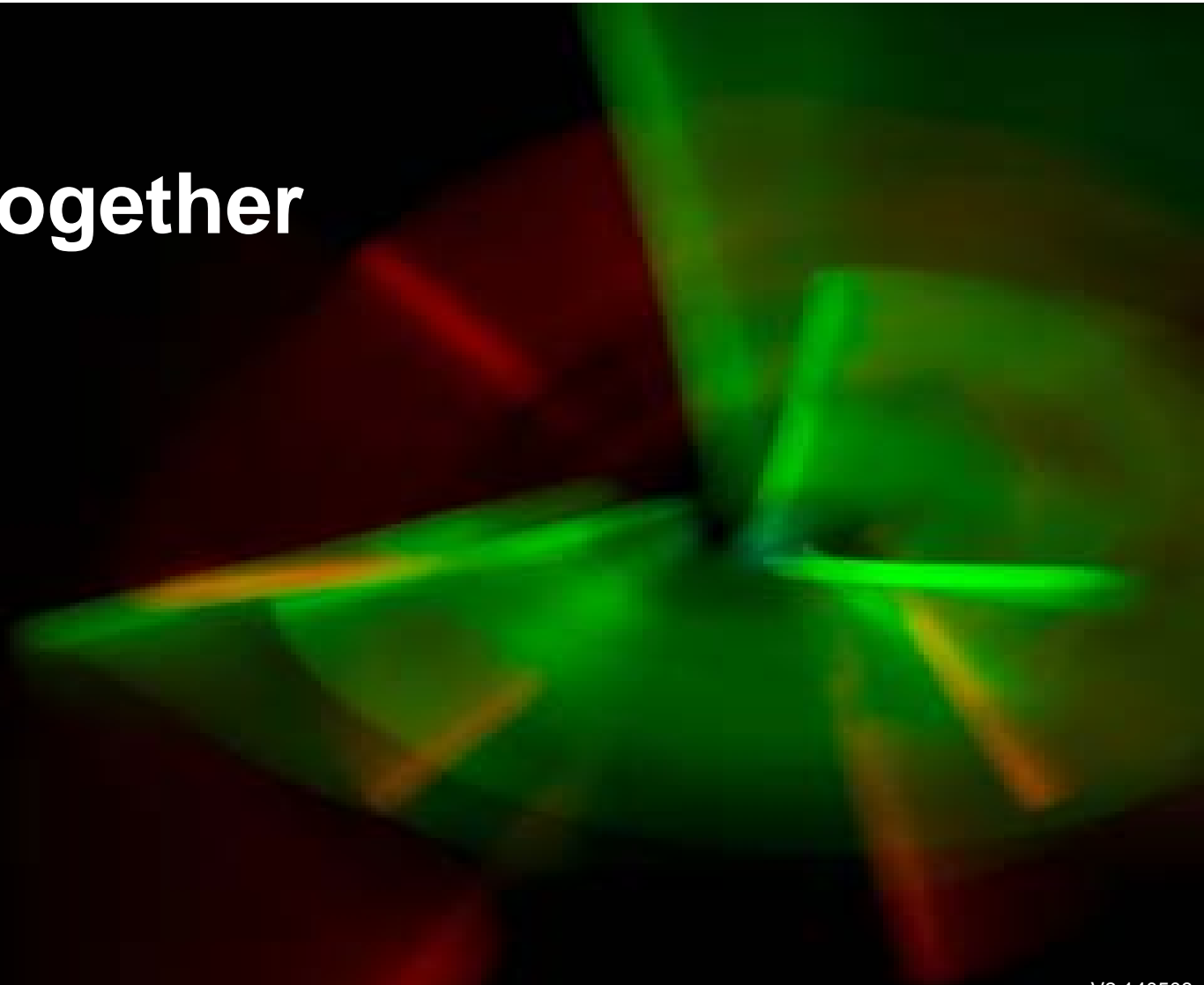
Future Activity

- Long term/short term Social/behavioural studies - if we are fundamentally changing the way health and care are delivered how are we going to measure the impact?
- Large scale future technology demonstrator
- Standards

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Working Together



What we bring

- Funding for industry, but can also fund charities and academia
- Pathways to exploitation, e.g. through our Knowledge Transfer networks
- Linkage to other Government Departments (as well as Department of Health) and the RDAs and DAs.
- Access to leading edge companies and research in interdisciplinary projects areas e.g. ICT.
- Have spent most time with DH but also happy to work with Devolved Administrations. We are a UK wide organisation.

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www.innovateuk.org

