

UK RESEARCH AND INNOVATION ENGINEERING AND PHYSICAL SCIENCES RESEARCH COUNCIL

NOTE OF THE 8th EPSRC SCIENCE ENGINEERING AND TECHNOLOGY BOARD (SETB) MEETING, HELD ON 08 FEBRUARY 2022, HELD REMOTELY VIA ZOOM

In attendance:	Jane Nicholson (Chair) Adrian Mulholland (University of Bristol) Cameron Alexander (University of Nottingham) Graham Niblo (University of Southampton) Jane Jiang (University of Huddersfield) Jonathan Legh-Smith (BT) Leigh Lapworth (Rolls-Royce) Mike Sutton (Lubrizol) m. c. schraefel (University of Southampton) Nick Jennings (EPSRC Council) – pm only Paul French (Imperial College London) Phil Taylor (University of Bristol) Susan Rosser (University of Edinburgh) Alex van Someren (CSA, Security and Defence) Jo W (Alex's Office)
Apologies	Su Taylor (Queens University Belfast) Kedar Pandya (Director, Cross Council Programmes) Joe De Sousa (EPSRC Council)
EPSRC Staff:	Andrew Bourne (Director, Partnerships) Rachel Bishop (Deputy Director, Research Base) Diane Howard (Senior Manager, Managing our Portfolio and Priorities) Sarah Harman (Head of Managing our Portfolio and Priorities) Andrew Lawrence (Joint Head of Engineering) Bryony Butland (Deputy Director Research Sustainability and Infrastructure) Samantha Riches (Joint Head of Impact and Public Engagement)
Secretary:	Jessica Bonham (Senior Manager, Governance and Planning) Bethany Wyatt (Executive Assistant, Governance and Planning) Hayley Cook (Executive Assistant, Governance and Planning)

1. Welcome, EPSRC update and UKRI update

- 1.1 The SETB chair (Jane) welcomed everyone to the meeting and formally opened the meeting. Jane introduced Alex van Someren as well as Hayley Cook to the SETB members. Apologies had been received from Su Taylor, Kedar Pandya and Joe De Sousa.
- 1.2 Jane reviewed the actions from the previous meeting:

Action	Description	Owner	Update
07-02	EPSRC to produce a paper on top tips for setting up an institute and encourage	EPSRC	Ongoing - Paul Nurse is carrying out a review on the research landscape which includes the role of institutes which our institutes are engaged with.

	institutes to learn from each other, including those in other councils.		
08-02	Invite Claire Spooner back to SETB to update on COP26 after the activities have finished	Jess	Complete - This has been scheduled for the September SETB meeting
08-03	Gemma to establish 3 communications objectives and call to action based on the discussions from the breakout rooms	Gemma Hulkes	Complete – this has now been incorporated into the wider evolution of the Big Ideas process

- 1.3 SETB agreed that the note of the May meeting was an accurate record of the meeting.
- 1.4 Jane gave an update on the UKRI Spending Review Allocations process, ongoing discussions between BEIS and UKRI and the next steps for the process, including how EPSRC are going to discuss the topic at the upcoming March Council Meeting. Jane also updated SETB on the recent process of the draft UKRI strategy, Council Delivery Plans and the UKRI EDI Consultation.
- 1.5 SETB asked about the new agency, ARIA, and the likely impact this will have on UKRI and EPSRC. This is still mostly unknown, though the Chief Executive of ARIA was announced last week.

2. Defence and Security Discussion

- 2.1 Andrew introduced the discussion and the gave an overview of EPSRC’s portfolio and history in defence and security.
- 2.2 SETB discussed how EPSRC can influence the defence and security sector, they reviewed EPSRC’s priorities and provided feedback and insight into how EPSRC can align to defence and security challenges.
- 2.3 **ACTION – Andrew to invite Alex vs to present at a future SETB meeting, giving an update on the February discussion on defence and security**

3 Tomorrow’s Engineering Research Challenges (TERC)

- 3.1 Andrew Lawrence introduced the session and gave a short presentation on TERC, covering the aims of the project and an update on progress to date. SETB were asked to suggest potential alignment of the current outcomes of the programme and feedback on next steps.
- 3.2 There is a broad range of themes suggested, some of which are very specific to certain technologies and others which are much broader challenges. For example, particle engineering / engineering biology / bioinspired engineering is represented as being very narrow in focus currently. Some topics are also missing from the list / can be more prominent such as climate change, pandemic, space-based earth sensing / communication systems and future digital security. Civil and chemical engineering also seemed to be missing. SETB challenged EPSRC to focus the current list into engineering specific challenges.

- 3.3 SETB recognised these are highly interdisciplinary challenges, however felt this took away from the specific engineering nature of the challenges. SETB discussed the divisions between disciplines and the barriers to solving long term, interdisciplinary, global challenges, for example, physics and chemistry are highly linked to engineering but don't often work together. They briefly considered funding mechanisms needed for interdisciplinary research and innovation and how to work across councils to achieve this. Working across TRLs and internationally is also needed to overcome these challenges.
- 3.4 SETB also discussed how EPSRC need to make sure the TERC challenges represent government and industry challenges and how the challenges are communicated, especially the highly interdisciplinary challenges.

4 Strategic Investment in Critical Mass Facilities

- 4.1 Jane introduced the session and introduced Bryony Butland, Deputy Director Research Sustainability and Infrastructure, which gave a presentation on an overview of UKRI institutes, covering the background of different institutes, considerations when setting up new institutes, the strategic framework for UKRI institutes and other topics such as the Governance of institutes. SETB then had a roundtable discussion on feedback of what is important for future institutes and how EPSRC can learn from this, a summary of the discussion is as follows:
- 4.2 SETB questioned if UKRI are looking at regional analysis of institutes and where the funding is going, which has been completed and additional work in this area is being continued. **ACTION – Bryony to share the slides from her presentation as well as the outcome of the regional review of institutes with SETB.**
- 4.3 SETB discussed how institutes prepare their business cases and the consequences of being overly optimistic in business cases as well as the importance of institutes having an exit plan for when it comes to an end.
- 4.4 Bryony's team are starting to look a network for Institute directors and how to share learning across the institutes and SETB discussed the role a director has within an institute. There are other ways that the Institute directors are brought together by UKRI, for example on commercialisation or other cross cutting topics.

5 Big Ideas - Update on Previous Ideas

- 5.1 Jane and Diane introduced this session and the updated idea to be discussed.
- 5.2 SETB discussed the updated idea. Nick Jennings declared a conflict of interest with the idea. The Big Idea discussed along with the overall SETB recommendations are listed below

Ideas reference	Title	Submitted by	Recommendation	Next Steps
BIG 19-07	Transforming assessment of Criminal Evidence (TrACE)	Simona Francese	SETB recognised the strategic importance of the bid but felt the idea was still unclear about what would be delivered and how it will be launched	Add to ideas bank but may need further development depending on opportunities available

6 Big Ideas – Update on Big Ideas Messaging and Process

- 6.1 Sarah Harman gave an update on the proposed evolution of the Big Ideas scheme, which has been designed, following discussions with SETB at the September meeting and the discussions with council. The aim of the changes is to encourage more applications, making the initial stages of the application simpler and involving EPSRC themes earlier in the process. SETB gave the following feedback on the proposed evolution of the scheme.
- 6.2 SETB were unclear if making the initial step simpler will increase the number of applications as there are other reasons why the number of submissions has been low, including the lack of funding available and lack of visibility on how the ideas are used. SETB suggested ways that people could get recognition for developing big ideas, such as guaranteed workshop funding, recognition on their CV or working locally to help people develop the idea. SETB also agreed it would be beneficial to share more information on Big Ideas and how the ideas are used on our website, including information on the ideas before they are in the ideas bank.
- 6.3 SETB were concerned that involving theme leads earlier in the process might restrict the number and remit of bids that are submitted and didn't want to give the impression that theme leads will prevent some bids being submitted.
- 6.4 SETB agreed that it was timely to refresh the Big Ideas scheme and supported the idea to make it simpler and more agile. SETB discussed potential ideas for EPSRC to keep the topic alive and involve more early career researchers, such as an online platform to discuss ideas or creating 'Big Idea Champions'. Having an online platform for the Big Ideas will also help with Industry and Government engagement, even before the idea is added to the ideas bank.

7 SETB Self-Assessment

- 7.1 Jess and Jane introduced the discussion and SETB gave feedback on their Terms of Reference (ToR) and discussed additional topics that could be discussed at future meetings.
- 7.2 SETB felt the ToR accurately represented the work of the board for the most part but agreed to add a statement about how SETB help EPSRC identify research needed to address societal challenges in the scope of the ToR. SETB would also like to separate out the point on independent advice and large investments in the ToR.
- 7.3 SETB discussed how the board are supporting Council and how SETB could do more to support Council. As an example, Council found the review of the institutes very useful and helped them make a decision on EPSRC's Institutes. **ACTION – EPSRC to consider the link between SETB and Council and if there are tasks that Council would benefit from SETB doing, such as the Institutes review. Also to consider links between SETB and SATs.**
- 7.4 SETB reflected that the Institutes Review was not only an interesting task, but also added a lot of value to EPSRC, and questioned if there are additional tasks, they can do that are on this level. SETB felt discussions with concrete outcomes were more beneficial than broader, open discussions and that EPSRC could do more to utilise SETB. SETB would welcome an update on the institutes and how they are working across themes. **ACTION – EPSRC to review how to utilise SETB, especially on larger investments / institutes.**

- 7.5 Discussions on Big Ideas can be quite broad, especially in the current financial climate and SETB asked if they can also consider what is already funded as part of the big ideas assessment and also review what has happened to ideas after they have been added to the ideas shelf.
- 7.6 SETB felt that discussions on theme plans have been useful and would welcome additional discussions on theme strategies as well as how ideas are developed across councils. For example, SETB would welcome the opportunity to look at CDTs. SETB would also welcome the opportunity to look at cross council idea generation and linking up more with similar boards in other councils.

8 AOB and Close

- 8.1 Jane closed the meeting and also thanked the following members who will be stepping down from SETB after this meeting.
 - Cameron Alexander
 - Paul French
 - Jonathan Leigh-Smith
 - Mike Sutton
 - Nick Jennings
 - Joe De Sousa

The next meeting of the EPSRC Science, Engineering and Technology Board will be held on the 24 May 2022 in Polaris House.

Summary of actions:

Action	Description	Owner	Status
09-01	Andrew to invite Alex vs to present at a future SETB meeting, giving an update on the February discussion on defence and security	Andrew	
09-02	Bryony to share the slides from her presentation as well as the outcome of the regional review of institutes with SETB.	Bryony	Complete after the meeting
09-03	EPSRC to consider the link between SETB and Council and if there are tasks that Council would benefit from SETB doing, such as the Institutes review. Also, to consider links between SETB and SATs.	EPSRC	Complete – has been added to the agenda for Council meetings
09-04	EPSRC to review how to utilise SETB, especially on larger investments / institutes.	EPSRC	