



Department  
of Health &  
Social Care

Expression of Interest

**Reference:  
C123719**

**Expression of Interest:**

**Design for Life - Discovery Phase research and  
support**

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## INTRODUCTION

The Department of Health and Social Care ('The Authority') is seeking information regarding the possible engagement of a research partner working in the field of Circular Economy to support progression of a one-year discovery phase in collaboration with industry and stakeholders across the health and care sector. Partners should be able to demonstrate that they have the ability to deliver excellent research facilitation; technical, commercial, and operational insights; and established networks to enable the brokerage of interaction with expert parties in the field of circular economy as it applies to medical technology and single-use medical devices.

This exercise is being conducted to assess the level of market interest in providing services to support the delivery of the Design for Life Discovery Phase.

To complete this questionnaire, you will need to register on the DHSC Atamis e-tendering system, if you have not already done so.

The DHSC Atamis registration link can be found via the link below.

<https://www.gov.uk/government/organisations/department-of-health/about/procurement>

Regards,

Helen Kelly

Procurement Specialist

Department of Health Procurement Services

## GUIDANCE FOR COMPLETION

1. This is an Expression of Interest (EOI) only. This EOI is issued solely for information and planning purposes – it does not constitute an Invitation to Tender (ITT) or a promise to issue an ITT in the future. This EOI does not commit the Authority to contract for any supply or service whatsoever.
2. The purpose of this Expression of Interest (EOI) is market engagement/research only. This EOI's objectives is to understand the available supply market and its capacity in relation to this project. Please advise if you are interested in bidding for this opportunity.
3. Participation in this EOI is not compulsory. However, the Authority strongly recommends full participation from the market so that we may understand your capabilities and constraints in developing the requirement. This, in turn, will help to ensure that the Authority's requirement is compatible with the way that the sector delivers the type of services in question.
4. Further, the Authority is not at this time seeking proposals and will not accept unsolicited proposals. The Authority will not pay for any information or administrative costs incurred in response to this EOI; all costs associated with responding to this EOI will be solely at the interested party's expense, by responding to the EOI the responder accepts these terms.
5. Not responding to this EOI does not preclude participation in any future ITT, if any is issued.
6. The information provided in the EOI is subject to change and is not binding on the Authority. The Authority has not made a commitment to procure and release of this EOI should not be construed as such a commitment or as authorisation, to incur cost for which reimbursement would be required or sought.
7. Please highlight any commercially sensitive information that is sent to the Authority, this information will not be shared outside of the Authority.
8. The completed questionnaire should be returned to Helen Kelly, DHSC Procurement Services [via the Atamis Portal messaging system](#).
9. Responses are due no later than **28/02/2023: 15:00**
10. If you require clarification on any part of this EOI please [via the Atamis Portal messaging system](#). If you have any clarification questions, please email them by **27/02/2023: 12:00** as they may not be answered after this point.
11. The Freedom of Information Act 2000 (FOIA) applies to the Authority. You should be aware of the Department's obligations and responsibilities under the FOIA to disclose, on written request, recorded information held. Information provided by you in connection with this procurement exercise, or with any Contract that may be awarded as a result of this exercise, may therefore have to be disclosed in response to such a request, but the Authority will consider the appropriate application of exemptions, including where information is commercially sensitive (section 43), confidential and has the necessary quality of confidence (section 41) and/or where it may be withheld from disclosure in order to allow for the effective formulation of government policy (section 35).

# REQUIREMENT

## Resource Security and Efficiency

### Outline specification for research facilitation and support

#### 1.1 The Challenge

The MedTech sector has become heavily reliant on imported, single-use medical devices, which exposes safe and continued patient care to significant vulnerability. Volatility in raw material and energy supply and prices, trade embargoes and tariffs, transport constraints, and sudden spikes in demand are all disruptive factors faced by this supply model. Recent events, including the Covid-19 pandemic and the Russia-Ukraine conflict, have brought into sharp focus the significant impact events of this nature can have on global markets and international trading models, and the ability to maintain continuity of supply.

There are also stark sustainability challenges. NHS have committed to net-zero greenhouse gas emissions by 2045, which will necessitate a rapid change in the way we think about supply of MedTech. Upwards of 75% of effective emissions can be avoided if single-use devices are diverted from end-of-life<sup>1</sup>.

Beyond carbon, tens of thousands of tons of waste are produced by the NHS each year, yet significantly more is sent to incineration and landfill than needs be. The sheer volume of waste, coupled with increased pressure on source material availability and costs, mean it is critical that we take action to develop more sustainable models of supply for the future. Given medical-grade materials are among the highest quality, there is a significant opportunity if we can find ways to safely recover this valuable material for use in other medical and non-medical applications.

#### 1.2 Exploring Circular Economy Solutions

Circular economy solutions have potential to address these issues, particularly through a shift towards devices that support reuse, remanufacture, or material recovery. A shift towards a circular economy will require fundamental change in the way that we approach MedTech design, production, and supply, requiring foresight and action now to create the right environment to realise benefits over the coming decades.

It is recognised that this level of change comes with its challenges and requires a concerted and collaborative effort with all relevant system actors as part of a long-term strategy.

From initial exploration we have identified the following areas that are fundamental to realising a shift towards circular economy models for MedTech products:

- Product Design
- Clinical Efficacy and Safety
- UK Growth and Economic Opportunity
- Commercial Models and Logistical Challenges
- Infrastructure and Workforce

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<sup>1</sup> D. Guzzo et al, Circular Business Models in the Medical Device Industry, Resources, Conservation & Recycling 160 (2020) 104904

- Policy and Regulation

### 1.3 The Opportunity

Reducing consumption of new single-use devices through adoption of greater reuse, remanufacture, and material recovery has the potential to provide greater resilience in times of shock. For example, further COVID-19 waves, hostile actions of other nations, sudden resource scarcity and price increases.

Improving MedTech's resource security could have secondary benefits for the whole economy. For example, by creating new recovered material feedstocks for other critical industries, such as utilities and construction, where they cannot be retained for medical products.

Environmentally, significant decarbonisation potential is found within changes to NHS supply chain systems, recently calculated to be upwards of 15 MtCO<sub>2e</sub> – roughly 4% of the UK's total and, at current carbon valuation, would give roughly £285m of economic benefit.<sup>2</sup> Plastic waste valuations are not yet set in the UK, but with the network exploring new foot printing models for medical devices, we may soon be able to put value on the other aspects that a shift away from single-use could bring the environment / economy.

A change in consumption models will inevitably create new skilled jobs and growth opportunities. It is anticipated that the circular economy business-standard of maintaining locality of services to the point-of-use could lead to investment in infrastructure and skills in the UK life sciences sector. With an estimated £10bn spent annually by the NHS on MedTech, there is an opportunity to redirect a sizeable proportion of this spend into the UK economy.

## 2 The Programme

There is potential for significant benefits for the UK MedTech sector, the Health System, and the UK economy in making a shift towards higher levels of reuse, remanufacture, and material recovery, all underpinned by a skilled UK workforce and infrastructure that supports the circular economy for MedTech products. There are challenges to change of this nature, and no sole part of the system will achieve this alone, therefore, a collaborative initiative is proposed.

### 2.1 Discovery Phase

Within the Discovery Phase, the aim is to establish a collaborative initiative between Government, Industry, and academia to explore the challenges, scope the opportunity, and gain consensus on objectives and progressive actions to facilitate change. The envisaged output from this Discovery Phase would be a 'Roadmap' that describes the collaborative's consensus on objectives and the next phase of activity.

Our proposed plan for the Discovery Phase can be described in 4 stages:

1. **Initiation:** Where the main parties are given a chance to present their perspectives and be brought onto the same page. Following this, objectives and structure of the programme can be developed, agreed, and the Steering Group formed.
2. **Exploration:** Where the core research into how we can deliver our objectives (and what will be required regarding Roadmap commitments) will be explored through workgroups set up to explore identified key areas.

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<sup>2</sup> [B1728-delivering-a-net-zero-nhs-july-2022.pdf \(england.nhs.uk\)](#)

3. **Consensus:** Where workgroup findings and recommendations will be presented back to the Steering Group and wider network for discussion and initial conclusions.
4. **Conclusion:** Where the Roadmap will be produced and plans regarding implementation workstreams for the new collaborative will be explored.

## 2.2 Criteria

Partners should be able to demonstrate that they have the ability to deliver excellent research facilitation, technical, commercial, and operational insights, and established networks to enable the brokerage of interaction with expert parties in the field of circular economy as it applies to medical technology and single-use medical devices.

We envisage the following requirements for the research partner:

- **Pre-existing capacity, and excellent networks within the circular economy sphere to enable coordination and delivery of a national programme**, with strong relationships in multiple leading sectors (inc. healthcare), and supporting, horizontal domains such as data science.
- **Evidenced examples of working with government, the NHS, or private industry** on circular economy for Medical Technology products.
- **Past case studies of creating and leading focus groups** or similar to create strategic outputs such as roadmaps or innovation frameworks.
- **Past case studies of drafting robust academic research papers** or similar to inform policy and make recommendations for action.
- **Past case studies of supporting translation of policy-type research into real-world operations** within a sector or organisation.
- **Existing partnerships / accreditation from government** such as pre-existing funding from UKRI or sponsorship by a Research Council.

### Timescales:

A programme launch event is planned for Spring 2023. It is expected that outputs will be delivered between April 2023 and March 2024.

### Value of Opportunity:

We estimate the value of this opportunity to be in the region of £120,000.