Welcome!

What we will cover today…

1. **Introduction** - Professor Philip Nelson CBE FREng (University of Southampton)
2. **EPSRC Partnerships Strategy** – Cerianne Whitehead
3. **RI Summary** - Ben Rendell
4. **Impact in the brave new world** - Glenn Goodall
5. **Handling Impact in applications to EPSRC** - Deepali Lodhia
6. **Break**
7. **Q&A**
8. **Final remarks and exit poll**

UKRI Engineering and Physical Sciences Research Council

Introduction

Impact and UKRI

- UKRI policy around Impact changed a year ago
- Impact remains important
  - Planning for and realising outcomes
  - Demonstrating value of research to stakeholders
- Value of Impact to UKRI evidenced by REF rewards for 4* and 3* Impact case studies

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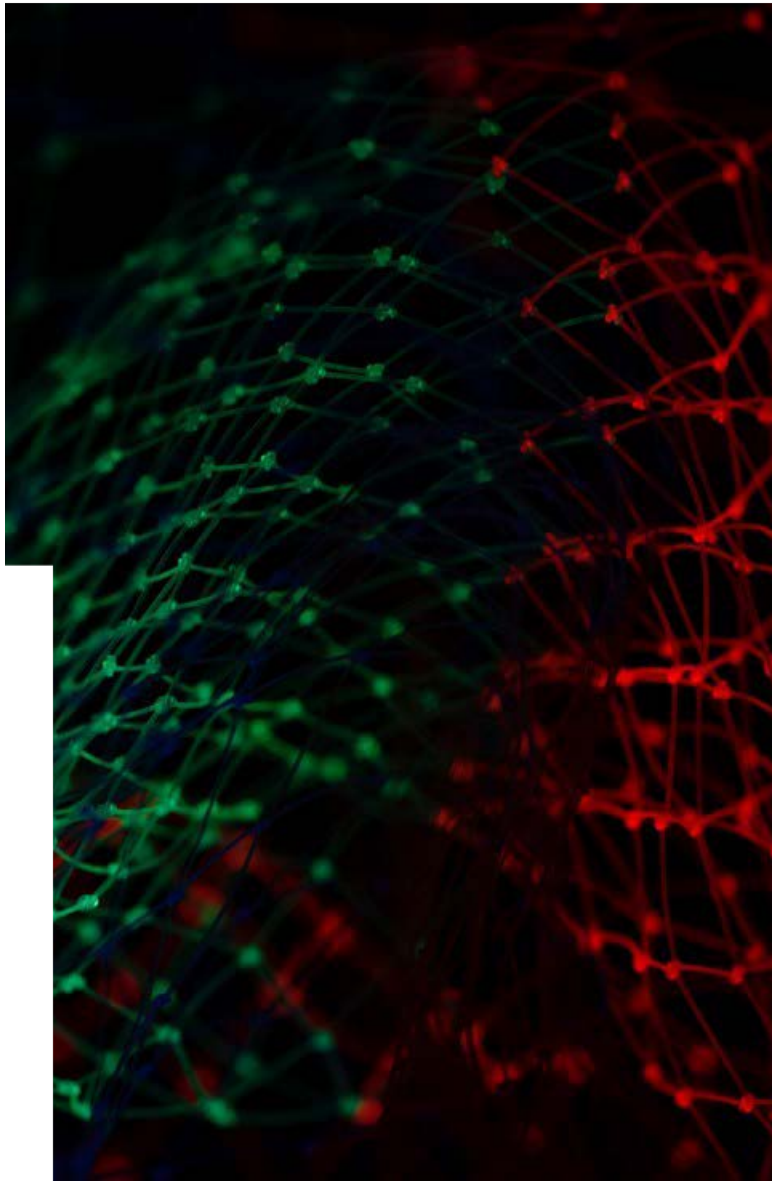
Introduction

Applications to EPSRC can cover a broad range of Impact and include activities designed to enhance the potential of that Impact

- Engagement with businesses
- Create a testbed or use an existing one
- Funding for an All-Party Parliamentary Group (APPG)
- Socialising data with government departments to inform standard or regulation
- Public Engagement activities
- Using Responsible Innovation as a route to Impact
- …and many more

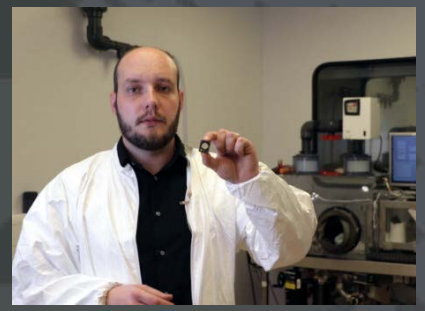


FUTUREWORLDS

Aquark Technologies

Dr Andrei Dragomir, University of Southampton

UNIVERSITY OF Southampton



Future Worlds

- The on-campus startup accelerator at the University of Southampton
- Has supported more than 500 aspiring entrepreneurs through training, mentoring and introductions to industry experts, partners and investors
- >50 of the individuals supported have launched startups and spinouts
- >£20 million has been invested in companies that have emerged from the startup accelerator since 2019

Aquark Technologies

- Founded by early-career researcher Dr Andrei Dragomir (Quantum, Light and Matter Research Group)
- Through EPSRC-funded research, has created a breakthrough system to capture, manipulate, and exploit the quantum characteristics of atoms
- Enabling technology for a new generation of devices that will radically multiply our ability to sense, measure and compute on a mass-market scale
- Support from EPSRC through IAA supported Dr Dragomir to develop a demonstrator and, through Future Worlds, access to showcase opportunities such as CES 2020 & CES 2021 and Investor Demo Days
- Future Worlds support has enabled successful applications to SETsquared Investor Showcase, SPRINT Seraphim Space Camp and Creative Destruction Labs accelerator programmes
- As of May 2021, Aquark Technologies has hired its first employee and is on the cusp of closing investment and spinning out

*"**Future Worlds has made the world of difference to me.** I came out of the lab with no idea of how to think about a startup. They showed me what it means, helping me make the transition from researcher to entrepreneur. They have kept me on track and given me the tools to work with. I've been on the brink of quitting a lot of times, but they have been very good at shifting the focus back onto what I'm doing and why."*

Dr Andrei Dragomir, Founder & CEO of Aquark Technologies

Oxsed – Rapid test kits for Covid-19

- Professors Zhanfeng Cui and Wei Huang's teams from University of Oxford and Oxford Suzhou Centre for Advanced Research (OSCAR) developed 'Oxsed RaViD Direct', a rapid nucleic acid RT-LAMP test to detect SARS-CoV-19 with great sensitivity and specificity, delivering results within 15-30 minutes
- EPSRC IAA support was instrumental in validating the test in trials, and the commercialisation of the technology through a social venture spinout - Oxsed Ltd.
- The Oxsed RaViD Direct test has received regulatory approvals with MHRA in the UK and the CE Mark in the EU, and is being used at Heathrow Airport and being trialled at Hong Kong International Airport to screen passengers.
- Recently, Oxsed was acquired by Prenetics, and it is hoped this will enable the quick roll out of the rapid test at scale.
- Deploying the test to further global airports is being explored, and wider use of such a test could be crucial to economic recovery globally.

https://www.oxsed.com/

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EPSRC Partnerships Strategy

Cerianne Whitehead, Head of University Partnerships

EPSRC Partnerships Vision

- **Two-way engagement** with a wide range of stakeholders to develop and refine EPSRC's strategies, processes and funding mechanisms.

- Work alongside the community to drive **positive changes** in **culture** and **behaviours** as well as **strategies**.

- Continue exploring our role in **connecting** the UK **research ecosystem.**

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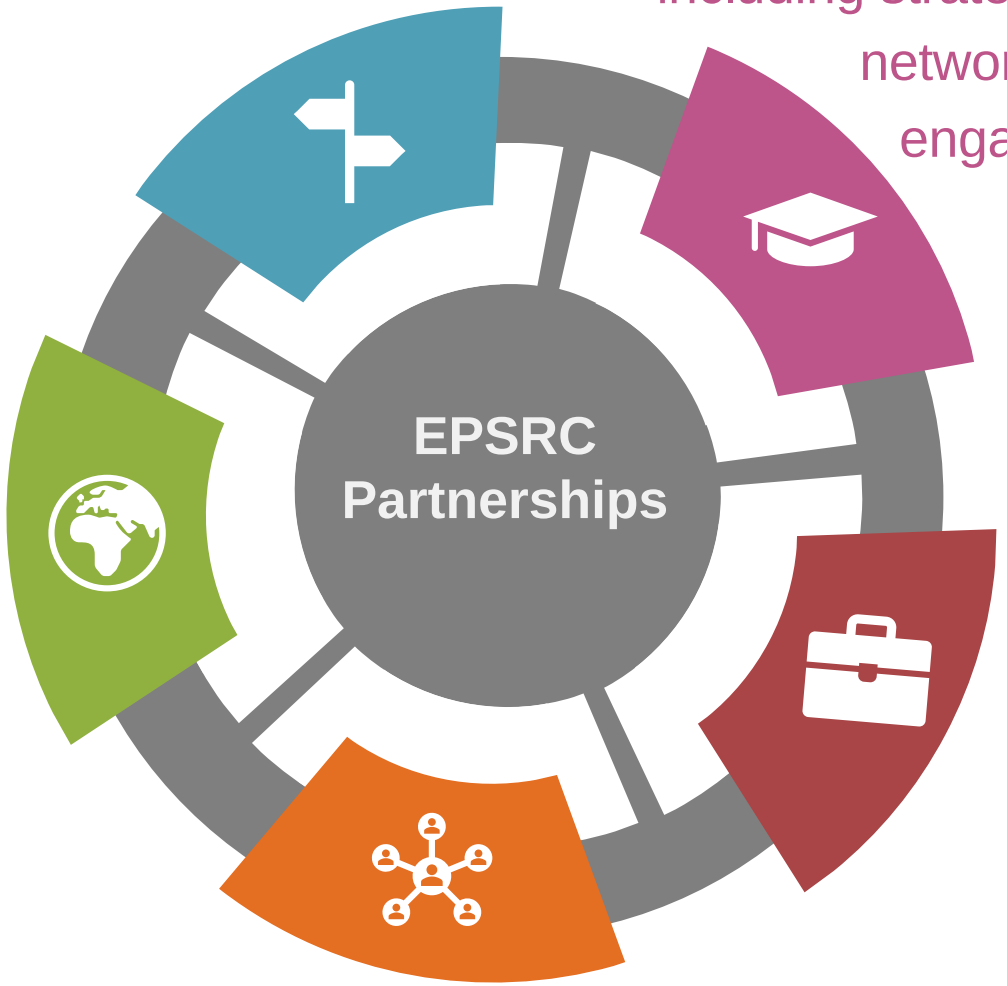
- Working closely with the University sector; including strategic partners and wider academic networks, through regular engagements and events



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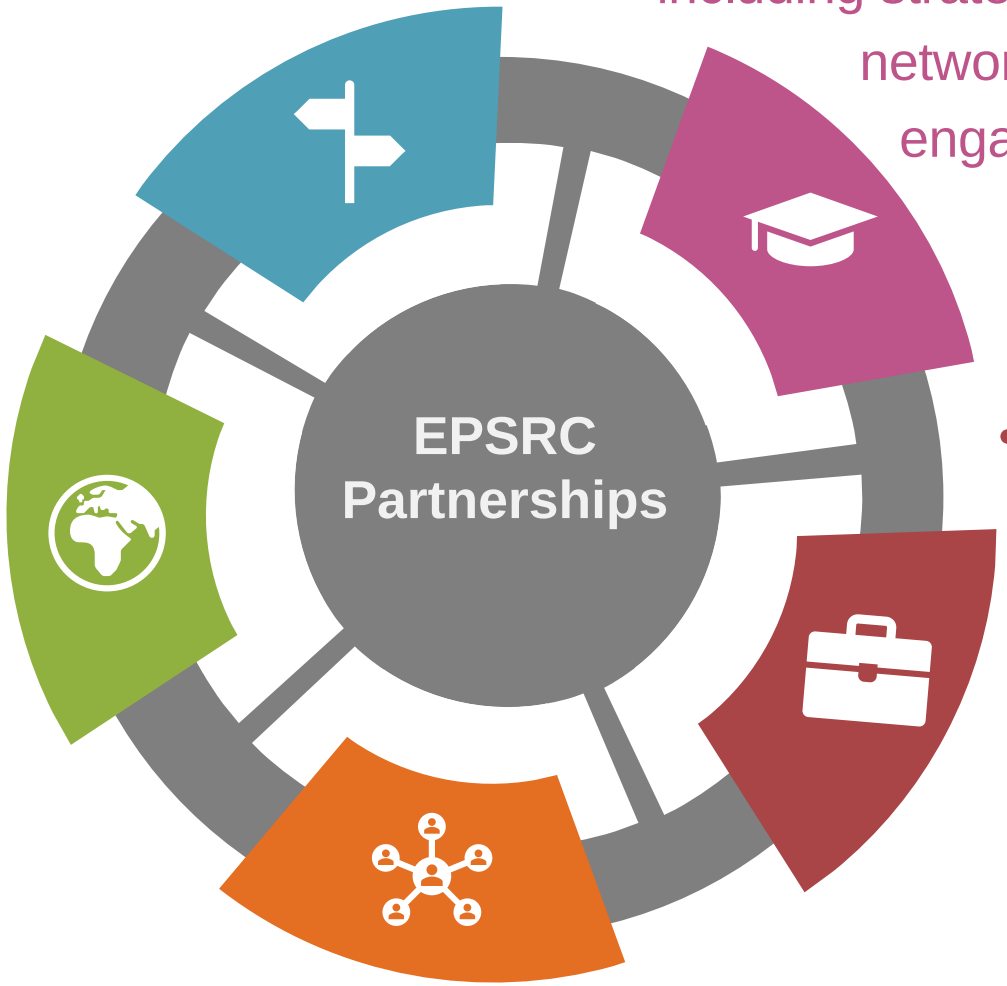

- Nurturing strategic relationships with key business partners and supporting business-led collaborative research via the Prosperity Partnerships scheme

- Working closely with the University sector; including strategic partners and wider academic networks, through regular engagements and events

- Nurturing strategic relationships with key business partners and supporting business-led collaborative research via the Prosperity Partnerships scheme

- Developing relationships with regional stakeholders and connecting the landscape to the national EPS strategy

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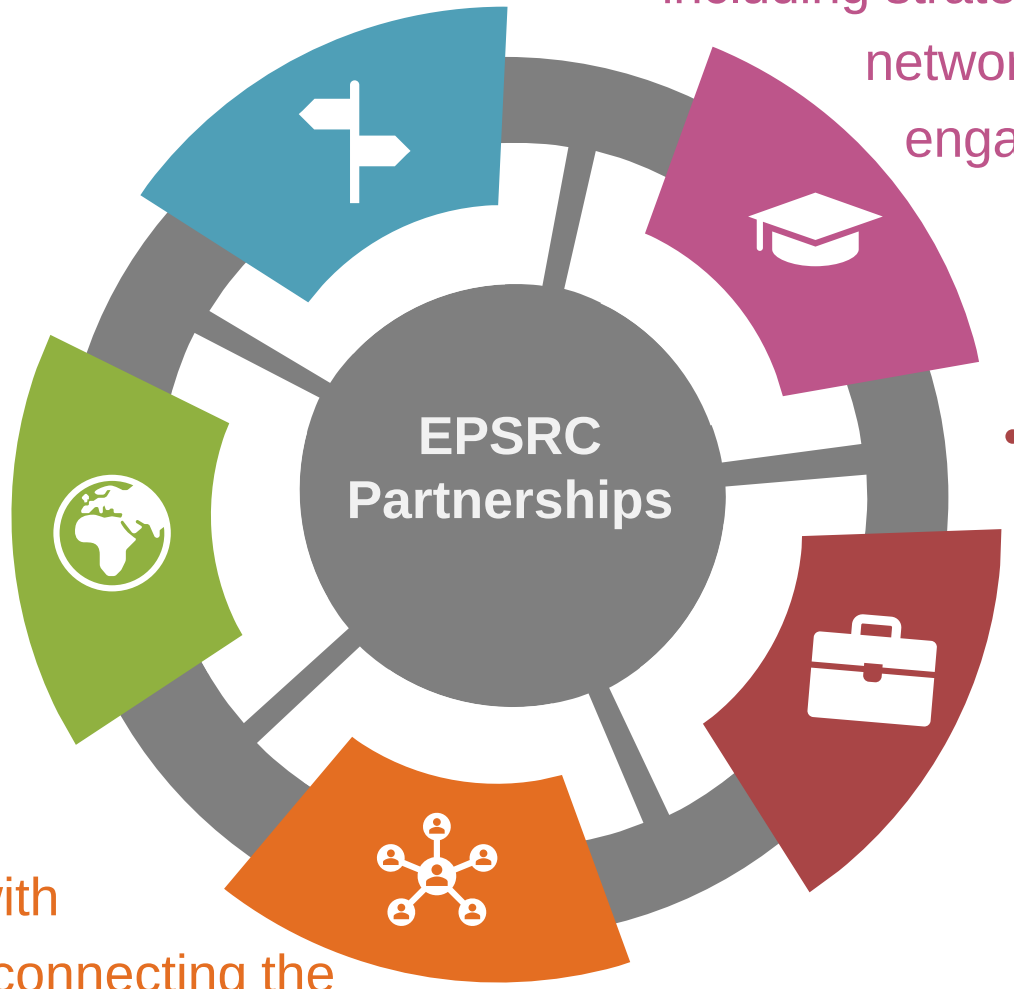

- Putting the UK at the forefront of global collaborations, connecting UK researchers to international partners

- Nurturing strategic relationships with key business partners and supporting business-led collaborative research via the Prosperity Partnerships scheme

- Developing relationships with regional stakeholders and connecting the landscape to the national EPS strategy

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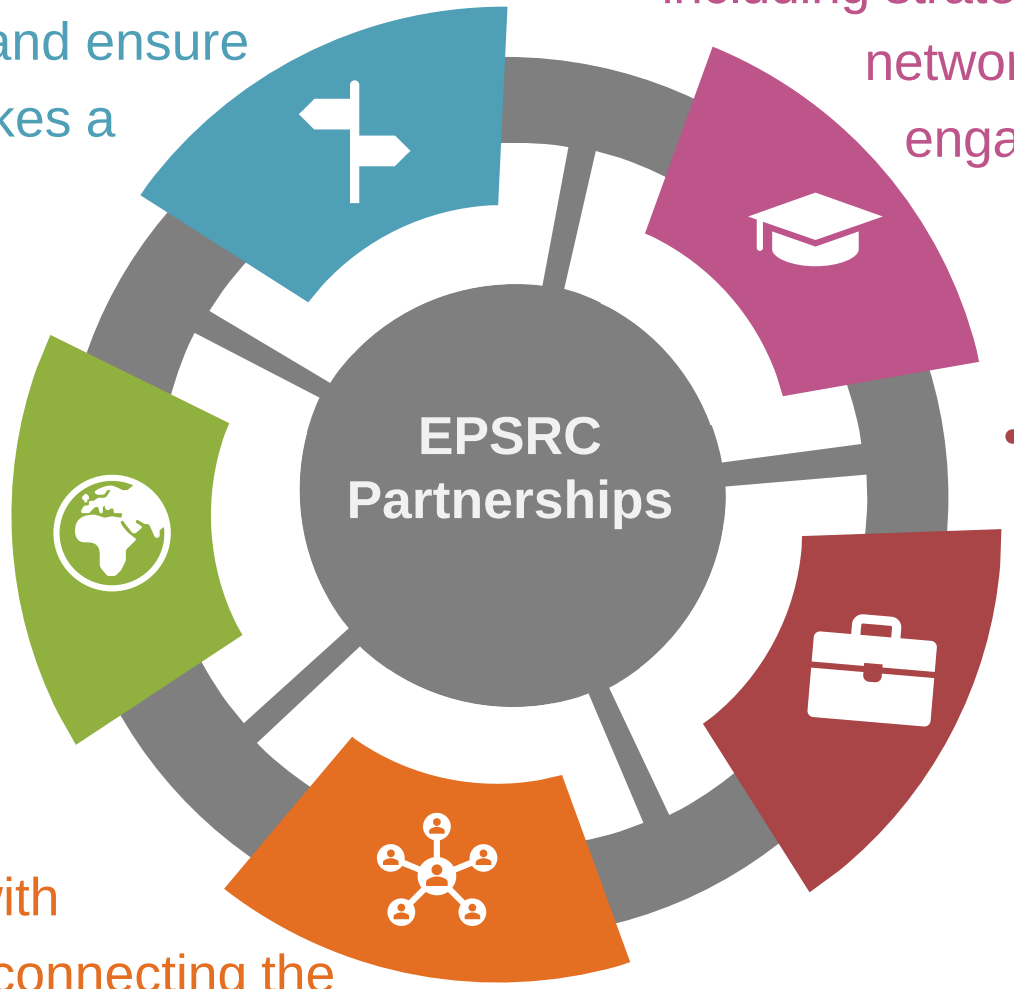
- Accelerate the impact of EPSRC investments to make a strong business case for future investments and ensure the research we support makes a difference

- Working closely with the University sector; including strategic partners and wider academic networks, through regular engagements and events



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EPSRC Place Strategy
Our Vision

"Foster greater collaboration and networking between researchers, business and civic bodies in order to deliver research and skills outcomes vital to the long-term prosperity of communities and regions of the UK."*

*to be reviewed when the UK Place strategy is published

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EPSRC Place Strategy
Our Approach

EPSRC Council has decided that ***Place*** should become a feature of EPSRC's ongoing strategy.

"Harness the full potential of EPS research locally and regionally."

"Invest in excellence in all areas of the UK…capabilities and skills…aligned to local need."

"Support place centred research ecosystems… increasing connectivity, support civic engagement."

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EPSRC Place Strategy Implementation

- Intensify regional engagement
- Embed Place into core theme activities where appropriate
- Place interventions for research connectivity across local and national ecosystems

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What you can do…

- Ensure good visibility of your research interests
- Engage with institutional civic and business engagement strategies.
- Engage with EPSRC/UKRI forums that set strategic direction, including for impact
- Stay in the loop by subscribing to our Research Community Update (via the EPSRC website)

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Impact Roadshow 2021: How to handle impact in EPSRC proposals

Glenn Goodall, Head of Economic Impact

Ben Rendell, Senior Impact Manager

Deepali Lodhia, Portfolio Manager for Impact

Ann Chalkley, Portfolio Support Manager for Impact

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Responsible Innovation Update

Ben Rendell, Senior Impact Manager

Responsible Innovation

EPSRC is committed to ensuring that our activities and the research we fund is aligned with the principles of Responsible Innovation

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Responsible Innovation

EPSRC is committed to ensuring that our activities and the research we fund is aligned with the principles of Responsible Innovation

It is our ambition that responsible innovation is **business-as-usual** for researchers. This will be the case when researchers:

Take time to seriously **consider with stakeholders both the positive and negative effects their work could have** on the world we live in.

→

Actively adjust their research plans, where appropriate, to maximise positive and minimise negative impacts.

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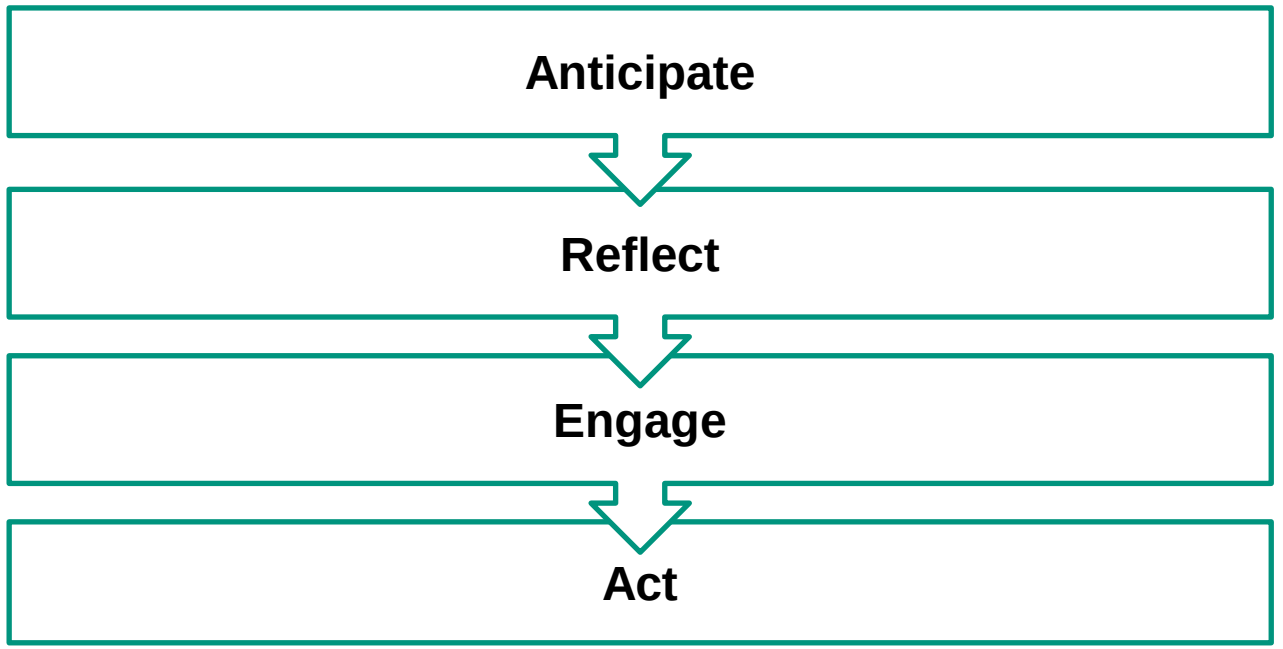
Responsible Innovation

EPSRC is committed to ensuring that our activities and the research we fund is aligned with the principles of **Responsible Innovation**

https://epsrc.ukri.org/research/framework/area/

AREA Framework is an approach to considering responsible innovation:



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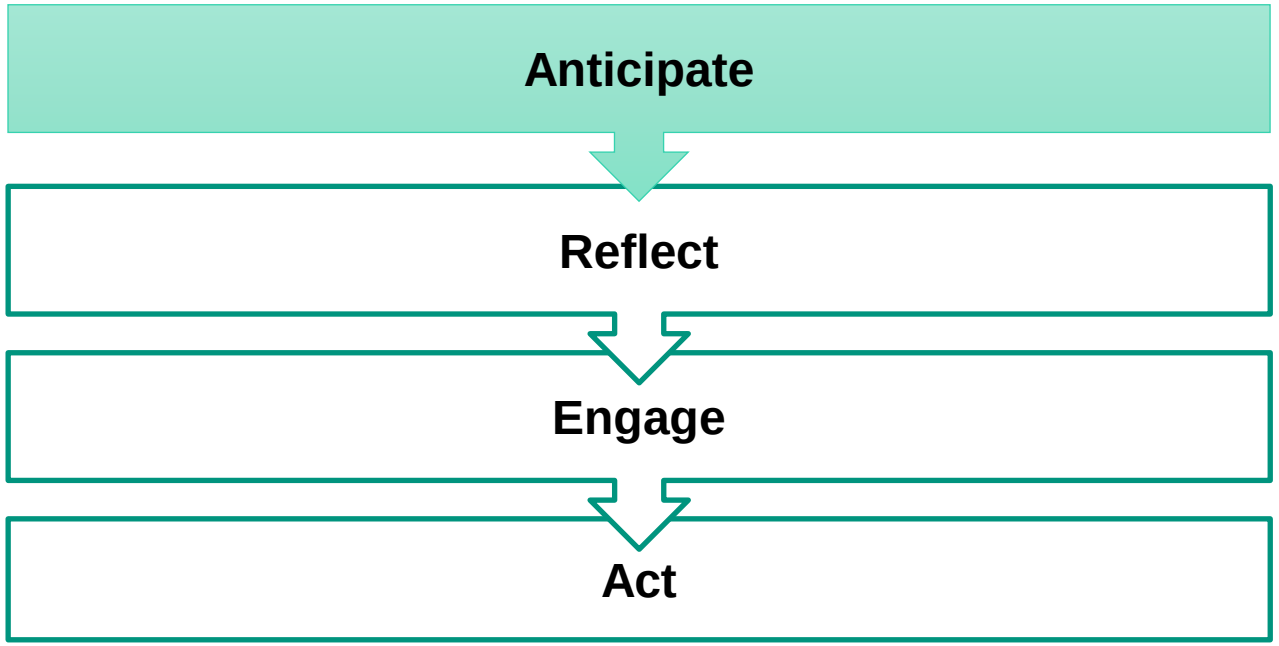
Responsible Innovation

Questions to ask:

- Is the planned methodology appropriate?
- Will the outputs be socially desirable?
- Why should this research be undertaken?

AREA Framework is an approach to considering responsible innovation:



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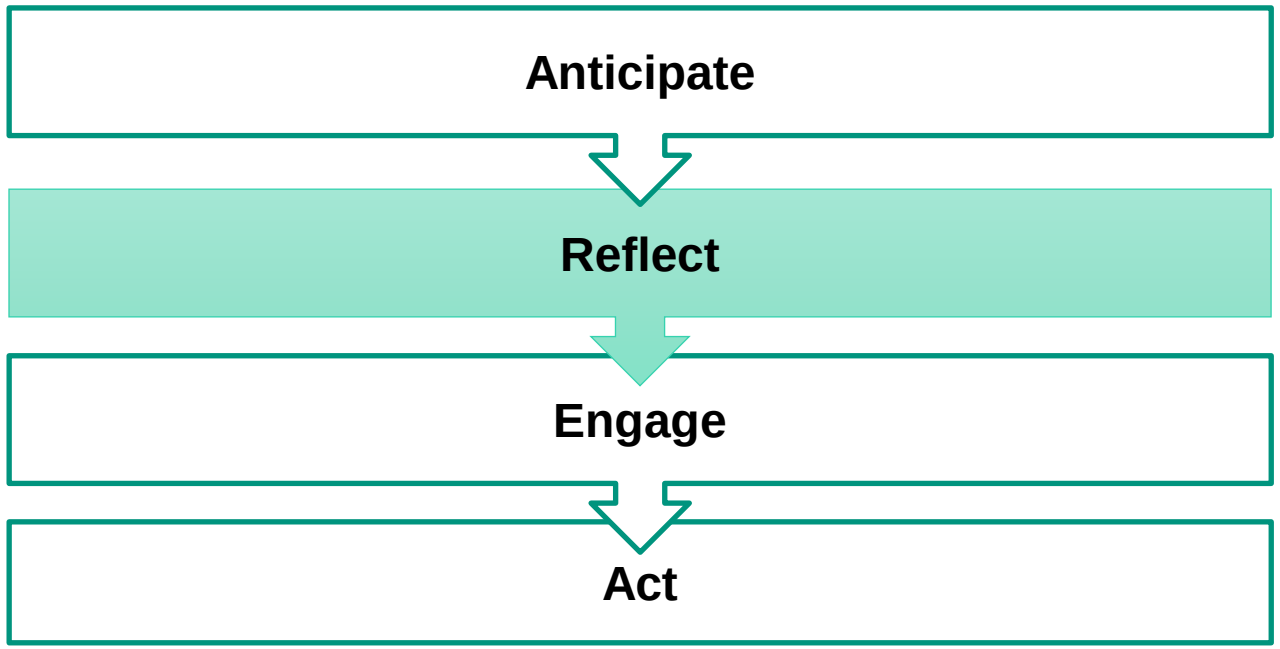
Responsible Innovation

Questions to ask:

- How do we know what the consequences might be?
- Is the research controversial?
- What don't we know about?

AREA Framework is an approach to considering responsible innovation:



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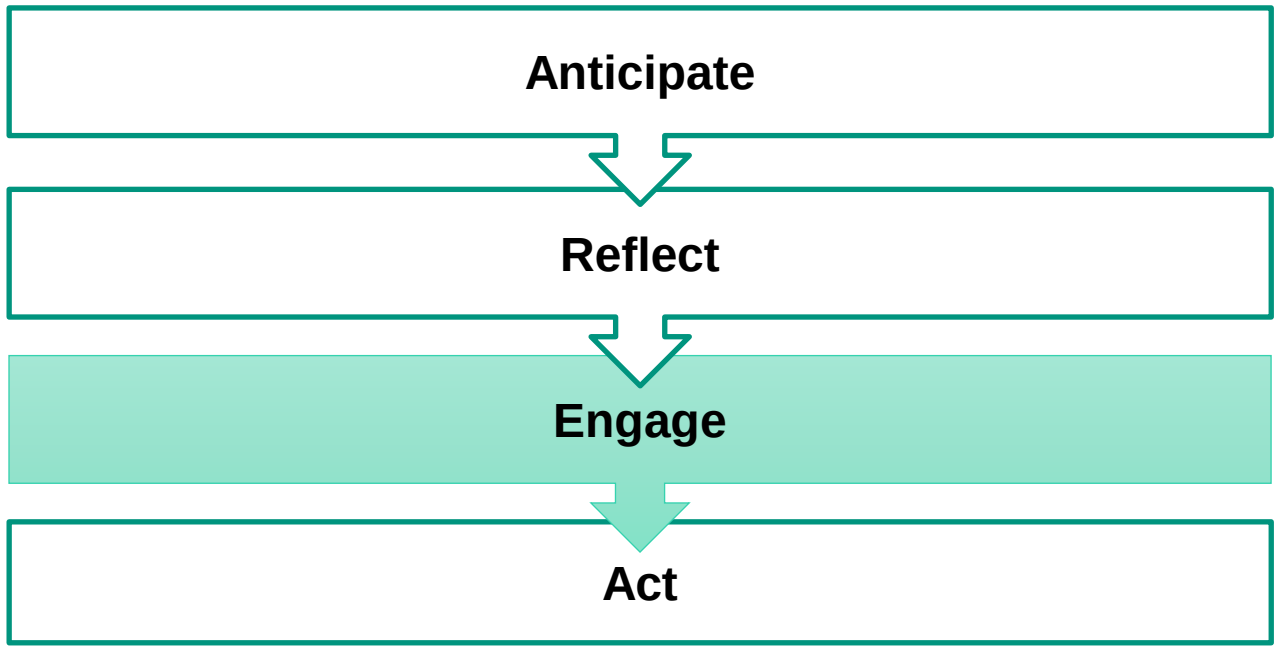
Responsible Innovation

Questions to ask:

- For whom is this research done?
- How do we engage with the appropriate group of stakeholders?
- What are the viewpoints of the stakeholders?

AREA Framework is an approach to considering responsible innovation:



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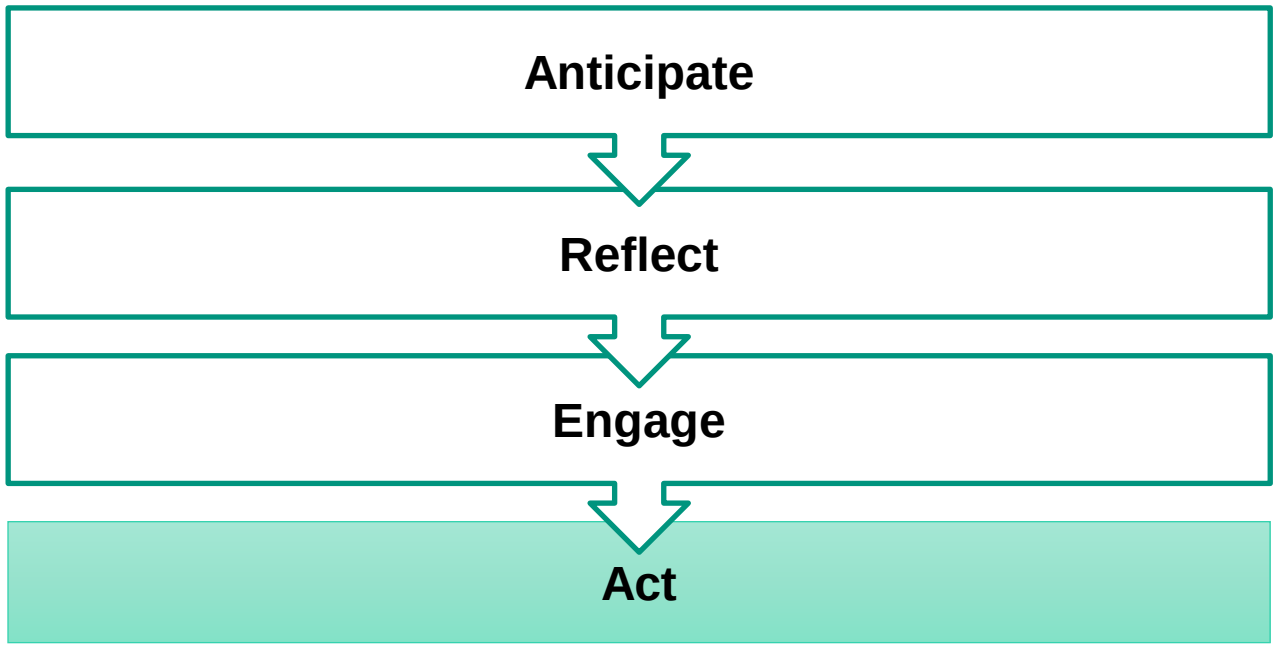
Responsible Innovation

Questions to ask:

- What training is required?
- What needs to be done to ensure social desirability?
- How do we ensure that the implied future is desirable?

AREA Framework is an approach to considering responsible innovation:



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Responsible Innovation

Long term ambition for EPSRC (DP2019)

*"…responsible innovation is **business-as-usual** for researchers, and there is more comprehensive recognition of the opportunity it offers in exploring and opening up new, **more sustainable, more socially desirable pathways for innovation**"*

- **EPSRC's RI approach and AREA framework well established…**

…but we know we need to do more!

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Impact in the brave new world

Glenn Goodall, Head of Economic Impact

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POLL:
Given the recent changes to Pathways to Impact, do you think maximising the Impact from research is still important?

Impact in EPSRC Applications

Impact is now a **core consideration throughout the grant application** process and showing how the applicant(s) will **maximise the impact** of the proposed research should therefore be **intrinsic to the proposal** itself in a way that is **appropriate** to the nature and scope of the research being proposed.

For example:

- A **discovery research** proposal may focus principally on the generation of new knowledge
- Proposals with significant elements of **applied research** may have impacts related to economic and societal benefits

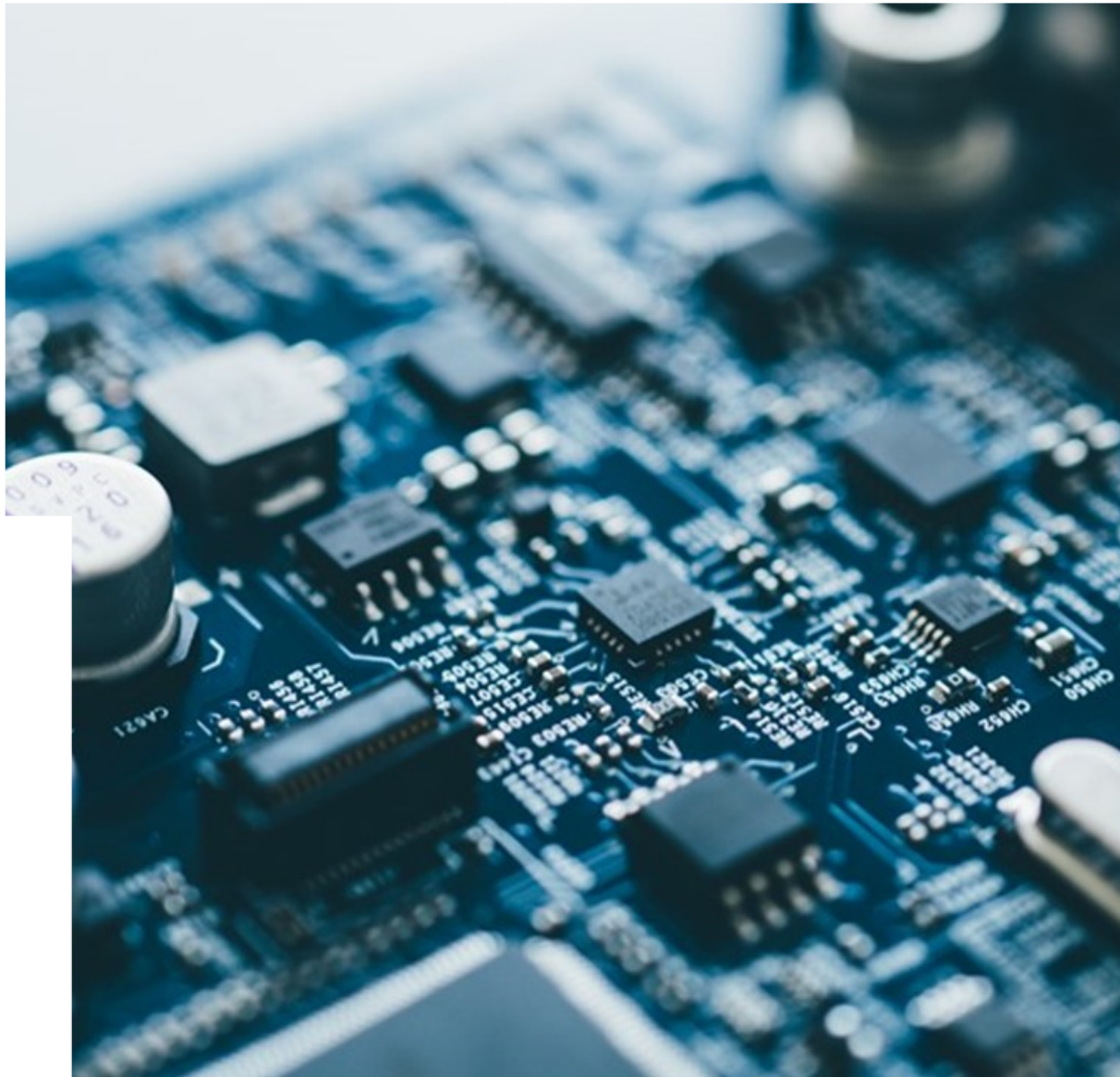
Impact beyond EPSRC

At UKRI Level

- Changes took place at pace
- Working together on common understanding

Stakeholders

- As important to Gov’t as ever!
- Other academics
- Business / Industrial involvement / KE / KT



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EPSRC new philosophy to maximise impact

Making the most of the Impact journey

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Examples of Types of Impact

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Knowledge	Society	People	Economy
Tools and Techniques	Policy, Regulations & Standards	Trained or upskilled People	Job Creation
Scientific Advances	Health & Environment	Career Progress	Inward Investment
	Inspired & Engaged Public		New Companies
	International Development		Commercialisation

Your Research

The take home messages

When considering the lifecycle of research, remember…

(1) Impact is still important

(2) Consider the outcomes and impacts of your research

(3) Think what the appropriate impact activities needed and resources you will require when writing applications

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UKRI Impact Deep Dive 2021

A review of how impact is being embedded in application since March 2020

This review will focus on the following:

- Reflection
- Continuous Improvement
- Recognise the opportunities

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Handling Impact in applications to EPSRC

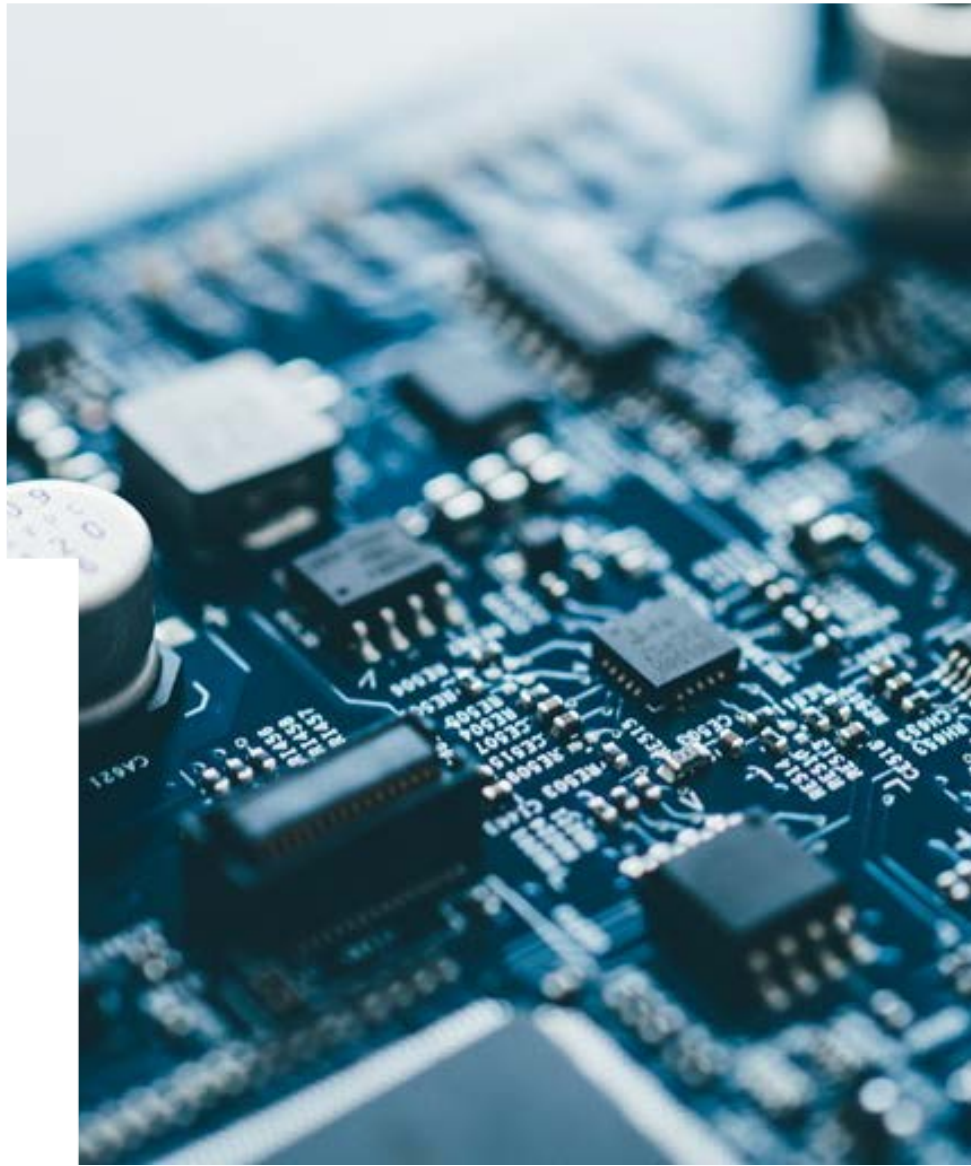
Deepali Lodhia, Portfolio Manager for Impact

Planning New Activities with Impact in mind

For each impact related activity consider:

- The objective and potential **benefits**
- Potential **stakeholders**
- Use of **engagement**
- Appropriate **timings**
- **Costs** and **resources** involved

Space is Limited – Make it specific and succinct



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Impact at the Application Stage

Integrate Impact throughout the case for support

- Track record
- Background
- National Importance
- Research Hypothesis and Objectives
- Programme and Methodology

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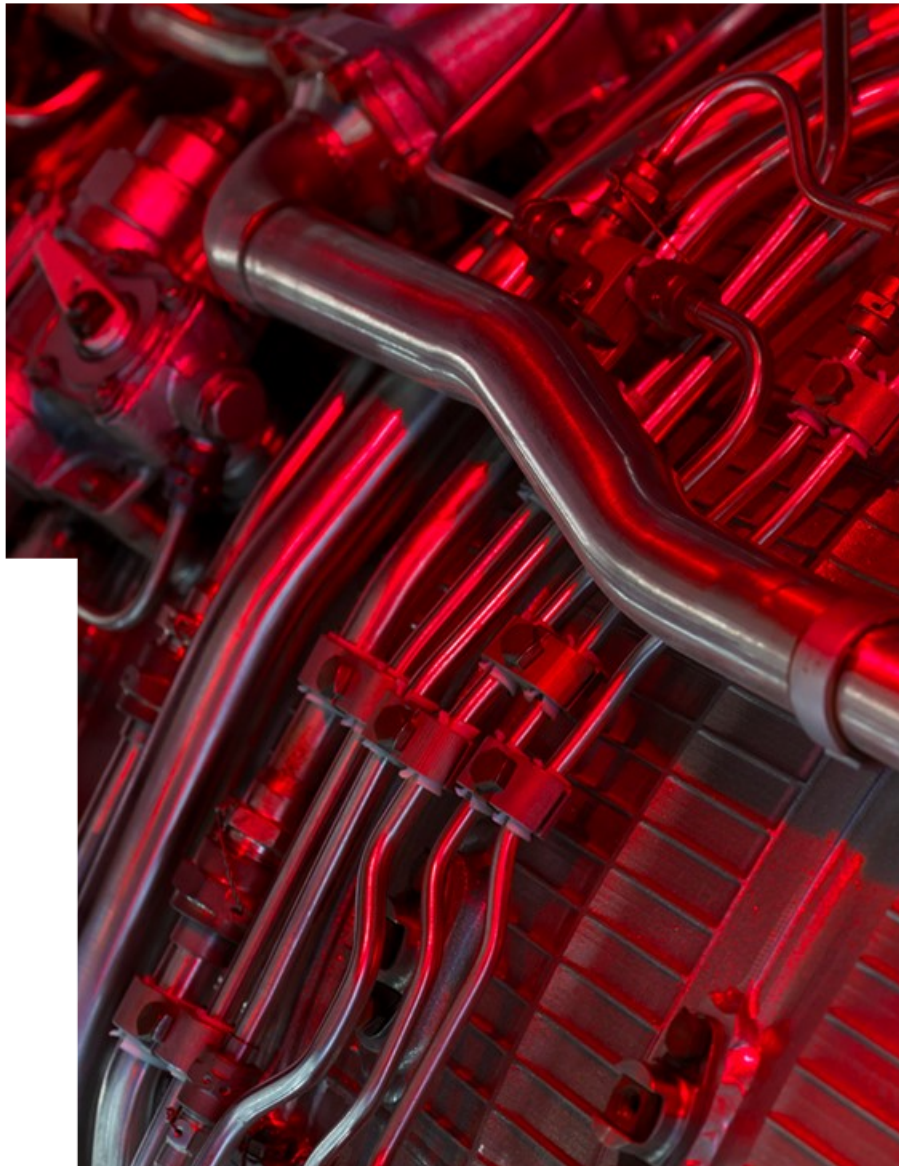
Impact at the Application Stage

Resources and Management

- Who will be responsible for impact activities?
- How much will it cost?
- How are your partners involved?

EPSRC strongly encourage the full costing and request for resources for any relevant impact activities.



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Impact at the Application Stage

Examples of Impact Costs

- Travel costs
- Partnership building
- People exchange / secondments
- Training for researchers
- Engage expert staff
- Onward routes to commercialisation
- Comms
- Knowledge Exchange
- Data management
- Sharing of novel tools/techniques

Impact at the Application Stage

This is new for reviewers too…

- Include Impact activities and milestones in the Gantt chart
- Flag impact activities through the case for support
- If it aligns to activities in a work package include an impact heading
- For activities that don't align to work packages but underpin the overall impact development activities, create a specific section and use it to tie the different areas of impact content together.

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Impact at the Application Stage

Completing reviews and on panels

Impact is covered under the Quality criteria, when assessing:

- Think about what impact activities might be appropriate
- Are activities full costed and itemised?
- Which stakeholders might be involved? Is it obvious how they are engaged

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Enabling impact whilst carrying out research

EPSRC interested in the outputs, outcomes and impacts of research

- Case studies or insights
- Short, medium and long term
- The PM or themes you interact with will be interested
- Always sign post your research data outputs on Research Fish

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Enabling impact whilst carrying out research

Remember

- EPSRC does not expect applicants to predict the impact of their research.
- Reviewers are not expected to make assumptions about the probability of the benefits being fully delivered.
- There is no expectation for impacts to be realised within the lifetime of the research project.

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In summary

Remember to plan for impact

- Impact is still important
- EPSRC are interested in the full "lifecycle of research"
- Consider the potential outcomes and impacts of your research, upfront
- Think about the appropriate Impact activities and resources when writing applications

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Further Help

Guidance Material

https://epsrc.ukri.org/files/funding/calls/case-for-support-guidance/

Contact your **EPSRC Portfolio Manager** (contact details available on our website)

Impact email:
AcceleratingImpact@epsrc.ukri.org

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Thank you

We will now take a short break and reconvene in 15 minutes for the Q&A

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POLL:
What type of Impact do you think is most important to your research area?

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Questions?

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EXIT POLL

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Thank you

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