Contract

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

Glass Futures

UK7: Contract details notice - Procurement Act 2023 - view information about notice types

Notice identifier: 2025/S 000-083460
Procurement identifier (OCID): ocds-h6vhtk-05e24d (view related notices)
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Scope

Reference

GFL/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

- The University of Liverpool

Contract value

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

Above the relevant threshold

Date signed

27 November 2025

Contract dates

- 28 November 2025 to 31 March 2026
- 4 months, 3 days

Main procurement category

Services

Options

The right to additional purchases while the contract is valid.

Hosting and Support Services

CPV classifications

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

Contract locations

- UKD - North West (England)

Justification for not setting key performance indicators

Unique, one-off, short -term contract

Other information

Applicable trade agreements

- Government Procurement Agreement (GPA)

Conflicts assessment prepared/revised

Yes

Procedure

Procedure type

Direct award

Direct award justification

Prototypes and development

We have directly awarded 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 have awarded 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

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Supplier

The University of Liverpool

- Companies House: RC000660

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

Supported employment provider: No

Public service mutual: No

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Contracting authority

Glass Futures

- Public Procurement Organisation Number: PYHR-8347-NYPX

James Roby Way

St Helens

WA95DT

United Kingdom

Email: procurement@glass-futures.org

Region: UKD71 - East Merseyside

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