



Engineering Biology Leadership Council – Meeting 05
Wednesday, 16th June 2021
2h Online meeting

Attendees:

Prof Lionel Clarke, Lord Callanan, Dr Tim Brears, Dr Jason Vincent, Prof Richard Kitney, Dr Dana Heldt, Dr Martin Cannell, Prof Tim Daffron, Prof Dale Sanders, Prof Peter Oyston, Dr Gordon Ford, Jamie Parkin, Rohan Kemp, Peter Cottrell

Apologies: Prof Joyce Tait, Mark Oakes, Dr David Tew, Dehaja Senanayake

1. Meeting with Lord Callanan

Chair Lionel Clarke welcomed everyone and laid out the agenda for the meeting.

Lionel talks through Paper 1 'Engineering Biology to address Green Growth Policy' (shared ahead of the meeting) which summarises the EBLC's achievements over the last month such as input in the DEFRA gene editing consultation, response to the UN Convention on Biological Diversity issues and supporting the IBLF in an application to attend COP26. Lionel also highlights Engineering Biology and Synbio achievements from across from the UK. However, challenges still remain for start-ups outside of medical/health sector, such as bioprocessing and scale up. Details on challenges and key recommendations can be found in Paper 1.

Action: Set up a small group and map out relationship between commercial interest, strategic interest, and technology development to assist communication and prioritization of issues of key relevance to different market application segments

Richard Kitney raised the point that good infrastructure exists in the UK in terms of the research centers, but there is a clear lack in resources. He also highlighted how the US Government is more supportive about EB and the UK Government needs to take a lead on this and promote Engineering Biology more.

UKRI's role in achieving commercial translation was discussed in relations to Innovations coming out of universities and the challenges around IP generation from projects funded by Research councils and University equity within spin-out companies.

Action:

- BEIS needs a better understanding on the challenges around the IP generation from universities. Tim Dafforn and Rohan to follow on offline about this.

Action:

- Jamie Parkin will provide a summary paper to the EBLC and Lord Callanan with details of the Intellectual Property practices and expectations of UKRI, with a focus on the relevance on engineering biology.

Dale Sanders raised interdisciplinary aspect and the need to link in various ministerial departments. He highlighted the impact of AgriFood on carbon emission and the need to link in DEFRA into NetZero. Dale has written a document about AgriFood and COP26.

Note: Dale will share the document with EBLC members

Discussion on funding took place with Richard Kitney highlighting the need for further IKC funding. Synbicite has supported over 42 companies in the past and further funding is needed to support companies in the future. Challenges around past funding were discussed, eg IKC funding was not collaborative and budget restraints played a role. Overall, more public funding is needed to leverage private funding. It was acknowledged that clear need for strategic alignment. Jamie Parkin highlighted the cross-council work BBSRC are doing on the National Engineering Biology Programme as well as upcoming small scale funding opportunities.

Petra Oyston highlighted how important research council investment is for DSTL and their capability development and R&D. She also emphasized the importance of the cross governmental working group which Rohan Kemp is chairing. The aligned approach is so crucial to achieve translation of the research data.

Lionel raised the idea of a UK wide iGEM style initiative. Due to time restraint this was not discussed further and will be followed up in a separate funding

Action: Set up separate call to discuss opportunities arising as funding for the National Programme and other relevant initiatives becomes clearer post the CSR and to discuss iGEM and potential iGEM-inspired opportunities.

Internal Business

The minutes from the last meeting were approved.

Publication of the working group document (Building back better with Engineering Biology) was agreed, subject to removal of GDPR related and consent requiring data within Appendix 1.

Action: Dana to oversee removal of data and putting paper onto the website

The EBLC is currently meeting 3 times a year. To keep the momentum going it was agreed to have more frequent informal online meetings. EBLC members were also encouraged to provide input into the agenda for the EBLC meetings.

Note:

- Dana to set up additional meetings (see action under item1 above)
- EBLC members to provide input into meetings

2. Stake holder update

Jamie Parkin gave update from UKRI BBSRC. The Business case for National Programme for Engineering Biology is still being developed. Jamie made the point that this is a cross council programme involving BBSRC, EPSRC, Innovate UK, MRC, and NERC as well as Dstl.

UKRI partners have identified who short term aims for the future of Engineering Biology in the UK; building on existing foundations and build momentum across sectors. There will be 2 funding opportunities announced in the near future; the first focusing on high risk, novel ideas and cross sectorial approach (shorter programmes 12 month), and the second focused on larger and longer projects and consortia (Transition awards).

Note: Jamie to ensure all funding announcements will be shared with EBLC for further dissemination activities.

Lionel raised the point to involve the wider community when developing the National Programme.

Petra Oyston highlighted the strategic outline cases DSTL are developing which will involve Engineering biology. She expects to know by Christmas what level of funding will be available.

Update from S&T Group

Richard Kitney gave an update from the S&T group. The detailed subgroup minutes were shared with EBLC members ahead of the meeting. Richard urged the EBLC members to read them in detail and be aware of the topics raised (continue of funding,

industrial translation, what can UK learn from US government, Biodiversity, news from the SBRC and global foundry alliance). As part of the discussion, subgroup shared experiences and provided a significant number of ideas regarding research translation and intellectual property, which were fed directly into the EBLC discussion under item 1 above. The subgroup also agreed to review the UN CBD consultation document on Technical Series 82 (synthetic biology) in advance of the submissions deadline of 15 June. These views were collated and submitted by the EBLC on behalf of the UK scientific community represented by the subgroup. Particular thanks should be put on record to Prof. G. Baldwin, Prof. N. Krasnagor, Dr. L Pelechova, K. Sedgley and to students from the Imperial/UCL/Manchester Synthetic Biology CDT for their significant contributions to our collective submission.

3. Consultations and submission update

EBLC member provided input into the following consultations

- NSI Bill around the definition of Synbio.
- UN Biodiversity (submission can be found [here](#))

The joint application with the IBLF to attend and exhibit at COP26 has been passed through the first stage and will be considered.

4. EB and Bioeconomy

No updated. Lionel is leading the governance group after Steve Bagshaw stood down.

5. AOB

No other business was raised.

Actions

The actions are summarised in the table below

Actions	Description	Responsibility	Due date	Progress /outcome
5 - 1	Put WG paper on infrastructural requirements onto website following removal of references to individuals	Dana	End of July	Done
5 – 2	Schedule interim discussion meeting in September to assess funding progress and opportunities arising	Dana	June	Done
5 – 3	Task Group to scope out relationship between commercial interest, strategic	Lionel	As pre-read for the September discussion meeting	Done

	interest, and technology development			
5 – 4	Assess options to assist translation process via IP challenges	Tim D and Rohan	As pre-read for the September discussion meeting	Done
5 – 5	Paper outlining the internal alignments within UKRI and planned external stakeholder engagements re finalization of the National Engineering Biology Programme	Jamie and Rohan	As pre-read for EBLC6	Done
n/a	Success stories, including examples to showcase where EB contributes to NetZero emission		As pre-read for EBLC6 if applicable	Done