



**Submission to:**

European Commission

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**Written response for the European Commission: 'Designing a European Innovation Council:  
A Call for Ideas'**

**Submitted by:**

The Association of Innovation, Research and Technology Organisations (AIRTO).

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## Introduction

This response is from AIRTO (the Association of Innovation, Research and Technology Organisations). AIRTO's members comprise representatives from:

- Public Sector Research Establishments (PSREs)
- Non-profit distributing member and non-member based Research and Technology Organisations (RTOs, including Catapults)
- Privately held research and technology companies (including Contract Research Organisations)
- Universities (Enterprise/Technology Transfer Departments)
- R&D (research and development) departments of industrial companies
- Business support (including Access to Finance) and early stage technology-based venture capital companies

AIRTO's members generally operate in the private sector, but with varying degrees of interaction and financial involvement from the public sector. All are to a significant extent involved in aspects of the translation of ideas, research and technological advances into the commercial arena, for clients in both the private and public sectors.

## Overview

**AIRTO welcomes the European Commission's call for ideas on designing a European Innovation Council. Organisations in the UK's Innovation, Research and Technology (IRT) sector play a pivotal role in driving economic growth and innovation, frequently acting as the aggregator of scientific and technological demand from businesses and markets. Such organisations typically work at the mid-level technology readiness levels and are well placed to understand company and sector-based innovation strategies, where they are optimally positioned to facilitate interactions involving academic partners, SMEs and large organisations to approach challenge-led innovation projects.**

Britain has a large and thriving IRT sector, which contributes significantly to our national capabilities<sup>1</sup>, with the economic impact for UK plc now estimated to stand at £32-36 Billion per annum. The RTOs that AIRTO represents are a significant component of the UK's innovation ecosystem, but differ from universities in their primary objectives, strengths and capabilities, which are centred on commercial translation of applied research. In its 2011 'Innovation and Research Strategy for Growth', the UK Government recognised the sector as an 'under-utilised asset'<sup>2</sup>. UK RTOs have a vital role to play in driving economic growth and forging pan-European partnerships.

**AIRTO's response to the specific questions posed by the European Commission is as follows:**

### [How can we overcome obstacles to disruptive innovation and scaling up in Europe?](#)

Obstacles to disruptive innovation and scaling up:-

- innovation and scaling up generally involves a higher level of investment and greater risk than research, particularly for scaling up novel developments;
- this compounds risk aversion on the part of early adopters, financiers and owners of IP;
- there is vested interest in protecting investment in existing assets and infrastructure, leading in many instances to delaying adoption and commercialisation of potentially disruptive innovations (this increases (i) cost and risk for investors in disruptive innovation, and (ii) reliance on assistance from public funds and independent financiers with an appetite for high risk);

- much of the available risk finance is relatively short term with a limited remit to take on longer term, higher risk opportunities. (Risk appetite is constrained by the possible consequences of failure when investing other people's money; failures damage a fund manager's track record and ability to raise support for future investment, deterring many funds from investing in disruptive innovation);
- there is a serious scarcity of suitably skilled and experienced people to drive and manage innovation programmes. (Often technology based start-up ventures are led by highly skilled scientists or engineers, who may lack formal business skills training or experience).

### What can the EU do about it?

The EU, via the proposed European Innovation Council, should take steps to address the above obstacles where national initiatives do not have sufficient capacity and reach to succeed unaided:

- either because the scale of the problem is too great for a single nation to tackle on its own,
- or because solutions require agreement to be reached between member states and other nations, to ensure mutual acceptance and compliance with standards and regulation for example.

#### a) Issues of scale

- 1) Making an appreciable impact on a pan-European scale reasonably quickly will necessitate an increase in capacity to develop, scale up and then pursue widespread adoption of innovative and disruptive products, services and processes. (Support from the EU could help to increase innovation capacity quickly and could be particularly helpful in meeting challenges where there are significant problems, as noted above, linked to the displacement of existing assets and infrastructure; and particular priorities could lie in tackling areas of low productivity and/or highest risk/reward).

Rapid progress could be made in the first instance by encouraging and providing more and better support for 'disruptive agents' attempting to tackle disruptive innovation, Research & Technology Organisations (RTOs) for example.

A particular challenge for such bodies is that it is generally difficult to obtain substantial financial support from mature businesses to develop, work up and then commercialise innovations that impact in a disruptive way on their products, processes and operations. (Reasons for this include the threat to sunk investment in existing assets and manufacturing infrastructure and/or reluctance of supply chains to adopt such developments commercially without broader demonstrated and proven market demand).

Hence there is a continuing need for public sector support (and incentives to invest in further innovation, coupled with increased availability of appropriate private sector risk finance).

Support should target RTOs (and similar organisations) working with prospective end-users looking for innovative solutions which are not available from their current supply chains. (This support should include underpinning commercialisation where supply chains won't or can't undertake it, and measures should facilitate and ensure access to sufficient, willing, patient, risk-taking finance. Support should extend through to the demonstration stage.)

- 2) The EU's institutions should become early adopting customers and aggregators of demand, providing highly respected user references for the best innovative products

and services and lending credibility to exporters taking such products and services into global markets.

b) Issues requiring international agreement

- 3) Standards: Standards are an important enabler of technological development and trade. The EU can ensure that the research and development of standards across Europe anticipates and keeps pace with relevant new areas of standards development.
- 4) Regulation: Regulation can stimulate innovation. Appropriate regulation which is carefully selected should be supported, linked to innovation aimed at both stimulating economic growth and social wellbeing.

### How could we improve existing EU support for innovation?

By raising the status and profile of innovation; and, by recognising the challenges of funding disruptive innovation and the frequent necessity and difficulty of raising third party risk finance to commercialise it. Simplification of the complexity of the innovation landscape in the EU and the support offered by EU funding schemes would be very welcome and should increase uptake. In particular the various EU funding sources could be better joined up and made to work “in harmony” (see below).

The EU, and in particular the proposed European Innovation Council, could play a more significant role in helping bring together and develop communities of interest and value chains necessary for stimulating innovation, collaboration and exploitation of innovative developments, particularly where existing value and supply chains are absent or poorly developed in the areas of interest.

Grant support for the exploratory stages of such work in RTOs and similar bodies should be increased.

### What could be the role and functions of a European Innovation Council?

The role of the EIC should be to:

- Raise the status, profile and public awareness of innovation in European programmes;
- Set priorities and criteria for eligibility and access to EU innovation programmes;
- Establish support for these programmes within the Commission, Parliament and Council of Ministers;
- Ensure coherence and continuity of support through the various stages of innovation, from initial concept to achievement of traction in private finance and commercial markets. This includes ensuring that support for the various stages of the journey are linked and available in a timely fashion, supporting with road maps for development and action where necessary;
- Encourage collaboration to facilitate, build and strengthen value chains;
- Ensure that support programmes are:
  - Aimed at building global competitiveness for European industries;
  - Adhere to a strategic vision for achieving this goal;
  - Be strongly business and industry led at both overall strategic and project level.

## **Declaration of interests:**

This submission is made by the Association of Innovation, Research and Technology Organisations (AIRTO). The organisation represents research and technology organisations operating in the space between the academic research of universities and the commercial needs of industry. AIRTO members undertake research and development, and knowledge and technology transfer. This submission does not necessarily represent the views of individual member organisations. AIRTO currently comprises organisations, employing more than 40,000 scientists and engineers<sup>1</sup>, with a combined annual turnover in excess of £5billion (AIRTO Ltd. is a company limited by guarantee registered in England No. 1217006 Register office address: National Physical Laboratory, Hampton Road, Teddington, Middlesex, TW11 0LW). AIRTO is a not-for profit organisation funded by membership subscriptions, and managed under contract by NPL Management Ltd. The members of AIRTO currently are:

AFRC	Fraunhofer UK Research	Offshore Renewable Energy Catapult
AHPA	Fripp Design & Research	Organic Research Centre
AMRC	Future Cities Catapult	PA Consulting
Axillium Research	Health & Safety Laboratory	Patent Seekers
BCIS	High Value Manufacturing Catapult	QinetiQ
BHR Group	HR Wallingford	Satellite Applications Catapult
BMT Group Ltd	IEA	SATRA Technology Centre
BRE	LGC	Science and Technology Facilities Council
BSRIA	Lucideon Limited	Smith Institute
Campden BRI	Manufacturing Technology Centre	Thatcham
CIRIA	Medilink (Yorkshire & Humber)	The European Marine Energy Centre
City University London	HORIBA MIRA	The Scotch Whisky Research Institute
CPI	National Composites Centre	Transport Systems Catapult
Digital Catapult	National Institute of Agricultural Botany	TWI
C-Tech Innovation	National Nuclear Laboratory	University of Greenwich
East Malling Research	National Physical Laboratory	University of Surrey
Fera	National Non-Food Crop Centre	WMG
FloWave TT	Nuclear AMRC	

## **References:**

<sup>1</sup> [The impact of the Innovation, Research and Technology Sector on the UK Economy; Oxford Economics, November 2014.](#)

<sup>2</sup> [Innovation and Research Strategy for Growth; BIS, December 2011.](#)