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Award

The Supply and Delivery of a Multiphysics Model and Furnace Digital Twin

Glass Futures

UK5: Transparency notice - Procurement Act 2023 - [view information about notice types](#)

Notice identifier: 2025/S 000-074332

Procurement identifier (OCID): ocds-h6vhtk-05e24d ([view related notices](#))

Published 17 November 2025, 11:46am

Scope

Reference

QGFL/2025/04

Description

The procured services consist of the development of a fully visualised digital twin of the Glass Futures plant. The project includes the development of a scientifically accurate multi-physics furnace model (CFD, chemistry, mathematics and physics) capable of performing digital experiments via 'what if...?' simulations programmed through a bespoke graphical user interface (also part of this procurement). The digital twin will integrate with the Glass Futures control system in order that it will display live, accurate, plant data.

Contract 1. The Supply and Delivery of a Multiphysics Model and Furnace Digital Twin

Supplier

- University of Liverpool

Contract value

- £323,000 excluding VAT
- £387,600 including VAT

Above the relevant threshold

Earliest date the contract will be signed

28 November 2025

Contract dates (estimated)

- 1 December 2025 to 31 March 2026
- 4 months

Main procurement category

Services

Options

The right to additional purchases while the contract is valid.

Hosting and support services

CPV classifications

- 48151000 - Computer control system
- 72230000 - Custom software development services
- 72211000 - Programming services of systems and user software
- 72110000 - Hardware selection consultancy services
- 73100000 - Research and experimental development services
- 48520000 - Multimedia software package

Contract locations

- UKD - North West (England)

Participation

Particular suitability

Small and medium-sized enterprises (SME)

Other information

Conflicts assessment prepared/revised

Yes

Procedure

Procedure type

Direct award

Direct award justification

Prototypes and development

We will be directly awarding this contract under the Prototypes and Development criteria.

The project involves significant technical uncertainty, rapid iteration, and close integration of computational fluid dynamics (CFD), thermodynamics, and glass melt chemistry with artificial intelligence and machine learning. These are highly specialised capabilities that cannot be sourced through a standard competitive procurement process without significantly increasing project risk.

The supplier to which we intend to award the contract has a proven track record of high-profile digital twin development using CFD-based approaches that can be a) have their parameters adjusted via a GUI to afford a fast, novel simulation environment and b) graphically visualised using state-of-the-art graphic rendering computed at the point of simulation. Moreover, they are experienced in the use of open-source development environments and are experienced in the integration of multiple data sources and development platforms.

Supplier

University of Liverpool

- Public Procurement Organisation Number: PYNH-9859-XVMD

765 Brownlow Hill

Liverpool

L697ZX

United Kingdom

Email: procurement@liverpool.ac.uk

Region: UKD72 - Liverpool

Small or medium-sized enterprise (SME): No

Voluntary, community or social enterprise (VCSE): No

Contract 1. The Supply and Delivery of a Multiphysics Model and Furnace Digital Twin

Contracting authority

Glass Futures

- Public Procurement Organisation Number: PYHR-8347-NYPX

James Roby Way

St Helens

WA9 5DT

United Kingdom

Email: procurement@glass-futures.org

Region: UKD71 - East Merseyside

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