



EPSRC Strategic Vision and Delivery Plan

21st March 2017

Dr Mark Tarplee



Department of Business, Energy and Industrial Strategy

“UKRI”

IUK
£547m

EPSRC
£858m

MRC
£616m

STFC
£529m

BBSRC
£422m

NERC
£325m

ESRC
£178m

AHRC
£98m

QR
£1686m

Opportunities Presented by UKRI – in brief and not exhaustive!



One **unified voice** for UK research and innovation



Simpler innovation ecosystem:



national research and innovation strategy



stronger links between disciplines and with business,
policy makers and the public



Reduce administrative costs through sharing of common
functions (e.g. HR)

STRATEGIC PLAN 2015

RESEARCH.DISCOVER.INNOVATE.
RESEARCH.DISCOVER.INNOVATE.
RESEARCH.DISCOVER.INNOVATE.
RESEARCH.DISCOVER.INNOVATE.
RESEARCH.DISCOVER.INNOVATE.
RESEARCH.DISCOVER.INNOVATE.
RESEARCH.DISCOVER.INNOVATE.
RESEARCH.DISCOVER.INNOVATE.
RESEARCH.DISCOVER.INNOVATE.

Engineering and Physical Sciences
Research Council

EPSRC
Pioneering research
and skills

One vision.....

Our vision is for the UK to be the best place in the world to research, discover and innovate

Two goals.....

RESEARCH and DISCOVER

RESEARCH and INNOVATE

Three strategies.....

Balancing capability

Building leadership

Accelerating impact



Strong economies are science economies

They invest in research, discovery and innovation.

- ❑ Strong economies are built on the growth and productivity driven by the engineering and physical sciences
- ❑ EPSRC is the most effective means of delivering a world leading, innovative research base that can build a strong UK economy

EPSRC will invest in research, discovery and innovation that builds...

a productive nation



a connected nation



a resilient nation



a healthy nation

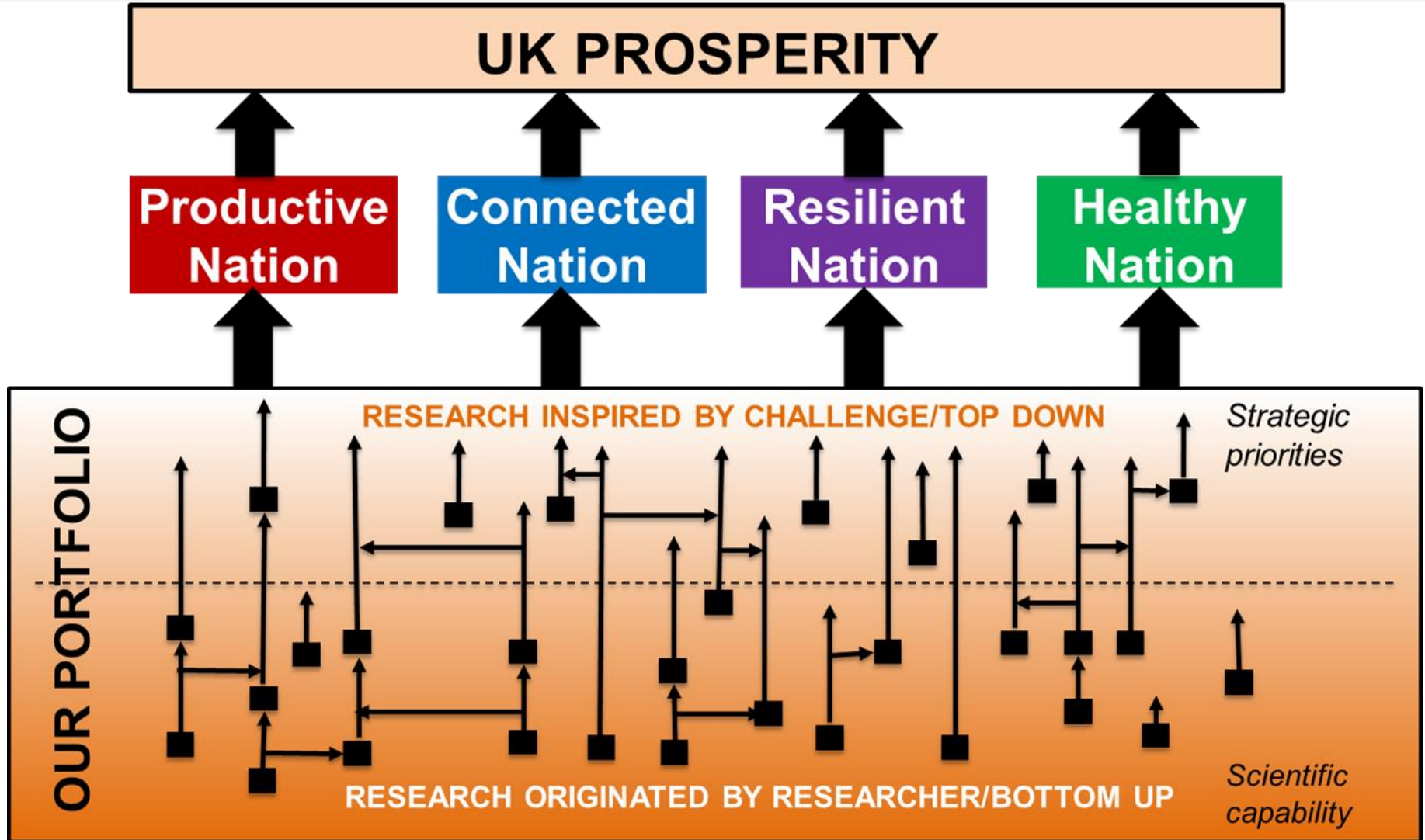


Key messages from Council for the 16-21 Delivery Plan

- ■ ■ Broadly maintain the overall balances between research and skills;
- ■ ■ Maintain the Impact Acceleration Accounts.
- ■ ■ Sustain the things that only EPSRC does;
- ■ ■ Remain open for further fiscal events
 - ■ ■ (e.g. Alan Turing Institute, CDTs);
- ■ ■ Look to drive further leverage wherever we can;
 - ■ ■ Not just about university match funding- can be working with other government departments, business and charities.
- ■ ■ Think about how we integrate Official Development Assistance into our plans.



EPSRC's Delivery Plan Framework



HEALTHY NATION – Improved quality of life through better mental and physical health

discovery and innovation

H1: Transform community health and care

H2: Improve prevention and public health

H3: Optimise diagnosis and treatment

H4: Develop future therapeutic technologies

H5: Advance non-medicinal interventions

RESEARCH CAPABILITIES

Advanced materials

Disruptive technologies for sensing and analysis

Future manufacturing technologies

Medical device design and innovation

Novel computation and mathematical techniques

Novel imaging technologies

SKILLS & LEADERSHIP

EPSRC Health portfolio – April 2016



£725M

Value of EPSRC
Health Portfolio

£3332M

Value of EPSRC Healthcare
Technologies Portfolio



£102M

Cash support from
project partners



£53M

Cash support from
project partners



£180M

In-kind support from
project partners



£48M

In-kind support from
project partners



> £100M

Leverage through cofunding
partnerships



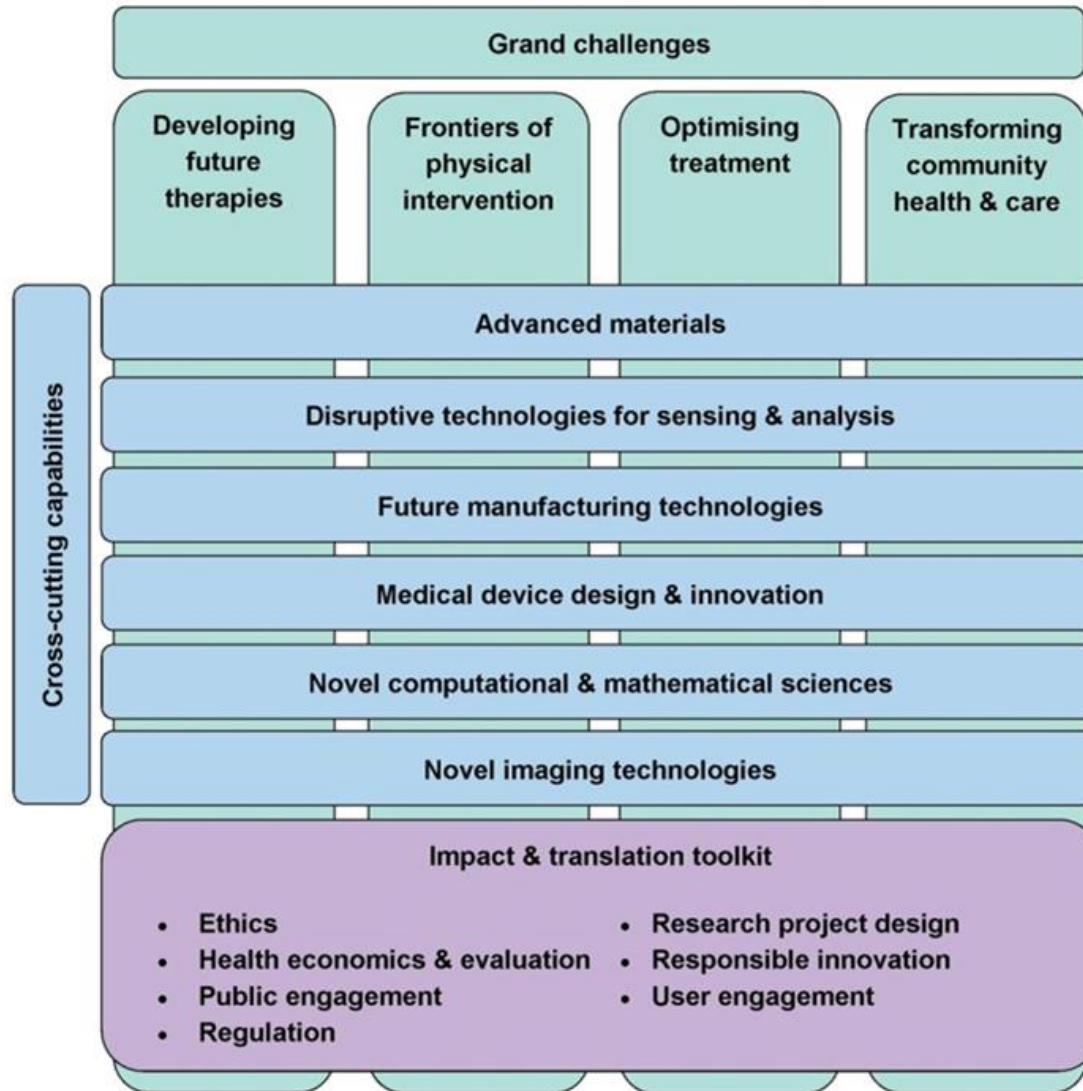
National Centre
for the Replacement
Refinement & Reduction
of Animals in Research

wellcometrust

Innovate UK
Technology Strategy Board

- Build critical mass around UK research strengths in engineering and physical sciences that underpin healthcare
- Maximise industrial and clinical involvement and increase translation to products / practices.

- All the research we fund is at least 50% in EPSRC remit
- We fund research across all the low TRL levels (1-4) where there is the potential to contribute to health and there are the collaborations in place to support this



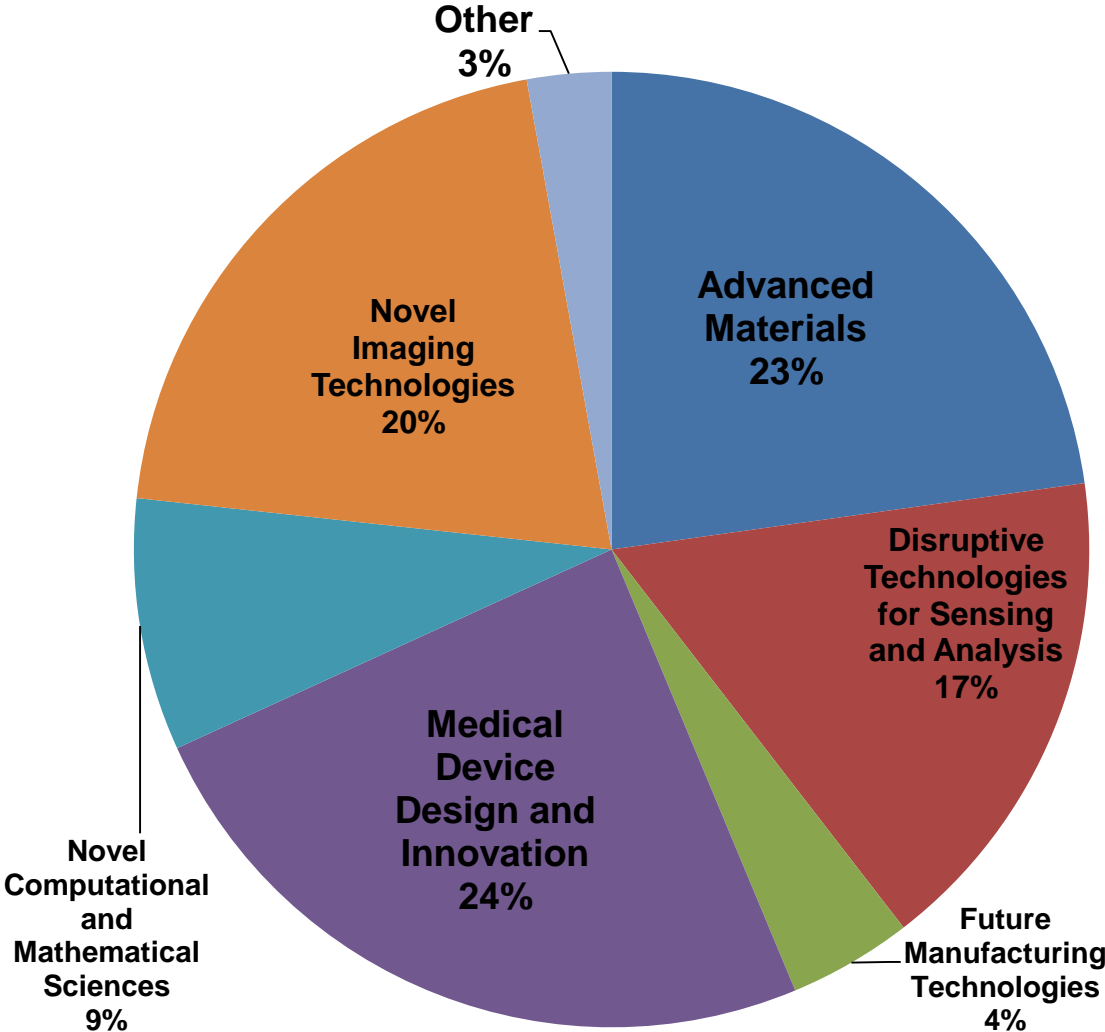
- ■ ■ Healthcare Technologies Grand Challenge Strategy launched 2015
 - ■ ■ Accelerating Impact is a key strategy for EPSRC in particular in Healthcare related grants
 - ■ ■ Embed thinking about translation and impact **FROM THE OUTSET**
 - ■ ■ Researchers **do not have to do translation**
 - ■ ■ Its about preparing research for those that may take it up in the future

- ■ ■ What is the toolkit?
 - ■ ■ A spotlight on:
 - ■ ■ resources available to researchers
 - ■ ■ behaviours we want to encourage

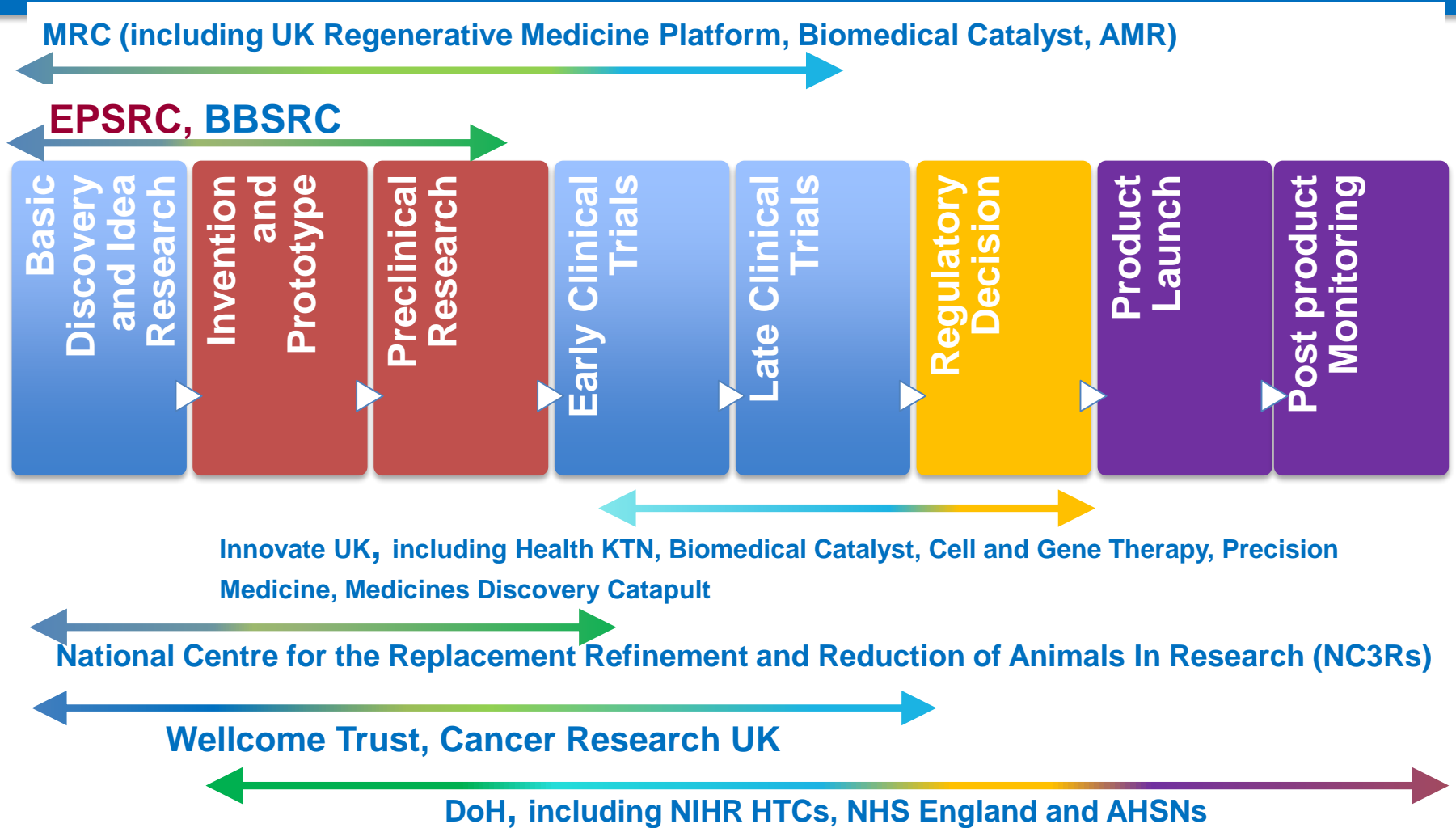
- ■ ■ [Healthcare Technologies Strategy](#)
- ■ ■ [Toolkit Link](#)



Core EPS capabilities on healthcare technologies funded grants



EPSRC in the healthcare landscape





Increasing HT investment in investigator led programmes- open call

- Standard proposals, First Grants, NetworksPlus, Discipline hopping
- Multidisciplinary panel membership to assess common features of high quality Healthcare Technologies research.



Increase your chances of success by:

- Having the right collaborations in place
- Demonstrate alignment to HT strategy/Healthy Nation in National Importance
- Reflect research area strategies in National Importance
- Bespoke specific activities in Pathway to Impact
 - Resource appropriately
 - Use the impact and translation toolkit.



Other funding opportunities- EPSRC HT



Healthcare Technologies Challenge Awards round 3

- launch late 2017/early 2018.



Programme Grants



Established career fellowships



Discipline hopping



Targeted therapeutic delivery

- EoI to attend scoping workshop in May 17.

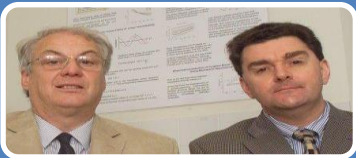


Other funding opportunities- working with other funders



CRUK/EPSCRC Multidisciplinary Awards

- Further two rounds of this initiative per year (open)



Healthcare Impact Partnerships 4

- launch spring 2017



UK Regenerative Medicine Platform with BBSRC, MRC



UK prevention Research Partnership (tbc)

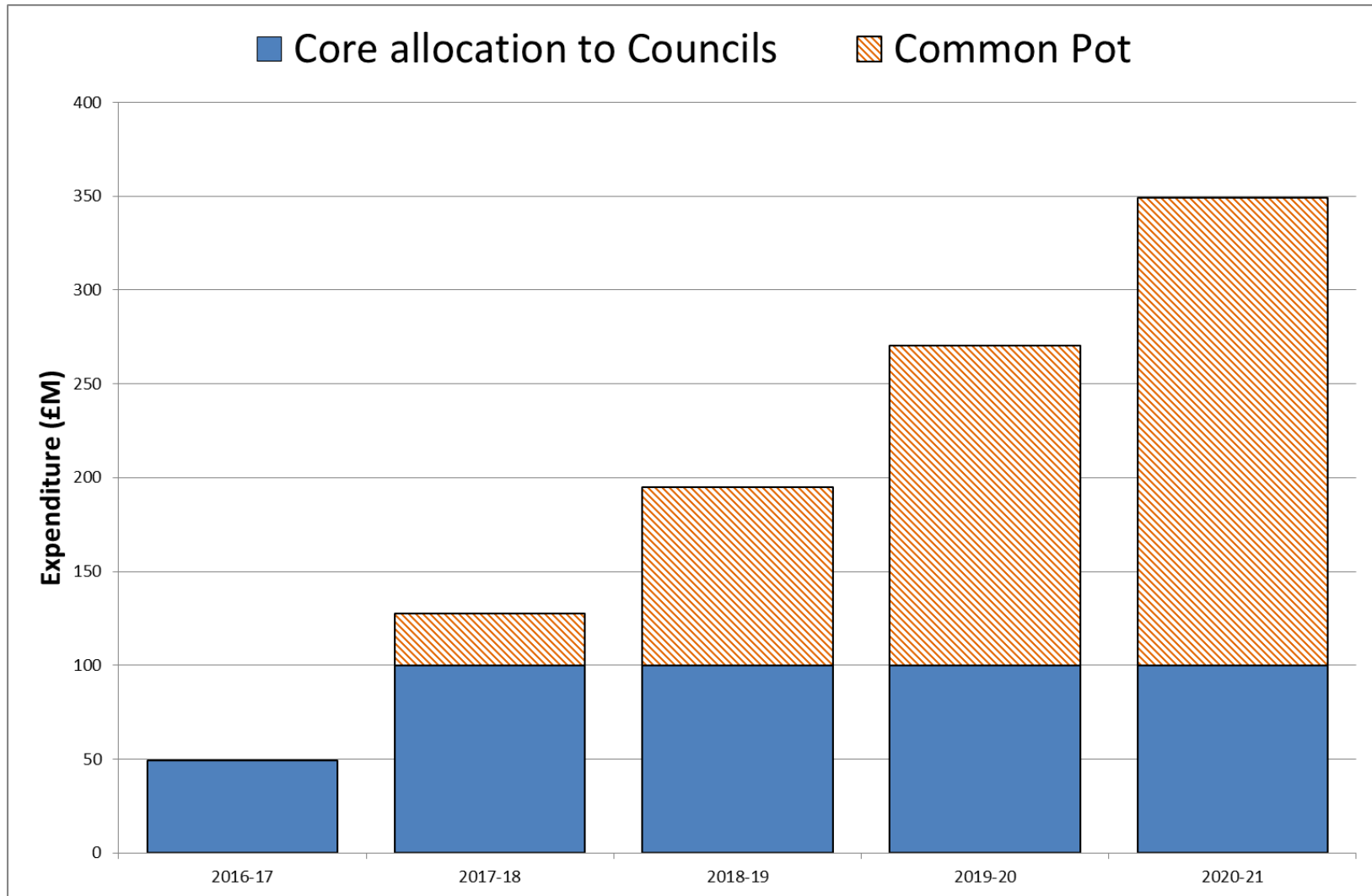


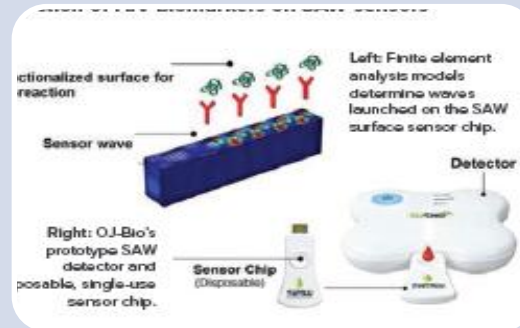
Mental Health (with ESRC- tbc)



- From November 2016 RCUK have harmonised IRO eligibility including for NHS investigators
- An individual that holds a permanent post or fixed term contract (which is longer than the proposed project) at an “*NHS body with research capability (the Board, NHS Clinical Commissioning Group, NHS Special Health Authority, NHS Trust, NHS Foundation Trust, NHS Local Health Board)*” is eligible to be an investigator on an RCUK grant. For EPSRC proposals:
 - The proposal must fall primarily within EPSRC’s remit – if you’re unsure please submit a remit query (<https://www.epsrc.ac.uk/funding/howtoapply/basics/remit/remitqueries/>)
 - Post needs to be at lectureship level or equivalent.
 - Organisations still needs to be registered for RCUK funding on JeS – this can take up to 6 weeks!
 - EPSRC will only pay NHS Research Costs. NHS Support and/or Treatment costs will not be supported by EPSRC

Global Challenges Research Fund





Institutional Sponsorship Awards (ISAs)

- £10M
- 35 universities
- ~280 projects

Image: Jon Cooper, U of Glasgow

'Tackling global development challenges through engineering and digital technology research'

- £15M
- In peer review

Image: i-Sense , UCL

Diagnostics, prosthetics and orthotics to tackle health challenges in developing countries

- £7.5M
- Live March 17
- Closes May 17

Image: Matthew Howard, KCL

- Established a number of challenge driven research communities focused around addressing one or more of the Grand Challenges
- To help forge new collaborations with academia, industry and clinicians
- Funding to develop interdisciplinary collaborations through workshops, visits and part-time coordinators
- “*Plus*” funding for preliminary or feasibility style research to kick start new collaborations within the network, pump primes research proposals to EPSRC or other funders



Therapy Ultrasound Network for Drug Delivery and Ablation Research (ThUNDDAR), Institute of Cancer Research, Prof GRt ter Haar: Seeks to stimulate translational research that will enable the potential of therapeutic ultrasound to be fully realised. <http://www.thunddar.org/>

Closed Loop control systems for optimisation of treatment, University of Nottingham, Prof SP Morgan: Seeks to provide a treatment that is optimised and personalised to the individual patient via the closed-loop control approach, which involves continuously monitoring key clinical parameters and , informed by mathematical models, adapting treatment.

Fast ASsessment and Treatment in Healthcare (FAST Healthcare), University of Cambridge, Prof AJ Flewitt: Aims to initiate systems-based engineered methodologies for providing joined-up treatment in the public health sector. <http://www.fast-healthcare.org.uk/>

EPSRC UK Image Guided Therapies Network+, UCL, Prof S Ourselin: Combines simulation and modelling, imaging and sensing, computing, robotics as well as visualisation to improve the localisation and targeting of pathological tissue with surgical instruments and focused energy delivery. <http://www.image-guided-therapies.ac.uk/>

Grand Challenge Network+ in Proton Therapy, University of Manchester, Prof KJ Kirkby: Aims to create a national infrastructure to meet a national research and training need that will allow the UK community to work together in the multi-disciplinary field of proton research.



Remit query: Use the form [here](#) and we will work across RCs to find the best home for your research.

Cross Council Funding agreement:

applies in responsive mode only

In principle applies to all grants but contribution of non-lead Council is capped (unless other arrangements have been made before the proposal is submitted)



EPSRC Healthcare Technologies Theme

Annette Bramley
Theme lead
(Overall strategy, budget)

Lewis Preece
Senior Portfolio Manager
(Impact, WT)

Iain Larmour
Senior Portfolio Manager
(Regenerative therapies,
Balancing Capability, CRUK)

Anne Farrow
Senior Portfolio Manager
(Leaders, Technologies for a
healthy lifecourse)

Sarah Hobbs
Portfolio Manager
(Digital technologies, ICT)

Mark Tarplee
Portfolio Manager
(Medical Imaging,
Maths/Engineering)

Stephanie Newland
Portfolio Manager
(AMR, Novel therapeutics,
drug delivery, Phys Sci)

Martin Champion
Portfolio Manager
(Assistive Technologies,
Medical devices)

Sarah Ashwood
Portfolio Manager
(Clinical tech & Biomaterials
and tissue Engineering)

vacancy, Linda Norris
Support Team

Firstname.lastname@epsrc.ac.uk; healthcare@epsrc.ac.uk;
<https://www.epsrc.ac.uk/funding/howtoapply/basics/remit/remitqueries/>

Thanks for listening

Further questions and enquiries can be sent
to:

healthcare@epsrc.ac.uk

Or contact a member of the Healthcare team
[see here](#)

