

ANNEX A

SSAC REPORT – Engineering Biology: Opportunities for Scotland

INVITE LETTER AND QUESTIONNAIRE

10 February 2025

Dear Colleague

SSAC Engineering Biology: Opportunities for Scotland **Invitation to attend virtual roundtable on 4 March 2025, 09.30-12.30**

We are contacting you on behalf of the [Scottish Science Advisory Council](#) (SSAC) – Scotland's national independent scientific advisory body. The SSAC established a Short-Life Working Group to engage with key stakeholders across Scotland to gather insights into Engineering Biology opportunities for Scotland.

Engineering Biology is a disruptive technology that offers new opportunities for Scottish science and Scottish industry. It is one of the UK's five most critical technologies as identified in the DSIT Science and Technology Framework, and it has been identified as being potentially capable of displacing established methods and transforming industrial practice across multiple sectors (with examples including, but not limited to, aerospace, agriculture, construction, chemicals, energy, mining, manufacturing, transportation, and health care).

The SSAC project is intended to review current Scottish Engineering Biology expertise and collaborations and to provide recommendations to support future achievement of the associated opportunities that are best aligned to the existing and potential strengths of Scottish industries.

The project will include a review of existing areas of capability within and out-with those that have already engaged with the developing technology and its associated academic research. We aim to identify the actions that would enable the collective ecosystem to maximise future benefits from the emerging economic opportunities for Scotland.

We have gathered responses from a diverse range of stakeholders to our recent questionnaire (attached). The issues raised will be explored in more depth during this roundtable discussion.

The full programme will be issued in due course and a calendar invite with the dial in details.

As an esteemed expert in this sector, your insights would be immensely valuable and we would welcome your participation at the online roundtable on

4 March. Please advise if you, or a representative of yours, are able to attend by email.

Yours sincerely,

Professor Julian Jones
SSAC Chair

Professor Louise Horsfall
SSAC Project Lead

SSAC Academic Questionnaire

Engineering Biology: Opportunities for Scotland

Respondent

Name:

Organisation:

Email:

1. Data protection

Please highlight how would you like your response to be considered:

- a. Kept confidential to the SSAC and used solely for informing this study.
- b. Quotes from your response could be used (in the Roundtable and/or report) but not attributed
- c. Quotes from your response could be used (in the Roundtable and/or report) and attributed to your organisation.
- d. Quotes from your response could be used (in the Roundtable and/or report) and attributed to you.
- e. Your response could be shared in whole or part with relevant policy officials in Scottish Government.

2. Questions for consideration

- i. What are the strengths of the Scottish Space sector? How can these strengths be consolidated and enhanced to maximise benefit to Scotland over the next two decades? (In your answer, please consider the strengths of the both the academic and industrial sectors).
- ii. Where are the greatest opportunities for Scotland in the Space Sector in the next 10-20 years and where should we focus our priorities?
- iii. What mechanisms and interventions are required to ensure Scotland maximises the benefits of the Space Sector for the Scottish economy?
- iv. Which countries are going to be the most important international collaboration partners for Scotland and what is required to enable these partnerships and to ensure that Scotland is at the forefront of the sustainable space agenda?
- v. Does Scotland have the skills needed to support the space sector in the next two decades? Are there sectors with transferable skills that can be retrained? How do we promote a steady conduit of graduates with the necessary skills?
- vi. How can Scotland's space sector align with and contribute to broader national and international goals in areas such as climate change, AI, technology innovation, and education?
- vii. What role do you see for public-private partnerships in advancing Scotland's space sector, and what models or examples could we look to for successful collaboration?
- viii. In which areas of the Scottish technology industry and research community is the Space Sector already an important customer and what are the key relevant technologies.

Availability

1. We will be arranging an online workshop on 4th March (09:30-12:30), to discuss the results from this survey and related issues with a subset of respondents. Would you (or a representative of your organisation) be available and willing to join us?

Yes

No

SSAC Industry Questionnaire

Engineering Biology: Opportunities for Scotland

Thank you for being willing to complete this survey! We would appreciate your responses to the key questions below. Please respond to as many questions as you are able. Feel free to collaborate with colleagues to provide a comprehensive response.

Respondent

Name(s): _____
Organisation: _____
Email: _____

Data protection

a. Please highlight how you like your response to be considered:

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- Quotes from your response could be used (in the Roundtable and/or report) but not attributed
- Quotes from your response could be used (in the Roundtable and/or report) and attributed to your organisation.
- Quotes from your response could be used (in the Roundtable and/or report) and attributed to you.
- Your response could be shared in whole or part with relevant policy officials in Scottish Government.

b. Please highlight how you believe the company/organisation you represent should be categorised within the Industrial landscape:

- Directly involved in Engineering Biology** - research, commercial or other involvement.
- Supply chain and enabling technologies** - Companies directly supporting Engineering Biology through their activities* (see note below).
- Not currently involved in Engineering Biology**, but with future plans or interest in the technology.
- Not involved in Engineering Biology**, and with no future plans or interest in the technology.

* *This may be through development of supporting technologies such as AI tools, rational design and sensors/equipment, providing facilities to support scale-up of biotechnologies, or providing specialist manufacturing/services such as DNA synthesis and sequencing.*

c. Please indicate if you give consent to your company/organisation being associated with the above classification in our final report:

- Yes – I consent
- No – I do not give consent