 

**DEFENCE, SCIENCE AND TECHNOLOGY LABORATORY (DSTL)**

**Materials for Strategic Advantage Programme**

**Consultation on the UK *Materials & Manufacturing* Space Technology Landscape**

**Introduction**

1. **Industry, institutions and academia are being invited to share their views about key Materials & Manufacturing Space issues and opportunities as part of a major MOD landscaping exercise.**
2. **Dstl’s Materials for Strategic Advantage (MSA) Programme is undertaking a review which will help offer solutions on how MOD could target future Science & Technology (S&T) investment in Materials & Manufacturing for Space applications.**
3. **The primary objective of the review is to gather contributions from people with industrial and/or academic expertise to highlight the current UK Space landscape in Materials & Manufacturing. The review will also identify key research and development drivers that present future opportunities for MOD investment1. We have designed a short questionnaire to gather key information. This is a fantastic opportunity to help shape MOD’s future Space Materials research portfolio.**

**NOTE**: Those wishing to participate in this consultation are requested to email questionnaire responses to MSAProgramme@dstl.gov.uk by **Friday 13th August**, using the subject line ‘MSA Materials for Space Consultation opt in’.

All information provided in this questionnaire must be at OFFICIAL level and non-confidential. All data will be anonymised, protected in line with [Government Security Classifications](https://www.gov.uk/government/publications/government-security-classifications) and retained for seven years.

**1** Please note that this consultation is not a substitute for competition nor in any way a waiver of Dstl's obligations under the UK Government Procurement Regulations. The requirements of the Public Contract Regulations 2015, Defence and Security Public Contracts Regulations 2011 and Competition Act 1988 still apply and all contracts must be placed in accordance with all aspects of Procurement and Competition Law.

The provisions of this consultation are not intended to constitute, nor will they be so construed as to constitute, any pre-contractual, contractual or other representations or obligations of a legally binding nature or that may impose any obligations or liability on Dstl or the Participants at law or in equity. Dstl may divulge information contained within or associated with this consultation in accordance with the requirements of the Freedom of Information Act 2000 and UK Government transparency agenda.

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| **REQUEST FOR INFORMATION QUESTIONNAIRE** |
| 1. **Please provide the following information on your organisation:**

Name:Organisation type:Point of contact: (name, email address and phone number)Organisation description / specialism: |
| 1. **From your organisation’s perspective, please highlight the key challenges of current materials and structures used in space. Are there any technical barriers which need to be overcome?**

Examples of technical challenges could include problems related to:1. Materials development (e.g. requirement for a material with property X but capable of an operating temperature of X).
2. Processing (e.g. issues associated with scale-up, efficiency, or prototyping of large-scale, low volume parts).
3. Insertion (e.g. joining, coating, integration, insertion of new materials onto platforms).
4. In-service (e.g. lifing, different orbital regimes, variable satellite life, materials technical challenges for short or long duration missions).
5. Other (e.g. legislation & regulation, skills & knowledge, exploitation that has not happened).

Please be as specific as you can in your response, for example, by stating the material type and nature of the challenge. |
| 1. **What novel and innovative technologies and approaches could be developed to address these technical barriers?**

Please identify where possible:1. The anticipated benefits of the novel and innovative technology.

 1. Why is it a defence problem to solve & why should it be developed in a future MOD Materials & Manufacturing Space S&T activity?
2. The current maturity (e.g. Technology Readiness Level).
3. The radical nature of this opportunity (e.g. evolutionary gains or fundamental change in capability)
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| 1. **What are the UK’s strengths and weaknesses in the test and qualification infrastructure used for the development of novel and innovative technologies?**

1. Specific challenges for test and qualification in the space environment
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