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Planning

## **Lithium Lead Liquid Metal Manufacture and Testing**

UK Industrial Fusion Solutions Ltd

UK2: Preliminary market engagement notice - Procurement Act 2023 - [view information about notice types](#)

Notice identifier: 2025/S 000-068683

Procurement identifier (OCID): ocds-h6vhtk-05d484

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### **Scope**

### **Reference**

PP-UKIFS-359

### **Description**

The following summary is not intended as a complete or definitive specification of the requirement. A purpose of this engagement is to seek information from the market to help refine our understanding and aid the development of a future specification.

UKIFS is seeking to understand the possible development of Lithium Lead (LiPb) of varying compositions to for breeder blanket applications. A short-term experimental programme, aimed to address key concerns over thermophysical and chemical compatibility is required. UKIFS would like to assess risks in LiPb stability and phase separation at higher Li contents, as well as understand corrosion effects, with and without non-metallic impurities in the molten metal.

This project aims to manufacture and carry out an initial screening assessment of the chemistry and thermophysical properties of LiPb as a function of Li content. The stability

of compositions and uptake of impurities will also be quantified. Ingots of lithium lead eutectic of 17, 30, 40 and 50% lithium will be manufactured and characterised. Materials testing, consisting of static or stirred corrosion testing of SiC and steel samples will inform the changes to LiPb properties and impact to structural materials of corrosive reactions.

Our aim is to complete Work Packages 1-4 by 31st March 2026 and we acknowledge that the proposed timescale for the delivery of the outlined requirements is ambitious. In recognition of this, we welcome suppliers to provide alternative approaches to delivery, including phased implementation, concurrent work package planning, or other innovative scheduling strategies that may better align with their capabilities and resource availability. All such proposals will be considered as part of the overall assessment process, with a view to achieving the most effective and pragmatic delivery outcome.

For more information about this opportunity, please visit the Delta eSourcing portal at:

<https://ukifs.delta-esourcing.com/tenders/UK-UK-Abingdon:-Composition-and-purity-testing-and-analysis-services./5U75JGY572>

To respond to this opportunity, please click here:

<https://ukifs.delta-esourcing.com/respond/5U75JGY572>

## **Commercial tool**

Establishes a dynamic market

## **Total value (estimated)**

- £0 including VAT

Above the relevant threshold

## **Contract dates (estimated)**

- 11 January 2026 to 31 March 2026
- 2 months, 21 days

## **Main procurement category**

Services

## **CPV classifications**

- 71610000 - Composition and purity testing and analysis services
- 71620000 - Analysis services
- 73100000 - Research and experimental development services

## **Contract locations**

- UK - United Kingdom

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## **Engagement**

### **Engagement deadline**

10 November 2025

### **Engagement process description**

This MEN aims to gather information from potential suppliers on solutions and capabilities in relation to the provision of Lithium Lead Liquid Metal Manufacture and Testing. This is not a request for quotation but a preliminary stage to assess the market. The first stage involves a written submission via the questionnaire, which should be returned by 15:00 hrs on 10th November 2025. Any following stages, such as a Q&A session, will be arranged from week commencing 10 November 2025.

For the avoidance of doubt: Suppliers who wish to attend a possible Q&A session will need to confirm that they wish to participate by indicating this within the questionnaire and submitting this via Delta as directed.

Supplier's who do not to respond to this notice are NOT thereby excluded from any subsequent tender process for this workstream.

As part of this PME, UKIFS may carry out a range of activities. These may include, but are not limited to: issuing follow-up questions to suppliers and reviewing their responses; engaging in discussions with suppliers either collectively or individually, such as through webinars or workshops; seeking feedback on proposed requirements; exploring procurement approaches; identifying potentially suitable suppliers; assessing market capacity; and discussing possible contractual terms. PME may also be used to support the development of award criteria and the refinement of tender documentation.

Any information provided in this notice, such as CPV codes, estimated contract values, anticipated contract dates and durations, and proposed engagement timelines - are indicative only and based on UKIFS's current understanding. These details may be subject to change. The purpose of PME is to improve our understanding of the market, refine our requirements, and shape our procurement strategy. The list of activities included here is illustrative rather than exhaustive, and the nature, extent and timetable of engagement may evolve in line with UKIFS's needs.

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## **Contracting authority**

### **UK Industrial Fusion Solutions Ltd**

- Public Procurement Organisation Number: PCRM-7973-DCBL

Culham Science Centre, Abingdon

Abingdon

OX14 3DB

United Kingdom

Contact name: Operational Procurement

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Region: UKJ14 - Oxfordshire

Organisation type: Public undertaking (commercial organisation subject to public authority oversight)