

# Keynote address

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**Department of Health**

## Modernising Scientific Careers



# Developing Healthcare Science Education and Training pathways

A long and winding road!



The White Paper sets out four key themes:

**Putting patients first** through more information and greater choice and control over their care – ‘no decision about me without me’

**Improving healthcare outcomes** by ensuring professionals are free to focus on improving health outcomes. Improving the quality of care will become the main purpose of the NHS

**Autonomy and accountability** giving power back to NHS professionals and healthcare providers

**Cutting bureaucracy and improving efficiency** by continuing to reinvest savings of up to £20bn in front-line services by 2014 in line with the Quality, Innovation, Productivity and Prevention (QIPP) agenda.

Equity and excellence:

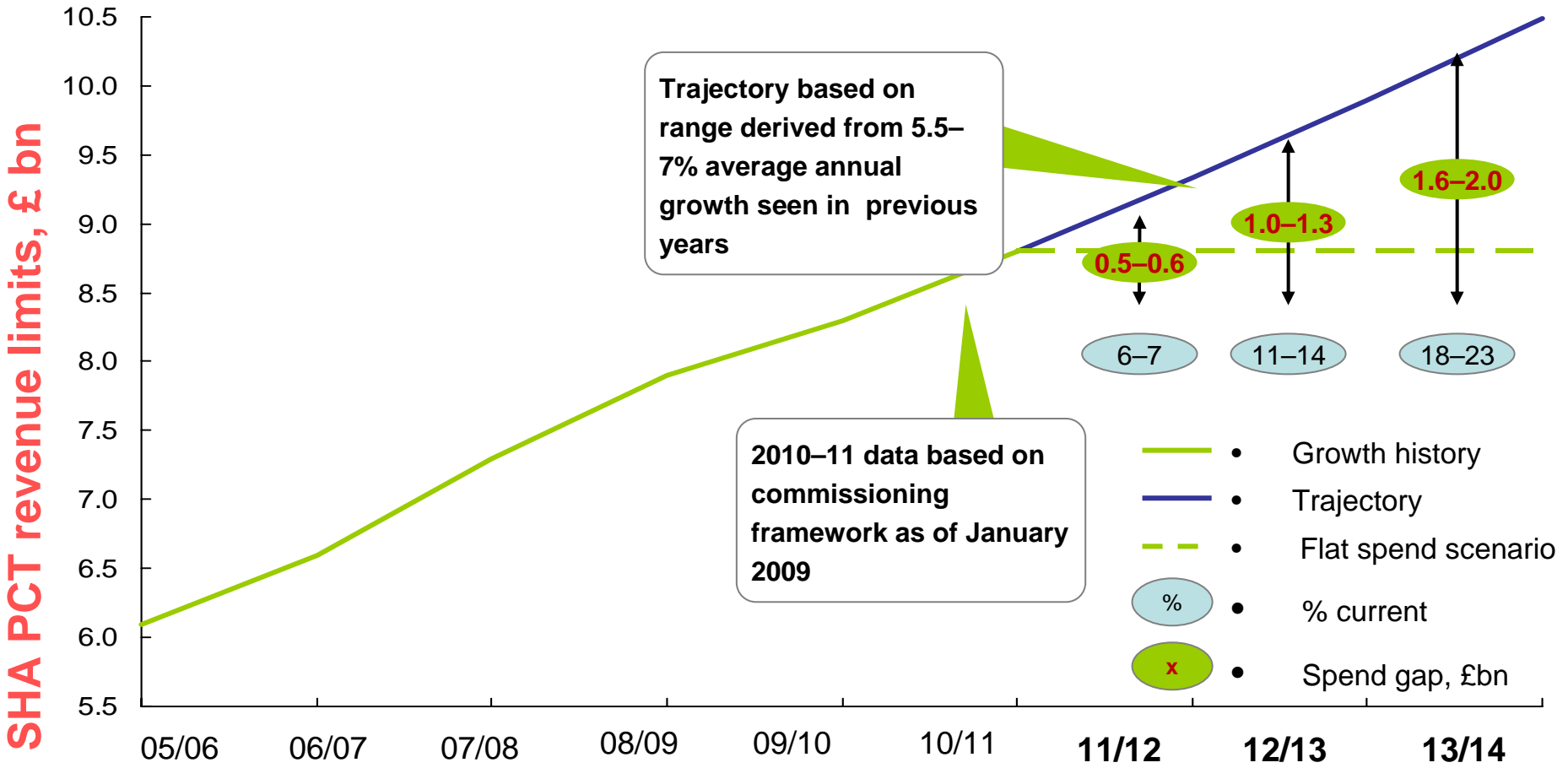
# Liberating the NHS



## On 8<sup>th</sup> June, the Health Secretary challenged the NHS :

- ***make a cultural shift.*** From a culture responsive mainly to orders from the top-down, to one responsive to patients, in which patient safety is put first.
- ***devolve power through the unleashing of meaningful information to patients.*** Comparative data about standards and patient experience will drive up standards, as the data will influence patient choice. A transparent NHS is a safer NHS.
- ***engage people in their care so that, “no decision is made about me, without me”,*** and give patients the opportunity to provide feedback in real time, reflecting the experience of their care.
- ***embrace leadership by setting NHS professionals free from a target-centred and bureaucratic system*** that compromises patient care, to one focussed on the quality, innovation, productivity and safety required to improve patient outcomes.
- ***adopt a holistic approach by looking at the entire patient pathway*** from preventative health and well-being measures, through to hospital and community care.
- ***align payments in the NHS to drive up the quality of care that patients receive.*** In the first instance, through introducing payments which encapsulate a more integrated care pathway by giving hospitals responsibility for a patient’s care for 30 days after they are discharged.

**Under flat spend scenario, in three years time, SHAs will have to operate at £1.6–2.0bn below the expected trajectory ( delivery 15 to 20% changes nationally overall)**



# Quality and Productivity

Some of what we do is clinically effective

Some of what we do is not effective but necessary

**BUT**

Much of what we do is not effective

- variation
- unnecessary/duplicate investigations
- unproductive bureaucracy

# KPMGs understanding of achieving sustainable health systems

- Projects need inspirational and determined sponsorship from leaders
- Disruptive innovation often comes from use of external agencies
- Clinicians and staff need to be supported to critically re-examine processes
- Sustainable change in healthcare comes from
  - working from the patient's point of view
  - an individual and organisational ability to partner
  - innovation needs to be supported with evidence
  - alignment organisational objectives/accountability/personal incentives

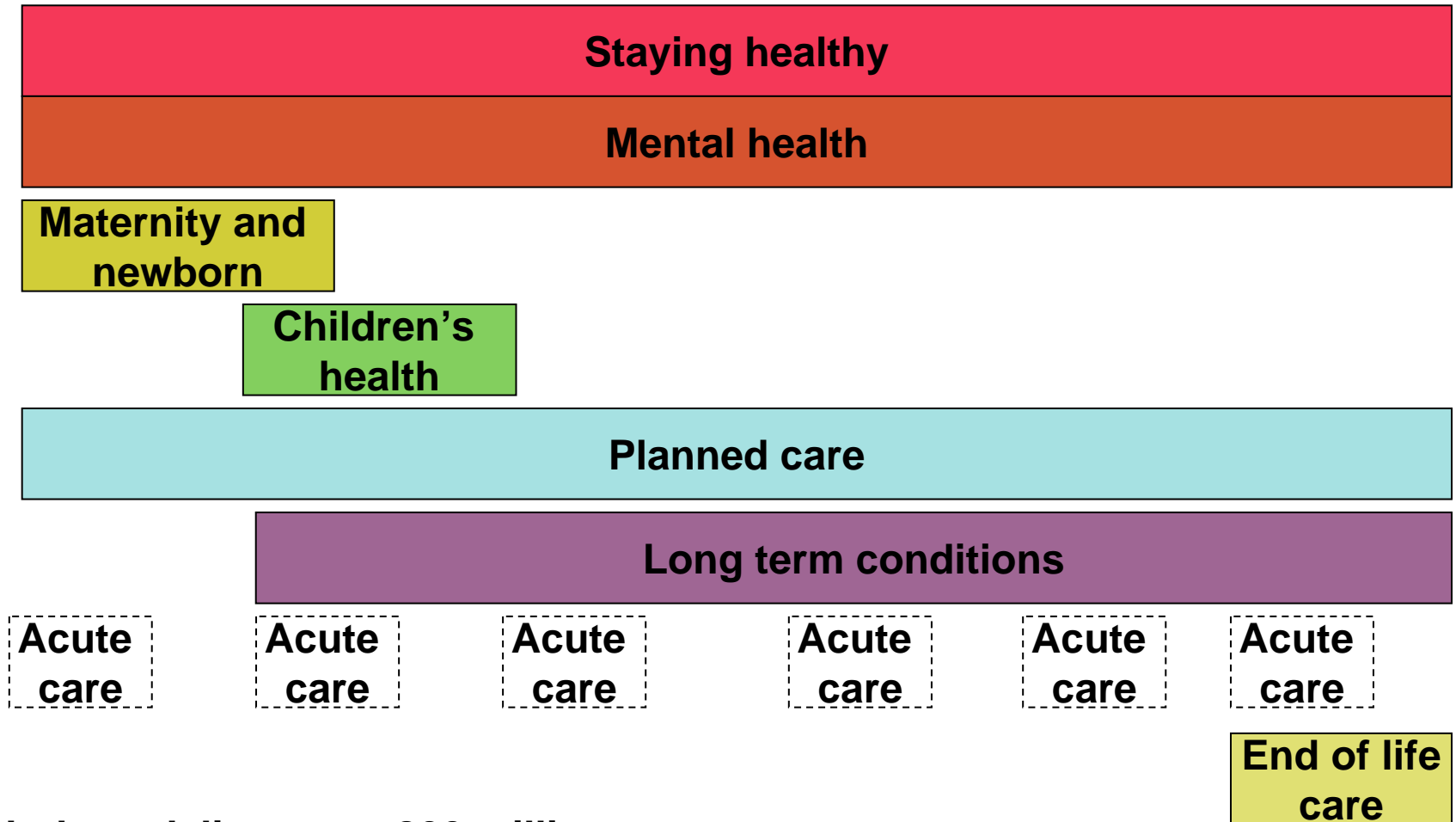
## *Enormous clinical and managerial challenge ahead*

- *3 card trick ( SHAs, PCTs, clinical commissioners)*
- *Pace of reform – slow, quick, slow*
- *Clinicians role in accountability and responsibility*



# Cross cutting care contribution

HCS involved in 80% of all clinical decisions, critical in achieving better patient outcomes and experience

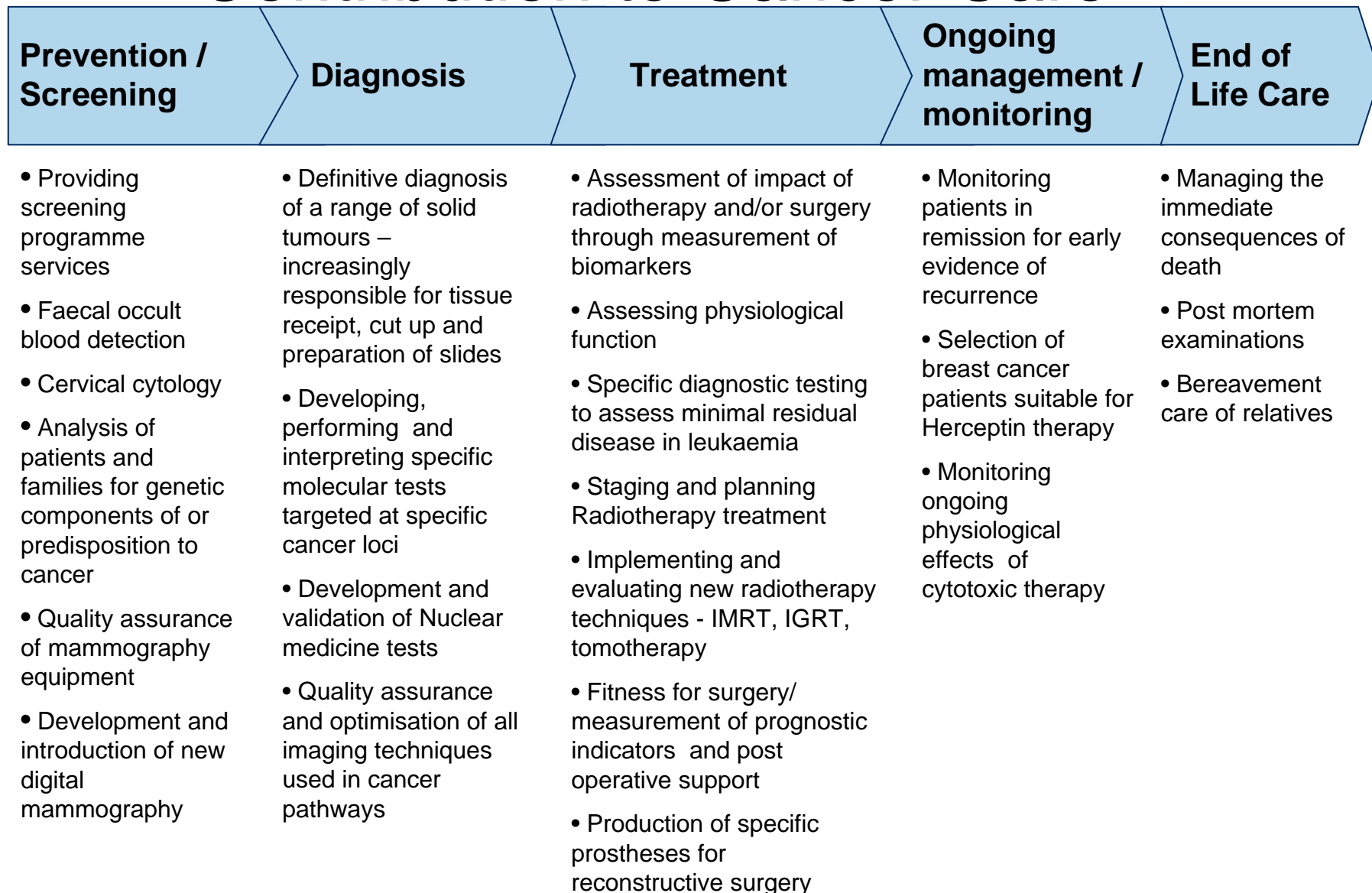


Pathology deliver over 800 million tests per year

Physiological measurement tests total over 12 million per year

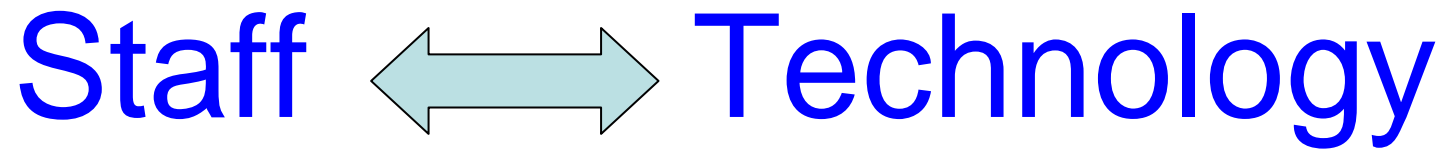
Radiotherapy physics and treatment planning support over 1.5 million fractions of radiotherapy every year

# Healthcare Scientists Example of the Contribution to Cancer Care



# Modernisation Challenge

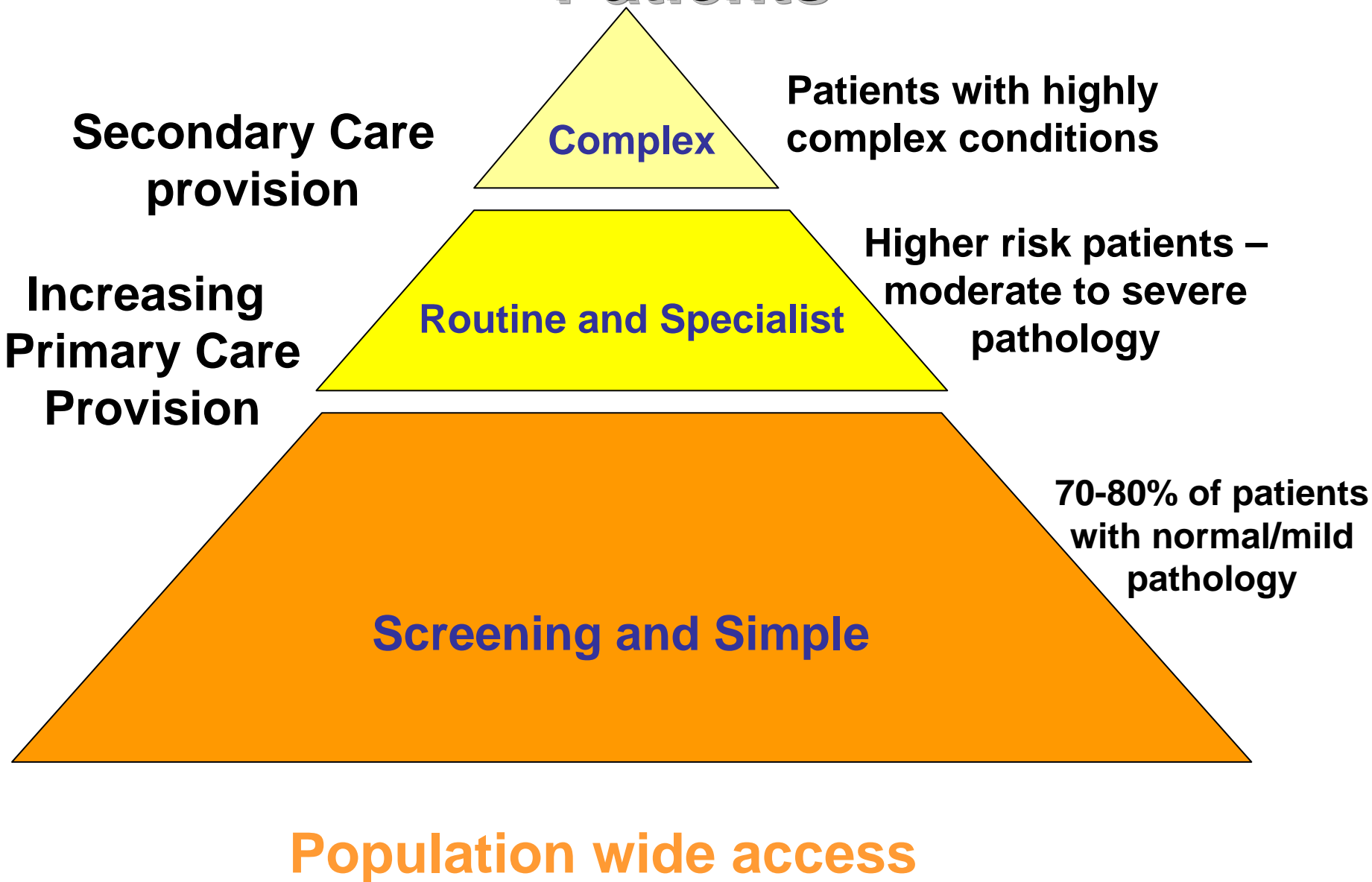
*“To fully utilise available technology to its maximum benefit in relation to costs when delivering user requirement and be able to adapt people and processes as new technology emerges.”*



The availability of new Technology poses 2 questions:

- How can we now do things differently?
- Who can now do them?

# The Right Diagnostic Service for Patients



# MSC Programme will underpin

**Quality and its 3 dimensions**

**(Safety, Effectiveness and  
Patient experience)**

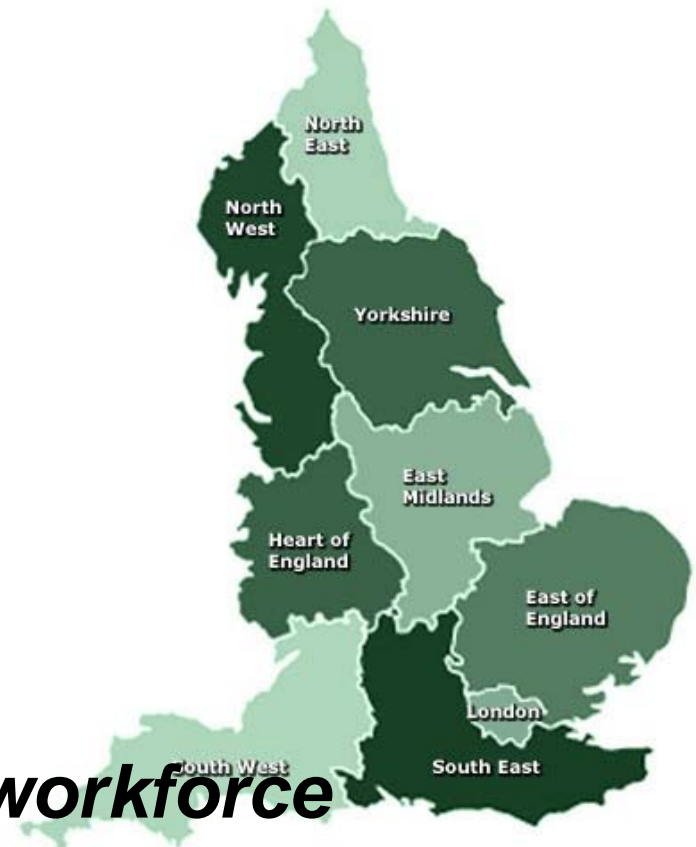
**Productivity**

**Innovation**

**New ways of working**

**Continuous Improvement**

***and equips the scientific workforce  
to respond to these challenges***



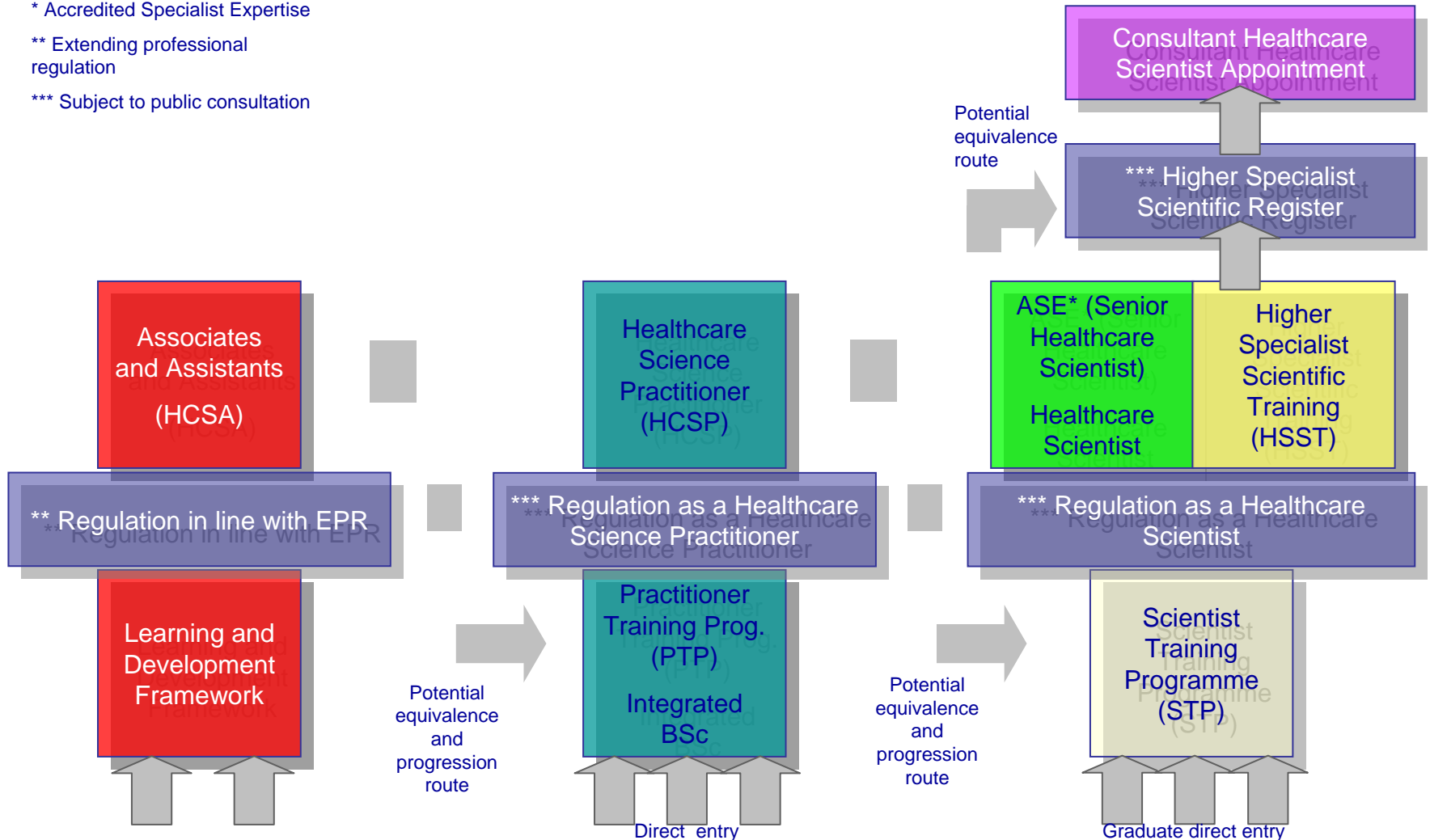
**Reducing variation in Quality improving outcomes**

# Modernising Scientific Careers: Career and Training Pathways

\* Accredited Specialist Expertise

\*\* Extending professional regulation

\*\*\* Subject to public consultation



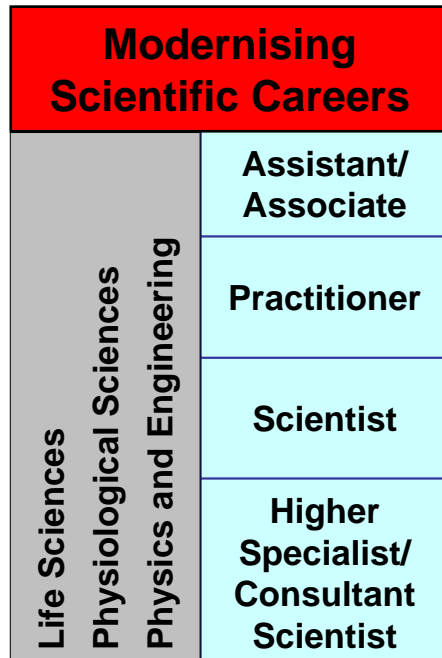
# Modernising Scientific Careers

## – Career Structure

<b>Assistant</b>	High volume, low risk activities requiring some structured training e.g. phlebotomist
<b>Associate</b>	High volume, low risk activities require appropriately trained staff but they do not require degree level training e.g. processing samples through machines in pathology laboratories.
<b>Practitioner</b>	Apply technology, use a degree of judgement and deal with ambiguity. Able to undertake activities which are outlined in 'protocols' e.g. genetic screening activities
<b>Scientist</b>	High risk, low volume activities which require highly skilled staff able to exercise clinical judgement and interact with patients e.g. undertaking complex heart scan which requires professional judgement and interpretation
<b>Consultant/ Higher Specialist Scientist</b>	In-depth, highly complex role. Equivalent to medical consultant role as requires clinical judgement e.g. specialist scientific expertise to plan radiotherapy treatment or develop new treatments such as proton therapy. This role could include a clinical director/consultant audiologist with expertise in complex hearing/ balance problems

# Modernising Scientific Careers

A solution that addresses the whole workforce



- Broader training, with a generic curriculum based on patient needs
- Focus on more specialist training only after initial broader based training is complete
- Improved quality, efficiency and value for money through greater flexibility of staff skills
- Formalised training and education to deliver coherent and consistent career pathways for healthcare scientists
- Clear outcomes from training programmes
- Academic and workplace based training at all levels
- Reduction in the costs of training through the development of full time undergraduate programmes funded principally by Higher Education Funding Council for England rather than the NHS
- Affordable and coordinated approach to the commissioning of education
- Recognition of previous experience and training to avoid duplication of learning

## Benefits to:

- Patients
- The NHS
- The Profession

# **The Way Forward – Focus on specialisms and themes not on disciplines and divisions**

- **Application of biology, physiology, physics and engineering to health**
- **Blood, Cellular and Infection Sciences**
- **Cardiovascular respiratory, Gastrointestinal and Urological and Neurosensory Sciences**
- **Clinical Physics, Imaging and Material Sciences**
- **Clinical Engineering**
- **Pharmaceutical Sciences**

***Note indicative***



# The MSC programme will deliver a nationally defined curriculum / standardised specifications to enable SHAs to commission new academic and work based training programmes from Higher Education Institutions and NHS training providers

## Current scope ...

## Proposed training through Modernising Scientific Careers

The current training programmes for HSC are a mixed and complex collection of locally commissioned courses and employment based training – there are approx. 3,500 trainees in the system at any one time

### Associate /Assistant

NVQ/SVQs will be available for Assistants  
 Foundation Degrees for Associates  
 Modular approach: trainees can 'pick and mix' whilst at work, according to employment requirements/roles  
 National learning and development framework

### Practitioner Training Programme (full time student)

3 year BSc (Hons) programme which will integrate academic and workplace based elements  
 HEFCE degree programme / MPET contribution to costs workplace based training

### Scientist Training Programme

3 year programme which will comprise separately delivered and awarded, academic and workplace-based components leading to an MSc and a Certificate of Achievement  
 MPET funds MSc tuition costs & contribution to salary for 3 years & workplace based training

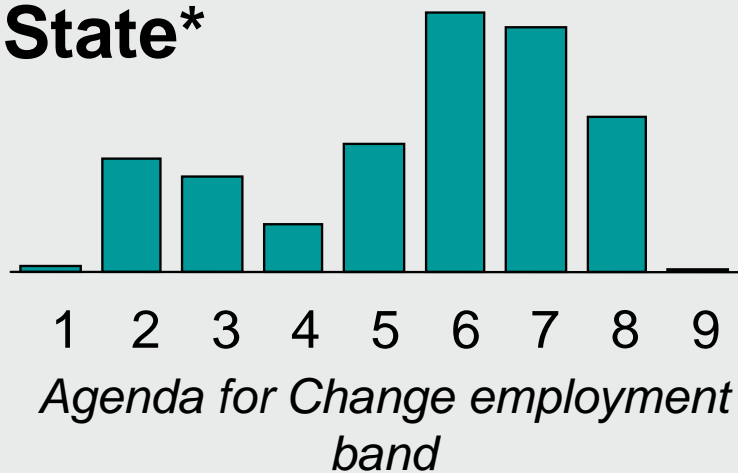
### Higher Specialist Scientific Training

A 4/5 year work based training programme similar to SpR training and leading to medical college examinations where these exist and a doctoral award.  
 MPET part funded over 4/ 5 years

The MSC programme will secure funding through HEFCE by shifting the balance of training more towards standardised, degree / University based courses with MPET providing placement costs only.

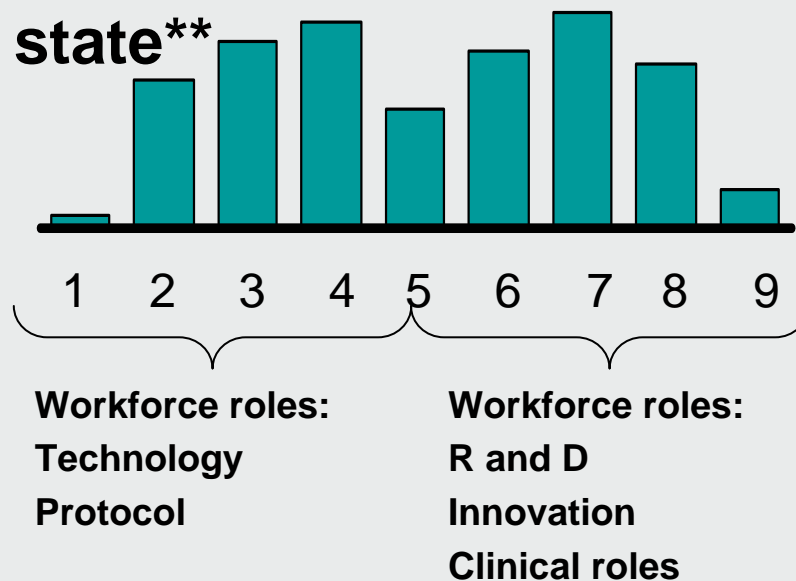
# Changing the profile of the workforce under MSC could save more than £250 million..

## Current State\*



– Is this structure providing value for money to employers?

## Possible future state\*\*



Workforce roles:  
Technology  
Protocol

Workforce roles:  
R and D  
Innovation  
Clinical roles

\* East of England SHA, West Midlands SHA, London SHA and South Central SHA

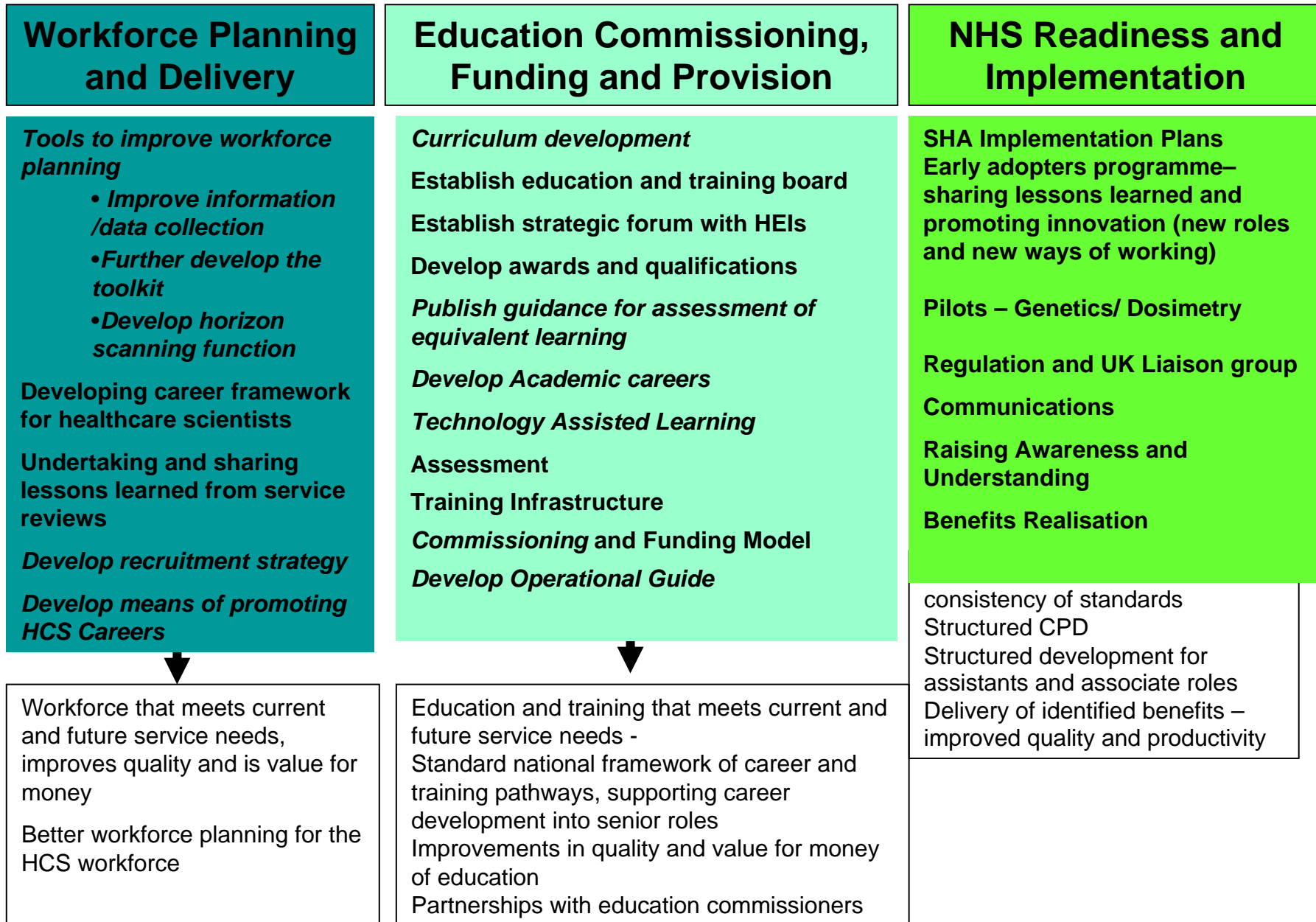
\*\* cf. Pathology: towards a competence based workforce

Source: Workforce Review Team

It is estimated that the workforce profile will be rebalanced over time to reduce the number of Agenda for Change band 7s and 8s and increase the number of band 3 and 4s and 5s – hence reducing salary costs.

**The National work Pathology services aims to deliver £0.5billion recurrent savings by re-profiling the workforce. The new pathology workforce will need a greater degree of flexibility in skills and knowledge development while still developing some staff with highly specialist knowledge and skills to introduce innovative scientific discoveries for the benefit of patients and the healthy population**

# How the work programme will deliver identified MSC benefits



# Implementation

*‘Implementation will be achieved by working with SHAs and other key stakeholders to ensure a phased approach. The pace of change will depend on local SHA priorities in managing transition’*

- **The new joint DH/NHS England Implementation Board will:**

- co-ordinate and oversee the strategic implementation of MSC across England
- review key deliverables
- review the national strategic risks and issues that will be identified as SHAs develop their local implementation plans
- ensure MSC is aligned to other policies
- make strategic links across central Government and with key stakeholders



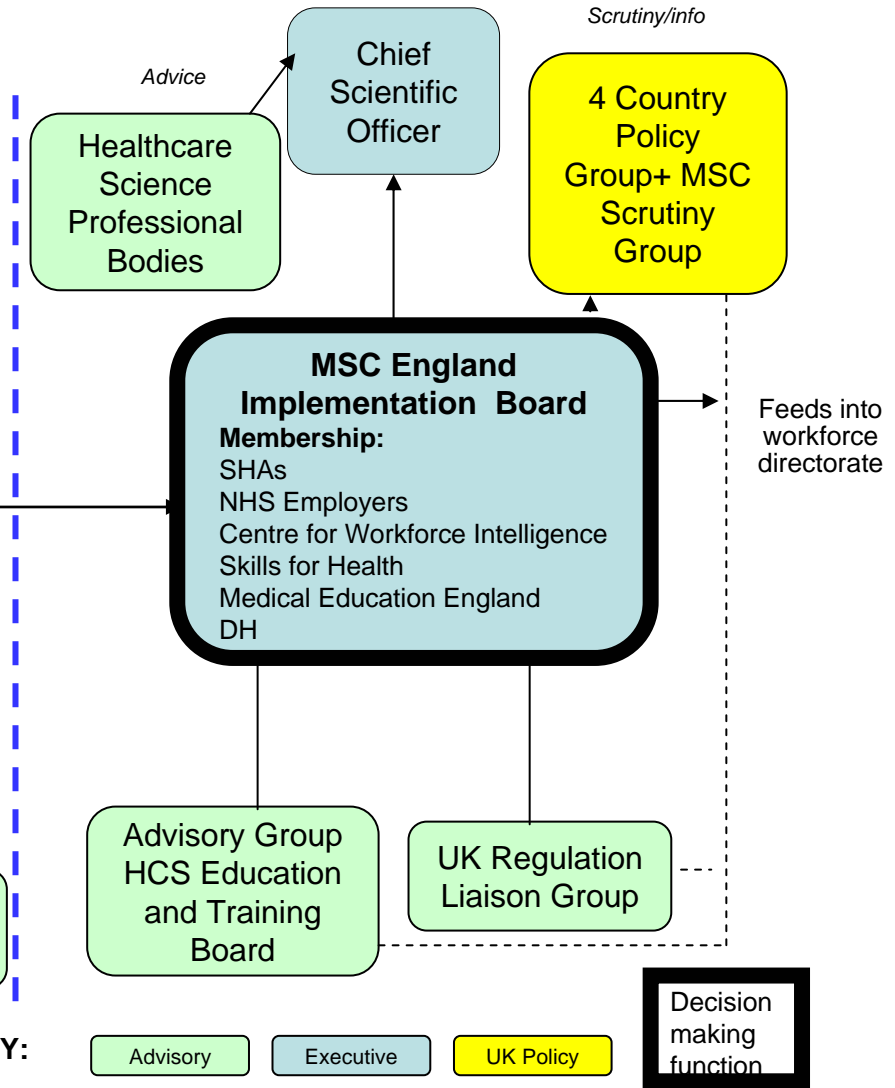
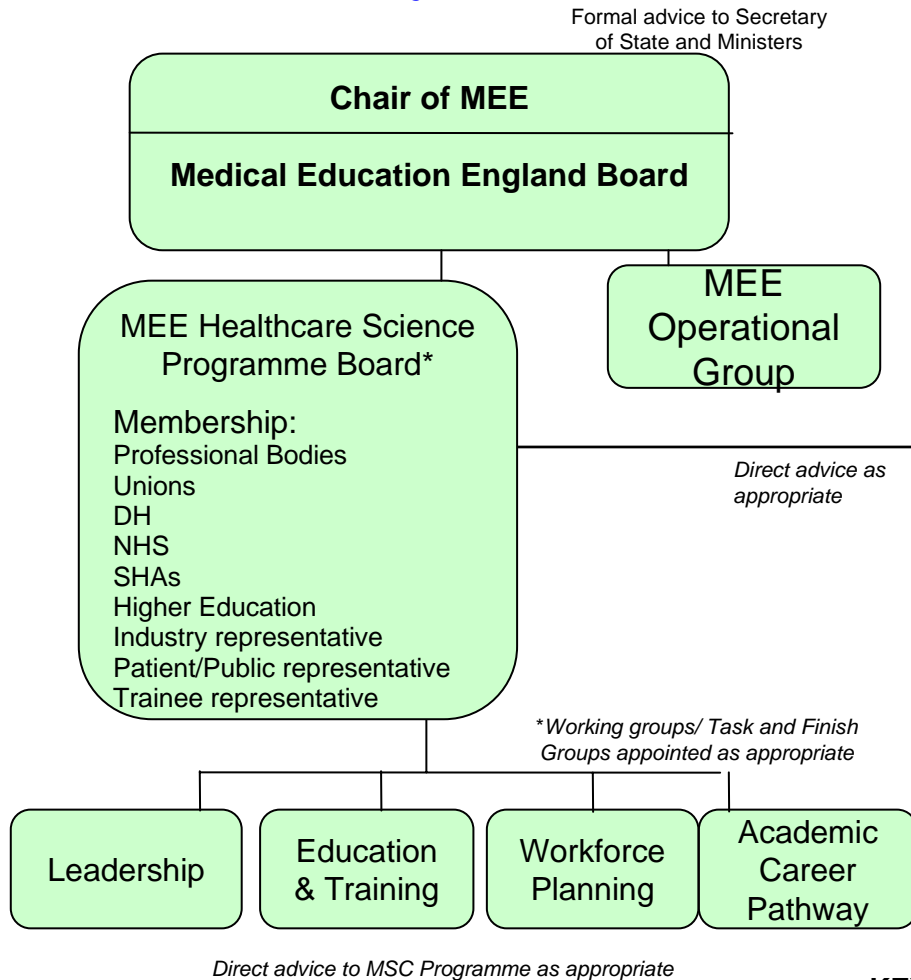
# Working with others

- **To implement MSC we will continue to work closely in association with:**
  - The three other UK Health Departments
  - SHAs
  - NHS Employers
  - Trades Unions
  - Skills for Health
  - Medical Education England
  - The MEE Healthcare Science Programme Board
  - A new overarching Professional Bodies Advisory Group
  - Medical Royal Colleges
  - Higher Education Institutions
  - The Further Education Sector
  - Regulatory Bodies
  - Other interest groups



# Simplified Governance

## Medical Education England Advisory Function



# Tools to support implementation

HCS Career framework



Education and training programmes

Training manuals

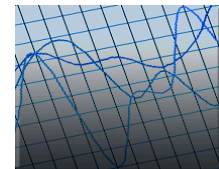


On line assessment tools

Workforce planning tools

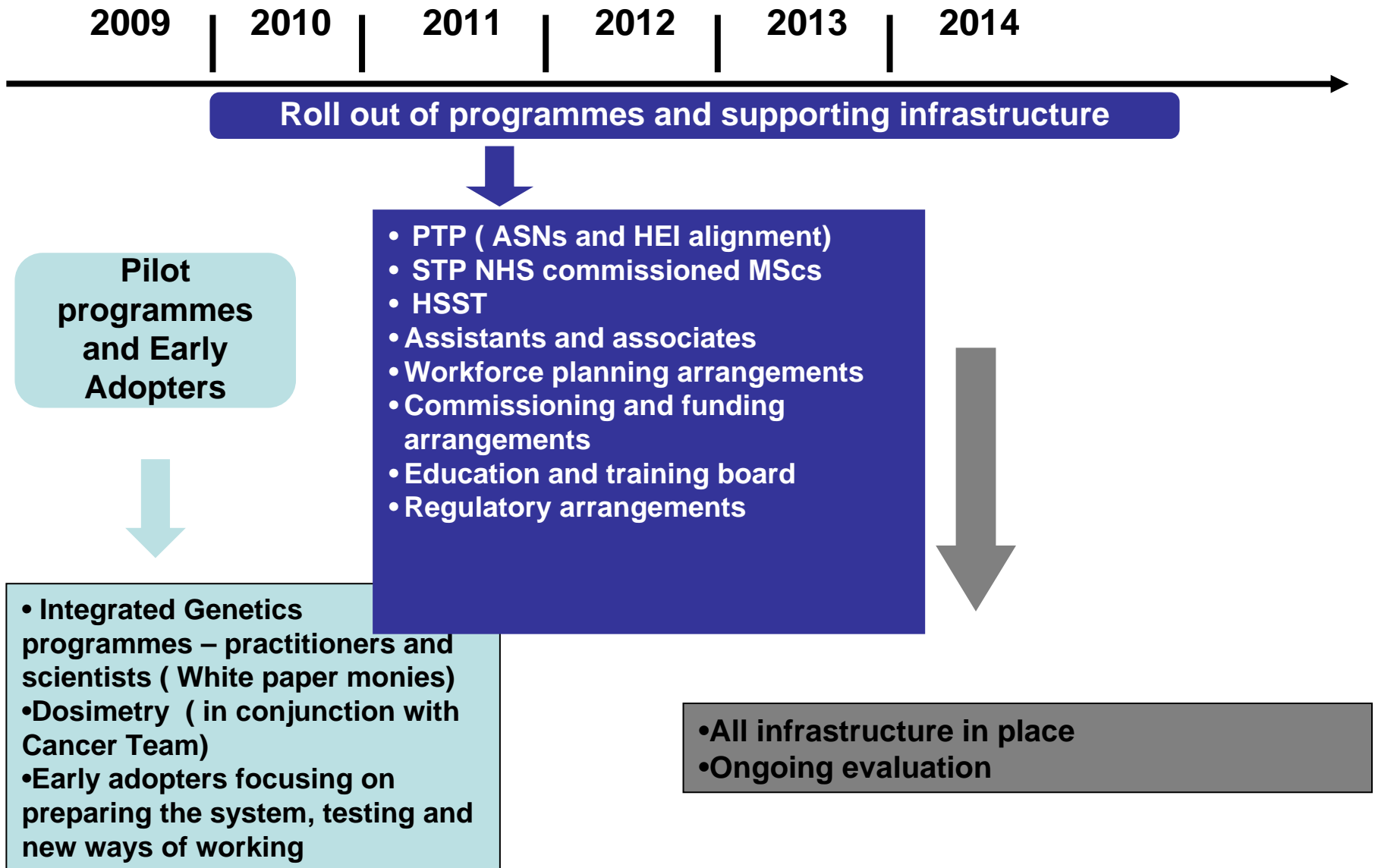


ESR and HCS workforce data



Evidence based case studies

# Timelines for implementation



# Supporting MSC implementation

Pilot programmes and  
Early Adopters

SHA MSC project leads/managers

SHA scientific leads and communities  
of practice



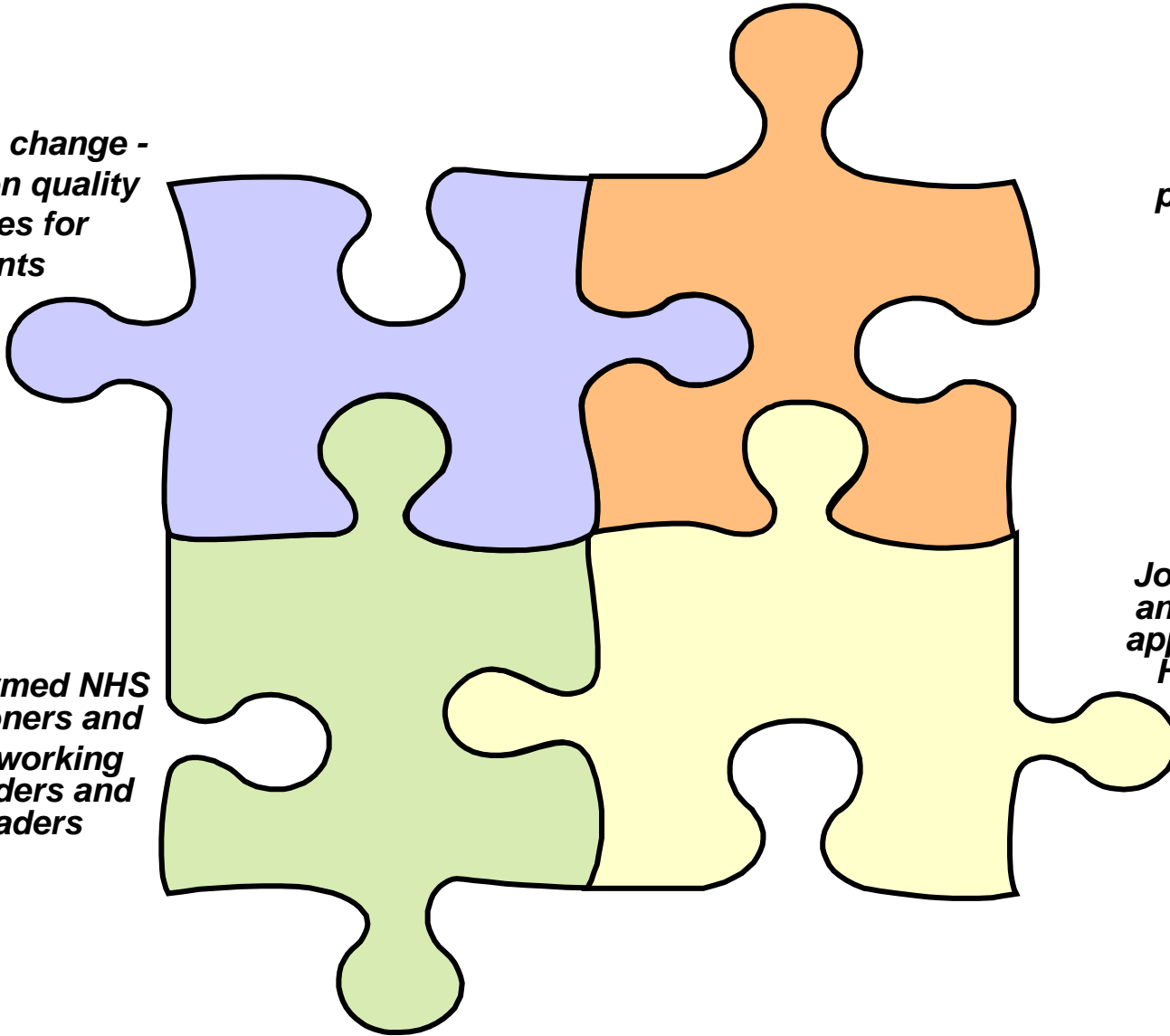
# Making MSC a reality

*Large scale change -  
focussed on quality  
outcomes for  
patients*

*Enhanced  
professional  
leadership*

*Better informed NHS  
commissioners and  
planners working  
with providers and  
HCS leaders*

*Joint funding  
and strategic  
approach with  
HEI sector*



# Summary

- The changes that need to be implemented with the support of the MSC programme and stakeholders will:
  - **Transform education and training pathways** to create a flexible, responsive, sustainable scientific and technical workforce
  - Align the workforce to **service needs** as work is undertaken safely and competently at the right levels
  - Ensure **scientific advances are adopted quickly** to enhance the quality and outcomes of care for people and encourage **innovation** and **economic regeneration**
  - Achieve gains in **efficiency** and **effectiveness** and the delivery of **high quality** value for money services
  - **Improve the education and training experience** of future healthcare scientists to develop motivated individuals who want to work in the NHS.