

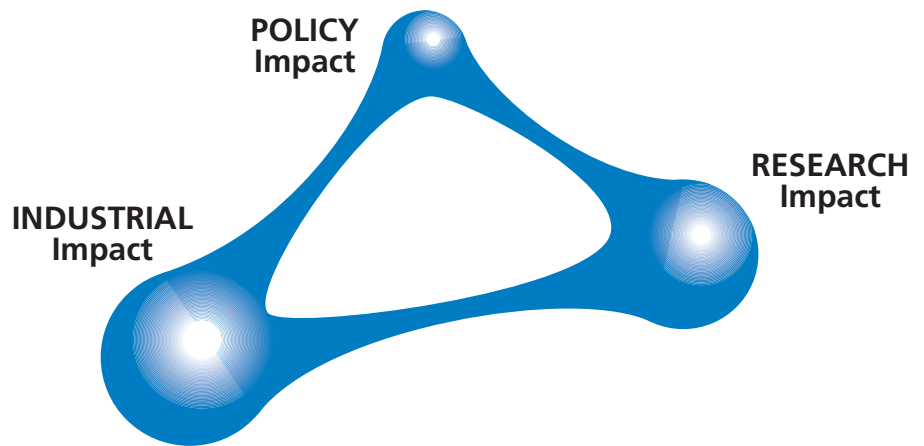
# MATCH STRATEGY

Multidisciplinary Assessment of Technology Centre for Healthcare

## Vision Statement

To transform the medical devices sector by researching, testing and making methods available to cut the time and cost from concept to continuous improvement in the market, in support of device users, the medical device industry, regulators and reimbursement agencies, and healthcare providers such as the NHS.

Over the first two years of the programme, MATCH has carved out a niche in which it is uniquely placed to undertake internationally-leading research, to collaborate openly with medical device companies and to inform policy. This comes at a time when the healthcare industry is actively engaged with the Department of Health (DH) on many fronts under the Health Industries Task Force (HITF) initiative to improve the uptake of new technology in the NHS. In all three areas, its greatest contribution lies in supporting better decision-making. Unusually for a research programme, MATCH has the potential to make an impact with the medical devices community as well as in policy – see figure. Since MATCH is being assessed as both an applied programme to support an industrial sector, and as an academic programme, these layers must represent a balance of academic and industrially relevant targets.



## 1. RESEARCH IMPACT: New Methods

MATCH will develop a range of new methods in connection with:

### ■ Economic and value assessment. This will include

- Value of information models (aimed at the expected value of specific trials, but including the use of imperfect information),
- Models that can be used very early in the design process.
- Power calculations for diagnostic tests
- Contingent means (to analyse the situation where an individual's best interest may be served by choosing a treatment and technology for which the average utility of the population at large would not commend it, but for which the individual utility makes it preferable).
- Theory for the elicitation and application of Bayesian priors to medical device design
- Tracker trials:
  - models for device value based on device safety;
  - portfolio analysis
- Methods to support decision making, such as real options analysis and expert systems.

### ■ User needs. This will include

- Developing and refining new methods, demonstrated through case studies, that put end users in a very much stronger position to articulate and demand what they need
- Specific new methods for user involvement and protocols for embedding user needs in the design process.

UNIVERSITY OF  
BIRMINGHAM

Brunel  
UNIVERSITY  
WEST LONDON

KING'S  
College  
LONDON

The University of  
Nottingham

U  
ESTER

November 2005

Much of this research will be funded under the core grant, but MATCH will seek to launch additional research programmes, where appropriate. An example might be collaboration with a leading US university on Bayesian methods.

MATCH will seek, wherever possible, to publish its research in A-class journals for maximum Research Assessment Exercise (RAE) impact. MATCH expects to release 10-15 high impact papers from its research layer over the next 3 years, with as many again from its Industrial Layer – half in methodology journals and half in industrial process journals. In 2007 or 2008, MATCH will seek to host or work with a major, international conference. Health Technology Assessment International (HTAi) is a possibility.

## 2. INDUSTRIAL IMPACT

### 2.1. Impact on Industry

MATCH will adopt a two-pronged approach, working with its Research Partners and the more strategic companies to develop, embed and disseminate new decision-making methods. To this extent, it will seek to be more proactive in identifying Applied Research Projects (i.e. MATCH 'Project 5' activity) that has methodological merit as well as industrial benefit.

MATCH will cluster its Network Partners to embed more basic health economics and methods to capture user needs into their new product development cycles, and focus on getting known methodologies into a form where they can be readily applied by SMEs. This will involve problem workshops and some learning-by-doing attempts to apply simple health economics to SME products to see how and where these methods can best make an impact and then how to embed the lessons learnt into useful Guides. MATCH will also seek to run a VC dinner at least once a year and to influence the funding community with MATCH methods.

Of specific interest is the question of how a manufacturer should engage with the NHS to get acceptance of its new technology (having acquired adequate evidence of clinical and cost effectiveness). This is particularly significant if its technology is not important enough to warrant appraisal by the National Institute for Health and Clinical Excellence (NICE), if it does not have its own Health Related Group (HRG) reimbursement, or if it has not been assessed by the Centre for Evidence-based Procurement (CEP), which was the Device Evaluation Service (DES). Process proposals will be developed to this end. Further, as a means of monitoring the effects of HITF in this area in the longer term, qualitative research into the attitudes of budget managers and board members in NHS Trusts and the independent sector towards new technology, could be of value.

### 2.2. A paradigm change in user involvement

The industrial challenge is to produce guides on available methods and then study how this information would be used by companies. MATCH aims to make it much easier for companies to build a user perspective into their design process. This might require some models of value to enable companies to make a better internal economic case (greater profitability through cost reduction, better market penetration or a price premium) for developing the in-house expertise to apply such methods.

While the original grant includes a contribution towards industrial engagement, this research and development activity will be increasingly expected to fund itself, principally through extending the Research and Network Partnerships base. It is expected that with stronger links at the policy level, MATCH will be even more attractive to companies, and that signing them up will become commensurately easier. The policy will be to sign new companies up as Network Partners and then to encourage the larger ones to upgrade and become Research Partners. Other funding such as EPSRC industrial CASE/CAST awards, additional industrial funding, or in kind contributions will be used to supplement this research.

As well as RAE-compliant papers (see above) the results will be tested through user acceptance measures, and in the industrial recognition and uptake of user needs methodologies.

## 3. POLICY IMPACT: Informing Policy

MATCH will engage with the health technology assessment; procurement; regulatory and reimbursement communities, as well as the NHS itself. The theme of quality and value-for-money are high priorities throughout the NHS and the DH, and MATCH is developing methodologies to address both. The health technology assessment and procurement communities are obvious partners, specifically NICE and PASA (the Purchasing and Supplies Agency), including CEP. MATCH will engage stakeholders to develop specific processes and protocols that turn its advances (see above) into better procurement, uptake and delivery.

On a broader front, MATCH will continue to run its Public Interest Forum every 6-9 months, creating the neutral space for industry, regulators, reimbursement agencies, policy makers and service providers to hold a discussion on improvement nucleated around MATCH's research and results. Finally, MATCH will continue to run high profile events, such as its Launch Event (April '04) with Lord Sainsbury and its deliverables launch (Nov '05) with Sir Keith O'Nions.

MATCH will need to secure additional funds from agencies and other government agencies for its policy work.

## Contact MATCH

David Lawes  
MATCH Programme Manager

Brunel University  
Uxbridge UB8 3PH UK

Tel: 01895 266051  
Mobile: 07899 802945  
Fax: 01895 269727

Email:  
david.lawes@brunel.ac.uk

www.match.ac.uk

UNIVERSITY OF  
BIRMINGHAM

**Brunel**  
UNIVERSITY  
WEST LONDON

**KING'S**  
College  
LONDON



The University of  
**Nottingham**

