

UK Research and Innovation



Developing technology, approaches and business models for decommissioning of low-carbon infrastructure

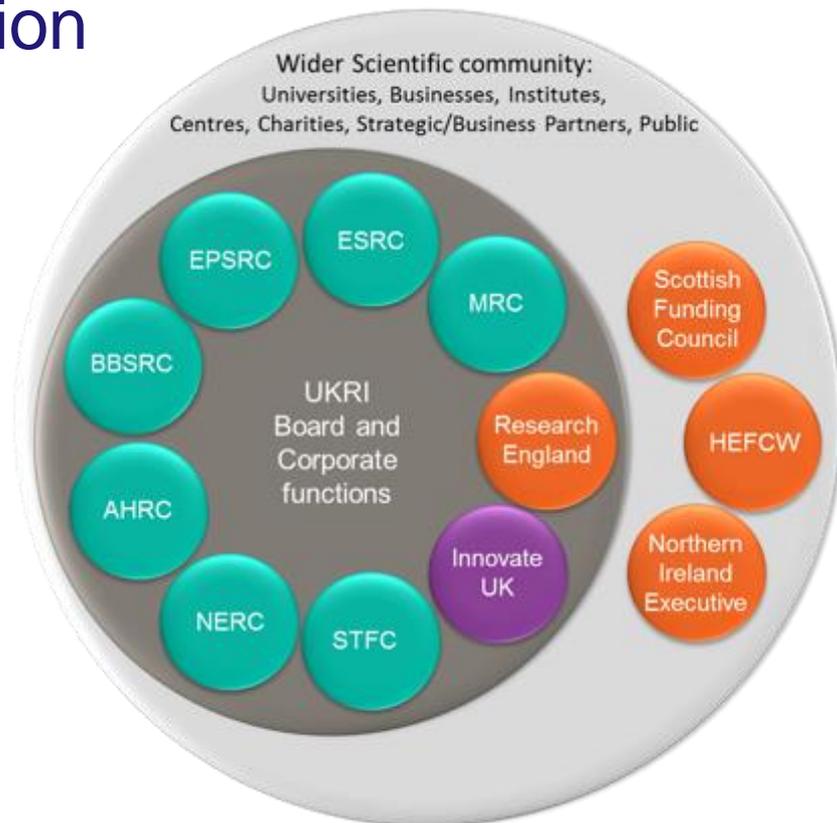
Aims of today

- We must design our low-carbon infrastructure for durability, decommissioning and the recovery of valuable resources.
- £300Bn+ bills facing the taxpayer for the decommissioning of nuclear and North Sea oil infrastructure
- Recovery CRMs for low-carbon components and infrastructure and contribute to UK materials security.
- We need:
 - Disruptive new science
 - Technology
 - Business models
- At this workshop we will identify and detail industry and research challenges, discuss current best practice and scope demand for new solutions regarding the resource efficient maintenance and end-of-life management of low-carbon infrastructure and technologies.

UK Research and Innovation

UK Research and Innovation, launching in April 2018, will be the new funding organisation for research and innovation in the UK.

It brings together the seven UK research councils, Innovate UK and a new organisation, Research England, working closely with its partner organisations in the devolved administrations.



What is the Industrial Strategy Challenge Fund (ISCF)?

The ISCF aims to bring together the UK's world leading research with business to meet the major industrial and societal challenges of our time, as part of the government's £4.7 billion increase in research and development over the next 4 years.



Healthcare and medicine



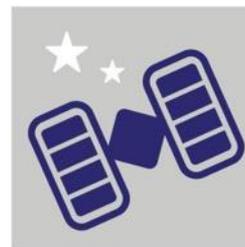
Robotics and AI



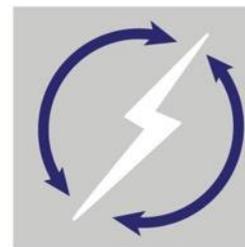
Driverless vehicles



Manufacturing and
materials of the future



Satellites and space
technology



Clean and flexible energy

Industrial Strategy Challenge Fund

As part of the £4.7 billion R&D uplift the ISCF aims to bring together the UK's world-leading research base with business to meet the major industrial and societal challenges of our time. Focusing on challenges where:

- the UK has a world-leading research base and businesses ready to innovate
- there is a large or fast-growing and sustainable global market

Approximately **£1bn up until 2020/21 was announced for 6 challenges** in April 2017:

- Healthcare and medicines
- **Robotics and artificial intelligence**
- **Clean and flexible energy**
- Driverless vehicles
- Manufacturing and materials of the future
- Satellites and space technology

Industrial Strategy White Paper announced **£725m for a second wave of challenges:**

- **Prospering from the energy revolution**
- **Transforming construction**
- Transforming food production
- Data and early diagnosis in precision medicine
- Healthy ageing
- Audience of the future

And two Pioneer Challenges to build industry engagement:

- Next generation services
- Quantum technologies

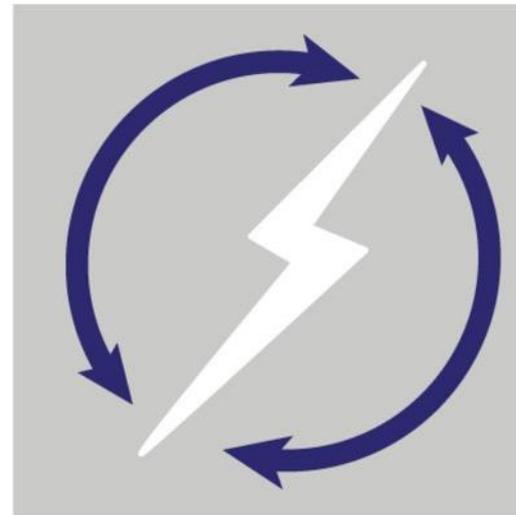
Evidence needed (... checklist)

- A potential global market that could be created or disrupted by new innovation which is potentially large, or fast growing and sustainable
- That accelerating advances in this field can generate significant social and economic benefits
- That the UK has capabilities to meet market needs in terms of research strength and business capacity
- Of a business commitment to work with government to achieve this; and
- That government support will make a difference

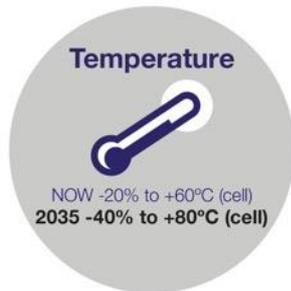
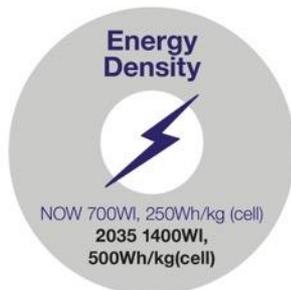
EXAMPLE: Clean and flexible energy – the Faraday Battery Challenge

The Faraday Battery Challenge comprises a £246m commitment over the next 4 years to fully exploit the industrial opportunity of vehicle electrification through world-leading batteries developed, designed and manufactured in the UK, by:

- Increasing multi-disciplinary application-led research in battery technologies
- Supporting UK businesses' investment capability in research, development, demonstration and testing of battery technology
- Using R&D to secure additional overseas investment



The challenge will address 8 areas of automotive battery technology



By half-past 5 ...

1. Insight to guide applicable Wave 1 and 2 challenges and stimulate project ideas
2. Evidence of the scope and scale of challenges and opportunities for future waves of ISCF as well as other UKRI activity
3. Connections