

# Putting People First

## Transforming Adult Social Care

# The role of technology in supporting transformation

## Care Services Efficiency Delivery: supporting sustainable transformation

Putting People First puts personalisation at the heart of social care policy. In order to exercise choice, individuals have to have access to reliable information. If customised services are to be delivered cost effectively, transactions with these individuals need to be as efficient as possible. By definition, the transformation to greater independence means a reduction in personal attendance. Technology is seen as a key enabler for achieving all of these objectives.

### Why was this paper written?

This paper was specifically written in response to a request from the Minister for Care Services made at the National Children and Adult Services Conference in October 2008.

It is a first attempt at drawing together existing, emerging, and, as yet, undeveloped technologies which are seen as key enablers for achieving the aims of Putting People First.

### Background to the paper's contents

The origins of significant parts of this paper go back to November 2006, when the Department of Health first proposed the concept of applying eBay® / Amazon® type functionality to the emerging market for self-directed support. Improvement and Efficiency South East's *Carebay* evolved out of these original ideas. Since then an increasing number of solutions, developed independently and in parallel (e.g. *Shop4Support*, *Slivers-of-Time*, and many more), have come to light. The Minister's request was a timely intervention to start to assess how these various strands of technology might link together under Putting People First.

### Approach

A book could be written on each of the technologies identified in the paper. Rather than providing detailed descriptions of each technology, we have attempted to simply link the most appropriate technologies to the various stages in the service user's journey through the care support and delivery system.

We have embellished each description with equivalent commercial offerings and, where known, examples of where they, or similar systems are used. We have also commented where we consider appropriate.

### Universal service or bespoke solution?

Whilst there are a few examples of where councils are commissioning these technologies as a universal service – available to anyone, the vast majority of implementations are currently restricted to use by the council and/or their providers.

This paper suggests that many of the technologies have universal applicability.



## How to use the document

We envisaged the document being used in a variety of ways:

- As a kind of checklist for councils to identify which of these technologies they are either using or planning to use, and as a stimulant to trigger the consideration of others;
- As a trigger to initiate standardisation, where it would either benefit the consumer or help accelerate the implementation of the technologies.
- As a thought provoker, to stimulate discussion on how existing solutions might be adapted to suit the Putting People First agenda; and finally,
- As a framework for capturing good examples (and thereby avoid re-inventing the wheel)

## Mapping Good Examples

We are extremely conscious that our knowledge of what is actually already happening in this area within councils is weak.

We are also very aware that the requirement for this type of technology enablement is increasingly being recognised by councils and that many are starting to make investments.

To pick up on the last point under *How to use the document*, we are keen to support the process of gathering intelligence in order to:

- maximise leverage of these investments; and
- encourage standardisation of the language used (if not the solution itself)

We would therefore very much like to hear, via email, from councils who have implemented some of the less common applications listed in the paper.

Given that this is a first attempt we would also encourage constructive criticism of its contents, particularly if there are gaps.

*With regard to Assistive Technology, such emails should be directed toward our related programme of activity (see adjacent box).*

*Otherwise please send all correspondence to the contact below.*

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## Assistive Technology



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## The (potential) role of technology in supporting transformation

This is a short paper summarising how technology is likely to increasingly support the transformation agenda underpinning Putting People First. It primarily looks at this technology from the perspective of the service user as they go through the system (regardless of whether they are eligible for funding from councils or not). Whilst there are elements of what is described emerging in the market place, there are many aspects which are as yet undeveloped, particularly if such technologies are seen as universal enablers for the personalisation agenda.

### Summary of technology applications

This table summarises the technology applications as they relate to the processes of providing care.

Area of Application	Application	Examples / Notes
Initial Enquiry and Online Advice and Guidance	Information and Signposting High level on-line advisory services On-line simple decision support tools eLearning and eTraining	Carebay concept (also covers Initial Contact down to Provider short-listing, etc.), Carers Helpline, NHS Choices
Initial Contact	Listings of council services Self-help guidance on eligibility, etc Directories of local services	Improved web interfaces (Quickheart)
Simple Services	On-line application for simple services Automated processing of applications	Various councils
Referral	Protocol/s for referral forwarding	Undeveloped
Eligibility Assessment	Self assessment tools	Self assessment (CAF)
Detailed Assessments, Agreed Outcomes and Resource Allocation	Detailed assessment solutions Electronic storage of outcomes (and underlying needs) Resource allocation systems Mobile working technologies	Scope to standardise the information protocols and encourage these to become universal services
Provider short-listing, accreditation and catalogue management	Electronic catalogue systems Local supplier portals On-line provider accreditation / quality rating User feed-back collection and compilation	Shop4Support, Slivers-of-time and others emerging.  Opportunity to standardise
Carer Identity / Qualification Validation and Accreditation	<i>Online identity validation / passport</i> <i>Extended CRBs</i> <i>On-line employment history validation</i>	<i>Applications in italics are largely undeveloped (many more have yet to become universal)</i>
Care Package Placement	Electronic support plans Electronic reverse auctioning <i>Online brokerage agents</i>	Electronic Care Record  Some early examples
Virtual Networking	<i>Virtual support networks (carers and professionals)</i> Virtual social networks (individuals)	Developing in some areas but not yet widespread
Transaction Management (Scheduling, Invoicing, Payment, etc)	Electronic diary management / scheduling Electronic monitoring Electronic invoicing and payment Purchasing / travel cards Electronic prescription processing Online payroll / small business accounting	Exist within the council context. Opportunity to encourage these to be implemented as universal services
Safeguarding	<i>Identity cards</i> Security solutions	Extended CRBs covered above.
Assistive Technology	Telecare solutions Telehealth solutions Telemedicine solutions	Most local authorities utilise Telecare but hope to encourage further mainstreaming (CSED)
Transformation enabling Back-office systems	Population and demographic forecasting Service analysis and simulation Personalisation of care management systems Systems dynamics modelling	These tools are maturing rapidly.

## Appendix A : More Details on the Technologies

For each part of the service user journey, from initial enquiry through to supporting an individual, the remainder of the paper is structured as follows:

Application	Examples	Comments
The use to which the technology is being / could be put	Examples of where the system is in use/development	Comments regarding the current status and potential opportunities for a nationally co-ordinated approach

Potential applications (some of which are almost certainly being developed but we do not specifically know where) are indicated in *italics*.

### Initial Enquiry and Online Advice and Guidance

Defined as all of those stages prior to a formal contact with a council's contact points.

Application	Examples	Comments
<p><b>Information</b> about the range of services potentially available and when it is appropriate to make use of them.</p> <p><b>Signposting</b> services.</p>	<p>Numerous emerging examples from both councils and the supply market.</p> <p>Improvement and Efficiency South East (IESE) / <i>plarmy care</i> initiative is initially focussing on this area.</p> <p>NHS Choices including new work on carers information</p>	<p>At present these offerings are fragmented with many different examples emerging in the market place.</p> <p>Council boundaries an issue at borders.</p> <p>Over time it is anticipated that a Wikipedia/Google for care will emerge.</p> <p>Potential to influence the type of information which should be available</p>
<p><b>High level on-line advisory services</b> linking together sources of support, possible routes to funding (encompassing a broader range of sources than just the state)</p>	<p>Expansion of what financial advisory services currently provide (in planning for Plan My Care).</p> <p>Carers Helpline (similar, in principle, to NHS Direct)</p>	<p>The idea here would be to help individuals navigate the complete range of sources of funding/support – providing simple pointers to likely eligibility and other funding options – equity release, etc</p>
<p><b>On-line simple decision support tools</b> to guide individuals to the right type of service (particularly if not eligible for, or not wishing to access, state support)</p>	<p>DLF – SARA self-assessment for equipment and minor adaptations.</p> <p>Isle of Wight's OneLink service (also includes sign-posting, etc.)</p>	<p>Conceptually akin to moneysupermarket.com or gocompare.com, a mechanism to help individuals navigate through the choices available to them</p>
<p><b>eLearning and eTraining</b> providing materials to help carers (both formal and informal) to increase their competences in providing support</p>	<p>CERETAS currently offer materials for home carers.</p> <p>The NHS Core Learning Unit offer relevant materials</p>	<p>Currently targeted at employed carers, there is a significant opportunity (at relatively low cost) to extend availability to the broader informal market.</p>

### The Carebay Concept

The Carebay concept pervades this document and it warrants a brief description here. The ideas, and even the name, have developed in parallel under various guises over the last few years. Hampshire independently called their developments Carebay. Shop4Support and CLG's Slivers-of-Time-Working technology are another couple of examples of solutions with 'Carebay' features.

The description here is based on the concept promoted by CSED as a DH input into the November 2006 Treasury discussions leading to the current Comprehensive Spending Review. This thinking was subsequently adopted and expanded upon by the South East Centre of Excellence (now Improvement and Efficiency South East (IESE)) and evolved into what is now known as the IESE

'Carebay' programme. Working with *planmycare*, the Carebay programme plans to address many of the components identified within this paper.

The term Carebay was derived from two words : Care and Ebay® – and it is the latter which influenced the early ideas. Given that much care, especially under self-directed support, is essentially a one-to-one service, the eBay model – which puts individual buyers in contact with individual sellers and which manages the whole process of finding a supplier, making a contract, managing the transaction (including payment under the related PayPal® system), and providing feedback on the experience – has obvious applicability. Whilst there are additional features required for such a model to work within care, especially around safeguarding and controlled distribution of sensitive information, the various 'Carebay' implementations all aim to offer, at least in part, this type of solution.

### Initial Contact

The point at which the individual (or their advocate) first makes contact, directly or indirectly with the council. This is prior to a formal referral into Social Services.

Application	Examples	Comments
<b>Listings of council services.</b> Specific information on what services councils offer.	Many examples of varying quality, a good example of which is Hampshire's Carebay implementation (not the same as the IESE version above).	See provider accreditation, etc below  This technology applies to all internet based interfaces (as well as having the potential to influence other forms of communication)
<b>Self-help guidance on eligibility</b> for services and how much an individual might be expected to pay.	CSED/North West commissioned work with <b>Quickheart</b> – designing much more user friendly web-sites (informed by ethnography <sup>1</sup> )	
<b>Directories of local</b> (non-council) <b>services.</b>		

### Simple Services

Application / approval of low value simple services which can be directly provided at first point of contact such as simple equipment, blue badges, etc.

Application	Examples	Comments
<b>On-line, automatically processed, application for simple services.</b>	Some councils do this for blue badge?  Starting to appear as part of the Community Equipment initiative	Links to self-assessment but this application could be much simpler.
<b>Automated processing of applications</b> where it is easy to validate an individuals eligibility and whether or not an individual is abusing the system.	None yet known. Still dependent on manual processing.	Requires connectivity with other sources of information (e.g. is the individual entitled to a disability allowance or on housing support).  [Illustrated by the DVLC linkage across road tax, MOTs and insurance cover].

<sup>1</sup> 'Ethnography' is a research technique which analyses what works and what doesn't in communication (in this case the web)

## Referral

Currently, formal referral into Social Services (or potentially into other forms of support if the concept is extended into a universal mechanism). This could be self-referral, referral by advocate and/or referral by professional (e.g. GPs).

Application	Examples	Comments
Universal <b>protocol for referrals forwarding</b> enabling automated / internet transfer of referral information to relevant party.	Some councils providing this functionality on a bespoke basis.  Being incorporated, to some extent, within the North West Quickheart implementation.	Most referrals currently done by telephone. Significant number via other services (health, housing, etc)  Opportunity to standardise on a dataset. Requires encryption.

## Eligibility Assessment

Covers financial, needs and other forms of eligibility assessment. Specifically excludes resource allocation, agreed 'outcomes' and support planning. The output from this is whether or not the individual is entitled to support and to what extent they will have to fund it.

Application	Examples	Comments
Eligibility <b>self assessment tools</b> .	Many councils building these (e.g. Kent County Council).  A component of the Common Assessment Framework (CAF)	From a financial perspective should be no more complex than an on-line loan application process (providing an indicative response, with the option to follow up and confirm)

## Detailed Assessments, Agreed Outcomes and Resource Allocation

This is separated from the above on the basis that, other than for simple services, agreement on resources will require negotiation around a detailed assessment and whatever is the agreed set of outcomes. If translated into a universal service, this could provide the basis for a 'ready reckoner' to provide indicative costs for different levels of needs/desired outcomes.

Application	Examples	Comments
Electronic <b>detailed assessment tools</b>	The main purpose of the CAF.  To avoid duplicate assessments via a common core dataset. Being implemented (in different ways) by the various systems providers.	Separated from the above on the basis that agreement to the detailed assessment will require a face-to-face conversation.
<b>Storage of agreed outcomes</b> and subsequent analysis of cost effectiveness of new service options / mixes.	Various system vendors implementing outcomes frameworks.	As yet no agreed standard. Considered essential if cost effectiveness of different service options to be evaluated and compared.
<b>Resource allocation systems (RAS)</b>	Different councils implementing different solutions.	In theory it should be possible to determine the resources required, based upon a combination of underlying need and agreed outcomes.
<b>Mobile working technologies</b>	A number of councils have introduced mobile working technologies including notebooks, PDAs, Smart Pens, etc.	Standardised protocols for transferring information would help reduce the bespoke nature of many of these solutions.  Also supports social care workforce through smart working and easier transfer of information – potentially more time to have a conversation around SDS.

## Provider Short-listing, accreditation and Catalogue Management

The process of determining an appropriate provider for a particular set of services (the catalogue). This is developing within the context of state supported services (where the process of managing the catalogue and which provider is able to offer a service is managed by the commissioner). However, there is scope to enable the market as a whole to operate as a universal service. User satisfaction with the service is picked up later.

Application	Examples	Comments
<b>Electronic catalogue systems.</b> Presentation of pre-selected providers and the services they have to offer.	Shop4Support  The emerging Community Equipment model	Requires management by the commissioner. Accreditation is effected by the selection process (a 'manual' process)
<b>Local supplier portals.</b> Extension of the broader 'eBay' / moneysupermarket.com portal concept (the transaction processing dimension of the 'eBay' model is covered below)	Some councils have introduced portals allowing personal assistants, handyman type and other practical service providers to advertise their wares.	Government could standardise the data exchange protocols and encourage some of the bigger players to extend their offerings to cover one-to-one services
<b>Online provider level accreditation / quality rating</b>  <i>For home care, individual level accreditation (see below) more appropriate in the self-directed support market</i>	Various commercial databases (Laing & Buisson, Dr Foster, etc) pull together things like the CSCI ratings  Some councils started to accredit providers (e.g. Norfolk's Homecall service).  Some not-for-profit organisations starting to do this (e.g. the one from Sheffield?)	The existing inspection findings could be made much more accessible.  Central government could help by standardising the protocols for accrediting providers – like the British Standard kite mark system.  Alternatively could operate like taxis do now.  Individuals to have the choice of going to 'accredited' providers or others
<b>User feed-back collection and compilation</b>	Some councils starting to provide eBay/Amazon style feedback mechanisms.	This type of model, where users can provide both positive and negative feedback directly, has many advantages over the current reliance on user survey satisfaction outcomes.

## Carer Identity / Qualification Validation and Accreditation

Other than the Criminal Records Bureau (CRB) check, the bulk of validation is managed at the provider level. Under self-directed support, where individuals are increasingly turning to relatives, informal and unregulated sources of care support there seem to be two options:

- to regulate (expensive, creates a barrier to entry for individuals and smaller providers, and arguably protects the system - not the individual); or
- provide universal assurance mechanisms (the topic of this section).

Application	Examples	Comments
<b>Online identity validation / passport</b>	<p>Happens for individual to government transactions (Government Gateway)</p> <p>Routine part of banking / credit transactions</p> <p>Mechanisms built into the eBay models to provide degrees of assurance</p>	<p>Could be facilitated via central government standardisation.</p> <p>One of many potential enablers for securer online transaction processing</p>
<b>Extended CRBs.</b> Extension of the CRB facility (more like the current system with credit cards)	<p>Existing CRB system – but very inadequate within context of self-directed support:</p> <ul style="list-style-type: none"> <li>• onus on employer to secure – versus individual to demonstrate;</li> <li>• standard and extended checks not available to individuals; and</li> <li>• not currently portable</li> </ul> <p>Forthcoming requirements for individual carer registration by the General Social Care Council.</p>	<p>Allow for individuals to pay for (and get) standard / extended CRB passport</p> <p>Mechanism for service user / employer to quickly check for any changes since 'passport' issued</p> <p>Has applications across other sectors (e.g. education)</p> <p>There may be scope to review the new requirements to make it easier for individual carers to register rather than just those employed by organisations.</p>
<b>On-line employment history validation</b>	<p>Available to some extent via council accreditation</p> <p>Covered to some extent by use of references (often not done properly because too difficult to check up).</p>	<p>Government could introduce an official mechanism whereby individuals can log their academic / employment histories and qualifications and the relevant institutions / organisations post confirmation in a secure way.</p> <p>Would have tremendous benefits for all employment (check-ups done once not every time employment changes).</p>

## Care Package Placement

The process of exchanging the information necessary to finalise and set up an agreement with the provider (whether that is directly with the individual or via the commissioner).

Application	Examples	Comments
<p><b>Electronic support plans</b> to enable internet based placements</p> <p>Two levels required:</p> <ul style="list-style-type: none"> <li>• high level for the purposes of identifying willing providers; and</li> <li>• detailed level for the purposes of finalising the arrangement and managing services</li> </ul>	<p>A goal, within the public sector, of the Electronic Care Record</p> <p>Systems providers working on opening up existing care management systems to allow this to happen</p> <p>Some councils, e.g. Lancashire, transfer care records to providers using the internet</p>	<p>Clearly personal data security issues.</p> <p>Opportunity to introduce new, service user managed, mechanisms for data protection.</p> <p>Standardisation of the data protocols (versus implementation of system) would enable self-payers to use same technology.</p>
<p><b>Electronic reverse auctioning</b> as a means of selecting of providers</p>	<p>Done on a capacity (versus pricing) basis within the Lancashire system.</p> <p>Done with the Shop4Support model?</p>	<p>Very much an extension of the eBay model (a two stage process versus the current single stage process. The first stage creates a short list – based on the high level plan. The second stage is used to select the final provider).</p>
<p><b>Online brokerage agents</b></p>	<p><i>None known</i></p>	<p>Similar to the way in which online brokers work in other sectors (insurance, travel, etc.).</p> <p>How such brokers would be funded currently an issue.</p>

## Virtual Networking

The process of creating either a network of carers and related professionals or of allowing individuals in similar circumstances to interact using web-cams and online social networks.

Application	Examples	Comments
<p><b>Virtual support networks (carers and professionals)</b> linking individuals with specific skills and providing sources of cover in the event of sickness / holiday</p>	<p><i>None known</i></p>	<p>At present the bigger providers are being encouraged to broaden their offerings. However, this model increases overheads.</p> <p>Given the one-to-one nature of many of these services effective networks are more in tune with the personalisation agenda.</p>
<p><b>Virtual social networks</b> as a means of reducing isolation for some individuals and maintaining social involvement with others (e.g. MySpace/Facebook for older people)</p>	<p>Starting to emerge in some areas (e.g. Learning Disabilities).</p>	<p>Not yet widely adopted as a specific means of support.</p> <p>Low cost web-cams and broadband connections make this an attractive additional support mechanism.</p>

## Transaction Management (Scheduling, Invoicing, Payment, etc)

Where councils have automated these processes, they have traditionally either invested in the systems for their own use (buyer side) or forced each of their main providers to invest in it (seller side). The eBay requires neither – eBay provide the infrastructure and the sellers and buyers make use of it for a transaction fee. This becomes an attractive model under personalisation

Application	Examples	Comments
<b>Electronic diary management / scheduling.</b>	<p>Some providers starting to build the functionality to allow for this.</p> <p>Lancashire extending their model to potentially allow for this ?</p> <p>Some councils do this to a limited extent with regard to assessment bookings</p> <p>Part of the Connecting for Health system.</p>	Technology to do this is readily available without investing in bespoke solutions (e.g. Microsoft Sharepoint).
<b>Electronic monitoring</b>	<p>Many councils and providers have implemented this in order to validate and manage real service provision (from a time perspective and, in some cases, from an activity perspective).</p> <p>Allows for advance notification of late visits, etc. (and could be extended to provide SMS text notification of problems on a particular day)</p>	<p>Could be considered as a universal service – avoids the current situation where councils and providers are investing in such systems separately.</p> <p>Could be used as the means of acknowledging receipt of service if linked to invoicing and payment</p>
<b>Electronic invoicing and payment processing.</b>	Some councils have implemented this with their providers.	The eBay/PayPal model could have applicability here
<b>Purchasing / travel cards</b>	<p>Kent's card system</p> <p>Midlands/Newcastle transportation smart cards</p>	Has benefits of control over how an individual is able to spend the money.
<b>Electronic prescription processing</b>	<p>Intended to be automated under the Community Equipment model.</p> <p>Existing Drug prescription system</p>	Has similar benefits to the restricted forms of card described above but handles the costs of the transaction in a different way.
<b>Online payroll / small business accounting</b>	<p>Some banks provide this service</p> <p>Some Credit Unions for DP users (e.g. Hull &amp; East Yorkshire)</p>	If the above elements of transaction processing were to be provided as a universal service, it would become logical to link in this service (since it would close the loop on the currently expensive administrative burden on small providers).

## Safeguarding

There are potential technology based enablers to reduce the potential risks and threats for individuals in the community and act as both deterrents and alerts to the emergency services, in this instance, the police.

Application	Examples	Comments
Use of <b>Identity cards</b> as a means of validating the identity of an individual	<p>Already proposed within a national security context.</p> <p>Currently a proliferation of different identity card schemes</p>	Enabling identity cards to operate within the context of one-to-one identity validation might remove the 'big brother' label currently associated with the scheme.
<b>Security solutions</b>	Various prevention based schemes such as bogus alarm alerts, home security systems and key safes.	Opportunity to encourage better linkage between home security and telecare solutions.

## Assistive Technology

There is a wide range of products and technologies that fit under the heading of Assistive Technology defined here as "any product or service designed to enable independence for disabled and older people" (King's Fund, 2001) and includes Telecare and Telehealth - both of which offer a range of low to high level technologies spanning the health and social care spectrum.

Equally important is how Assistive Technology is utilised in care and support pathway planning to benefit people supported by adult social care and health services, increasing efficiencies and optimising spend in both budgets (see CSED's Assistive Technology and related initiatives<sup>2</sup>).

Application	Examples	Comments
<b>Telecare solutions</b>	<p>Whole raft of sensors, alarms and environmental control solutions which, as well as supporting the individual, can help to support:</p> <ul style="list-style-type: none"> <li>assessment by offering greater accuracy and challenging assumptions - so ensuring a 'right sized' package</li> <li>care and support planning by offering a range of alternative solutions to traditional service options</li> </ul> <p>Also various prevention based schemes linking with crisis response services.</p>	<p>Almost certainly under-utilised as a solution to helping individuals to maintain their independence and prevent institutionalisation.</p> <p>Great opportunities for integration into social care and health systems and for mainstreaming. This is being tested through the DH Whole System Demonstrator Pilots.</p> <p>Whilst cost effective, there is scope to reduce the price for these technologies by mainstreaming (e.g. DIY home security)</p>
<b>Telehealth solutions</b>	Whole raft of health monitoring solutions including 'real time' monitoring at home and in institutional settings.	<p>Opportunity to leverage developments in the personal fitness area as a means of reducing costs.</p> <p>Impact on resources in both primary and acute care settings.</p>
<b>Telemedicine solutions</b>	A wide range of controlled dispensing and reminding solutions	Differentiated from the monitoring systems above

<sup>2</sup> CSED related initiatives include Integrated Care and Support Pathway Planning, Support Related Housing, and Crisis Response Services

## Transformation Enabling Back-office Systems

This category covers those technologies which are designed to help councils (and, increasingly, providers) manage the transformation agenda.

Application	Examples	Comments
<b>Population and demographic forecasting</b>	CSED's POPPI (Projecting Older People Population Information) and PANSI (Projecting Adult Needs and Service Information)  Planning4Care	Despite the push on Joint Strategic Needs Assessment (JSNA), many councils still seem to struggle to convert this data into commissioning strategy and subsequent action.
<b>Service analysis and simulation</b>	NHS Information Centre NASCIS (National Adult Social Care Intelligence System)  CSED's Tool for Rapid Analysis of Care Services (TRACS) and Forecasting Length of Stay and Cost (FLoSC) tools.  Various commercial solutions : Dr Foster, CareTrak, Whole System Demonstrator	DH has commissioned some work to standardise the data extracted to feed into such systems.
<b>Personalisation of care management systems</b>	All current providers working on 'personalising' their solutions	At present councils are inventing this as they go along to meet the needs of 150 councils with different views – case for national standardisation.
<b>Systems dynamics modelling</b>	As used by the Wirral to optimise the dementia pathway	See the CSED materials on this technology.