

Chronically Sick and Disabled Persons Act 1970

*Research and Development Work
Relating to Assistive Technology
1999 – 2000*

Presented pursuant to c.44 1970 Section 22

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INTRODUCTION

The Report

This report is produced pursuant to Section 22 of the Chronically Sick and Disabled Persons Act 1970. It outlines research and development (R&D) activity relating to assistive technology funded by the government in 1999 and 2000. Details of the projects are available on the Foundation for Assistive Technology (FAST) website (<http://www.fastuk.org>), together with information on research projects funded by other sources. As well as fulfilling a statutory function to inform Parliament, the report

- assists the planning of future research by funding bodies;
- facilitates networking and collaboration between research groups;
- helps to prevent duplication of research effort;
- provides a horizon scanning function for the community involved with the development, introduction and evaluation of assistive technology.

Wider context: The NHS Plan and developments in equipment service provision

The importance of the role of assistive technology in maintaining independent living and addressing the problems of the ageing as well as the disabled population has been highlighted in several policy documents recently. The *NHS Plan* ⁽¹⁾ outlines the role of new technology in the home in making independent living easier for people who are elderly or disabled. Such technology will facilitate the development of a range of intermediate care services that will build a bridge between hospital and home, helping people to recover and resume independent living more quickly.

In March 2001 the Department of Health issued a *Guide to Integrating Community Equipment Services* ⁽²⁾ aimed at helping service providers to meet the NHS Plan target of merging health and social care provision into integrated community equipment services by 2004. Referring to the aims of the NHS Plan, the Guide sets out a challenge to increase by 50% the number of individuals who benefit from these services, and to improve the quality and range of equipment on offer.

A report commissioned by the Department ⁽³⁾ has outlined how equipment to support independent living is based in increasing measure on Information and Communication Technology (ICT). A new spectrum of 'telecare' products and interventions is emerging, and these will play a key role in the modernisation of community equipment services supporting frail and vulnerable people.

The *National Service Framework for Older People* ⁽⁴⁾ published in March 2001 also stresses the importance of assistive technology in maintaining independent living. It describes how effective equipment provision is likely to slow down deterioration in function, prevent falls and other accidents, prevent pressure sore damage, and support and better protect the health of carers. It also emphasises the need for agencies to work to deliver the wider application of technologies to support the safety and security of older and disabled people, such as fall alarms and sensors.

The Foresight Ageing Population Panel, which examined the social and economic impact of the ageing population, recommended that research into assistive technologies and inclusive design should be encouraged ⁽⁵⁾. Recent funding initiatives are discussed in the next section.

Recent developments in UK funding for R&D

Information about sources of funding for assistive technology R&D can be found as an annex to this report. What follows is a brief outline of recent developments in funding.

In March 2000 the Department of Health announced the modernisation of its funding structure for NHS R&D in *Research and Development for a First Class Service: R&D funding in the new NHS* ⁽⁶⁾. The new structure will draw together various activities in national programmes and in the NHS to create a coherent programme for the NHS, called *NHS Priorities and Needs R&D Funding*. It will also clarify and focus the support the NHS gives to the high quality science directed by strategic funding partners such as the research councils and the main medical charities – *NHS Support for Science*. Information on the timetable for the application of the new structure can be found on the Department's R&D website (<http://www.doh.gov.uk/research>).

Under the government's EQUAL (Extend QUALity Life) initiative, the Engineering and Physical Sciences Council issued a call in 2000 for research proposals in the fields of rehabilitation and design for all. Projects will commence in 2001 (details are on the FAST website - see above). A further call is planned for August 2001 incorporating the area of inclusive design, with an anticipated commitment of approximately £2 million.

The Innovative Health Technologies programme funded jointly by the Economic and Social Research Council and the Medical Research Council aims to advance understanding of the interaction between innovative health technologies and wider changes in society. Several assistive technology projects have been funded in the first round and these will commence during 2001.

For the past five years the MedLINK programme has supported collaborative projects to develop new or improved medical devices, and those relating to assistive technology are listed in this report. As programme monies are now committed, MedLINK has closed to new applications. Consultation is being undertaken to inform the planning of future support in this area.

In 2000, the Audit Commission report on disability equipment services *Fully Equipped*⁽⁷⁾ highlighted some of the financial constraints faced by companies wishing to invest in research in this sector. Business support schemes such as Smart (see Annex) play a role in the development of new assistive technology products and examples of relevant projects are contained in this report.

Recent developments in European research funding

Within the EC Fifth Framework Programme for research (FP5), 1998-2002, several assistive technology projects have been commissioned under the *Quality of Life and User Friendly Information Society* thematic programmes. The proposal for the Sixth Framework Programme⁽⁸⁾ is more focussed in nature than FP5. Detailed workplans for FP6 have not yet been produced but there may be some coverage of assistive technologies under the proposed *Information Society technologies* theme.

Content of the report

As technology evolves the focus of R&D is constantly shifting. When the Chronically Sick and Disabled Persons Act was passed in 1970, Section 22 referred to "equipment that might increase the range of activities and independence or well-being of disabled persons". In view of technological advances over the last thirty years it has become necessary, in the spirit of the Act, to give consideration not only to specific products, but also to systems, combinations of technologies, and interfaces to new mainstream technology, for example the world wide web. Coupled with this is an ongoing need to review ways of categorising disability equipment and the wider spectrum of assistive technologies. The integration of technologies can offer significant benefits to disabled people; for example, a wheelchair control can also be used to operate a computer. This blurs the traditional boundaries of disability equipment.

The project sections in the report reflect the breadth of government-funded research activity in the assistive technology field. Much work on communication aids is in progress, in particular, major evaluations to inform policy on the provision of digital hearing aids and cochlear implants. The report also covers the Medical Devices Agency's Disability Equipment Evaluation Programme.

References

- 1 Department of Health. *The NHS Plan, A Plan for Investment, A Plan for Reform*. London: The Stationery Office, 2000 (Cm. 4818-I).
<http://www.nhs.uk/nhsplan>
- 2 Department of Health. *Guide to Integrating Community Equipment Services*. London: Department of Health, 2001.
<http://www.doh.gov.uk/scg/communityequipment.htm>
- 3 Curry R. *The Use of Information and Communication Technology (ICT) in Assistive Technology for Older and Disabled People: An overview of current UK activity*. London: Department of Health, 2001.
<http://www.doh.gov.uk/scg/ictolderpeople.pdf>
- 4 Department of Health. *National Service Framework for Older People*. London: Department of Health, 2001.
<http://www.doh.gov.uk/nsf/olderpeople.htm>
- 5 Foresight Ageing Population Panel. *The Age Shift: Priorities for Action*. London: Department of Trade and Industry, 2000.
<http://www.foresight.gov.uk>
- 6 Department of Health. *Research and Development for a First Class Service: R&D funding in the new NHS*. London: Department of Health, 2000.
http://www.doh.gov.uk/research/documents/rd3/first_class_service.pdf
- 7 Audit Commission. *Fully Equipped: The Provision of Equipment to Older or Disabled People by the NHS and Social Services in England and Wales*. London: Audit Commission, 2000.
- 8 Commission of the European Communities. *Proposal for a decision of the European Parliament and of the Council concerning the Multiannual Framework Programme 2002-2006 of the European Community for research, technological development and demonstration activities aimed at contributing towards the creation of the European Research Area*. Brussels: European Commission, 2001 (COM (2001) 94 final).
<http://europa.eu.int/comm/research/pdf/com-2001-94-en.pdf>

AIDS FOR DAILY LIVING

Project Name DAILY - Make daily life easier

Overview The DAILY application is an interactive multimedia programme on CD-ROM which presents information about assistive devices to older people with minor motor disabilities. The programme is a multilingual system, based on auditory as well as visual output. By using text, video, graphics, sound and animations the user can see the assistive device in action, how it works and the situations it can be used in. The user can choose among different subjects and problems he/she wants to solve. The choices are presented in a user friendly graphic environment.

Status The CD-ROM has been developed and is available from the project partners.

Start date 01/12/1996 End date 30/06/1999

Website <http://www.prosoma.lu>Showcase/Results/5482/HTML/descriptionx.html>

Contact Ms Elisabeth Kampmann Hansen - Danish Centre for Technical Aids for Rehabilitation and Education
Tel: 45 42 99 33 22
e.kampmann@daniscen.dk

Funding European Commission (4th Framework Programme - TIDE)

Project Name Effect design improvements to existing products

Overview A project to effect design improvements to existing products and to develop new products assisting children with severe disabilities (mostly support furniture). A collaboration between the University of Ulster and James Leckey Design Ltd.

Status Continuous progress being made. To date, a number of new and improved products developed.

Start date 01/09/1999 End date 01/09/2001

Contact Dr Robin Clarke - Senior Lecturer, School of Electrical and Mechanical Engineering, University of Ulster
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Funding Department of Trade & Industry (Teaching Company Scheme)

Project Name Evaluation of a paging service for people with brain injury

Background A crossover design was used to ensure everybody entered into the trial received a pager at some point. A wide range of clients were accepted and referred from throughout the UK. Of a total of 200 referrals, 143 completed all stages of the trial. Following an initial assessment, target behaviours were measured for 2 weeks to establish a baseline. Clients were then randomly allocated to pager or waiting list for 7 weeks. During the last 2 weeks of this period, all clients were reassessed. Those with the pagers returned them, those on the waiting list received pagers for 7 weeks. All clients were reassessed during the last 2 weeks of this period.

Overview Following a successful pilot study, published in 1997, this project was to extend the original findings and use a randomised controlled trial to determine whether NeuroPage® was effective in reducing the everyday memory and planning problems of people with brain injury.

Status More than 80% of those who completed the 16-week trial were significantly more successful in carrying out everyday activities (such as self-care, medication and keeping appointments) when using the pager in comparison with the baseline period. For the majority, significant improvement was maintained 7 weeks after returning the pager.

Start date 01/01/1997 End date 01/12/1999

Contact Professor B A Wilson OBE - Senior Scientist/Clinical Psychologist, Cognition and Brain Sciences Unit, Addenbrookes Hospital
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barbara.wilson@mrc-cbu.cam.ac.uk

Funding European Commission; NHS Executive Eastern

Project Name Mattress elevators and pillow lifts - an evaluation

Overview The protocol for a comparative evaluation of all mattress elevators and pillow lifts has been approved by the Medical Devices Agency. Piloting commenced in March 2000 and main data collection continued until November 2000.

Status At time of going to press, the evaluation report is due for publication summer 2001.

Start date 01/03/2000 End date 30/04/2001

Contact Miss Louise Fazakarley - Research Physiotherapist,
Southampton Disability Equipment Assessment Centre
Tel: 0238 0794576

Funding Medical Devices Agency

Project Name MORE - MOBILE REscue phone

Overview Development of a new GSM (Global System of Mobile communication) mobile phone for use by disabled and older people. The easy to use device will integrate both mobile telephony and alarm functions.

Status A report is available on the project web site.

Start date 01/01/1997 End date 01/03/2000

Web site <http://fortec.iaee.tuwien.ac.at/reha.e/projects/more.html>

Contact Dr Ing Hans Herrman - Institut für Mikroelektronik Stuttgart
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herrman@mikro.uni-stuttgart.de

Funding European Commission (4th Framework Programme - TIDE)

Project Name	PACKAGE- Provision for improved lifestyles via access to consumer packages
Background	The results of the project will improve the lifestyles of three categories of disabled users, namely (i) people with impaired hand function who urgently need a device to open packages; (ii) people with impaired vision who need to be able to distinguish packages with different contents; (iii) people with special dietary needs, who require warnings of unsuitable ingredients in food packages.
Overview	The PACKAGE project is concerned with improving the manner in which disabled and older people can open packages and access the information on their labels.
Status	The consortium will further develop: (i) a product named HELPING HAND, with different levels of functionality; (ii) a European database of manufacturers' products and packaging, named ED-MaPP, which will be available on the WWW at the end of the project. HELPING HAND will be used by European citizens in the home. At its highest level of functionality, it will be able to read the bar code on a consumer package and match this code against ED-MaPP to identify the package and its ingredients. HELPING HAND will open the package, speak its contents and provide a warning of unsuitable ingredients.
Start date	01/02/2000 End date 01/02/2003
Web site	http://www.dundee.ac.uk/mecheng/research/package.htm
Contact	Mr David Carus - Dept of Mechanical Engineering, University of Dundee Tel: 01382 345651 d.a.carus@dundee.ac.uk
Funding	European Commission (5th Framework Programme – Information Society Technologies)

Project Name	Ultrasonic guide for visually impaired people
Background	Most ultrasonic guidance systems for blind and visually impaired people are simple obstacle detectors giving users little information about their environment.
Overview	To use high frequency sound transducers built into a traditional white stick, providing feedback to the user via a tactile map incorporated into the handgrip as a navigation guide.
Status	The product is awaiting development on the open market. By using simple available technology it is anticipated that the unit can be brought to market at an end user cost of under £300.
End date	01/12/1999
Website	http://www.soundalert.co.uk/sound_foresight.htm
Contact	Dr Dean Waters - Sound Foresight Ltd and University of Leeds Tel: 0113 2332859 d.a.waters@leeds.ac.uk
Funding	Department of Trade and Industry (Smart Scheme)

COMMUNICATION AIDS - HEARING

Project Name Acceptability, benefit and costs of early screening for hearing disability

Background There are almost 10 million people in Great Britain aged 61-80, of whom at least 2.8 million would benefit from the use of hearing aids. Only 910,000 in this age group have used a hearing aid - an initial take-up of 31% (however, use/wearing is only 22%).

Overview Health Technology Assessment project.

Status Estimated publication date for report: late 2002

Start date 01/04/1998

Contact Professor Adrian Davis - MRC Institute of Hearing Research, University of Nottingham
Tel: 0115 9223431
acd@ihr.mrc.ac.uk

Funding Department of Health (Health Technology Programme)

Project Name Modernising NHS hearing aid services

Overview Evaluation of the benefits and costs of providing digital hearing aids within the NHS

Status Ongoing

Start date 01/07/2000 End date 01/07/2002

Web site <http://www.doh.gov.uk/hearingaidproject/index.htm>

Contact Professor Adrian Davis - MRC Institute of Hearing Research, University of Nottingham Tel: 0115 922 3431

Funding Department of Health

Project Name	National evaluation of support options for deaf and hearing-impaired children
Background	Potentially, Cochlear Implants (CI) will have a greater impact than any previous intervention on the communicative skills, scholastic achievements, life-style, and well-being of profoundly deaf children. Although analyses of the cost-utility of paediatric CI have been reported, they have been based heavily on estimates of costs and outcomes. Sensitivity analysis demonstrates that the resulting values of cost-utility range too widely to provide a secure basis for framing policy. Thus, there is a pressing need to base analyses on measured costs and outcomes.
Overview	Key issues will be examined through comparisons within the population of implanted children, and comparisons between that population and matched samples drawn from the population of non-implanted children.
Status	PHASE II Ascertainment Phase. 17,500 children have been anonymously identified to us. Two summary reports of the findings to date have been produced (February 1999 and March 2000) and are available on request. PHASE III Survey Phase Began in January 1999. 9000 families have been selected to take part and, to date, nearly 3000 families have so far agreed. Questionnaire data from the parents, teachers and audiologists for each child are currently being gathered.
Start date	01/01/1999 End date 01/01/2002
Contact	Professor Alan Summerfield - Deputy Director, MRC Institute of Hearing Research, University of Nottingham Tel: 0115 9223431 aqs@ihr.mrc.ac.uk
Funding	Medical Research Council; Hearing Research Trust

Project Name Sleep - intelligent deaf alerter

Background Deaf Alerter® is a radio based fire alarm warning and public address messaging system for deaf and hearing-impaired people.

Overview Development of an intelligent base unit for the Alerter. A collaboration between Evets Communications Ltd and the University of Central England in Birmingham.

Status An initial working prototype has been designed and with further R&D the base unit will complement a product range for use by deaf-blind people.

Start date 05/11/99 End date 05/05/2003

Web Site <http://www.deaf-alerter.com>

Contact Mr Steven Hazeldine, MD, Evets Communications Ltd
Tel: 01332 363981
sjh@deaf-alerter.com

Funding Department of Trade and Industry (Teaching Company Scheme)

Project Name Text phones

Background Following reports that there was a lack of information on the range of text phones available, the project studied a range of desk top and portable models.

Overview An evaluation of textphones for use by deaf, hearing impaired and speech impaired people.

Status Report published September 2000 (Ref EL5). Copies are available from the Medical Devices Agency (Tel:020 7972 8360).

End date 01/03/2000

Contact Mrs Julie Spicer - Research Ergonomist, Derby Disability Equipment Assessment Centre
Tel: 01332 625627

Funding Medical Devices Agency

Project Name ViSiCAST - Virtual Signing: Capture, Animation, Storage and Transmission

Overview The goal of ViSiCAST is to improve the quality of life of Europe's deaf citizens by widening their access to services and facilities enjoyed by the community at large. The project identifies a number of areas of daily living where access would be improved if sign language communication was available: broadcast and interactive television; Internet; counter transactions. ViSiCAST will develop, evaluate and apply Virtual Humans (avatars) generating European sign languages. Partners in the UK are the Independent Television Commission, Televirtual Ltd, the University of East Anglia, The Post Office and the Royal National Institute for Deaf People.

Status Ongoing

Start date 01/01/2000 End date 01/03/2003

Web site <http://www.visicast.co.uk/>

Contact Dr Nick Lodge - Independent Television Commission, Winchester
Tel: 01962 848634
lodge@itc.org.uk

Funding European Commission (5th Framework Programme - Information Society Technologies)

COMMUNICATION AIDS - SPEECH

Project Name	ICU-Talk	
Overview	To develop a communication system for patients in an Intensive Care Unit who because of their condition or treatment are unable to speak. The system will be based on the TalksBac, an augmentative communication system designed for adults with acquired dysphasia.	
Status	The ICU-Talk system has been developed, tested and refined. Single case studies have commenced at Ninewells Hospital in Dundee.	
Start date	01/07/1999	End date 01/07/2002
Web site	http://www.computing.dundee.ac.uk/projects/icutalk	
Contact	Professor Ian Ricketts - Professor of Assistive Systems and Healthcare Computing, Dept of Applied Computing, University of Dundee Tel: 01382 344151 ricketts@computing.dundee.ac.uk	
Funding	Engineering and Physical Sciences Research Council	

Project Name	Portable communication assistant for people with acquired dysphasia (PCAD)	
Background	Dysphasia is a disorder of language following brain damage commonly as the result of stroke, the incidence of which is greatest in the over 60 age group. Many potential users are ambulant and need powerful, flexible communication devices. This need is not satisfied by the current generation of AAC (Augmentative and Alternative Communication) products, which focus on the needs of people with a speech rather than a language disorder.	
Overview	The PCAD project utilised the collective knowledge and experience of a pan-European team of clinical partners in the rehabilitation of dysphasic people, to specify and develop a Portable Communication Assistant (PCA), which will provide	

functional communication and can be integrated into speech and language therapy.

Status The device has been used successfully in trials and is now available from Richard Hill Associates, London.

Start date 01/12/1996 End date 01/12/2000

Web site <http://www.speech-therapy.org.uk/pcad.htm>

Contact Professor Pam Enderby - Speech and Language Therapy Research Unit, Frenchay Hospital, Bristol
Tel: 0117 918 6529

Funding European Commission (4th Framework Programme - TIDE)

Project Name REACT (REAL time Communication Terminal)

Background The ALADIN project ran from 1994 to 1997 and REACT is a follow on from this. Both these projects were funded through the EU TIDE and Telematics programmes. The work has been carried out by a multi-national consortium directed by Dundee University.

Status Two related systems have been developed, ScripTalker and ScriptAuthor. ScripTalker is a communication system for non-speaking people which is designed to assist a user to conduct transactional conversations, i.e. to attain goals such as buying items in a shop, consulting a doctor about health issues, or ordering a meal in a restaurant. ScriptAuthor facilitates the script development process.

Start date 01/01/1998 End date 31/12/2000

Web site http://www.computing.dundee.ac.uk/research/rs_funded_projects_view.asp?id=66

Contact Dr Norman Alm - Lecturer Dept of Applied Computing, University of Dundee
Tel: 01382 344151
nalm@computing.dundee.ac.uk

Funding European Commission (4th Framework Programme - TIDE)

Project Name Write:Talk

Status Researchers worked for one year with six young people who had severe problems with expressive communication. The young people learned to use Talk:About™, a computer-based communication system which allows people to relate their own experiences. The project produced some evidence that use of the system enabled participants to express their personality and develop skills in initiating and controlling interactive communication.

Start date 01/01/1998 End date 01/01/2000

Website <http://www.computing.dundee.ac.uk/projects/writetalk>

Contact Dr Annalu Waller - Lecturer, Dept of Applied Computing,
University of Dundee
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awaller@computing.dundee.ac.uk

Funding Engineering and Physical Sciences Research Council

FUNCTIONAL ELECTRICAL STIMULATION

Project Name	CREST - Clinical Rehabilitation using Electrical Stimulation via Telematics	
Background	Given appropriate expert input, functional electrical stimulation (FES) can improve the gait of incomplete spinal cord injured users. One obstacle in the deployment of FES in rehabilitation care is the lack of sufficient knowledge to tackle the often complex problem of optimising the equipment for individual patients. This knowledge is present in some groups, scattered over Europe	
Overview	The main aim of the project was to demonstrate that FES can be delivered by local non-expert professionals supported by interactive teleconsultation with a remote expert.	
Status	Stimulators were developed which can be programmed by non-expert professionals using a PC. Patient trials have been carried out. Project partners in the UK were the Universities of Sheffield and Strathclyde.	
Start date	01/01/1997	End date 01/01/2000
Website	http://www.rrd.nl/projects/content/file_125.htm	
Contact	Dr H.J. Hermens - Roessingh Research and Development b.v. Enschede, The Netherlands. Tel: 31 53 4875777 h.hermens@rrd.nl	
Funding	European Commission (4th Framework Programme - TIDE)	

Project Name	IMPULSE - Improved mobility through implanted functional electrical stimulation of nerves	
Background	Existing commercial FES systems for dropped foot use electrodes attached to the surface of the skin. This approach has several inherent problems which could potentially be avoided through use of an implantable stimulator.	

Overview	Collaborative project to develop an implantable two channel peroneal nerve stimulator for the treatment of dropped foot.	
Status	First device implanted in July 2000 with good early results. Several other devices have subsequently been implanted. MDA approval has been granted to conduct clinical trials in the UK.	
Start date	01/06/2000	End date 31/05/2001
Contact	Mr David Francis - Operations Director, Finetech Medical Ltd, Welwyn Garden City. Tel: 01707 330942 davidfrancis@finetech-medical.co.uk	
Funding	Department of Health (MedLINK)	

HOME ENVIRONMENT

Project Name	Affordable housing adaptations using modular construction - a case study of accessible toilets and bathrooms	
Background	The project addresses the movement for "universal design" in the context of the existing UK housing stock and offers an alternative conception based on adaptability according to need. The success of the project relies on close user involvement and extensive multidisciplinary working. The latter involves collaboration between occupational therapists, surveyors, construction managers, lawyers, cost advisors and computer specialists.	
Overview	A feasibility study to investigate the use of modular building technology for housing adaptations. The project involves: 1. Interviewing users who have or are thinking of adapting their property in order to determine their needs, aspirations and the acceptability of factory built modular extensions. 2. Researching international design standards related to adaptations. 3. Examining constraints related to development control, building regulations, property values, finance, manufacturing logistics and legal issues. 4. Specialist cost and programme studies by professional consultants. 5. The production of a report for users and stakeholders including a video walkthrough of preliminary designs.	
Status	Fieldwork is substantially complete and the report for beneficiaries is being produced. Findings indicate that modular technology can be used for housing adaptations, bringing benefits in terms of quality, convenience, speed and cost (particularly if an extension could be re-used when no longer required by the original user). Development work is required to improve designs of extensions and associated foundations/site work.	
Start date	18/11/1999	End date 30/04/2001
Web site	http://pisces.sbu.ac.uk/BE/SURV/SURV/research_consult/access_to_buildings/an_afford_house.html	

Contact Dr Andrew Atkinson - Senior Lecturer, Centre for Surveying,
South Bank University
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Atkins@sbu.ac.uk

Funding Engineering and Physical Sciences Research Council (EQUAL)

Project Name ASTRID - A Social and Technological Response to
meeting the needs of Individuals with Dementia and
their carers

Background There are a variety of assistive technologies that can be
helpful in supporting people with dementia and their carers.
They include computer-based recreational and therapeutic
systems, smart homes, monitoring and tracking systems, and
alarm systems. To date, however, there has been only limited
exploitation of their potential.

Overview The project developed a guide which:
provides a framework for assessing the needs and identifying
appropriate technological solutions for potential users of
assistive technology;
assists intermediate users and commissioners to develop
supply chains which successfully link potential assistive
technology users to technology manufacturers and suppliers;
contributes to the clarification of ethical issues surrounding
the use of assistive technology for people with dementia.

Status The ASTRID guide (ISBN 1874790523) can be obtained from
Hawker Publications. Tel: 020 7720 2108

Start date 15/03/1999 End date 01/09/2000

Web site <http://www.astridguide.org/>

Contact Mr Brian Frisby - Information Management Officer
Northampton Social Services
Tel: 01604 237491
bfrisby@northamptonshire.gov.uk

Funding European Commission (4th Framework Programme –
Telematics)

Project Name CUSTODIAN - Conceptualisation for User involvement in Specification and Tools Offering the efficient Delivery of system Integration Around home Networks

Overview The objective of the CUSTODIAN project is to enable the successful integration of a wide range of assistive technologies, general electronics products and systems around a home network (home system, smart house). This will be achieved by supporting the process whereby such integrated systems are considered, specified, tailored, installed, commissioned and maintained.

Status A design tool has been developed.

Start date 01/12/1998 End date 30/11/2000

Web site <http://www.rgu.ac.uk/subj/search/research/sustainablehousing/custodian/home.html>

Contact Mr Martin Edge - Senior Research Fellow, Scottish Centre for Environmental Design, The Robert Gordon University
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Funding CUSTODIAN builds on a number of earlier projects funded by the European Commission under the TIDE programme.

Project Name HOME-AOM: Home applications optimum multimedia/multimodal system for environmental control

Background The project is based on the relevant achievements of the HEPHAISTOS (T1004) TIDE project and will start with an analysis of user needs and daily user tasks, focussing on the elderly and people with lower, upper, upper and lower limb impairments, reading, hearing and speech impairments.

Overview The HOME-AOM prototype will be an extension of the existing HEPHAISTOS prototype, including touch screen input, synthetic voice output, voice entry, gesture recognition, and combinations of these. With the prototype, users will be able to comfortably control standard home appliances (TV, VCR,

washing machine, oven, lamps, heating system, windows and doors).

Status Prototypes under development and presently undergoing trials in Germany and Greece.

Start date 01/01/1997 End date 01/01/2000

Contact Mr Peter Jenkins - Director Symbia Ltd
Tel: 020 7872 5474

Funding European Commission (4th Framework Programme – Telematics)

Project Name HOMEBRAIN - Home automation appliance

Status This project developed methods for designing and evaluating inexpensive, mass-market home automation appliances for daily life that offer people integrated control and monitoring functions through two-way radio frequency transceiver chips. It coupled the design-for-all concept with a focus on the needs of older and disabled people.

Start date 01/01/1997 End date 01/03/1999

Web site <http://www.indes.nl/homebrain/index.html>

Contact Mr Jos Bruins - Philips Consumer Electronics
Tel: 31-40.27.36.851
jos.bruins@philips.com

Funding European Commission (4th Framework Programme - TIDE)

Project Name Introducing assistive technology into older people's homes: feasibility, acceptability, cost and outcomes

Background Assistive technology is a major component in policies to enable older people to remain in homes of their own.

Overview The project will explore the issues arising for selecting, providing and maintaining AT in older mainstream properties in which the majority of older people live.

Status The project is still in the initial stages.

Start date 01/10/2000 End date 31/12/2002

Web site <http://www.equal.ac.uk/AT/>

Contact Professor Anthea Tinker - Age Concern Institute of Gerontology, Kings College London
Tel: 020 7872 3035

Funding Engineering and Physical Sciences Research Council

Project Name Millennium Homes - a technology supported domestic environment for frail and elderly people

Background 5% in the age range 75 - 84, and 21% of those over 85 need continuous care. It is desirable for reasons of personal choice, economics and quality of life, for the majority of these people to continue to live in their own homes.

Overview The "Millennium Home" uses a variety of environmental sensors, connected to a computer, to monitor the state and activity of the "tenant".

Status Project in the initial stages.

Start date 01/07/2000 End date 31/12/2002

Contact Professor Heinz Wolff - Brunel University
Tel: 01895 271206
Heinz.Wolff@brunel.ac.uk

Funding Engineering and Physical Sciences Research Council;
Department of Health

Project Name SIMBAD - Smart Inactivity Monitor using array BAsed Detectors

Background By using thermal imaging techniques a person's movement can be tracked. If areas/times of inactivity (i.e. bed rest) are predetermined, an alarm can be activated if there is an unexpected period of inactivity, e.g. as a result of a fall.

Overview Development of a detector system based on thermal sensors.

Status User trials have commenced.

Start date 01/10/1999 End date 31/03/2001

Contact Dr Steve Hollock - Sales and Marketing Director, InfraRed Integrated Systems Ltd
Tel: 01327 357824
shollock@irisys.co.uk

Funding Department of Health (MedLINK)

INCONTINENCE

Project Name Female hand-held urinals - evaluation

Overview A multi-centre comparative evaluation of all 14 female hand-held urinals on the UK market March 1997.

Status Medical Devices Agency report published in June 1999 no. IN3.

Start date 01/06/1997 End date 01/06/1999

Contact Mr Alan Cottenden - Director CPE Network (Continence Product Evaluation) UCL, London
Tel: 020 7530 3402
a.cottenden@medphys.ucl.ac.uk

Funding Medical Devices Agency

Project Name Hydrophilic coated catheter for intermittent self catheterisation

Overview Comparative evaluation of all 4 hydrophilic coated catheters for intermittent self catheterisation on the UK market at June 1998.

Status Medical Devices Agency report published in Jan 2000 no. IN5.

Start date 01/06/1998 End date 01/01/2000

Contact Mr Alan Cottenden - Director CPE Network (Continence Product Evaluation) UCL, London
Tel: 020 7530 3402
a.cottenden@medphys.ucl.ac.uk

Funding Medical Devices Agency

Project Name Improved reusable incontinence products

Background The project aimed to pave the way for improved reusable (washable) absorbent incontinence products.

Overview The development of improved reusable absorbent incontinence products.

Status A generic design specification for improved products has been created; a range of promising design approaches identified; and specifications for the fabrics required to make them work have been defined.

Start date 01/09/1997 End date 31/05/2000

Contact Mr Alan Cottenden - Senior Lecturer, Medical Physics
Department UCL, London
Tel: 020 7209 6277
a.cottenden@medphys.ucl.ac.uk

Funding Engineering and Physical Sciences Research Council

Project Name Reusable absorbent incontinence products - a review

Overview A review of the literature comparing disposable and reusable pads, and different reusable pads.

Status Submitted for publication by the Medical Devices Agency.

End date 01/04/2001

Contact Mr Alan Cottenden - Director CPE Network (Continence Product Evaluation) UCL, London
Tel: 020 7530 3402
a.cottenden@medphys.ucl.ac.uk

Funding Medical Devices Agency

Project Name Reusable pants with integral pads for lightly incontinent women

Overview A comparative evaluation of all 10 reusable pants with integral pads for lightly incontinent women at July 1999.

Status Submitted for publication by the Medical Devices Agency.

End date 01/02/2001

Contact Mr Alan Cottenden - Director CPE Network (Continence Product Evaluation) UCL, London
Tel: 020 7530 3402
a.cottenden@medphys.ucl.ac.uk

Funding Medical Devices Agency

Project Name Small disposable pads for lightly incontinent women

Overview A comparative evaluation of all 12 small disposable pads for women with heavy light incontinence on the UK market at July 2000.

Status Data collection is in progress.

End date 01/09/2001

Contact Mr Alan Cottenden - Director CPE Network (Continence Product Evaluation) UCL, London
Tel: 020 7530 3402
a.cottenden@medphys.ucl.ac.uk

Funding Medical Devices Agency

Project Name Urinary incontinence device

Overview To develop a suprapubic port and associated devices for use by patients with urinary incontinence. The port will be installed by a minimally invasive technique and will remain in place for at least one year.

Status Ongoing

Start date 01/09/1997 End date 31/08/2001

Contact Mr Roger Feneley - Emeritus Consultant Urologist, Dept of Urology, Southmead Hospital
Tel: 0117 9595144
Rogerfeneley@dial.pipex.com

Funding Department of Health (MedLINK); Engineering and Physical Sciences Research Council

INFORMATION TECHNOLOGY AND WWW

Project Name	ACTION - Assisting Carers using Telematics Interventions to meet Older persons' Needs	
Overview	The primary aim of the project is to enhance the autonomy, independence and quality of life for frail, elderly and disabled people and their informal family carers by the application of telematic technology. The project will demonstrate that through a combination of familiar technologies, such as the carers' own television, remote control units, and use of additional technologies, fast computer processors and access to interactive communication, on-line effective care information communication can become a reality for formal and informal carers.	
Status	The project ended with an exploitation plan designed to ensure the dissemination of results to European user groups and voluntary organisations, professional and academic staff in the health care area, health care organisations and industries (see website).	
Start date	01/01/1997	End date 01/04/2000
Web site	http://www.hb.se/action/	
Contact	Mr Lennart Magnusson - Borås University College of Health Sciences, Sweden Tel: 46 33 162094 Leonart.Magnusson@vhb.alvsborg.se	
Funding	European Commission (4th Framework Programme – Telematics)	

Project Name	DISCUS - Distance information, support and communication for European carers	
Overview	DISCUS will follow user centred design principles to develop an accessible website. The information that will be provided will be identified through the definition of the user requirements.	

The system will establish communication and file transfer facilities between careworkers and experts in caring.

Status	Since June 2000 there has been a working prototype system for the DISCUS project (see website). This prototype information system has been evaluated with a sample of care workers in the UK, and is now being tested in two demonstration sites in Italy and Greece.	
Start date	17/01/1998	End date 01/03/2001
Web site	http://www.lboro.ac.uk./research/husat/discus-web	
Contact	Dr Dave Poulson - Inclusive and Participative Design Group Research Fellow HUSAT - Human Sciences and Advanced Technology Research Institute, Loughborough Tel: 01509 611088 d.f.poulson@lboro.ac.uk	
Funding	European Commission (4th Framework Programme – Telematics)	

Project Name	DISinHE - DISability information systems in Higher Education	
Background	Information technology has an important part to play in supporting both staff and students with disabilities.	
Overview	The Support Centre is working closely with HE Institutions and other relevant bodies, and is building upon the extensive work in this field, to ensure that the provision of appropriate technological support and advice for students and staff with disabilities is embedded as a professional service within the HE sector.	
Status	The Joint Information Systems Committee of the UK Higher Education Funding Councils has established a new service (TechDis) to continue delivering the work DISinHE has begun and to extend the services to encompass the Further Education, as well as the Higher Education community.	
Start date	01/01/1998	End date 31/01/2001

Web site <http://www.disinhe.ac.uk>

Contact Professor Alan Newell - Dept of Applied Computing, University of Dundee
Tel: 01382 344151
afn@computing.dundee.ac.uk

Funding Department for Education and Employment; UK Higher Education Funding Councils

Project Name DOVE - Design of Open and distance learning Vocational training Environment

Background Multimedia and networked communication enable students with disabilities to access knowledge through open and distance learning.

Overview The DOVE project aimed to develop an Internet based distance learning environment for vocational training in multimedia for disabled people.

Status Project completed and an extension project is underway.

Start date 01/09/1996 End date 01/01/1999

Web site <http://leonardo.hadar.ideon.se/dovepublic.htm>

Contact Mr Peter Gregor - Dept of Applied Computing, University of Dundee
Tel: 01382 344151
pgregor@computing.dundee.ac.uk

Funding European Commission (Leonardo Da Vinci Programme)

Project Name Special needs computing

Overview Research into areas of computer-based assistance of people with learning difficulties in particular: Language assessment and remediation; multimedia and web-based technologies; Internet and VR applications (children).

Various organisations are involved at different times. E.g. Schools, local

organisations and hospitals, Cleveland Educational Computing Centre, IT Internet Group of NASEN (National Association of Special Education Needs) and the National Autistic Society.

Status	Various projects and papers.
End date	Ongoing
Contact	Dr Steve Green - Director of Postgraduate Programmes, Special Needs Computing Research Unit, University of Teeside Tel: 01642 218121 s.j.green@tees.ac.uk
Funding	Engineering and Physical Sciences Research Council

Project Name Speech recognition in schools

Background There is growing awareness in schools of the potential of speech recognition (SR) technology to increase access to the curriculum for pupils with special educational needs (SEN). However, approaches and success with SR vary widely. Pupils in some schools are using SR routinely as their main means of writing and recording work, whereas other schools have found SR difficult to implement.

Overview This project aims to investigate how introduction and use of SR by pupils with SEN can be made to work.

Status Draft materials are being piloted in a number of schools in Scotland.

Start date 01/02/2000 End date 01/07/2001

Contact Mr Paul Nisbet - Joint Co-ordinator CALL Centre, University of Edinburgh
Tel: 01316 516235

Funding Scottish Executive Education Department

Project Name	WAI - Web Accessibility Initiative	
Background	The world wide web is fast becoming the de facto repository of preference for on-line information, yet the technology of the web has inadvertently created barriers for people with disabilities. The World Wide Web Consortium (W3C) co-ordinates the evolution of the web core protocol (http, html, css, pics etc.) and has a mission to "realise the full potential of the web".	
Overview	Through the creation and co-ordination of a web user forum and labelling system, participating organisations expect to be able to not only gather input for the evolution of the web protocols and languages being developed at W3C, but also to disabled people to judge the level of accessibility of web content.	
Status	The project is completed and reports can be accessed on the website.	
Start date	01/01/1998	End date 30/06/1999
Web site	http://www.w3.org/WAI/TIDE	
Contact	Dr Daniel Dardailler - INRIA - World Wide Web Consortium (W3C) Tel: 33 4 92 38 79 83 danield@w3.org	
Funding	European Commission (4th Framework Programme – Telematics)	

MOVING AND HANDLING

Project Name Leg Lifters - an evaluation

Background Many people with disabilities have difficulty or require help to get their legs into bed. For the disabled person, getting into bed independently can be tiring, painful and even unsafe. For carers, manoeuvring 30% of a person's body weight may be a high risk handling task. Leg lifters can alleviate these problems, but little is known about which leg lifters best meet individual needs.

Overview A study has evaluated all leg lifters available on the UK market at the time of the research.

Status Medical Devices Agency report published in Oct 1999, no. EL4.

Start date 01/02/1998 End date 01/05/1999

Contact Mrs Sara Demain - Research Physiotherapist, Disability Equipment Assessment Centre, Southampton General Hospital
Tel: 0238 0794576

Funding Medical Devices Agency

Project Name Mobile electric hoists

Background An evaluation of domestic mobile hoists was issued in 1993. The aim of this project was to provide updated information about features of products available at the time of the research.

Overview To evaluate mobile electric hoists from the operators' perspective.

Status Medical Devices Agency report published in July 2000, no. MH2.

Contact Mrs Peggy Frost - Project Co-ordinator, Derby Disability
Equipment Assessment Centre
Tel: 01332 625627

Funding Medical Devices Agency

Project Name Standing frame lifting aid

Background Following the implementation of the "Code of Practice for Manual Handling of Patients 1993" there was a requirement to reduce the strain on nurses undertaking lifting operations. Working in collaboration with Spinal Units and Orthopaedic Hospitals throughout the UK, Theo Davies & Sons have developed a support cradle/seat in which the patient is held securely, and then lifted smoothly, by straps attached to the seat and the Standing Frame, up to the vertical position. The Lifting Aid will be available in two versions. One uses a hand-cranked geared mechanism that one nurse can operate, the other offers the facility for the patient to control the lift by a remote controller for the electrical lifting system. Particular attention has been paid to ergonomics of operation and patient safety.

Status The units are being marketed for both hospital and home environments. The requirements of a retro-fit to existing frames in service are under consideration.

Start date 01/12/1998 End date 31/12/1999

Contact Mr Arwyn Davies - Director, Theo Davies & Sons
Tel: 01691 718218

Funding Welsh Office for Research and Development (WORD)

ORTHOTICS, PROSTHETICS, FOOTWEAR

Project Name	Development of composite material walking orthoses for paraplegic and neurologically impaired patients	
Background	Many problems have been experienced in the past with these materials for a variety of factors.	
Overview	The project seeks to address the design issues related to effective application of composite materials in the orthotics industry. The work is being carried out in collaboration with Carbon Concepts Ltd and Masser Surgical Appliances Ltd.	
Status	The fundamental tasks involved in material selection and establishing general design concepts have been completed. Further work planned or in progress: patient selection; trials and testing in accordance with the EC Medical Devices Directive.	
Start date	01/04/1999	End date 31/03/2002
Contact	John Stallard - Technical Director, ORLAU - (Orthotic Research and Locomotor Assessment Unit) Tel: 01691 404531 John.Stallard@rjahoh-tr.wmids.nhs.uk	
Funding	Department of Health (MedLINK)	

Project Name	Effects of shoe inserts on ground reaction forces registered on force plates during walking	
Status	Data collection commenced in 10 subjects aged 13-45 to show: 1. The change in vertical force at the two peaks in the gait cycle; 2. The alteration to the sagittal plane ground reaction vector at the same time as in 1. above; 3. The deviation of the centre of pressure at the same two points in the gait cycle.	
Start date	01/09/1998	End date 01/03/2000

Contact Mr Ramsay Sloss - Senior Podiatrist, William Street Podiatric Clinic, Glasgow
Tel: 0141 566 6200
rsloss@glacomen.scot.nhs.uk

Funding Greater Glasgow Primary Care NHS Trust

Project Name TOMPAW - A TOTally Modular Prosthetic Arm with high Workability

Overview The TOMPAW project will design and manufacture a set of modular and flexible standardised hand and arm prostheses - including both passive and externally powered components - with a very high functionality. The system will be applicable to losses from a complete hand through to the upper arm, and will include technical support for fitting and maintenance. Mapping and formulation of user requirements are crucial elements of the project.

Status Experimental fitting of hand/wrist/elbow units with TOMPAW electronics has been evaluated.

Start date 01/01/1998 End date 01/01/2001

Contact Dr Peter Kyberd - Research Engineer, Oxford Orthopaedic Engineering Centre
Tel: 01865 227451
ooec@ermine.ox.ac.uk

Funding European Commission (4th Framework Programme – Telematics)

PERSONAL CARE

Project Name	Bath support cushions for people with severe disabilities - an evaluation	
Background	Data from the Medical Devices Agency Bathing and Showering Equipment evaluation (see below) has shown that bath cushions need to be evaluated in greater depth to determine the merits of the different types: those for comfort, support or pressure relief. Users were recruited both from the community (living in their own homes) and residential settings. All cushions on the market at the time of research were tested by users.	
Status	Medical Devices Agency report published in Dec 2000, no. EL6.	
Start date	01/05/1999	End date 30/06/2000
Contact	Mrs Helen Pain - Research Occupational Therapist, Disability Equipment Assessment Centre, Southampton General Hospital Tel: 0238 0794576	
Funding	Medical Devices Agency	

Project Name	Bathing and showering equipment for people with severe disabilities	
Background	Bathing and showering equipment for people who have poor sitting balance, or who need special seats because of spinal deformities is diverse, and is found in both adult and children's ranges. This, together with the relatively lower numbers of users, resulted in the project adopting several methods of data collection, with the purpose of gaining information about the entire range currently on the market.	
Overview	A postal survey across England and Wales, discussion groups and contact with all the relevant manufacturers have been undertaken.	

Status Medical Devices Agency report published in Dec 1999, no. EL3.

Start date 01/05/1997 End date 30/12/1999

Contact Mrs Helen Pain - Research Occupational Therapist, Disability Equipment Assessment Centre, Southampton General Hospital
Tel: 0238 0794576

Funding Medical Devices Agency

Project Name Bed safety rails

Background Following the issue of several safety hazard notices, the Medical Devices Agency commissioned this report as an urgent study.

Overview To evaluate aspects of bed safety rails and fitting with regard to compatibility, instructions and use.

Status Professional evaluations, questionnaires and trials have been completed. Data is being collated and analysed. Report is being written.

Start date 01/01/2000 End date 30/12/2000

Contact Mrs Peggy Frost - Project Co-ordinator, Derby Disability Equipment Assessment Centre
Tel: 01332 625627

Funding Medical Devices Agency

Project Name Chair and bed raisers

Overview An evaluation of bed and chair raisers suitable for raising domestic beds, chairs and settees.

Status Product information has been collated and primary literature searches carried out. User information is being collated.

Start date 01/12/1999 End date 01/04/2001

Contact Professor Chris Ward - Research Director, Derby Disability
Equipment Assessment Centre
Tel: 01332 625627

Funding Medical Devices Agency

Project Name EASYTEX - Aesthetical, adjustable, serviceable and
mainstay textiles for disabled and elderly

Overview Clothing produced with standard patterns do not fit persons
with deviating body dimensions and the patterns have to be
changed according to individual body dimensions. The project
aimed to produce:

- authoritative database with information on textiles and
clothing for disabled and older people, available on CD-ROM
and through the internet
- brochure with information on special requirements for the
different types of textile products for use, for example, by
people with prostheses, incontinence, visual disability etc.
- individual garment design system and technical reports of
the R&D work.

Status A database and other outputs from the project can be
accessed through the website.

Start date 01/01/1996 End date 01/01/1999

Web site <http://www.s2.chalmers.se/~neuez/EASYTEX/>

Contact Dr Harriet Meinander - VTT Chemical Technology
Harriet.Meinander@vtt.fi

Funding European Commission (4th Framework Programme –
Telematics)

Project Name Shower seat for partially disabled and older people

Background The project aims to provide an improved alternative to shower seats currently available from specialist and high-street distributors.

Status Prototype being tested, trials with end users are taking place. Further development will be ongoing

Start date 01/11/1999 End date 01/05/2001

Contact Mr Paul Neal - Director, Product Partners Ltd, Biggleswade
Tel: 01767 600456

Funding Department of Trade and Industry (Smart Scheme)

PUBLIC ACCESSIBILITY (BUILDINGS AND TRANSPORT)

Project Name	ARIADNE - Access, information and navigation support in the labyrinth of large buildings	
Background	Mobility studies have shown that many people do not venture far beyond their domestic environment due to difficulties in accessing unfamiliar places.	
Overview	The Ariadne system consists of a smart card which will contain individual user needs for navigation around the building. The technical approach will be based upon a retrofitted installation of a series of intelligent nodes distributed at pertinent locations around a site. A visitor would have a smart card ID badge that would contain the users requirements and an itinerary of the visit. This would be provided at the reception desk. Upon sensing a user at a particular location the intelligent node will provide information in an appropriate manner, mainly aurally or visually but also electronically. In addition the network approach adopted by the project will facilitate interoperability across a whole range of other systems, allowing changes in lighting levels, opening of doors etc. This has many implications for safety and security issues for building operators, particularly in fire evacuation.	
Status	A technical specification and other outputs from the project are available on the website.	
Start date	01/01/1997	End date 01/01/2000
Web site	http://www.cyber.rdg.ac.uk/DSRG/ariadne/ariadne.htm	
Contact	Mr Darren Wenn - Dept of Cybernetics, University of Reading Tel: 01189 318219	
Funding	European Commission (4th Framework Programme - Telematics)	

Project Name Automatic door opening system

Overview To develop, manufacture and market a new design of automatic door opening system for people with mobility difficulties, which will be suitable for use in commercial, industrial, residential and public buildings.

Status Work in progress.

Start date 31/03/2000 End date 01/10/2003

Contact Mr Brian Miles - Manufacturing Group, University of Warwick
Tel: 024 7657 3169

Funding Engineering and Physical Sciences Research Council

Project Name BARRIER - Accessibility in public buildings in Europe

Overview Development of a multimedia database providing information on the accessibility of public buildings for people with mobility disabilities.

Status The following products have been developed:
Model guide: a transnational concept - "Town guides for people with disabilities";
Data collection tool: software for the production of town guides in accordance with the stipulations of the model town guide;
Multimedia database: a system providing information on public building accessibility.

Start date 01/01/1997 End date 01/07/2001

Web site <http://www.dias.de/en/bis/index.html>

Contact Mr Michael Zapp - DIAS GmbH
Tel: 49 40 431 875 11
zapp@dias.de

Funding European Commission (4th Framework Programme-Telematics)

Project Name	CRYSTAL - Deafness, design, and communication in the built environment	
Background	Deaf and hearing impaired people know that not all buildings are the same when it comes to communication. The type and level of light, and the colour and patterns on the wall behind the speaker can affect both signing and lip-reading. However, there is little research available on everyday decoration and lighting and their impact on communication.	
Overview	The Project Crystal is looking at how colour and light in public buildings affect deaf and hearing impaired people's communication skills.	
Status	Ongoing.	
Start date	01/11/1999	End date 30/09/2001
Web site	http://www.rdg.ac.uk/~kcs99ai/crystal-index.html	
Contact	Rachael Luck - Research Group for Inclusive Environments, University of Reading Tel: 0118 931 6734 crystal@rdg.ac.uk	
Funding	Engineering and Physical Sciences Research Council (EQUAL)	

Project Name	Development of an auditory navigation beacon	
Overview	The aim is to develop an auditory navigation beacon which will help people escape from a burning building, aeroplane, ship etc. in the event of a fire. The beacon will address the needs of people with visual, hearing or learning impairments. To develop the beacon a series of computer acoustic simulations will be generated and presented to the target subject groups in real time. The users will navigate their way through these simulated buildings, and their respective performances will be evaluated to determine which beacon is most easily localised.	
Status	Ongoing.	
Start date	01/06/1999	End date 01/05/2002

Web site <http://www.rdg.ac.uk/AcaDepts/kc/nhe/EQUAL/18.html>

Contact Prof Deborah Withington - School of Biomedical Sciences,
University of Leeds
Tel: 0113 233 4263
d.j.withington@leeds.ac.uk

Funding Engineering and Physical Sciences Research Council (EQUAL)

Project Name I-ALM - Improving Accessibility for those with Impaired Mobility

Overview Development of navigation and other telematics-based travel aids for wheelchair users. The project utilises existing contactless smartcard infrastructure (providing cost effectiveness), to improve accessibility and social inclusion and thus overall quality of life for wheelchair users, and to integrate the design process with special needs research.

Status At time of going to press, project completion imminent and outcome soon to be published.

Start date 01/07/1999 End date 30/06/2001

Web site <http://www.equal.ac.uk/17.html>

Contact Mr Philip Blythe - Senior Lecturer in Transport, Telematics,
Dept of Civil Engineering, University of Newcastle upon Tyne
Tel: 0191 222 7935

Funding Engineering and Physical Sciences Research Council (EQUAL)

Project Name Inclusive transport environments: colour design, lighting and visual impairment

Background An earlier study, Project Rainbow, established how partially sighted people search and navigate spaces. However, the accessibility of spaces within transport environments presents a different set of problems such as safety, wayfinding and interaction with external and internal environments.

Overview	This research will have important consequences for any recommendations concerning the provision of colour, lighting and design in future integrated transport environments for the assessment of adequate provision under the Disability Discrimination Act 1995.	
Status	Project in the Phase one stage which is: To carry out a detailed review of research publications on transport environment design issues, lighting regimes and the effects on visually impaired people; To review current design information which may relate to transport environments; To investigate and examine gaps in ownership of responsibility by professionals involved in developing inter-modal transport environments.	
Start date	01/12/2000	End date 30/12/2002
Contact	Mr Geoff Cook - Senior Lecturer, Research Group for Inclusive Environments, University of Reading Tel: 0118 931 6734 cscogeo@rdg.ac.uk	
Funding	Engineering and Physical Sciences Research Council	

Project Name	MAGNUS - Modelling Access with GIS in Northampton Urban Systems - an application for wheelchair users in N'hants	
Overview	A route modelling system is being developed within a geographical information system (GIS) to calculate wheelchair accessible routes to user specific destinations.	
Status	Ongoing.	
Start date	01/10/1999	End date 30/09/2001
Contact	Prof Hugh Matthews - School of Environmental Science, University College Northampton Tel: 01604 735500	
Funding	Engineering and Physical Sciences Research Council (EQUAL)	

Project Name TELSCAN

Overview The project has carried out a number of activities, in particular the provision of expert assistance to other projects in the EU Transport Telematics programme on the needs of older and disabled drivers and users of public transport. It has also considered the impacts on these people of Intelligent Transport Systems (ITS) and developed a database of design guidelines.

Status The database and other project outputs can be accessed on the website.

Start date 01/01/1996 End date 01/01/2000

Web site <http://hermes.civil.auth.gr/telscan/telsc.html>

Contact Mr P Overton - Cranfield University
Tel: 01234 751122
P.Overton@Cranfield.ac.uk

Funding European Commission (4th Framework Programme - Telematics)

REHABILITATION, THERAPY AND SERVICE

Project Name DRAMA - Developments in Rehabilitation of the Arm - a Multimedia Approach

Overview The DRAMA project is addressed at the clinical community responsible for the rehabilitation of patients with neurological impairments. The principal diagnostic groups to be treated are those suffering from stroke, head injury or multiple sclerosis. These three groups account for 90% of neurological disability in Europe, or approximately 10 million people.

Status The main outcome of the DRAMA project is a multimedia CD-ROM to support clinicians and other rehabilitation professionals in the process of quantifying assessment of the upper limb in patients with stroke, traumatic brain injury or multiple sclerosis. The database focuses on movements of the upper limb associated with a range of functional tasks, performed by both non-impaired subjects and patients with defined neurological impairments.

Start date 01/06/1998 End date 01/11/2000

Web site <http://www.ncl.ac.uk/crest/drama.html>

Contact Prof G Johnson - Centre for Rehabilitation & Engineering Studies (CREST), University of Newcastle upon Tyne
Tel: 0191 222 6193

Funding European Commission (4th Framework Programme - Telematics)

Project Name GENTLE - Robotic assistance in neuromotor rehabilitation

Overview The project will look at motivating and challenging rehabilitation techniques for people recovering post stroke that can be mediated via robotic and 'mechatronic' technologies. The aims of GENTLE are ambitious as they will require established stroke rehabilitation practices to be altered to accommodate machine mediated therapies and will

promote new ways of establishing both cognitive and physical interactions for the patient. To allow this to happen a concurrent engineering approach is being used that allows new technologies to be prototyped and developed, and includes a detailed clinical evaluation of these technologies.

Status User survey completed.

Start date 01/02/2000 End date 31/01/2002

Web site <http://www.gentle.rdg.ac.uk/gentle>

Contact Dr William Harwin - Dept of Cybernetics, University of Reading
Tel: 01189 318219
w.s.harwin@reading.ac.uk

Funding European Commission (5th Framework Programme - Quality of Life)

Project Name IMPACT - Increasing the IMPACT of assistive technology

Background IMPACT aims to increase the awareness and knowledge of assistive technology (AT) among professionals in health and social services.

Overview The project will provide training material and courseware in both multimedia and paper formats. This will facilitate education for professionals in the understanding of AT and related service provision for disabled and older people.

Status The courseware and multimedia software are available via the web site.

Start date 01/01/1998 End date 01/07/1999

Web site <http://www.fontys.nl/impact/>

Contact Mrs Jackie Rafferty - Director, Centre for Human Service Technology, University of Southampton
Tel: 023 8059 2925
jr@chst.soton.ac.uk

Funding European Commission (4th Framework Programme)

Project Name NATASHA - Network And Tools for the Assessment of Speech/language and Hearing Ability

Overview Many tests are done in audiology for diagnostic reasons, for measuring performance of impaired listeners and for rehabilitation purposes. These fields are expanding. NATASHA aims to establish consensus on a European standardisation of all audiological tests including speech tests, testing methods and testing procedures to enable comparison over national borders and avoid separate developments of new tests in each country.

Status Test procedures can be found on the project web site.

Start date 01/07/1998 End date 29/02/2000

Web site <http://www.eur.nl/fgg/kno/AUDIO/natasha.htm>

Contact Dr J Verschuure - Head of Dept, Erasmus Medical Center, Rotterdam
Tel: +31 10 463 4586
Verschuure@kno.fgg.eur.nl

Funding European Commission (4th Framework Programme - Telematics)

Project Name TELEMATE - TELEmatic Multidisciplinary Assistive Technology Education

Overview A European-wide framework to share multidisciplinary training and education in assistive technology. It is aimed at helping professional multidisciplinary healthcare teams specialising in AT to keep up to date with their knowledge so that users of assistive technology and their carers have the best possible service and information.

Status	TELEMATE has: proposed an educational framework in a public consultation document (deliverable D3); proposed telematic procedures for delivery (deliverable D4) and maintenance procedures (deliverable D5). The TELEMATE project has identified three particular problems in the field of assistive technology education: the different educational approaches needed for members of a multidisciplinary support team, according to their background; the requirement for a common approach, language, and mutual understanding between multidisciplinary team members; and the breadth of knowledge required of service provider teams for holistic support of their clients.	
Start date	01/01/1999	End date 01/12/2000
Web site	http://www.telemate.org	
Contact	Mr Alan Turner-Smith - Reader in Rehabilitation CoRE (Centre of Rehabilitation Engineering), Kings College Hospital, London Tel: 020 7346 1650 alan.turner-smith@kcl.ac.uk	
Funding	European Commission (4th Framework Programme - Telematics)	

Project Name	Treatment of Unilateral Spatial Neglect (USN) using contingency electrical stimulation	
Overview	The project will investigate the effectiveness of contingency electrical stimulation of the affected hand in reducing the disabling effects of USN following stroke, when stimulation is coupled with self-instructional training. In addition, the research team will investigate the delivery of the intervention actively and passively (i.e. during both concurrent occupational therapy and non-therapy periods respectively).	
Status	The technology has been developed and piloted.	
Start date	01/07/2000	End date 31/03/2002

Contact Dr Audrey Bowen - Lecturer in Psychology, Centre for Human
Communication and Deafness, University of Manchester
Tel: 0161 275 3389/3401
audrey.bowen@man.ac.uk

Funding Department of Health (New and Emerging Applications of
Technology Programme)

USER INTERFACE

Project Name	ALDICT - Access of people with Learning Disabilities to Information and Communication Technologies	
Background	People with learning disabilities have limited levels of communication and abstraction skills. This makes the use of telephones more difficult, and the text-based environment of other communication systems limits access for people whose reading and writing abilities are reduced.	
Overview	The ALDICT project will develop a computer programme which will facilitate the communication with persons who have difficulties using normal spoken or written language. The different stages of development of the ALDICT programme will be tested by user groups in all participating countries. This will identify problems regarding the functionality of the system and provide first experiences with the international e-mail communication of people with a learning impairment.	
Status	Single-language version of product (Inter Comm) now on the market from Widgit. (http://www.widgit.co.uk/html/products/s_intercomm.html).	
Start date	01/05/1998	End date 30/04/2001
Web site	http://www.ilsmh-ea.be/aldict/aldict.htm	
Contact	Mrs Tina Detheridge - Director, Widgit Software Ltd Tel: 01926 885303	
Funding	European Commission (4th Framework Programme – Telematics)	

Project Name	Braille printing system	
Background	Braille and tactile diagrams cannot be easily produced on the same page without the production process being lengthy and costly.	
Overview	The project will develop a novel Braille printing system which	

is simple, low cost and can be used by both partially sighted and blind persons for the production of all types of raised effects, from pictures to Braille.

Status Feasibility study now complete and an expected prototype will be produced mid summer 2001.

Start date 01/06/1999 End date 31/01/2001

Contact Mr Philip Eccles - Zychem Ltd
Tel: 01625 528811

Funding Department of Trade and Industry (Smart Scheme)

Project Name Computer speech for blind people

Overview The project aims to create an affordable text to speech reader for windows based software.

Status The software is available from Choice Technology (see below).

Start date 01/11/1999 End date 01/04/2000

Web site <http://www.screenreader.co.uk/>

Contact Mr Roger Wilson-Hinds - Managing Director, Choice Technology and Training, Peterborough
Tel: 01733 234441
roger@choicetech.co.uk

Funding Department of Trade and Industry (Smart Scheme)

Project Name ENABL - ENabler for Access to computer-Based vocational tasks with Language and speech

Background Motor disabilities often affect the speech of individuals, as well as their ability to use their hands and legs. This represents a significant technical problem in the implementation of a suitable interface, and is one of the issues addressed in the ENABL project.

Overview	Essentially, the aim of the project is to provide access by voice (via Automatic Speech Recognition - ASR), to vocational software for custom-driven product design and configuration. By using such an interface, we hope to implement a system that is controllable by dysarthric speech of persons with motor disabilities.	
Status	Software and publications are available on the web site.	
Start date	01/01/1997	End date 01/01/2000
Web site	http://www.shef.ac.uk/uni/projects/enabl/	
Contact	Dr Corine Bickley - Concentra - KTI Tel: 01926 438100 bickconctr@aol.com	
Funding	European Commission (4th Framework Programme – Telematics)	

Project Name	ICAN - Integrated Communication and control for All Needs	
Background	Integrated Control presents a simple and common approach to enable older and disabled people to utilise a variety of equipment.	
Overview	ICAN focuses on developing and evaluating systems which enable disabled and older people to communicate and control their environment from a portable device or wheelchair. ICAN will lay the foundation for future standardisation in integrating wheelchair user interface devices with smart homes and communication devices.	
Status	A web site has been developed.	
Start date	01/06/1998	End date 31/05/2001
Web site	http://www.crc.ie/ican/iusertec.htm	
Contact	Dr Bob Allen - Manager of Assistive Technology, Central Remedial Clinic, Dublin Tel: 01 8332206 ballen@crc.ie	

Funding European Commission (4th Framework Programme – Telematics)

Project Name INCLUDE - INCLUision of Disabled and Elderly people in telematics

Background To provide a WWW server for information on the European TELEMATICS programme, and an information resource on ageing and disability issues for developers of Telematic applications.

Overview The INCLUDE project was a 4 year co-operation between the main European experts on the issues of telematics applications and older/disabled people.

Status Website developed and in operation (see below).

Start date 01/01/1996 End date 30/12/1999

Web site <http://www.stakes.fi/include>

Contact Dr Dave Poulson - Inclusive and Participative Design Group
Research Fellow, HUSAT - Human Sciences and Advanced
Technology Research Institute
Tel: 01509 611088
d.f.poulson@lboro.ac.uk

Funding European Commission (4th Framework Programme – Telematics)

Project Name PLAY2 - Hardware and software for storage of various music input

Background PLAY2 is an extension of the PLAY project (funded by the European Commission 4th Framework Programme - Telematics) which was completed in 1999. PLAY2 was generated from the needs of the users showing a great interest in PLAY. PLAY2 will enable them to organise their own virtual libraries, so as to receive increasing numbers of texts, and collaborate and exchange scores with sighted musicians.

Overview	Software for: storage of various music input, conversion of different Braille syntax into sound, graphic, Braille output and telematics access.	
Status	The whole PLAY2 activity will enable the institutes and libraries participating in the project to collect increasing quantities of material. These institutions intend to continue to collaborate in the initiative, even after project completion.	
Start date	01/03/2000	End date 31/12/2003
Contact	Professor Helen Petrie - Director, National Centre for Tactile Diagrams, University of Hertfordshire Tel: 01707 286348 h.l.petrie@herts.ac.uk	
Funding	European Commission (5th Framework Programme – Information Society Technologies)	

Project Name PRINT- Braille printer

Overview	The project has developed an innovative tactile printer that adds material to paper, rather than embossing. It is able to create excellent tactile output and will also offer a tactile fax capability. The ink Braille printer uses a technology known as solid ink printing. One technological advantage is that tactile graphics and Moon can easily be printed with the same printer as Braille. Solid ink is what makes Moon and Graphics possible. Tactile Fax is one application which demonstrates all the revolutionary capabilities developed with PRINT.	
Status	Several printers are now being used to create evaluation printouts. A concept image of the first pre-series printers is also now available (see website).	
Start date	01/01/1997	End date 31/12/1999
Web site	http://brailletec.de/print_en.htm	
Contact	K. Gladstone - Royal National Institute for the Blind Tel: 020 7388 1266 Kgladstone@rnib.org.uk	

Funding European Commission (4th Framework Programme – Telematics)

Project Name Special access tools on the web

Background There is a wide range of computer access tools available to schools and pupils with physical access, perceptual and learning difficulties. These include adapted keyboards, joysticks, trackballs, mouse alternatives and switches.

Overview This project will extend the CALL web site to include more information, including images of some equipment. Photographs, technical specifications, and comments from CALL staff will enable teachers to learn about and compare the devices, and request more appropriate loans of equipment from the CALL Equipment Loan Bank.

Status Project completed. See website.

Start date 01/10/2000 End date 01/03/2001

Web site <http://callcentre.education.ed.ac.uk>

Contact Mr Paul Nisbet - Joint Co-ordinator CALL Centre, University of Edinburgh
Tel: 01316 516235

Funding Scottish Executive Education Department

Project Name Speech recognition for people with severe dysarthria

Overview Development and testing of a speech training and recognition system to allow disabled people with dysarthria to control assistive technology by voice.

Status Initial stages

Start date 01/08/2000 End date 30/07/2003

Contact Prof Mark Hawley - Director of Research and Development
Dept of Medical Physics and Clinical Engineering - Barnsley
District Hospital
Tel: 01226 777726
Mark.Hawley@bdgh-tr.trent.nhs.uk

Funding Department of Health (New and Emerging Applications of
Technology Programme)

Project Name System to teach music to disabled students that can be
powered from a wheelchair battery

Overview The project will enable music students to use electronic
keyboards more easily using the power source of their
wheelchairs. In addition a prototype music system for
disabled people will be created that can be linked to the
internet and will assist music teachers in education by
allowing distance learning.

Status Counterpoint has launched a new product called KaAN,
available from them via their website. It is a revolutionary
Internet ready keyboard system and audio network, usable
from a wheelchair. Counterpoint MTC can be contacted on
01903 538844.

Start date 01/10/1998 End date 01/06/2000

Web site <http://www.counterpoint-mtc.co.uk/music/index.html>

Contact Dr DA Sanders - Investigator Dept of Mechanical and
Manufacturing Engineering - University of Portsmouth
Tel: 02392 842656

Funding Department of Trade and Industry; Higher Education Funding
Council for England; Engineering and Physical Sciences
Research Council

Project Name TREMOR - Development and validation of new assistive devices for the treatment of disability caused by tremor

Overview The aim of this project was to develop and validate technological aids for people affected by cerebellar tremor.

Status A joystick interface and other virtual devices are being produced.

Start date 01/10/1996 End date 30/09/1999

Web site <http://ligwww.epfl.ch/>

Contact Mr Germano Gomes - Centre for Rehabilitation & Engineering Studies - University of Newcastle upon Tyne
Tel: 0191 222 6193
G.T.Gomes@ncl.ac.uk

Funding European Commission (4th Framework Programme – Telematics)

VEHICLE ADAPTATIONS

Project Name	Portable ramps	
Background	There is currently very little information available to purchasers of ramps.	
Overview	An evaluation of portable wheelchair ramps' suitability for loading powered wheelchairs into vehicles.	
Status	Professional evaluation and trials completed. Medical Devices Agency publication expected later in 2001.	
Start date	01/01/2000	End date 01/10/2000
Contact	Mr Tim Storr - Research Therapist, Derby Disability Equipment Assessment Centre Tel: 01332 625627	
Funding	Medical Devices Agency	

Project Name	Tele-Assess - Driver assistance for the disabled, elderly and able bodied	
Background	The proportion of the driving population that is old and/or disabled is forecast to grow from 12% in 1980 to 22% by 2020. It is important that specialist research into the assessment of human performance is focused on a telematics programme to support the performance of driving tasks by this growing group of drivers.	
Overview	Tele-Assess works towards the concept of developing assessment methods and design tools which will be used at the 'point of sale' and 'point of assessment' to help provide customised safe vehicles matched to the individual capabilities of each driver.	
Status	Over the course of the project this objective was realised by matching driver's capabilities and needs with assistive and telematics systems which are most suitable for each driver, whether able-bodied, older or disabled and working towards	

the development of assessment methods and design tools to be used to help provide customised safe vehicles matched to drivers' capabilities.

Start date 01/09/1997 End date 30/11/2000

Web site <http://www.foresightvehicle.org.uk/Projects/ProjectsFrame.htm>

Contact Ms Colette Nicolle - Inclusive Participative Design Group,
Human Sciences and Advanced Technology Research Institute
Tel: 01509 611088
c.a.nicolle@lboro.ac.uk

Funding Engineering and Physical Sciences Research Council

Project Name Testing of wheelchair vehicle restraints

Overview The project is reviewing national and international standards for the safety of passengers in wheelchairs. Following modelling of the wheelchairs and restraints, practical testing will be carried out. The project will examine the provisions for carrying wheelchairs in all types of vehicles and will make recommendations for changes to in order to improve safety for wheelchair users.

Status The Transport Research Laboratory is still conducting tests and the project is expected to conclude September 2001. A subsequent report will follow.

Start date 01/09/2000 End date 01/09/2001

Contact Mr Donald MacDonald - Research Project Manager, Mobility and Inclusion Unit - Dept of Environment, Transport and the Regions
Tel: 020 7944 4461
donald_macdonald@detr.gsi.dov.uk

Funding Department of the Environment, Transport and the Regions

WHEELCHAIRS, POSTURE AND MOBILITY

Project Name	Development of a wheelchair virtual reality motion platform for use in evaluating wheelchair access	
Background	Many buildings do not provide conditions suited to the needs of wheelchair users. This application aims to provide instrumentation allowing wheelchair navigation within virtual buildings.	
Overview	Central to this project is the need to provide a platform that can accommodate a range of wheelchair types, that will map intended wheelchair motion into a virtual world and that has the capacity to provide feedback to the user reflecting collisions and changes in floor surfaces and slope.	
Status	The project represented a collaborative effort between architects, bioengineers and user groups and will be comprised of stages related to platform design, construction, interfacing, testing and user evaluation. Results are being gathered.	
Start date	01/02/1999	End date 30/04/2001
Contact	Mr B Conway - Senior Lecturer, Dept of Bioengineering, University of Strathclyde Tel: 0141 5483780/3781 b.a.conway@strath.ac.uk	
Funding	Engineering and Physical Sciences Research Council	

Project Name Head supports for wheelchairs - an evaluation

Background Head position for people with limited head control has a significant impact on daily life. Finding a suitable wheelchair head support can be extremely complex and it is at times difficult to find a satisfactory solution. There are a number of commercially available universal head supports (designed to fit a range of chairs, rather than model specific) but there is little published information regarding these, particularly taking a user focus.

Overview Looking at the range of head supports.

Status Medical Devices Agency report published in June 2000 no. M02

Start date 01/07/1998 End date 30/12/1999

Contact Cheryl Honeycombe - Disability Equipment Assessment Centre, Southampton General Hospital
Tel: 0238 0794576

Fund Medical Devices Agency

Project Name MOBIL - Intelligent mobility and transport aid for elderly people with combined motor and mental impairment project

Background Older people who often suffer from combined multiple functional restrictions of lower degree want to retain an independent lifestyle at home and thus need to manage their domestic activities. MOBIL will address their problem and provide combined support to walking, assistance with carrying and compensation of memory loss.

Overview A project to develop an integrated walking aid and system.

Status Initial prototypes have been manufactured and are currently being evaluated.

Start date 01/07/1998 End date 31/12/2000

Web site <http://prt.fernuni-hagen.de/pro/mobil/main.html>

Contact Mr Mike Topping - Rehab Robotics Ltd, Staffordshire University
Tel: 01782 294477

Funding European Commission (4th Framework Programme - Telematics)

Project Name	Mobility and independence for children with severe multiple and visual impairments	
Background	Children with severe, multiple, low incidence disabilities have limited opportunities for experiencing control, for exploring, for learning and for play. This affects all aspects of early learning, and access to the curriculum. The Smart Wheelchair, developed by the CALL Centre, University of Edinburgh, has been shown to give children with severe physical and learning disabilities mobility, and hence a new and motivating means of interacting and accessing their environment.	
Overview	This project will extend the Smart Wheelchair, and the learning opportunities offered by it, to children with additional visual impairments. The project aims: 1. To improve independence and opportunities for play and learning for children with severe low incidence disabilities (specifically, multiple physical, learning and visual impairments), by providing them with suitable powered mobility; 2. To evaluate the effectiveness of three CALL Centre Smart Wheelchairs, fitted with a new 'Sonar Bumper', for children with severe physical, learning and visual impairments, in the school environment. (The Sonar Bumper detects obstacles or other pupils at a distance, warns the driver, and stops the wheelchair - an important facility for pupils with visual impairments.)	
Status	Evaluation report being produced.	
Start date	01/10/2000	End date 01/03/2001
Contact	Mr Paul Nisbet - Joint Co-ordinator CALL Centre, University of Edinburgh Tel: 01316 516235	
Funding	Scottish Executive Education Department	

Project Name Quality manufacture of powered wheelchairs

Overview A project to investigate quality issues and the methods of manufacture of powered wheelchairs, switching and seating systems.

Status Main achievements: Introduction of a new motor controller and electronics, a new product (the Bobat DX), redesign of seating systems for several wheelchairs, the modularization of systems, assessment of seating and mobility and an investigation into ways of quantifying posture and pressure data.

Start date 01/08/1995 End date 28/02/2000

Contact Mr N Akhtar - Research Associate, Dept of Mechanical and Manufacturing Engineering, University of Portsmouth
Tel: 02392 842656

Funding Engineering and Physical Sciences Research Council; Higher Education Funding Council for England; Department of Trade and Industry

Project Name Rear support walking frame

Overview To investigate the principles of providing controlled, and continuously adjustable support for severely disabled patients.

Status A Demonstrator device was produced using composite material structures which had sufficient strength to accommodate an 80kg person whilst ensuring that truncal posture was maintained. Structural testing of the Demonstrator continues with a single carer able to transfer a patient into the system. Design modifications now allow easier transportability.

Start date 01/03/1997 End date 31/03/2000

Contact Dr John Stallard - Technical Director, Orthotic Research and Locomotor Assessment Unit
Tel: 01691 404531
John.Stallard@rjahoh-tr.wmids.nhs.uk

Funding Department of Health (MedLINK)

Project Name Wheeled walking frames

Overview An evaluation of indoor/outdoor two/three/and four wheeled walking frames.

Status Medical Devices Agency report published in June 1999 no. M01.

Contact Prof Chris Ward - Research Director, Derby Disability Equipment Assessment Centre
Tel: 01332 625627

Funding Medical Devices Agency

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CURRENT SOURCES OF RESEARCH FUNDING

FUNDING SOURCE	CONTACT	ELIGIBILITY	CALLS
BASIC SCIENTIFIC RESEARCH			
<p>EPSRC</p> <p>Engineering and Physical Sciences Research Council (EPSRC) responsive funding - where the research idea originates with the proposer and where proposals may be submitted at any time. In this mode, prominence is given to the proposer as the creative figure, who will determine the direction of the research. There is no restriction on the subject matter for responsive mode proposals, other than it should fall within the EPSRC remit. Highly innovative research proposals embracing new concepts or techniques are actively encouraged. The key requirement is high engineering or scientific quality, which is assessed by peer review.</p>	<p>Emily Horwood EPSRC Tel: 01793 444334 emily.horwood@epsrc.ac.uk http://www.epsrc.ac.uk</p>	<p>Universities and partners</p>	<p>Ongoing</p>
<p>MRC</p> <p>The Medical Research Council (MRC) operates a range of research funding schemes. The Innovation Grant scheme and the Realising Our Potential Award (ROPA) grant scheme have recently been reviewed with a view to widening access. Both schemes will be replaced with a single new scheme with broader eligibility criteria that will continue to encourage innovation and research involving a high degree of scientific risk/uncertainty and potential high scientific pay-off. The new scheme will be launched at the end of 2001.</p>	<p>MRC http://www.mrc.ac.uk</p>	<p>Universities and partners</p>	<p>Various - see website</p>

FUNDING SOURCE	CONTACT	ELIGIBILITY	CALLS
NHS RESEARCH & DEVELOPMENT			
<p>A programme of reform is being carried out to align NHS R&D funding with the government's modernisation programme for the NHS. This will draw together various activities in national programmes and in the NHS to create a coherent programme for the NHS, called NHS Priorities and Needs R&D Funding. It will clarify and focus the support the NHS gives to the high quality science directed by strategic funding partners such as the research councils and the main medical charities – NHS Support for Science.</p>	<p>See website for further details: http://www.doh.gov.uk/research</p>		
<p>NEAT</p> <p>The main aim of the New and Emerging Applications of Technology (NEAT) programme is to promote and support through applied research, the use of new or emerging technologies to develop health care products and interventions to enhance the quality, efficiency and effectiveness of health and social care.</p>	<p>At time of going to press, an invitation to tender for the management of NEAT had closed and negotiations were in progress. Further details on Department of Health website: http://www.doh.gov.uk/research</p>	<p>Academic and NHS research providers</p>	<p>Last call June 2000. See website for announcements</p>
<p>HTA</p> <p>The purpose of the Health Technology Assessment (HTA) programme is to ensure that high quality research information on the costs, effectiveness and broader impact of health technologies is produced in the most effective way for those who use, manage and provide care in the NHS.</p>	<p>NCCHTA Tel: 02380 595586 hta@soton.ac.uk http://www.hta.nhsweb.nhs.ac</p>	<p>Organisations with a track record in high quality health related research</p>	<p>Next call planned for 22 Aug 2001</p>
<p>SDO</p> <p>The NHS Service Delivery and Organisation (SDO) programme aims to consolidate and develop the evidence base on the organisation, management and delivery of health care services.</p>	<p>NCCSDO Tel: 020 7612 7980 sdo@lshtm.ac.uk http://www.sdo.lshtm.ac.uk</p>	<p>Open</p>	<p>See website for announcements</p>

FUNDING SOURCE	CONTACT	ELIGIBILITY	CALLS
POLICY RESEARCH			
<p>Policy Research Programme (PRP)</p> <p>The purpose of the Department of Health Policy Research Programme is to provide, through high quality research, a knowledge base for health services policy, social services policy and central policies directed at the health of the population as a whole.</p>	<p>Department of Health http://www.doh.gov.uk/research/rd2/prpindex.htm</p>	<p>Researchers with a track record in high quality research in fields closely related to the subject of the call</p>	<p>See website for announcements</p>
RESEARCH FUNDING BY OTHER UK HEALTH DEPARTMENTS			
<p>Scottish Executive Health Department, Chief Scientist Office</p>	<p>Robin Bate, SEHD Tel: 0131 244 2248 Robin.Bate@scotland.gsi.gov.uk http://www.show.scot.nhs.uk/cso/</p>	<p>See website for details</p>	<p>See website for details</p>
<p>Wales Office of Research and Development for Health and Social Care (WORD)</p>	<p>Anthony Newby, WORD Tel: 029 2082 5253 anthony.newby@wales.gsi.gov.uk http://www.word.dial.pipex.com</p>	<p>See website for details</p>	<p>See website for details</p>
<p>Research and Development Office for Health and Personal Social Services, Northern Ireland</p>	<p>Tel: 028 9055 3617 http://www.rdo.cso.n-i.nhs.uk</p>	<p>See website for details</p>	<p>See website for details</p>

FUNDING SOURCE	CONTACT	ELIGIBILITY	CALLS
RESEARCH FUNDING FOR HIGHER EDUCATION			
<p>Higher Education Funding Council for England Scottish Higher Education Funding Council Higher Education Funding Council for Wales Department of Higher and Further Education Training and Employment for Northern Ireland</p> <p>Research funding for universities and colleges, distributed primarily according to the quality and amount of research work. Quality is assessed through a periodic Research Assessment Exercise.</p>	<p>HEFCE Tel: 0117 931 7438 hefce@hefce.ac.uk http://www.hefce.ac.uk/Research/</p> <p>SHEFC Tel: 0131 313 6500 info@sfc.ac.uk http://www.shefc.ac.uk</p> <p>HEFCW Tel: 029 2076 1861 hefcw@wfc.ac.uk http://www.hefcw.ac.uk</p> <p>DHFETENI Tel: 028 9025 7722 nihec@dhfetani.gov.uk</p>	<p>Higher education institutions</p>	<p>See websites for details</p>
ECONOMIC AND SOCIAL RESEARCH			
<p>Innovative Health Technologies</p> <p>The overall aim of this programme is to advance our understanding of the interaction between innovative health technologies and wider changes in society. The programme is funded by the ESRC in collaboration with the MRC.</p>	<p>Prof A. Webster University of York Tel: 01904 433044 ajw25@york.ac.uk http://www.york.ac.uk/res/ih/</p> <p>Contact for call for proposals: debra.hughes@esrc.ac.uk</p>	<p>UK higher education institutions and other research institutes eligible for Research Council funds</p>	<p>2nd Phase call closes 3 Sept 2001</p>

FUNDING SOURCE	CONTACT	ELIGIBILITY	CALLS
PARTNERSHIPS AND TECHNOLOGY TRANSFER			
<p>EQUAL - research funded by EPSRC</p> <p>Under the Government's EQUAL (Extend QUALity Life) initiative, the Engineering and Physical Sciences Research Council (EPSRC) is funding high quality, novel engineering research addressing the needs of older people and others that need additional support to lead a full and active life. A 4th call, planned for August 2001, will incorporate 3 themes: the Built Environment, Design for All, and Rehabilitation.</p>	<p>Emily Horwood EPSRC Tel: 01793 444334 emily.horwood@epsrc.ac.uk http://www.epsrc.ac.uk</p> <p>Website for project details: http://www.equal.ac.uk</p>	<p>UK research organisations which are eligible to receive EPSRC funding in managed programmes</p>	<p>Next call planned for August 2001. See website for announcements</p>
<p>IMI IntHeTech Sector</p> <p>The Integrated Healthcare Technologies (IntHeTech) Sector of the Innovative Manufacturing Initiative (IMI) funds collaborative projects aimed at improving the competitiveness of companies within the UK Medical Engineering sector. Projects are focussed on the innovation process within the healthcare market, are industry led and involve academic groups, healthcare professionals and providers. The funding mechanism is currently under review.</p>	<p>Oliver Wells Tel: 01483 428909 oliwells@aol.com</p> <p>Stephanie Lewis EPSRC Tel: 01793 444097 stephanie.lewis@epsrc.ac.uk http://www.epsrc.ac.uk</p>	<p>Details available from the contacts</p>	<p>See website for announcements</p>
<p>TCS</p> <p>Under TCS (formerly the Teaching Company Scheme), participating government departments and research councils support partnerships between companies and universities for technology transfer and training. A graduate is sponsored to work in a company for two years.</p>	<p>TCD Tel: 01367 245200 office@tcd.co.uk http://www.tcd.co.uk</p>	<p>Companies in partnership with universities</p>	<p>Ongoing</p>

FUNDING SOURCE	CONTACT	ELIGIBILITY	CALLS
BUSINESS SUPPORT			
<p>Smart</p> <p>Smart is the Small Business Service (SBS) initiative that provides grants to help individuals and small and medium-sized businesses to make better use of technology and to develop technologically innovative products and processes.</p>	<p>Business Link Tel: 0345 567765 http://www.businesslink.org</p>	<p>Individuals and small and medium-sized businesses</p>	<p>Ongoing</p>
RESEARCH WITH EUROPEAN PARTNERS			
<p>FP5 - Quality of Life</p> <p>The Quality of Life thematic programme within the EU 5th Framework Programme (FP5) is funding a Key Action on the ageing population and disabilities (KA6), and generic research relating to disabled people.</p>	<p>http://www.cordis.lu/life/</p>	<p>See website for details</p>	<p>Call issued 15 Nov 2000. Deadline for KA6 has closed. Deadline for generic research is 18 October 2001.</p>
<p>FP5 - User Friendly Information Society</p> <p>The User Friendly Information Society (IST) programme within FP5 is funding a Key Action on systems and services for the citizen (KA1). KA1 is supporting research in the fields of health and special needs.</p>	<p>http://www.cordis.lu/ist/</p>	<p>See website for details</p>	<p>Call issued 27 January 2001. Various deadlines up to 14 June 2002.</p>

FUNDING SOURCE	CONTACT	ELIGIBILITY	CALLS
<p>COST</p> <p>A Europe-wide scheme to encourage co-operation in science and technology. COST supports the co-ordination and networking of existing national research and activities of public value.</p>	<p>Peter McDougall, DTI Tel: 020 7215 6426 peter.mcdougall@dti.gsi.gov.uk http://www.dti.gov.uk/ostinternational/cost/index.html</p>	<p>Individuals and organisations involved in existing research activity</p>	<p>Ongoing</p>
<p>EUREKA</p> <p>A Europe-wide network for encouraging collaborative development of advanced products, processes or services. Project funding is available.</p>	<p>Graham Crewe, DTI Tel: 020 7215 1618 graham.crewe@tdiv.dti.gov.uk http://www.dti.gov.uk/support/eureka.htm</p>	<p>Companies, research organisations and higher education institutions</p>	<p>Ongoing</p>
MISCELLANEOUS			
<p>NESTA</p> <p>The National Endowment for Science, Technology and the Arts (NESTA) supports fellowships, research and consultation for individuals or small companies with innovative ideas. The Invention and Innovation programme helps people develop ideas that can be exploited for commercial and social benefit.</p>	<p>NESTA Tel: 020 7645 9500 http://www.nesta.org.uk</p>	<p>Individuals and small businesses</p>	<p>Ongoing</p>
<p>A range of charitable organisations providing funding for research can be found on the FAST website.</p>	<p>FAST Tel: 01865 227599 http://www.fastuk.org</p>		

SOURCES OF INFORMATION ABOUT ASSISTIVE TECHNOLOGY

Details of other organisations are available on the FAST website
<http://www.fastuk.org>

UK ORGANISATIONS

ABILITY NET

Telephone and website information, free assessments of individuals and professional consultancy in order to help people with disabilities to use computers.

<http://www.abilitynet.co.uk>

Tel: 0800 269545

DISABLED LIVING FOUNDATION

An on-line database of commercially available assistive technology and a telephone service offering help and advice.

<http://www.dlf.org.uk>

Tel: 020 7289 6111

DISABILITY NET

Internet resource for disabled people covering all aspects of disability, discussion groups and information.

<http://www.disabilitynet/>

emPOWER

The charities consortium of users of disability equipment.

<http://www.empowernet.org>

Tel: 020 8788 1777

RNIB - Royal National Institute for the Blind

Information about products and services via website and telephone.

<http://www.rnib.org>

Tel: 020 7388 1266

RNID - Royal National Institute for Deaf People

Information about products and services via website and telephone.

<http://www.rnid.org.uk>

Tel: 020 7296 8000

MEDICAL DEVICES AGENCY (MDA) -

The MDA manages an evaluation programme on equipment designed to assist elderly and disabled people on behalf of the Department of Health.

<http://www.medical-devices.gov.uk/dts1-deep.htm>

Tel: 020 7972 8181

EUROPEAN AND NORTH AMERICAN ORGANISATIONS

AAATE - Association for the Advancement of Assistive Technology in Europe
An association which disseminates information about assistive technology developments in Europe.

<http://www.fernuni-hagen.de/FTB/AAATE.html>

ABLEDATA

An on-line database of US commercially available assistive technology and a telephone service offering help and advice.

<http://www.abledata.com>

BOBBY

"Bobby" approval validation site. Bobby is a free service provided by the Center for Applied Special Technology (US) to help webpage authors identify barriers to access by disabled people.

<http://www.cast.org>

CIRRIE - Center for International Rehabilitation Research Information and Exchange

A website which facilitates sharing of information and expertise in rehabilitation research between the US and other countries.

<http://www.cirrie.buffalo.edu/>

NIDRR – The National Institute on Disability and Rehabilitation Research
Website about the institute's coordinated programmes of disability and rehabilitation research and related activities in the US.

<http://www.ed.gov/offices/OSERS/NIDRR>

NARIC - NATIONAL REHABILITATION INFORMATION CENTER

On-line database of US federally funded research projects.

<http://www.naric.com/>

RESNA - Rehabilitation Engineering and Assistive Technology Society of North America

An association which promotes research, development, education, advocacy, and the provision of technology by supporting the people engaged in these activities in the US.

<http://www.resna.org>

WEB ACCESSIBILITY INITIATIVE (WAI) -

Advice and information on web site design for inclusive use.

See page 31.

<http://www.w3.org/WAI/>

SOURCES OF INFORMATION ON RESEARCH & DEVELOPMENT

CORDIS

The website of all research and development funded by the EC involving European and UK project partners.

<http://www.cordis.lu>

FAST - Foundation for Assistive Technology

An online database of assistive technology research and development and its applications, and an extensive user forum to enable user input into research and development.

<http://www.fastuk.org>

Tel: 01865 227599

NRR - National Research Register

Database of research funded by, or of interest to the NHS.

<http://www.doh.gov.uk/research/nrr.htm>

RDINFO

A digest of health-related research funding and training opportunities.

<http://www.rdinfo.org.uk/Default.asp>

Tel: 0113 392 6379

ReFeR - Research Findings Electronic Register

Database of findings of research projects funded by the Department of Health.

<http://www.doh.gov.uk/research/rd3/information/findings.htm>

TIRESIAS

Website of information for people working within the field of visual disabilities.

<http://www.tiresias.org>

Tel: 020 7391 2371

RICABILITY

Independent research reports on domestic appliances and general equipment for use by people with disabilities and older people.

<http://www.ricability.org.uk>

Tel: 020 7427 2460

REFUND

Subscription service for the latest information on academic research funding opportunities and grant application advice.

<http://www.refund.ncl.ac.uk>

Tel: 0191 2226000



This report can be found on the Department of Health R&D website:
www.doh.gov.uk/research

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