



Engineering Biology Leadership Council – Meeting 04
Wednesday, 25th February 2021
2h Online meeting

Attendees:

Prof Lionel Clarke, Lord Callanan, Prof Joyce Tait, Dr Tim Brears, Dr Jason Vincent, Prof Richard Kitney, Dr Dana Heldt, Dr Martin Cannell, Dr David Tew, Dr Ceri Lyn-Adams, Rohan Kemp, Mark Oakes, Dehaja Senanayake

Apologies: Prof Dale Sanders, Dr Gordon Ford

1. Welcome and Internal Business

- Chair Lionel Clarke welcomed everyone
- Minutes and actions from the last meeting were approved.

2. Position papers and Proposals

EBLC position paper on key interventions

The EBLC position paper summarising the findings and recommendations of the EBLC working groups was revisited and discussion opened if the paper needs updating prior to publication on the EBLC webpage. General viewpoint was the paper should be published as soon as possible. One final review should be carried out in view of recent policy developments, to ensure the summary remains in line with current considerations.

Petra Oyston highlighted the formation of the Whitehall working group consisting of government representatives who are interested in engineering biology. The group will be sharing key documents. EBLC and this paper can feed into the group. Petra will coordinate the input and connection to the Whitehall group.

Action: Paper to be published on EBLC webpage following a final check

EBLC position on Global impact

The EBLC members have met for an ad-hoc meeting early February to discuss their position on global collaboration and impact around engineering biology. The discussion points from that meeting were summarised and shared as pre-reading material. Lionel highlighted key points from this meeting. Discussion was opened for further input and also to gather any evidence on Brexit impact on supply

chains. Currently it remains unclear to pin-point delays in supply chains specifically attributable to Brexit as the COVID19 epidemic has worldwide impact. Additional countries/areas which increasing synbio/engineering biology activity were noted:

- South America. Lionel Clarke mentioned contacts with Colombia
- Australia is developing its own Synbio Roadmap which Richard Kitney is supporting.
- Argentina was highlighted by Joyce Tait. The country changed its regulatory framework, which led to establishment of local small businesses working in the area of genetic engineering.

Actions: EBLC members to suggest global impact focus areas and to volunteer to take the lead on specific topics, engage with international contacts and expand global reach.

Engineering Biology and COP26/NetZero

The IBLF is submitting an application to exhibit at COP26. Following on from discussions with IBLF members, Lionel summarised existing market data for fuels, transport, AgriTech and chemicals in terms of economics and green house gases. The document summarizing the information was shared ahead of the meeting (paper 4, value markets). Details can be found within the document.

NSI Bill

Consultation is ongoing. Petra Oyston gave a short update: the sector and technology definitions are being refined, especially around pharmaceuticals and veterinary medicine.

Regulation and Defra consultation

The Horizon Council Group will submit a response, which Joyce Tait is involved in. Martin Cannell gave a brief update, highlighting the good response to the consultations and media interest. Martin is working with the advisory committee addressing the scientific issues and concerns arising from the consultation. Lionel will submit a response on behalf of the EBLC, based on key points raised in the discussion meeting on this topic held on 3 February.

Action: Submit EBLC response to DEFRA consultation

UK Investment in Research and Translation

Richard Kitney gave an update from the Science and Technology Subgroup meeting. The minutes from the meeting were shared as pre-reading material and details from the meeting can be found within the document. Richard highlighted the concerns of the SBRCs as funding will be ending this year and there is an urgent need to support the existing centres. The ST group is considering a letter to Boris Johnson to address this issue.

Ceri Lyn-Adams clarified the latest status of the National Engineering Biology Programme. The strategic case for the programme has been reviewed within UKRI and an outline business case is now being developed. The overall UKRI funding situation for FY 21/22 remains unclear although progress is expected in the coming weeks. It is known that finances for FY21/22 are constrained and therefore launch of a multi-year programme in 2021/22 is unlikely. However, UKRI remains committed to engineering biology and is actively working on options for FY21/22, depending on budget allocations. UKRI hopes to be able to share more in the coming weeks and BBSRC colleagues have been offering discussions with the SBRCs and the IKC to discuss the way forward. Finally, Ceri Lyn-Adams made an offer for UKRI to attend the ST group meetings alongside Dstl to facilitate joint working and information sharing. It was agreed that this offer would be put to the ST group.

Actions:

- UKRI to keep EBLC informed of developments with the National Engineering Biology Programme and engage as appropriate
- Richard Kitney to discuss the UKRI offer to attend ST group meetings with the ST group and feedback to UKRI

Lionel Clarke talked briefly through a 'Start-up and Investment' presentation which was shared ahead of the meeting. Details can be found within the document which summarises the latest information on Synbio/EB publications as well as the investment in companies.

3. Discussion with Lord Callanan

Lord Callanan joined the EBLC for a one-hour discussion. As it was his first meeting, the member introduced themselves briefly. Lord Callanan outlined his and the government's current focus area (COVID19 recovery and supporting businesses, Brexit, NSI Bill, the Government's 10-point plan and NetZero, investment into R&D). During the session following points were brought to the Ministers attention:

- Industrial Translation
 - ARIA announcement enabling high risk, ground-breaking projects and research (next technologies).
 - Need for funding to support the translation of EB research into commercial products.
- Research and Funding allocation need, including long term sustainable funding, including IP funding
- Need to set up/change Regulation framework to realise benefit from EB (Gene editing) and public engagement around this topic. Lord Callanan is supportive of this and agreed that this is an important point.
- COP26 and the role of EB to achieve NetZero
 - Lord Callan highlighted Government's incentives (eg green gas levy) addressing the support of sustainable technologies
 - Agriculture was highlighted as a key sector impacting climate change and the need to achieve NetZero in this sector

- Replace reliance on petrochemicals with EB/IB solutions (eg Aviation fuels)
- Other examples were given such as synthetic materials (eg Spider silk) or conversion of CO₂ to chemicals
- Question was raised by Lionel Clarke how to bootstrap new technologies in cases where a major industry player does not exist within the UK and yet there is a strategic national security need for such
Note: Lord Callanan will talk to officials about this
- NSI Bill
 - concerns were raised regarding the investment threshold (especially for SMEs) as well as the broad definitions of the sectors and technologies. (note: detailed definitions were published on March 2nd 2021)
 - Lord Callanan acknowledged the concern and welcomed ongoing feedback on this
Note: EBLC members to share their feedback as and when required

4. AOB

Dana Heldt asked EBLC members to support the IBLF application for COP26 and submit examples to showcase where EB contributes to NetZero emission.

Actions

The actions are summarised in the table below

Actions	Description	Responsibility	Due date	Progress /outcome
4 – 1	Publish EBLC position paper subject to final review	Dana Heldt	Before next meeting	Awaiting consent for publication of contact details
4 – 2	Members to suggest global impact focus areas and to take lead	all	By end April	No update
4 - 3	Submit EBLC response to DEFRA consultation	Lionel Clarke	15 March	Done
4 - 4	UKRI to inform EBLC of developments with the National Engineering Biology Programme and engage as appropriate	Ceri Lyn-Adams	as information emerges	Done
4 - 5	ST group to discuss UKRI offer to attend their meetings	Richard Kitney	Next ST meeting	Done, UKRI will attend when suitable

n/a	Success stories, including examples to showcase where EB contributes to NetZero emission	all	ongoing	KTN has published a case story on PhaseBiolabs
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