

Amanda Solloway MP  
Parliamentary Under Secretary of State for Science, Research and Innovation  
Department for Business, Energy & Industrial Strategy  
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Cc Ben Johnson (BEIS), Alexandra Jones (BEIS)

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Dear Minister

**Re: 2020 Comprehensive Spending Review**

12<sup>th</sup> August 2020

Thank you for the opportunity to take part in the BEIS roundtable on 11 August 2020. I very much welcomed the opportunity to share the perspective of the UK's Innovation, Research & Technology sector which AIRTO represents. In addition to AIRTO's formal submission to the R&D Roadmap questions, which are being sent through today separately, I thought it may be useful to give you an early glimpse of AIRTO's plan for submitting a representation on behalf of its members to the [Comprehensive Spending Review 2020](#) with policy suggestions for the upcoming fiscal event.

Subsequent to the Chancellor's announcement made in the Budget, [AIRTO welcomed the renewed commitment to increased levels of public investment in science and innovation](#) aimed at boosting and levelling-up economic growth.

In the spirit of "Building back better" post-pandemic, AIRTO is advocating: **i). Retaining the levels of research activity in our publicly funded institutions; ii). More development activities iii). Invest more in innovation.**

Prior to the official CSR submission, here are some of the key points which our members, and indeed the IRT sector, wish to see considered:

- **Utilising the IRT sector**

The government has access to a whole range of institutions to drive innovation: some of which it owns, and some are private bodies. AIRTO maintains its call for the government to capitalise on the extensive network of innovation assets across the UK to invigorate future economic growth. If the UK government is serious about ensuring the country becomes a 'Science **and Innovation** Superpower' it needs to properly support all of these institutions, not just those that are currently government owned. We urge the government to fortify its commitment to the Industrial Strategy, particularly the commitment to raise levels of R&D to 2.4% of GDP by 2027. Time is running out to reach that goal, and in the wake of Covid-19, the government needs to take radical action to create attractive value propositions for industry to continue to invest in innovation. We urge the government to creatively consider how it can utilise the UK's IRT sector as part of its strategy. Do not allow it to become an underutilised asset!

- **'More D'**

The 'technology push' approach of previous governments over the past couple of decades has not worked in lifting the level of R&D intensity beyond 1.7%. Innovation is not a linear process that always commences in a laboratory. We are calling for something different, for change - for a 'market pull' approach in the government's strategy. More investment is needed in DEVELOPMENT infrastructure for mid-Technology Readiness Level (TRL) capabilities such as test beds and demonstrators to gear in the private sector and pull technologies through to market. The government needs to balance out its innovation policy to adopt a more development focussed approach to gear in more private sector investment in ['More D'](#). Stop *'putting all the eggs in one basket'* by continuing to front load innovation policy towards early-stage research.

- **Recapitalisation fund**

In order to achieve the 2.4% goal by 2027, the whole sector (which turns over ~£7bn per annum and employs, 57,000 people) needs to double in size in order to deliver on the translational research and development activities that will be created by the market pull from industry raising investment in R&D. To have the right infrastructure to attractive foreign direct investment in UK R&D, it is important to understand that not all organisations within the sector will be able to achieve this growth by themselves, particularly those which are not-for-profit RTOs. The need to “shore up” some private Research & Technology institutions was raised during yesterday’s roundtable event, and we reiterate that need. Therefore, for this to become a reality, a recapitalisation fund is required. This would need to be of the magnitude £50-70million/year. The provision of this fund would enable the whole sector to grow commensurate with the 2.4% R&D intensity ambition.

- **Resourcing innovation**

Public procurement should be recognised as a catalyst for driving innovation and better harnessed for resourcing innovative programmes particularly for SMEs. Procurement rules and state aid concerns can get in the way of development funding. The government acting as an early adopter/intelligent customer for new technologies creates confidence to gearing private sector investment. Collaboration should be nurtured. Private sector investment will follow the formation of smart ideas, combined with the talent and capabilities to deliver.

- **Skills**

If the UK is going to be a **‘Science and Innovation Superpower’**, it needs the skills to match. Ensuring people have the right skills is fundamental to supporting employment and job creation. Rebuilding UK industry and stimulating investor confidence to drive Foreign Direct Investment (FDI) depends on having the ability to build a strong workforce with the right skills, especially in key sectors such as high value manufacturing and/or R&D intensive sectors such as aerospace, pharmaceuticals, automotive. These skills are becoming more advanced, and provision for retraining people in these skills will be an important part of the national recovery plan.

The IRT sector is a “breeding ground” for people skilled both in technology and in the needs and operation of industry. These skilled staff may continue to work in the IRT sector, supporting UK industry and attracting international business to the UK. They are also a key source of talent for high tech and innovative industries. Support for training by and within the IRT sector will provide upskilling of UK plc for the future. We think HMG could make better use of the IRT sector as a training ground. Those graduating from secondary and higher education in 2020 are facing a generational challenge of securing employment and initiating careers. The UK has large numbers of science, technology, engineering and mathematics (STEM) graduates entering the job market this summer. Existing training schemes from apprenticeships, future leader fellowships, and graduate level programmes are going to be swamped with applicants. There is an opportunity to expand existing schemes to get more young people with STEM qualifications **upskilled for the UK’s workforce ensuring they are ‘innovation ready’, whilst levelling up access to opportunities for careers in research and innovation for young people from BAME communities and disadvantaged backgrounds**. The government could join forces with industry, universities and the IRT sector to create a **package of measures for building an innovation-ready workforce for the future**, which will include:

- Addressing the barriers to accessing funding for Masters-level courses, especially those young people from BAME communities and from disadvantaged backgrounds.
- Trial schemes that translate academic learning to the ‘shop floor’ and market place, across apprentice, Masters and PhD levels.
- Create fellowships for early careers STEM professionals for developing applied skills.
- Grow the number of industry prepared graduates for the workplace via sandwich degrees by encouraging universities to deliver STEM degrees that are more focused on the specific needs of industry, and life-long learning, providing opportunities for those already in work, to train, and gain qualifications.

- Expand the Knowledge Transfer Partnership (KTP) scheme which has been running for forty years. This would create more opportunities for promising early career innovators to experience a more diverse range of working environments, such that they become proficient in the 'languages' of science and engineering, business, finance, government and academia. RTOs and PSRE's, as well as universities, should act as 'knowledge base' partners.
- Develop a national apprenticeship scheme for innovation: To develop more programmes to grow the available leadership skills for innovation in the UK, AIRTO contends that the government should aim to establish a national apprenticeship scheme for innovation. Such a scheme would draw on best practices in schemes such as the KTP programme, but it should focus on the leadership rather than the technical aspects of product development.
- This package of measures would support the call made during yesterday's roundtable event, to generate more skills in the "development" area of bringing new product and services to market.

We are further developing our representation for the CSR in the coming weeks and would be happy to discuss this further with you, if you consider that to be helpful as BEIS is currently formulating its plans.

Yours Sincerely,

A handwritten signature in black ink that reads "S. J. Gianni". The signature is written in a cursive style with a large initial 'S' and a long, sweeping tail on the 'i'.

Steve Gianni FREng

Vice-President

AIRTO Ltd