

Discussion paper - recommendations in advance of the Spring Budget 2023

Growth powered by Innovation:

Calling for an innovation-led strategy to address the UK's immediate economic challenges, and for the long-term development of an energy-secure Net Zero economy.

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INTRODUCTION

AIRTO, the Association of Innovation, Research & Technology Organisations, on behalf of its members, has prepared this written representation ahead of the Spring Budget 2023. We are calling for the implementation of an innovation-led strategy to boost growth to address the UK's immediate economic and societal challenges, and for the long-term development of an energy-secure Net Zero economy.

AIRTO represents the UK's extensive Innovation, Research and Technology (IRT) sector, which employs 57,000 highly skilled people, has a combined annual turnover of [£6.9Bn and contributes £34Bn to UK GDP](#). Organisations in this critical sector work with industry, government and academia to promote and implement innovation, and provide technical solutions to challenges and crises.

KEY MESSAGE – IMPLEMENT AN INNOVATION-LED STRATEGY FOR BOOSTING GROWTH

AIRTO welcomed the commitments to public investment in science and innovation, made in the 2021 Spending Review aimed at boosting and levelling-up economic growth, delivered through the [Innovation Strategy](#); we further welcome the re-commitments made in the Autumn Statement 2022. In the wake of the economic pressures presented by rising energy costs, inflation, and the resulting cost of living crisis, it is critical that the government continues to recognise and invest in **innovation as a key mechanism for stimulating the economy and supporting businesses to raise productivity and to become stronger and more resilient. Innovation is also a key mechanism for tackling the climate crisis and for safeguarding our energy security.** This means continuing to strive for 'Science and Technology Superpower' status by supporting fundamental research for the long-term, and also supporting the development and application of innovation and research and development (R&D) that is vital for the short- and medium-term economic and societal wellbeing. In the longer-term, better-balanced support for development and innovation activities will ensure improvements to the UK's science and innovation infrastructure to equip it to meet industrial needs and drive national productivity and prosperity. An innovation-led strategy (as discussed in AIRTO's Position Paper, ['More D!'](#)) that is more DEVELOPMENT-focused (i.e., market pulled, applied and focussed on commercial translation) offers the potential to dramatically increase the UK's commercial exploitation of science and innovation to boost business growth. The IRT sector is a key vehicle for delivering this vital assistance to industry. **AIRTO advocates an innovation-led strategy for stimulating the economy to address the UK's immediate economic challenges, and for the long-term development of an energy-secure Net Zero economy.**

UTILISING THE IRT SECTOR

The UK has a range of world-leading organisations that comprise the IRT sector, which are independent and trusted agents for driving innovation in industry. Some of these organisations are government owned, some are not-for-profit entities, and others are private research organisations. All are a key part of the nation's science and technology infrastructure, working closely with industry, and collaborating with academia.

The sector has huge potential for significantly increasing its support for government and industry in the short- and medium-term as part of the economic plan to combat soaring costs and in the longer term as an integral part of the country's science and innovation strategy aimed at achieving the goal of raising the level of GDP invested in R&D by 2027. To achieve this increase in the level of R&D undertaken across the UK, there are changes needed in the government's financial support for the sector that will have a catalytic effect on the resources and capability that can be delivered and the private, industrial funding that can be attracted to support science and innovation in the UK, and create high value jobs.

Achieve short and medium-term growth through targeted RD&I

The publication of the [UK Innovation Strategy: leading the future by creating it](#) in 2021 was a progressive move by government to deliver on its stated goal for the UK to become a 'global hub for innovation' by 2035. AIRTO urges government to retain its commitment to this fresh strategy, as a mechanism for **achieving short and medium-term growth through RD&I targeted at assisting early adoption of emerging new technologies**. The Innovation Strategy is an integral part of the government's plan for the battle against the prevailing economic forces of rising inflation and the energy crisis. AIRTO contends that the government's response requires swiftly deployed provision and investment in the UK's innovation capabilities to ensure business growth materialises from aspiration into a reality, by placing science and technology at the heart of both the UK's recovery and continued advancement to Net Zero (in line with the recommendations of the [Net Zero Review](#) to ramp up investment in research and development (R&D)).

Ensure sustained long-term investment in RD&I

It is vital that investment in research and innovation is sustained to ensure the UK achieves and maintains a leading position, relative to competitor nations. Therefore, we are calling on the government to use the Spring Budget 2023 to bolster the Innovation Strategy. This event represents a major opportunity in the duration of this Parliament to build the foundations for the UK's bid for Science and Technology Superpower status. Progression towards lifting the intensity of R&D should be accelerated.

Close-to-market innovation across the UK is central to the Innovation Strategy and achieving lasting economic growth and levelling up

The Innovation Strategy aims to harness assets across the country, recognising the UK's geographically dispersed R&D and innovation ecosystem as a means of maximising the benefits of innovation for local economies and building on local strengths in places. The UK needs to bolster its capabilities for close-to-market R&D to successfully accelerate the pull-through to market of products and services. Much of these innovation assets reside in the IRT sector which has some of the nation's most skilled scientists and innovative business leaders working at the interface between academia and industry. This sector plays a fundamental role in driving productivity, providing centres of excellence for innovation operating across the UK in both cities and hubs of activity in non-urban areas. In considering priorities, the government should recognise these hives of close-to-market innovation across the UK as central components to the delivery of the UK's Innovation Strategy, and that continued investment is necessary to harness their capabilities to drive growth.

Applying pandemic lessons to the current economic crisis

The climate crisis and energy security crisis are, arguably the world's most pressing concerns. Globally we must cut emissions by 11.7% each year if future generations are to thrive. The innovations required to deal with these crises offer global opportunities for trade, with the UK's world-class expertise and international reputation for innovation and entrepreneurship leading the way. The level of innovation required to tackle these big missions is colossal and needs nurturing if it is going to be successful. **A fresh commitment to, and investment in, the UK's innovation capabilities will be critical to underpin successful economic recovery and resilience.** By shaping its strategy around lessons from the Covid-19 pandemic, and understanding the weaknesses that it has exposed in national resilience, the government stands to harness the power that science and technology can bring to tackling societal challenges and transforming lives, helping realise the ambition to 'Build Back Better'. In addition, there are some behaviours that, if instituted pervasively across government departments, would create confidence for industry and investors alike: For instance, working with greater agility and speed in decision making and deployment of resources, and ensuring better retention and stability of knowledge, know-how and experience, by attracting and retaining key personnel. Also, creating better clarity for business about the future direction of policies and strategies, will provide a stronger basis for private investment in science and innovation,

which ultimately will attract high value jobs to the UK and drive economic growth. AIRTO will respond separately to government by providing direct input ahead of the Spring Budget 2023 to the [R&D Tax Reliefs Review: Consultation on a single scheme](#).

Building on our world-leading existing capabilities

If the Innovation Strategy is to achieve the economic boost it promises, it needs to build on the best of our existing capabilities to fully exploit the innovation and development assets spread across the UK, recognising the considerable investments made over the past 30 years to maximise impact for the UK economy and society as quickly as possible. This means nurturing the role of the innovation ecosystem by capitalising on the extensive network of existing innovation assets which lie in the UK's Public Sector Research Establishments (PSREs), Research & Technology Organisations (RTOs), Catapult Centres, Science Parks and Innovation Campuses to harness their capabilities, expertise and infrastructure to invigorate future economic growth across all parts of the UK. **We are therefore calling on the government to use the Spring Budget 2023 to go further in strengthening:**

- The global dimension: by leveraging the international network across the IRT sector to export innovation and world-firsts by building new collaborations and promoting British Standards around the globe. More support mechanisms are needed to foster collaborations and steps must be taken to ensure that established and renowned UK entities continue to play their pivotal part in programmes like Horizon Europe. The UK's international standing as a 'Science and Technology Superpower' will be hampered if we lose ground in our relationships with key collaborators in EU member states.
- Investment in the innovation ecosystem: by investing in some of the UK's non-profit distributing organisations that underpin the innovation ecosystem's foundations, offering living labs, testbeds and demonstrators, which currently remain undercapitalised. For the UK's innovation ecosystem to be truly world-leading by 2035, this under investment must be addressed.
- Systematic promotion of the UK's IRT sector assets (government owned, not for profit and private) to national and international businesses.

Continue to evolve an open, transparent national plan for RD&I with a clear systems approach

Overall, government's commitments in the Innovation Strategy to increase public investment in science and innovation are welcome but the government needs to put people at the heart of its plans by investing in skills and improving opportunities for the brightest and best to come to work in the UK. This must be followed through with continuing financial commitment in the Spring Budget 2023 and detailed implementation plans. Government needs to put people at the heart of its plans by investing in skills and improving opportunities for the brightest and best to work in the UK.

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