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Submission to:

NCUB S3AH Consultation

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From:

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Introduction

This response to the BIS 2014 Science and Innovation Strategy Consultation is from AIRTO (The Association of Innovation, Research and Technology Organisations). It summarises AIRTO's contribution to the NCUB consultation on a potential Smart Specialisation Advisory Hub, published in August 2014.

AIRTO's members include representation from:

- Public Sector Research Establishments (PSREs);
- Non-profit distributing member and non-member based research and technology organisations (RTOs);
- Privately held research and technology companies (including Contract Research Organisations - CROs);
- University Enterprise/Technology Transfer Departments;
- R&D departments of industrial companies;
- Business support organisations (including those offering Access to Finance support).

All AIRTO's members are engaged to a significant extent, and in various different ways, with the translation of new ideas, research outcomes and technological advances into innovative products¹, both for commercial markets and public services. Their work is undertaken both for businesses and industrial clients responding to market pull, competitive pressures and evolving regulation by introducing new technological products, and for clients exploiting research to create new offerings and new markets for technology. As demonstrated by a new Oxford Economics study due to be published shortly, this contributes significantly to the UK's economic growth.

Innovation – what is it and what do AIRTO's members do?

INNOVATION in the context of this discussion is the translation of new ideas into successful products (and services). The TSB defines innovation as “the successful exploitation of new ideas - because it drives economic growth”.

AIRTO's members provide the professional scientific, technical and business support essential for those wanting to explore new ideas and introduce innovative developments for their businesses and operations for all the reasons outlined above. There is a strong emphasis on the practicalities of implementing innovation programmes. Members provide access to essential skills, experience, facilities, development capacity and training, including providing assistance with obtaining finance, and culminating in proving compliance with regulation and standards and at scale demonstrations of performance and benefit to end users. These work programmes are part of the progressive risk reduction that has to take place between TRLs 3 and 7 on the Technology Readiness Level scale, whether the original idea and technological innovation comes from a business or from academic research.

Most members have varying degrees of interaction with both private and public sector clients and sponsors for their work. The balance and type of involvement varies from member to member according to need, circumstance and availability of finance.

The Innovation Sector – what is it and what is AIRTO's role within it?

The INNOVATION SECTOR comprises professional organisations and companies which supply the essential specialist services required to realise innovations as successful value adding products, services or processes in the commercial marketplace or within the public sector. As noted above, these services include relevant activities in applied research, design, development, technology translation/adaption, testing, proving, project management and

¹ In this context, 'products' includes new technologies and technology enabled services.

financing. These services generally lie between TRL 3 and TRL 7 on the Technology Readiness Level scale. They add value by bringing to bear the necessary combination of professional attitude and approach, skill set, experience and specialist facilities which AIRTO members specialise in providing.

Client needs for these services vary sector by sector and according to circumstance. Therefore the various organisations that comprise the Innovation Sector specialise in different types of work and different areas of application; some specialise in serving particular industries (e.g. automotive), others in providing expertise in particular technologies (e.g. composite materials), others in tackling particular multidisciplinary challenges (the various Catapult Centres for example) and some provide support for business processes (e.g. planning, staff development and risk and project management, in the particular context of innovation).

The innovation sector therefore embraces the community of organisations that play an essential role in embedding advanced technologically based developments in commercial or other forms of product for end user uptake. AIRTO is the membership network for these organisations. AIRTO's network helps members to stimulate innovation, develop and exchange knowledge and best practice between organisations and foster connections between business, academia, sources of finance and government.

AIRTO's response to NCUB's consultation questions:

1. Do you agree with the purposes for the establishment of the S3AH as described above?

Yes.

Alignment of otherwise fragmented efforts and initiatives is important for effective use of resources and to achieve the desired impact from the use of funds (particularly public funds). It is important that such efforts and initiatives are designed and constructed around the best possible awareness of what is going on elsewhere.

2. Is anything missing?

There are several aspects of Research and Innovation delivery that should be included in the planning of the Hub:

First – Non-university R&I delivery channels should be represented, including the RTOs, including the new Catapult Centres many of which work in conjunction with universities.

Second – The Hub should endeavour, as one of its principal aims, to provide as much visibility of activities across regions so that local plans can be developed with as much awareness of the wider regional context as possible. A clear aim of the Hub should be to simplify (to the greatest possible extent) the presentation of such information in an easily assimilated form, including, in particular, how the various funding streams operate. This probably requires assembling of available information and evidence, and it would extend beyond the role of the Observatory as it is currently described in the consultation paper.

Third – the Hub should help to identify barriers to delivery of growth plans, including for example the lack of locally available specialist knowledge, R&I capacity, investment finance and skills.

Fourth – the Hub should act as a bi-directional channel for information, feeding back findings through channels which can influence EU priorities and programmes.

3. Are any of the above goals of higher priority than others?

All are equally important and should be addressed to ensure that the effectiveness of the other components doesn't fail for lack of a key link in the delivery chain; hence the importance of involving the RTO community as well as universities and addressing local skills deficits where they occur for example.

4. Do you have any comments on the 'what success might look like' and 'potential action areas' descriptions?

Success will be effective growth in local businesses traceable to R&I interventions outlined in LEP strategic plans. Actions should include facilitation of a marketplace in which LEPs and other potential collaborators can articulate both their needs and what they have to offer other parties.

5. Are the scope and remit of the Steering Committee, Advisory Panel, Observatory, problem-solving and solutions-development network(s) and Secretariat a sensible starting point for establishing and operating the hub?

It would be useful to see more on how the Hub might facilitate face-to-face dialogue to complement on-line and social media based mechanisms for information exchange. The full face-to-face interactive experience is in many instances a key part of the innovation process, although clearly more expensive to deliver.

In terms of networking, it would be useful to see a relationship to/with KTN Co and the extent to which this and other relationships can be used as delivery channels.

6. What roles and relationships would you and your organisation wish to establish with the Hub; and how can it be most effective in helping you deliver R&I priorities?

AIRTO would be pleased to provide a member for the Steering Committee to represent its innovation, research and technology community as potential partners and delivery channels. The added capacity and R&I skill sets then available to work with the LEPs and universities would strengthen the partnerships being formed and the planning of detailed R&I strategies. This community can source many practical skills in business, innovation and the transition to commercial enterprise, including: applied r&d; collaborative programme management; demonstration and scale-up; verification, validation and accreditation; access to finance; skills development; and exchange of knowledge and best practice.

7. Do you have any comments on the illustrative budget?

The illustrative budget looks to be sensible and appropriate but without much scope for work beyond the basic concepts outlined. It would be useful to show it in context by comparing it with the total funding being directed to the LEPs for R&I, and with the total economic impact that that might be expected to produce.

8. For what products/services might your organisation consider a financial contribution?

It is unlikely that that AIRTO could make a financial contribution but can provide some modest in-kind pro-bono effort to assist with direction and management of the proposed Hub.

9. Do you have any comments on the two alternative options considered above?

Neither of these options is ideal and a blend of responsive, bottom up with pro-active, top-down approaches is probably required.

10. Are there any other options that should be considered?

As noted above, a blend of approaches is probably best – structured open-access networking with some top-down managed activity is required.

11. Are there further issues you wish to raise related to the establishment of the S3AH, and would you wish us to arrange a follow-up meeting to discuss it?

AIRTO has already discussed the Hub proposal with the NCUB team. A number of ideas emerged from that meeting and it was agreed that a continuing dialogue would be helpful. Follow-up actions would therefore be appropriate to pursue and AIRTO re-iterates its offer above to participate in the Steering Committee and to bring complementary skill sets and experience to the operation of the proposed Hub.

Declaration of interests

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