

# From bench to board room – realising the value from collaboration

19 October 2009



Dick Clark – CE Medipex  
Jill Dhell - DH  
David Thomson – AD, NHS Y&H

# Med Tech National Policy Environment



## The NHS

**NHS Constitution** NHS commitment to the promotion and conduct of research

### **NHS Operating Framework**

NHS must play its full part in supporting research; National ambition to double the number of patients in clinical research

## Strategic Health Authorities

### **NHS Operating Framework**

SHAs to ensure that NHS trusts work with NIHR Clinical Research Network locally to contribute to the increased numbers of patients in clinical research

**Duty to Promote Innovation** SHAs to support NIHR Clinical Research Networks locally; SHAs to develop the capacity of the NHS to support research

## Primary Care Trusts NHS Providers

### **NHS Operating Framework**

All providers to increase their participation in research

### **Quality Accounts**

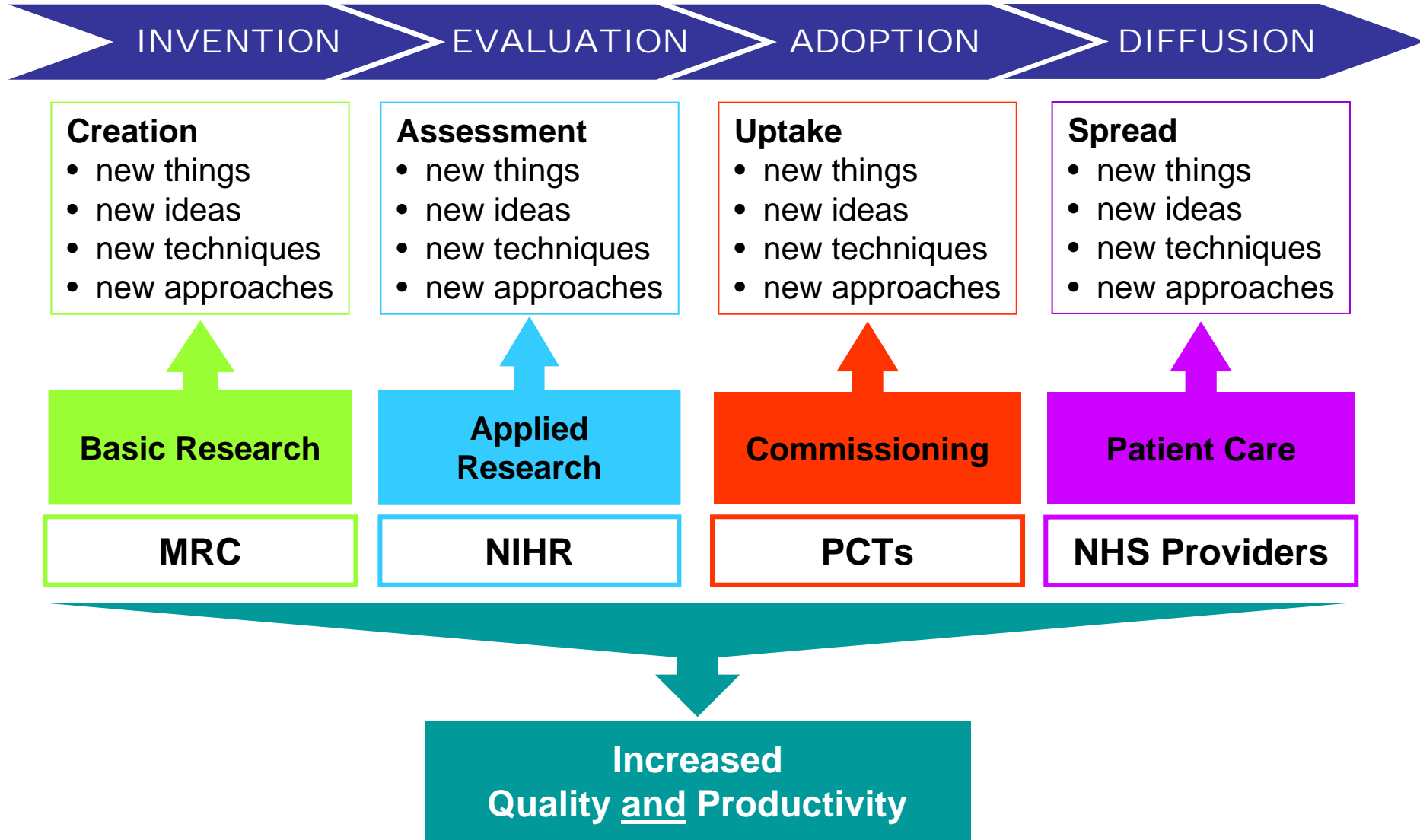
All providers to report on the number of patients in clinical research

## NHS Patients

### **Handbook to NHS Constitution**

The NHS will do all it can to ensure that patients are made aware of research that is of particular relevance to them

# The Innovation Pathway



# The Innovation Pathway



**Creation**

**Basic Research**

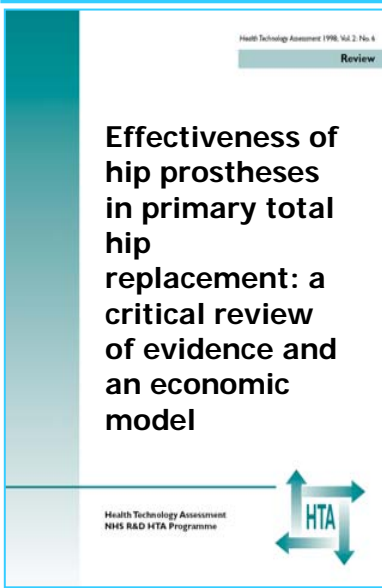
total hip replacement invented



**Assessment**

**Applied Research**

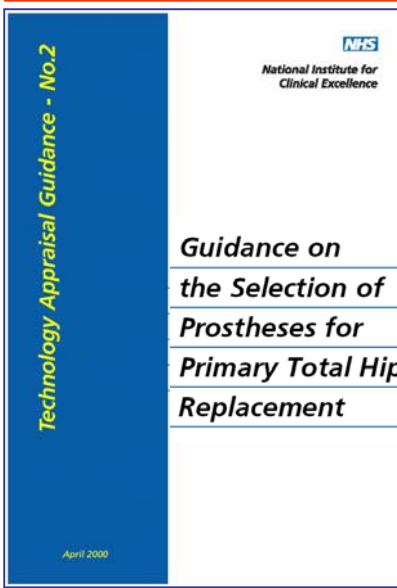
evidence that hip replacement is clinically and cost effective



**Uptake**

**Commissioning**

NICE guidance on hip replacement



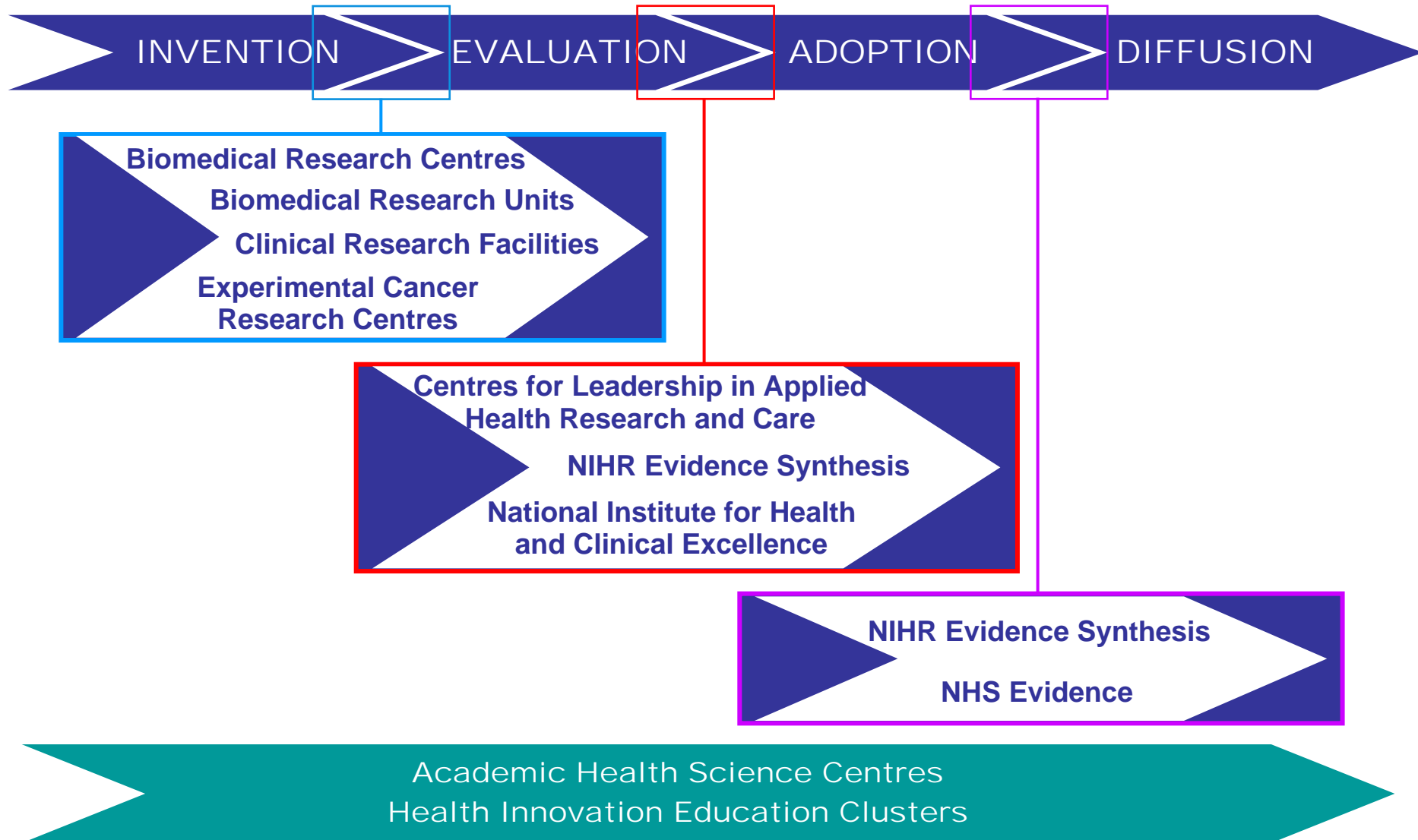
**Spread**

**Patient Care**

97,000 hip replacements performed in England in 2007/08



# National and local approaches to speed up translation



# **From bench to boardroom**

## **Realising the value from collaboration**

**Richard Clark  
Chief Executive  
Medipex Ltd**

**NHS Innovations Yorkshire & Humber**

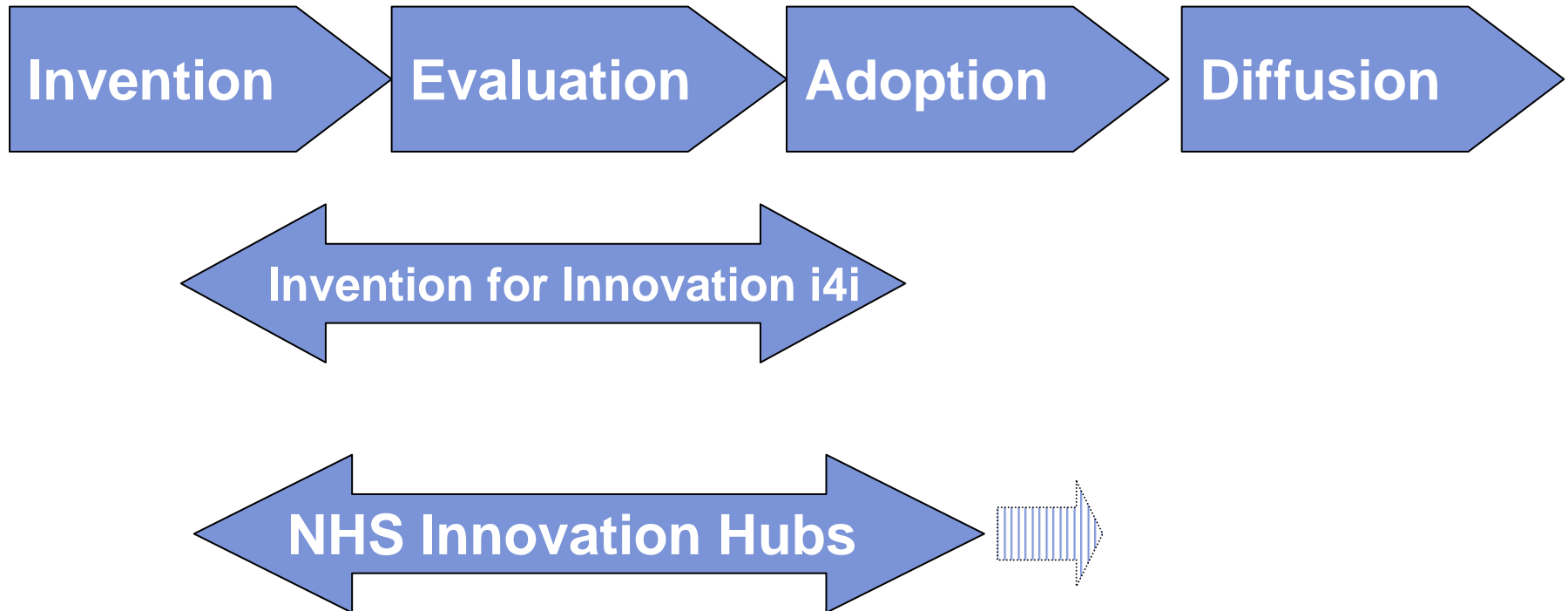
# Economic importance of knowledge transfer

- High volume [low cost] manufacture is no longer viable source of employment in western world
- Competitive advantage for the future rely on ability to innovate in developing new products and businesses
- High value/knowledge-intensive industries required
- Intensive competition for investments
- UK plc historically not good at commercial exploitation of its research

# Why Health Technologies?

- \$180bn global market
- \$8bn UK market (\$4.5bn exports)
- 7-12% growth rates
- 3100 Med tech companies in UK
- 175,000 employees in UK
- Large science base with world class excellence in health and related technologies
- World largest public funded healthcare provider – the National Health Service (NHS)

# Research innovation pathway Invention for Innovation Programme



# NHS Innovation Hubs Map



[www.medipex.co.uk](http://www.medipex.co.uk)

# Aims and Objectives of the NHS Innovation Hubs

1. To ensure benefits of Intellectual Property (IP) created by NHS are returned to the NHS – **Health and Wealth**
2. To develop clear IP exploitation strategies with NHS bodies, provide them with commercial & IP advice
3. To identify, assess and commercialise new ideas and innovations leading to improved patient care
4. Work in partnership with the healthcare industry e.g. collaborative development: licensing, spin-outs, spin-ins
5. To ensure that non-commercial but valuable ideas are disseminated throughout the NHS

# What services does the Hub provide?

## To NHS :-

- Confidential assessment of inventions/ideas
- Management & support for viable projects
- Identification of funding (NIHR, Proof of Concept, VC money)
- Protection of IP (Patent filing and initial costs)
- Business Plan & Commercial exploitation
- Expertise on spin out companies
- Commercial partners for development of clinical solutions
- Non IP related commercial advice/governance issues

## Services To industry

- Single point of contact (24/7)
- Collaborative R&D (Partner matching, IP advice, project management etc)
- Access to clinical expertise, focus groups, PPI
- Product development advice and support
- Clinical trials support/guidance  
([www.actnow-database.co.uk](http://www.actnow-database.co.uk))
- Signposting e.g. Medilinks, CLRNs, Trust R&D & to other useful contacts

## R&D Projects

Medipex is involved with 45 R&D projects (NIHR, TSB, EPSRC, RDA etc ) NHS, HEI & Industry partners

e.g.

- **Medical Devices** 40%  
(e.g. Portable intra abdominal robotic surgical device)
- **Diagnostics** 18%  
(e.g. Optical biosensor for rapid diagnostics)
- **Therapeutics/Biologics** 13%  
(e.g. TNALP biomarker for detection of Alzheimers)
- **Intelligent software** 7%  
(e.g. Renal disease decision support tool)
- **Imaging** 9%  
(e.g. Contrast agents for detection of atherosclerotic plaque)

# Example 1

## Clinical project with commercial partners

### IPAM – Robotic arm for Stroke Patient Rehabilitation

- **Clinical need + personal contact with HEI (simple 1-D robot) lead to establishment of clinical research team – late 90's - 2003**
- **NEAT funding (E 027) 2006/07 proof of concept successfully evaluated on small group of patients**
- **Obtained additional short term funding**
- **Successful HTD 475 started in 2009**

# Medipex role

## **IPAM – Robotic arm for Stroke Patient Rehabilitation**

- Support/advice to Leeds based team
- Identification of commercial partners
- Assistance with collaboration agreement (3 NHS bodies, 2 HEIs, 2 Commercial companies – England & Scotland)
- Member of Project team
- Recognition – winner of Medipex Innovation Award

## Example (2)

# Commercial sponsored trial involving CLRN

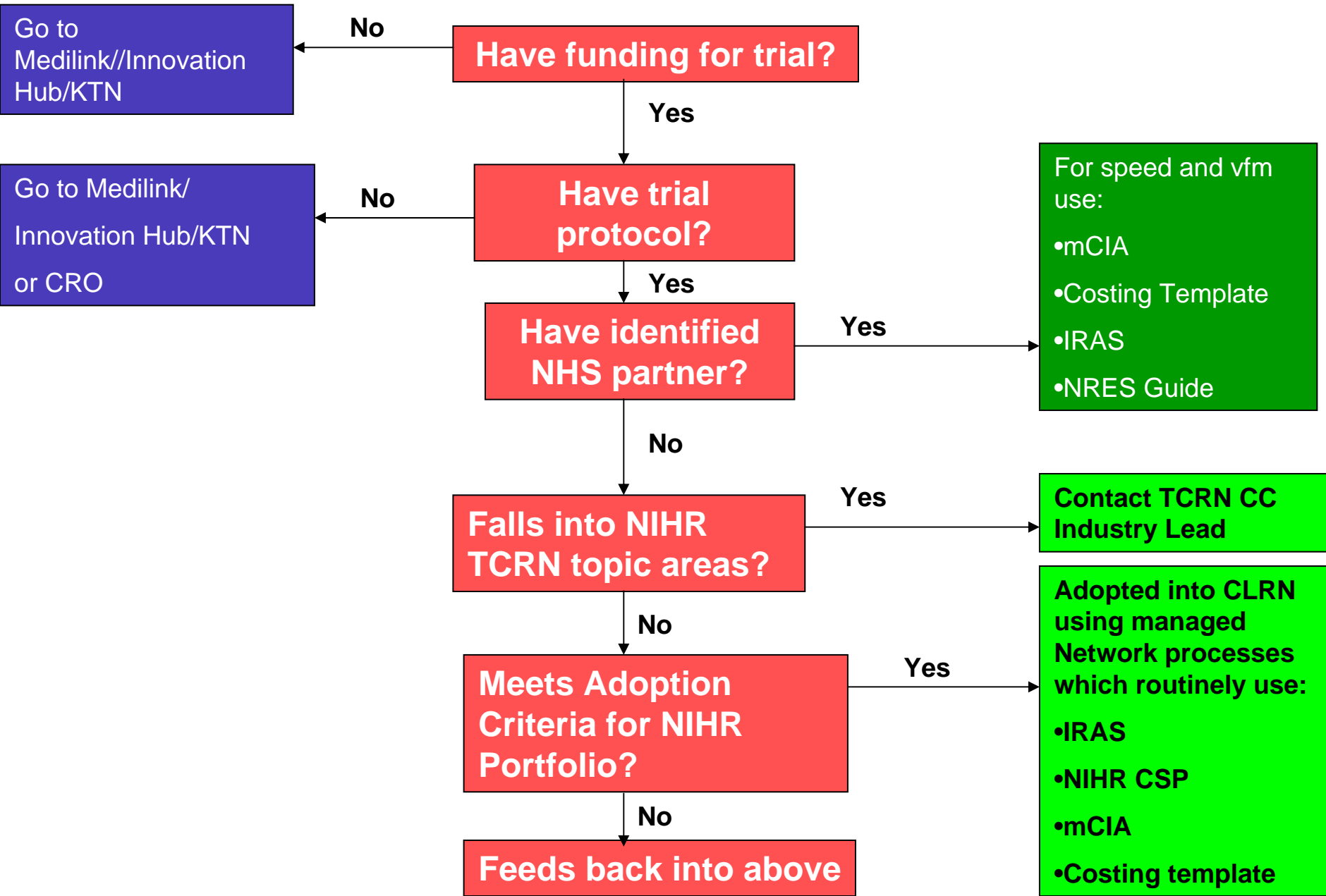
- Well established pharma clinical trials infrastructure
- Med tech infrastructure less well established
- 95% of med tech industry are small to medium enterprises (SMEs)
- Innovation Hubs well placed to bridge between industry and NHS

# Medipex Role

- Promote services to industry
- Approach from large UK med tech company to identify primary care contacts interested in evaluating a novel lower limb DVT assessment technique
- NHS expertise initially identified through ACTNoW and corroborated with CLRN
- Arranged confidential meetings with NHS experts and held a clinical focus group
- Company confident about product and interest from NHS
- Commercial trial agreed involving 2 CLRNs at 3 sites

# Using the NIHR Clinical Research Network

- Key objective to work with industry
- Mandated to use bureaucracy-busting processes  
Confidentiality Agreements, model Agreements, MOUs, Research Passports, transparent Costing Template, simplified NHS permissions system
- Performance-monitored on delivery to industry
- Answerable at high-level government/industry forums
- Comprehensive CRN is now operational



# The central role of NIHR research in the innovation pathway



CREATE

REFINE

EVALUATE

APPRAISE

USE

MRC

Basic Research

Development Pathway Funding

Invention for Innovation

Biomedical Research Centres

Biomedical Research Units

Patient Safety and Quality Research Centres

Research for Innovation, Speculation & Creativity

Research for Patient Benefit

Health Services Research

Programme Grants for Applied Research

Public Health Research

Service Delivery & Organisation

Health Technology Assessment

Centre for Reviews & Dissemination, Cochrane, TARs

Collaborations for Leadership in Applied Health Research and Care

NHS Purchasing & Supplies Agency

Centre for Evidence-based Purchasing

National Institute for Health & Clinical Excellence

Guidance on Health & Healthcare

NHS Evidence

Access to Evidence

NHS Institute for Innovation & Improvement

Support for the NHS

Primary Care Trusts

Healthcare Commissioning

NHS Providers

Patient Care

**National Institute for Health Research**

This pathway covers the full range of interventions - pharmaceuticals, biologicals, biotechnologies, procedures, therapies and practices - for the full range of health and health care delivery - prevention, detection, diagnosis, prognosis, treatment, care.

# Summing Up

- [Things NIHR does]
- [Things Hub Does]
- [Realising the value of collaboration]

[Jill.Dhell@dh.gsi.gov.uk](mailto:Jill.Dhell@dh.gsi.gov.uk)

