

A healthcare scientists' career to date

Denis Duignan, Head of Technology – Health Innovation Network



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Health
Innovation
Network
South London

We connect academics, NHS commissioners and providers, local authorities, patients and patient groups, and industry.

We work to accelerate the spread and adoption of evidence-based innovations and best practice across South London and beyond.

Acting as catalysts of improvement across the local health and care system, our work supports better health outcomes & economic growth.



Population
3.5+
Million



Healthcare
Workforce of
60,000+



55
Member
Organisations



of 15
AHSN's in
England



12
South London
Boroughs



2
STP
Areas

HIN Goals

August 2019



Improve lives

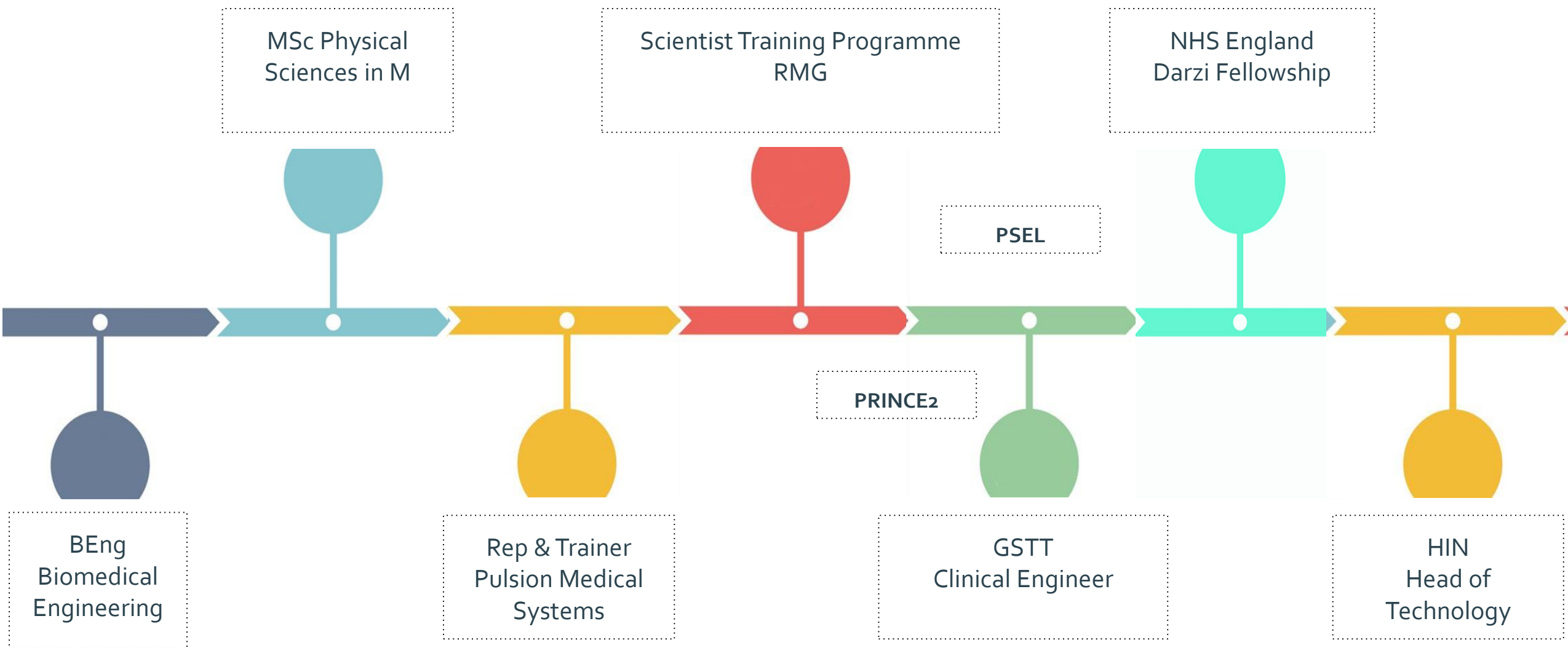


Save money

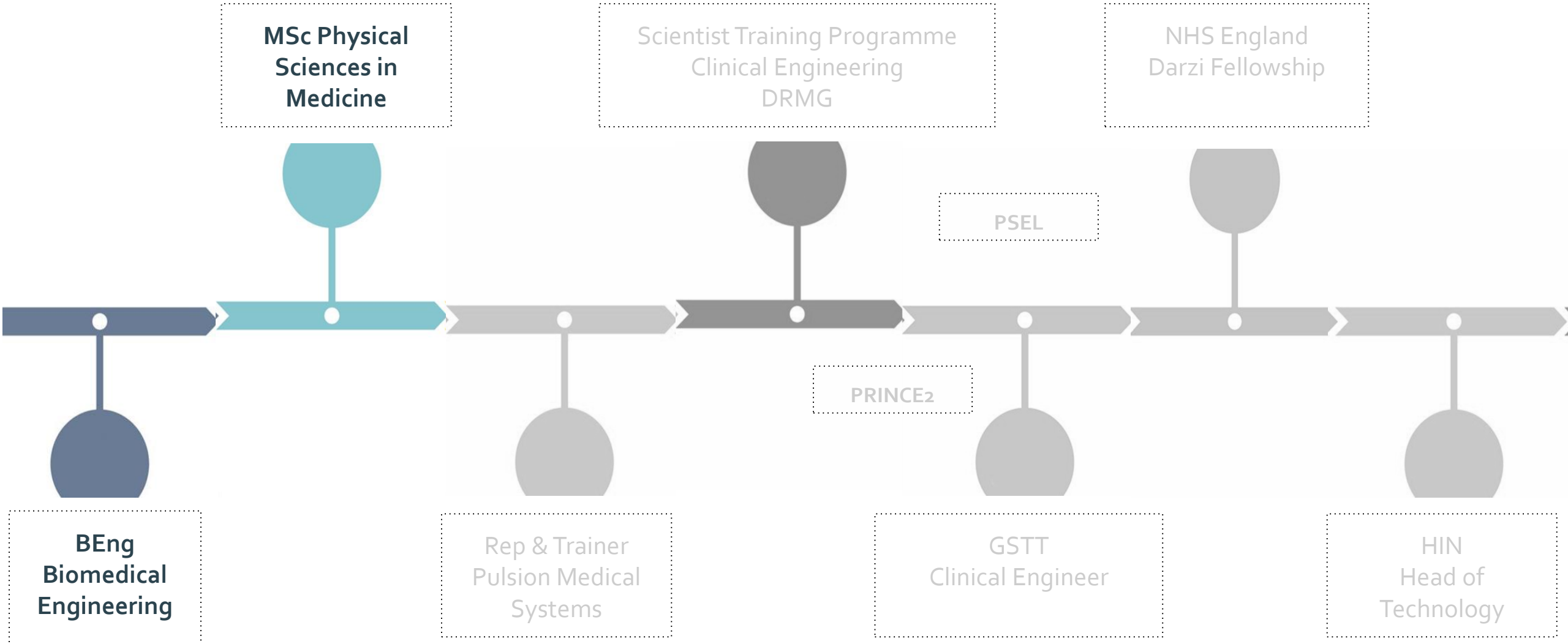


**Drive economic
growth**

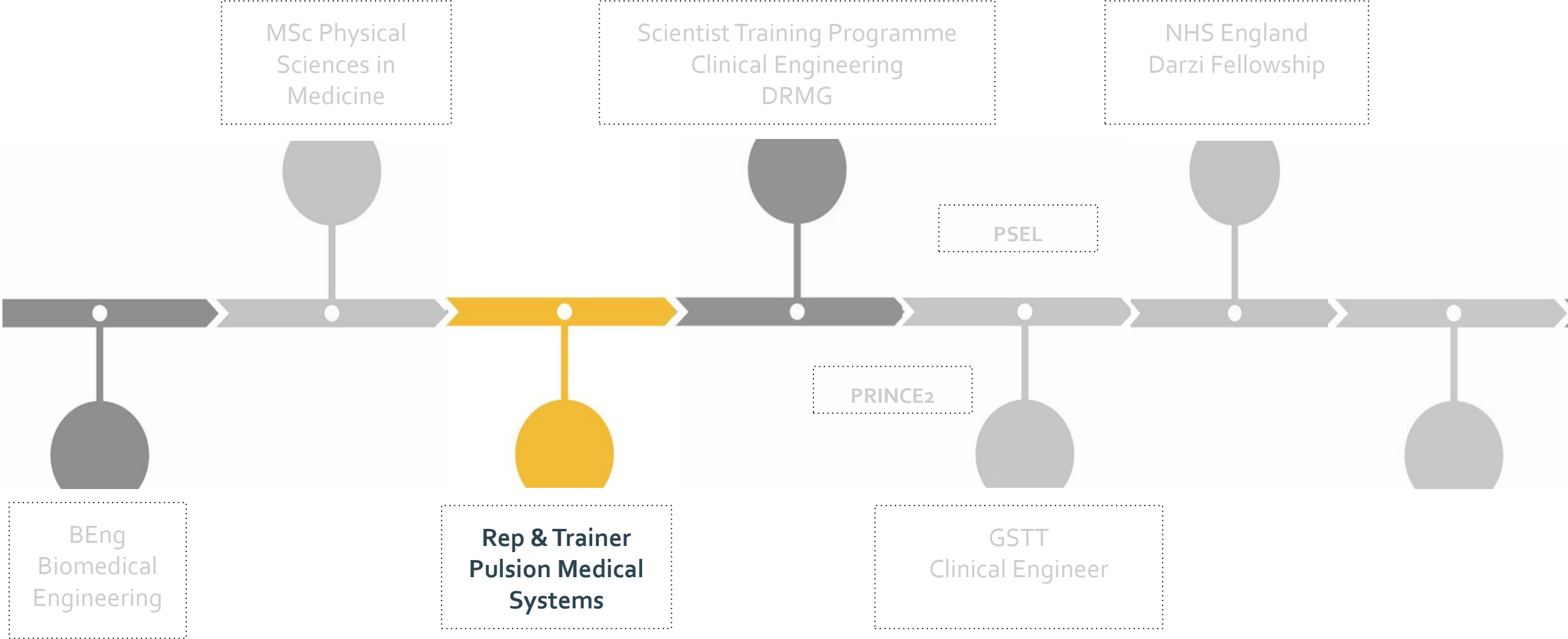
Career to date..



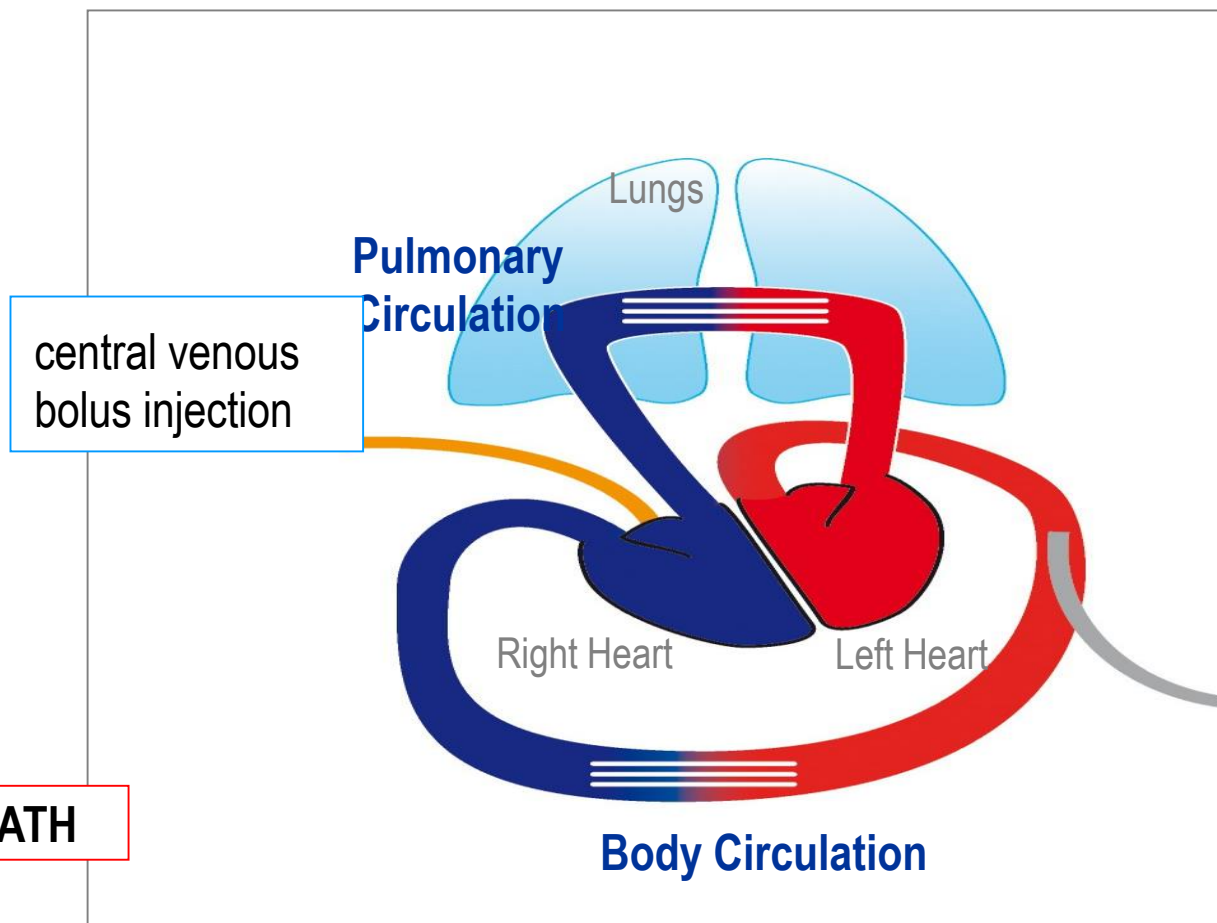
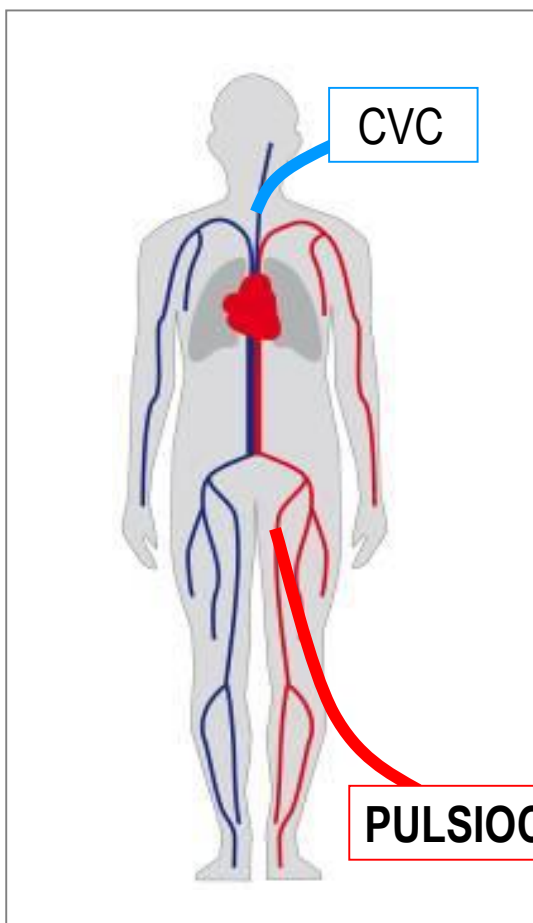
Career to date..



Career to date..

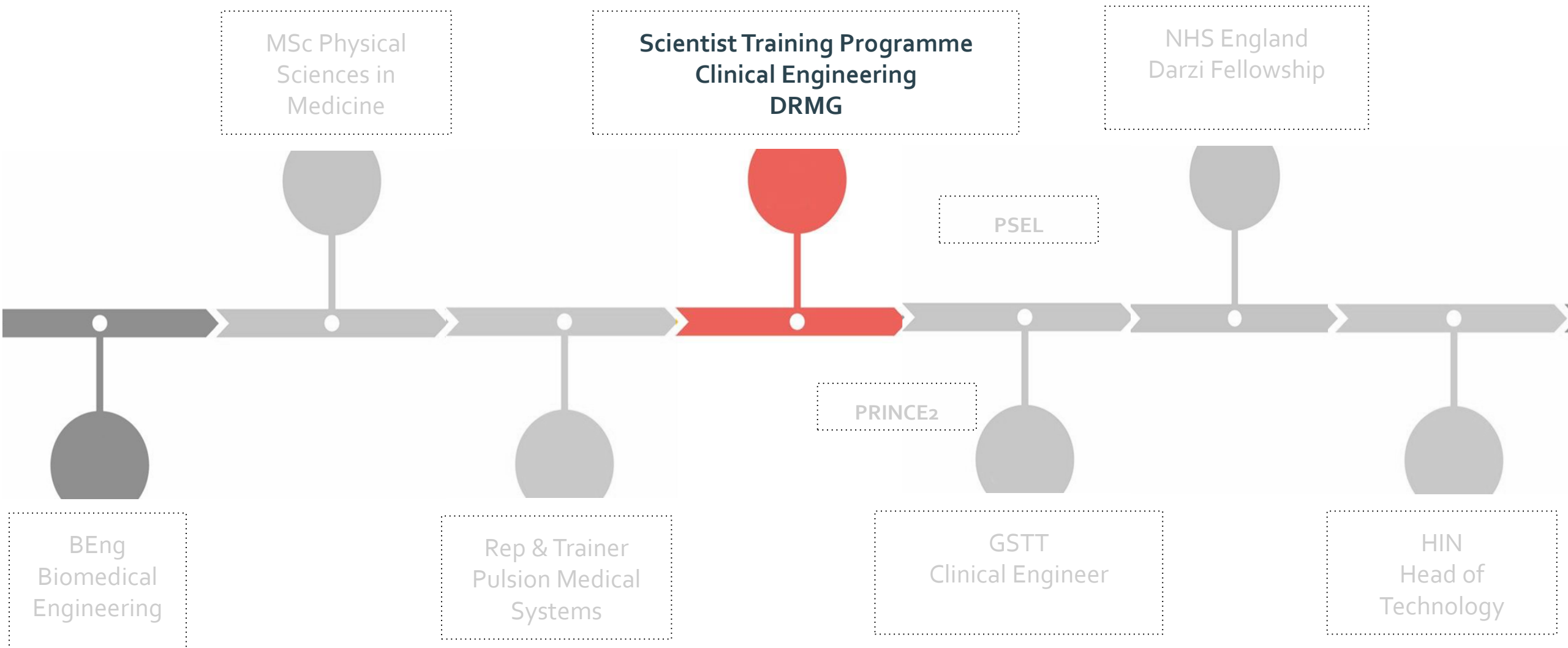


Pulsion Medical Systems REFLECTIONS

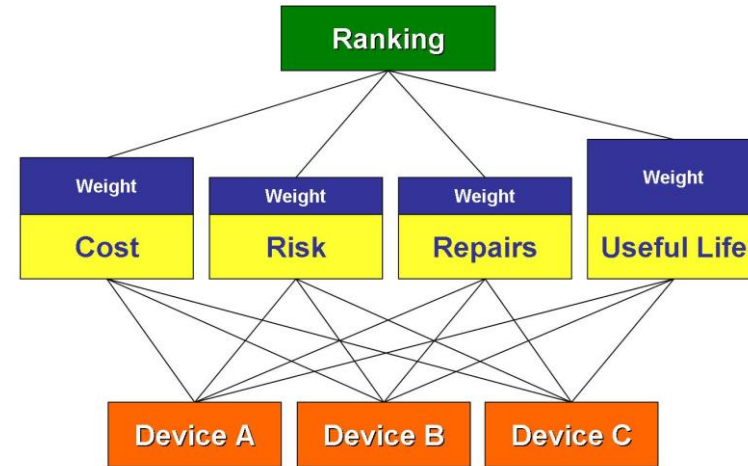


PULSIOCATH
arterial thermodilution
catheter

Career to date..



STP REFLECTIONS



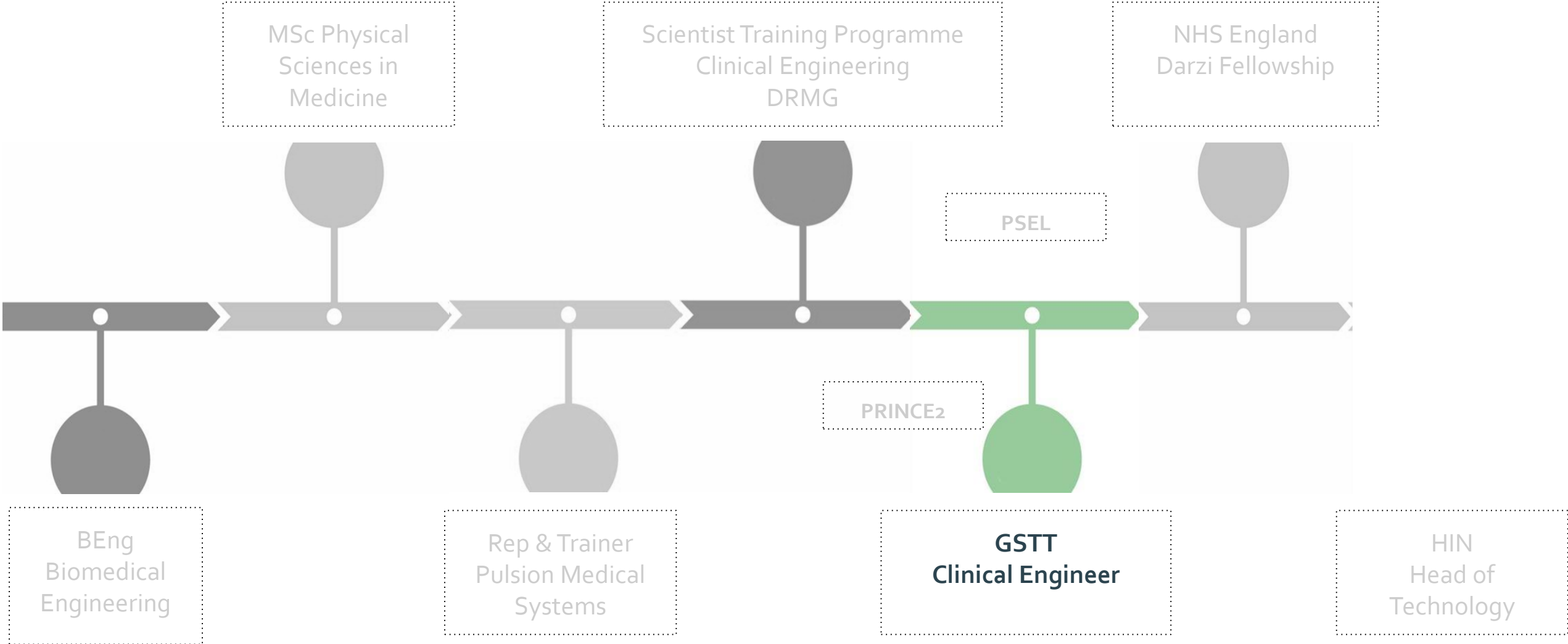
Asset Replacement Prioritisation Tool

Asset Group 4

Active Comparators	%	Inactive Comparators	8	0	0	5	0	5-50K
Cost of Replacement	10	Electrical Class						
Useful Life Remaining	50							
Risk Consequence Score	20							
Repairs per Year	10							
Cost of Repairs per Year	10							

Asset No.	Description	Department	Replacement Score 0-100
100946	BLOOD GAS ANALYSER	Doulton Ward	27.61
0000012254	INFANT VENTILATOR	Neonatal Intensive Care Unit	11.11
0000018575	BIPHASIC	Cardiac Catheter Labs	9.64

Career to date..



GSTT Clinical Engineering



Notice of Change: Renal Service Request Form

The Renal Technology Servicing Department are upgrading their IT system.

From 1st February all repair requests should be made using the new web form accessible via the Trust Intranet ([link](#))

From GTI homepage, search 'Medical Devices Homepage'
Or navigate to Staff Guide and then 'medical devices'

Access to this form is restricted to essential personnel.
To get access please email Ben.Britton@gstt.nhs.uk, stating your Trust computer login username.

Renal Repair Request

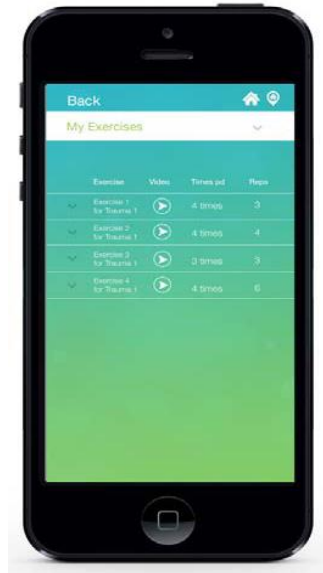
Requested By	
Name	Phone
<input type="text"/>	<input type="text" value="83806"/>
Department	
- Please Select Your Department -	
Request	
Asset Number	Asset Description
<input type="text"/>	<input type="text"/>
Request Fault	
Additional Comments	
<input type="text"/>	<input type="text"/>

STEPS

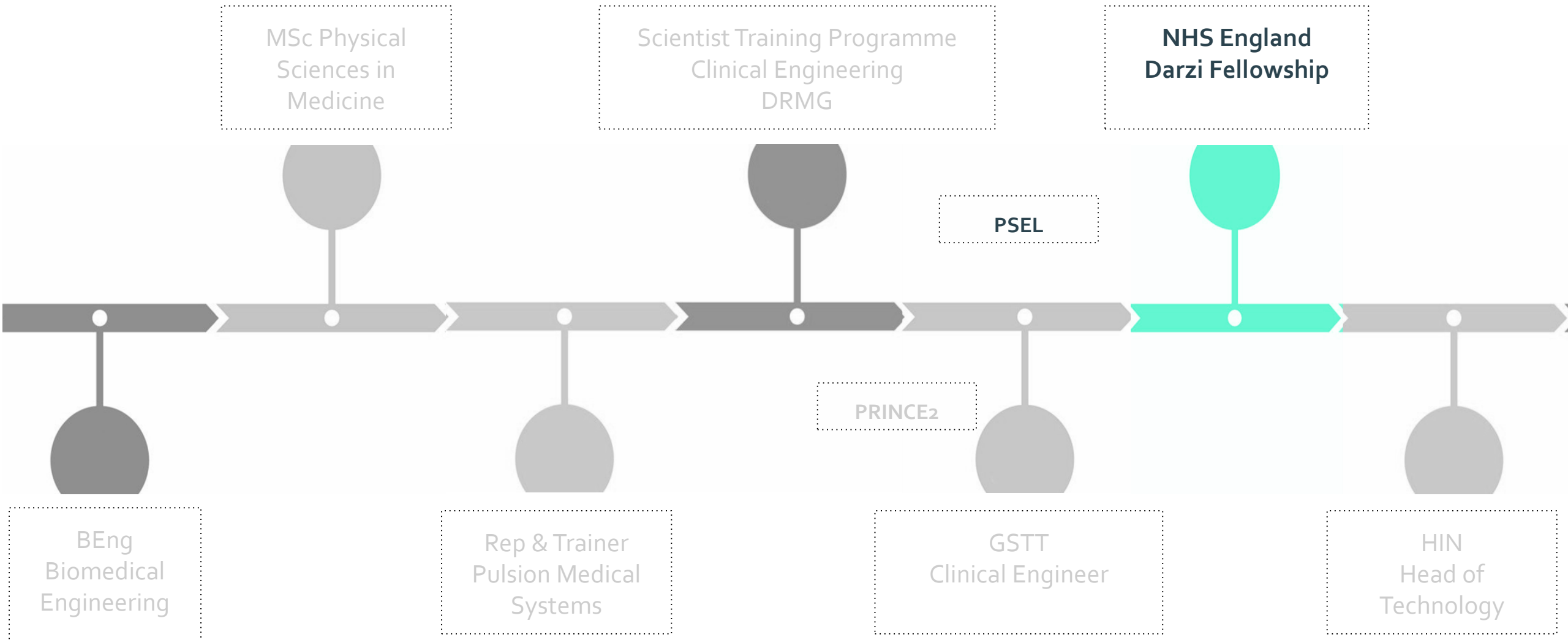
- 1 Enter Requestor Details
- 2 Enter Asset number from the sticker on device
- 3 Enter as much detail as possible about the fault
- 4 Press Submit
- 5 Print, complete and attach the disinfection form to the device

For assistance or problems encountered with this form, please contact the Renal Technology Support Team on 020 7188 0858

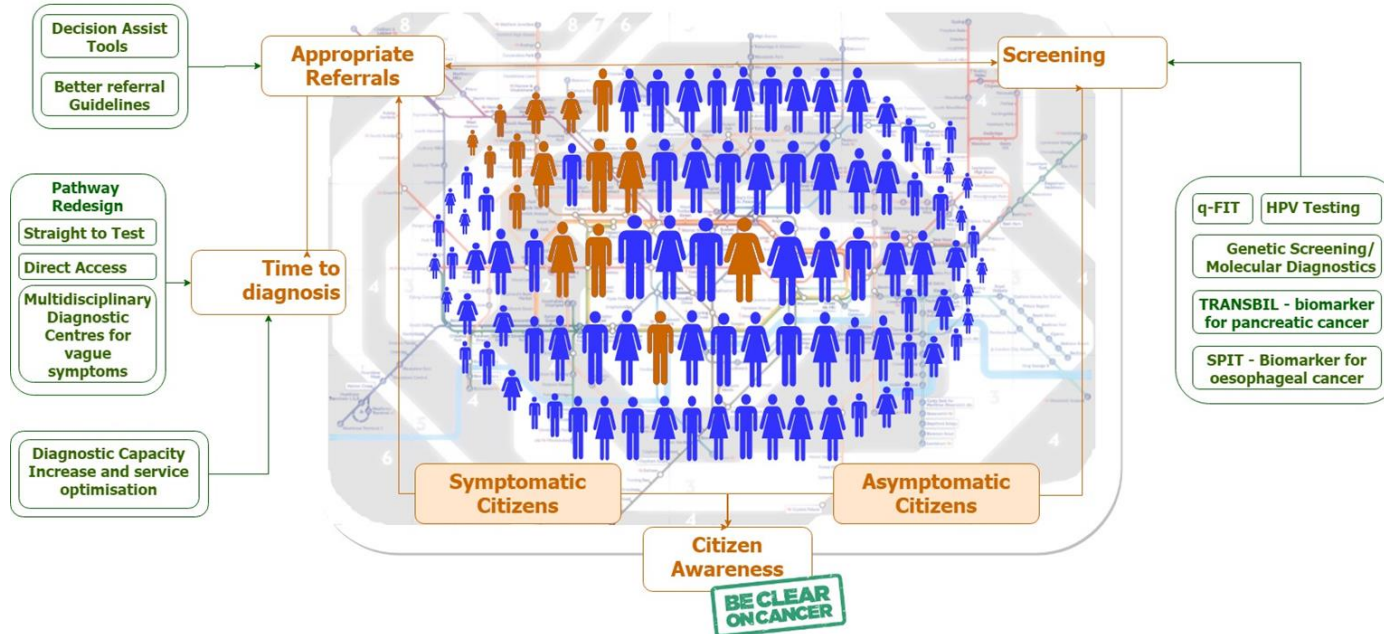
Report any problems encountered to ben.britton@gstt.nhs.uk



Career to date..



Darzi Project



Improving Cancer Diagnostics in London

Denis Duignan
NHS England
Medical Directorate (London Region)

Project Context

The State of Cancer Diagnostics in London

A recent major study of 29 European countries found that survival rates for almost all common cancers in the UK are worse than the overall European average¹. There is also significant variation in cancer outcomes across the country, one study showing that the proportion of people dying within a year of being diagnosed with cancer is 61% higher in the worst-performing local healthcare area in England than the best². In London, there are particular challenges around the prevalence of emergency admissions and late-stage diagnosis of cancer, compounded by workforce and capacity shortages. Earlier diagnosis was identified by the independent cancer taskforce as a key area for improvement in order to meet the vision set out in the five year forward view^{3,4}.

Exploring the Problem Space

Finding where I might add value in a complex area

The current landscape around cancer in London is complex and contains several extremely active and dynamic stakeholders who are working across several cancer focus areas and on tens if not hundreds of projects.

In order to identify a feasible project of appropriate scope and scale that was achievable within the given timeframe, I used engineering design theory figure 1. This involved exploring the literature and conducting widespread enquiry with stakeholders across London's three cancer alliances to gain an understanding of the major needs within the system and the areas of focus and workstreams underway (figure 2).

After performing SWOT analysis on four potential areas of involvement, I felt that the system's need for increased diagnostic capacity, and particularly within endoscopy, was where I could make an impact.

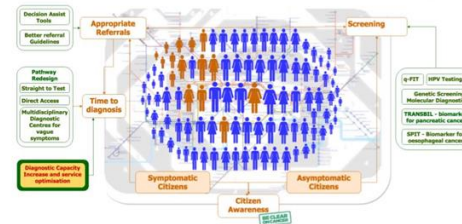


Figure 2: Key areas of focus and cancer diagnostic workstreams underway in London

The Endoscopy Issue

Endoscopy Demand Outstripping NHS Capacity

Endoscopy services in the NHS are currently under huge pressure and are struggling to deliver the 62 day cancer standard. Due to changes in demography and population health status along with lower referral risk threshold guidelines and changes to screening technology, this pressure is set to rise with a **6.5% per annum increase in GI endoscopy demand** as compared to 2.8% seen between 2006 and 2014⁵.

A key area identified to tackle this rising demand are service efficiency gains. Previous studies within endoscopy units suggest that through the use of lean tools and methodologies which highlight actionable information to staff; patient flow and experience can be improved along with an increase in motivation and demonstrable leadership by senior clinicians and nursing staff to improve workforce compliance^{6,7}.

Through engaging with endoscopy professionals across London, I discovered that there was a clear need for better intuitive tools and information. This project set out to build on previous work, including the **2014 Productive Endoscopy Unit**, and to co-design a website with endoscopy professionals that contains useful resources which aim to help service providers improve the quality of their services and reclaim lost capacity.

References

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- Stewart, E. & Brewer, K. 2015. Making endoscopy departments more efficient. UCLH Cancer Collaborative. Available at: <http://www.uclh.nhs.uk/our-services/department-of-gastroenterology-and-colorectal-disease/colorectal-clinical-research-and-innovation/colorectal-clinical-research-and-innovation-reports/>
- Taggar, M. et al. 2014. *2014 Productive Endoscopy Project*. GGI. Available at: <http://www.ggi.org.uk/>
- Royal Academy of Engineering. 2010. *Artificial Intelligence and Continuous Improvement*. Available from: <http://www.rae.ac.uk/>



The Leanoscopy Solution

Co-designing a website to help endoscopy units improve

The initial concept for this website was to host useful resources and quality improvement tools which would allow data to be shared between users in endoscopy services. As the project progressed it became clear that the variation in processes and clinical information systems across London made building a semi-automated data sharing solution that could work for all non-feasible. Instead it was decided to focus on creating key features that could have an instant impact for providers.

The design and creation of Leanoscopy.com was a joint effort between the scientific team within NHS England's medical directorate (London region), the transforming cancer services team and endoscopy services from UCLH, Homerton Hospital and Guy's & St Thomas' NHS Trust.

Desired Outcomes

- INCREASE ENDOSCOPY CAPACITY ACROSS LONDON** - Through the delivery of intuitive improvement tools which present concise actionable information, it is hoped that endoscopy units will be able to make quick efficiency gains and free up capacity within the system.
- IMPROVEMENT IN THE QUALITY OF ENDOSCOPY SERVICE DELIVERY** - By sharing data and gaining an understanding of quality improvement methods it is hoped that the quality of service delivery will increase across the board.
- IMPROVE SAFETY BY PROMOTING STANDARDISED BEST PRACTICE** - Through facilitating communication and data sharing between units, promoting best practice pathways and successful case studies, it is hoped that unwarranted variation will reduce across London.
- PATIENT LEAFLETS & INFORMATION** The gathering and hosting of information for patients allows units to learn from each other and improve patient experience.
- OTHER USEFUL RESOURCES** The site signposts users to resources such as the transforming cancer services team that offer hands-on service improvement training, and the IST for demand & capacity analysis.



Progress to Date

BETA VERSION COMPLETED
The website has gone through three design iterations and is fully functioning, fulfilling the majority of the initial specification.

EVALUATION UNDERWAY

Key stakeholders are assessing the website in terms of its utility and usability. Early feedback has been very positive.

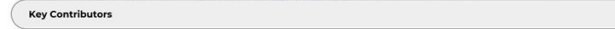
COLLABORATE WITH OTHER PROGRAMMES OF WORK

NHS England's Sustainable Improvement Team are due to refresh all NHS productive series and an agreement to collaborate has been made.

Key Lessons Learnt

The Good, the Bad & the Ugly

- THERE IS A GROWING NEED FOR IMPROVEMENT** - Endoscopy units are facing significant financial, operational and workforce challenges in meeting the rising demand.
- NEED TO CREATE HEADSPACE FOR CLINICAL STAFF AND ADMIN IN ORDER TO CHANGE THINGS** - Endoscopy units are operating largely in firefighting mode and will need significant dedicated time to make improvements.
- LACK OF KNOWLEDGE AROUND SERVICE IMPROVEMENT WITHIN ENDOSCOPY UNITS** - Having online resources alone will not be enough. Training of staff around using tools and implementing actions is required.
- THERE IS NO DIGITAL SOLUTION FOR A CULTURAL PROBLEM**



Achieving World-Class Cancer Outcomes: A Strategy for England 2015-2020

FIVE YEAR FORWARD VIEW

Report of the Independent Cancer Taskforce

Achieving World-Class Cancer Outcomes: A Strategy for England 2015-2020

ONE YEAR ON 2015-16

Report of the Independent Cancer Taskforce

Achieving World-Class Cancer Outcomes: A Strategy for England 2015-2020

Progress Report 2016-17

NATIONAL CANCER TRANSFORMATION PROGRAMME
Publications Gateway Reference: 27518

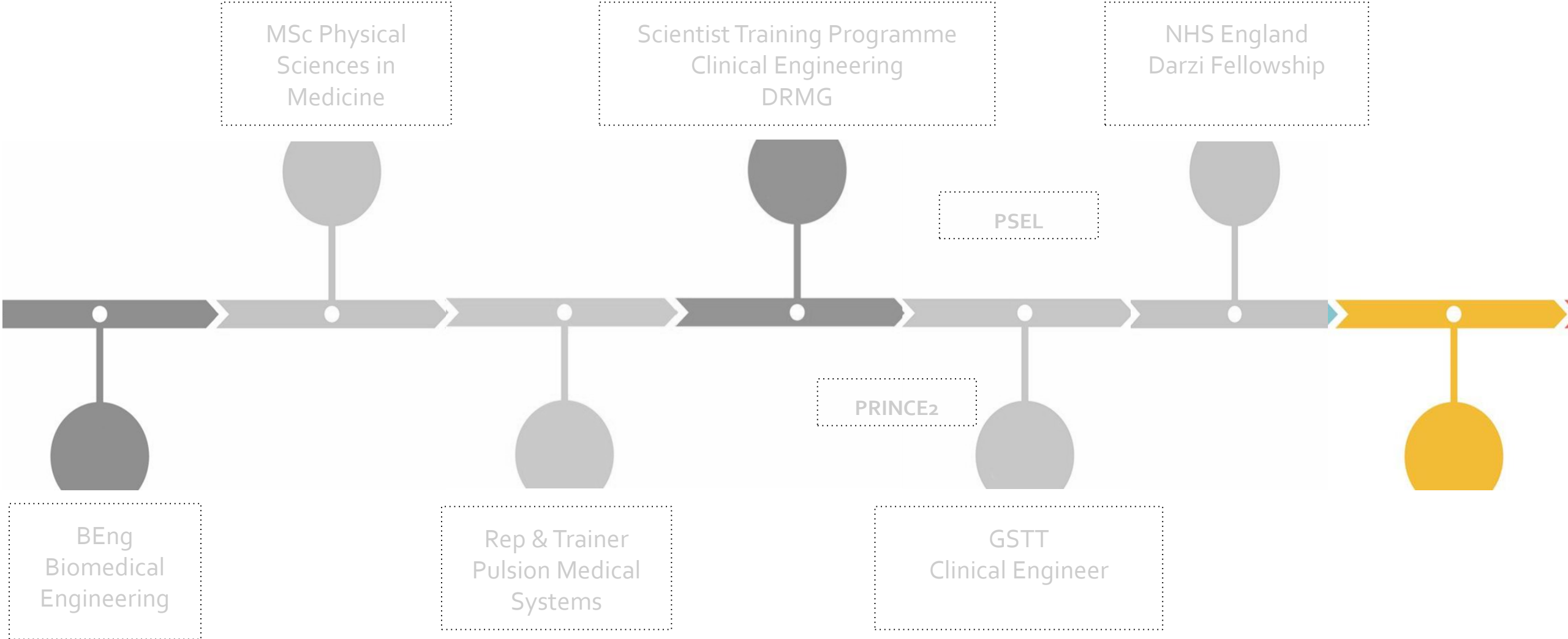
Next Steps on the NHS Five Year Forward View

easy read

A model of care for cancer services
Clinical paper

August 2016

Career to date..



STP advice

- 1 Make the most of the STP opportunity and get stuck in.
- 2 Build good relationships with colleagues as this will serve you better than building expert knowledge.
- 3 Don't be afraid to get involved outside of your discipline.
- 4 Try to visit as many healthcare delivery settings as possible, and build your network.
- 5 Pay attention to national policy and plans as models of care are changing rapidly, which will impact all services.

Questions

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