

Project details

Application team

Edge Hill University (Lead)

Organisation details

Type	Knowledge base
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Team members

Full name	Email	EDI survey
Michael Banford	michael.banford@edgehill.ac.uk	Complete
Marcello Trovati	trovatim@edgehill.ac.uk	Incomplete

J Wareing & Son Wrea Green Ltd

Team members

Full name	Email	EDI survey
Chris Wareing (pending for 50 days)	christopher.wareing@wareingbuildings.co.uk	Incomplete

Project delivery team

Edge Hill University (Lead)

Role	Full name	Email
Project manager	Michael Banford	michael.banford@edgehill.ac.uk
Partnership Administrator	Kaja Jedral	jedralk@edgehill.ac.uk

Role	Full name	Email
Finance contact	Kim Coker	whitehakk@edgehill.ac.uk
Knowledge base lead	Marcello Trovati	trovatim@edgehill.ac.uk
Knowledge base supervisor 1	Marcello Trovati	trovatim@edgehill.ac.uk
Knowledge base supervisor 2 (optional)	Answer yet to be provided	Answer yet to be provided
Project Secretariat	Mike Boyle	boylemi@edgehill.ac.uk
Supporting academic 1 (optional)	Answer yet to be provided	Answer yet to be provided
Supporting academic 2 (optional)	Answer yet to be provided	Answer yet to be provided
Supporting academic 3 (optional)	Answer yet to be provided	Answer yet to be provided

Supporters

Role	Full name	Email
UKRI Supporter 1 (optional)	Jonathan Abra	jonathan.abra@iuk.ktn-uk.org

Role	Full name	Email
UKRI Supporter 2 (optional)	Answer yet to be provided	Answer yet to be provided
UKRI Supporter 3 (optional)	Answer yet to be provided	Answer yet to be provided

Application details

Competition name

Knowledge transfer partnerships (KTP): 2023 to 2024 Round 4

Application name

J Wareing & Son Ltd & Edge Hill University

Project duration in months

months

Innovation area

Digital technology

Project summary

Project summary

Answer yet to be provided

Public description

Public description

Answer yet to be provided

Scope

How does your project align with the scope of this competition?

Answer yet to be provided

Application questions

1. KTP type

What type of KTP are you applying for?

classic KTP

2. Number of associates

How many associates do you need to support this project?

1 associate

3. Domain alignment

Which of the Innovate UK domains does your KTP most closely align with?

digital and technologies

4. Business partner type

What is the business partner type?

limited company

5. Virtual business

Is the business partner a virtual business?

No

6. Business partner size

Give the size of the business partner's organisation.

medium

7. Business partner SIC code

What is the business partner's Standard Industrial Code (SIC)?

411 - Construction of Buildings

8. Business partner registration number

What is the business partner's name and registration number?

J.Wareing & Son (Wrea Green) Limited

00710413

9. Partnership Details

What is the name and the full registered address of your organisation and your business partner working on the project?

Edge Hill University

St Helens Road

Ormskirk

Lancashire

L39 4QP

J.Wareing & Son (Wrea Green) Limited

Whinbrick Works

Blackpool Road

Kirkham

Preston

Lancashire

PR4 2RJ

10. What is the expected working model for the associate?

Where will the associate mainly be working?

at a business location

11. Meeting location

Where will the business partner hold the face-to-face Project Management meetings and Local Management Committee meetings?

Whinbrick Works

Blackpool Road

KirkhamPreston

Lancashire

12. Senior business employee

Who is the senior business partner employee?

Mr

Chris

Wareing

christopher.wareing@wareingbuildings.co.uk

13. Senior business employee's background

How does the experience of the senior employee at the business make them suitable for this role?

Answer yet to be provided

14. Business partner supervisor

Who is the business partner supervisor for each associate?

Answer yet to be provided

15. Business partner supervisor's background

What is the business partner supervisor's background?

Answer yet to be provided

16. Knowledge base lead's background

What is the knowledge base lead's background?

Answer yet to be provided

17. Knowledge base supervisor's background

What is the knowledge base supervisor's background?

Prof. Trovati is a Professor of Computer Science. His research is in mathematical modelling, the science of big data, including data and text mining, in a range of industrial contexts, such as in healthcare, the digital and creative industries, and agri-tech.

Prof. Trovati holds a PhD in Mathematics from the University of Exeter, is a Fellow of the Higher Education Academy and a full Member of the British Computer Society. He has previously held academic posts at the University of Derby and Coventry University.

Prof. Trovati is a member of the editorial board of the International Journal of Distributed Systems and Technology and was recently the track co-chair for Data Modelling, Visualization and Representation Tools, as part of the 5th International Conference on Emerging Internetworking, Data and Web Technologies (2016). He also recently edited Big-Data Analytics and Cloud Computing, Theory, Algorithms and Applications, to appear in the Computer Communications and Networks, Springer, 2016. Prof. Trovati acts as the Director of Studies for doctoral candidates, which includes currently supervising a collaborative PhD with a major NHS Foundation Trust, and as academic supervisor for MSc and BSc honours level dissertations. Industry supported through Edge Hill's Productivity and Innovation Centre.

Prior to entering academia, Dr Trovati worked at IBM Research for 3 years, with a dedicated focus on leading significant projects in big data, artificial intelligence and mathematical modelling.

18. Business area

What are the businesses current activities?

Established in 1909, J Wareing is a leading fabricator and constructor of steel framed buildings. Their offer ranges from standardised (kit-based) and bespoke structures which are used in many different applications from livestock buildings and stables to retail units and industrial premises. They have a particular strength and accreditation quality marks for buildings used for farming and agriculture. Their services extend across supplying basic steel frame and cladding, supplying steel structures in kit format or complete design and build packages.

In the face of increasing market pressures (for example in the sourcing of raw materials) and domestic and international competition, J Wareing continually seek opportunities to improve their productivity whilst maintaining high standards of quality and brand reputation. Their decisions to now seek to embed a step change in their data-driven capabilities, targeted at key business functions, will not only deliver operational productivity improvements to address tactical challenges, but will provide them long term absorptive capacity for embracing data-led innovation, which is already causing significant disruption in the construction sector.

19. Project funding

Demonstrate how the business plans to address the funding of this project?

J Wareing will be funding its contribution to the KTP costs via its existing operating surpluses. Budget for the KTP has already been allocated for the forthcoming years for the direct expenditure. Staff involved in the management and supervision of the KTP are fully aware of the commitments required to resource the project's success and this workload will be planned into their existing responsibilities.

The additional investments needed to undertake the project and to full commercialisation will also be funded by existing operating surpluses.

20. Future Strategic aims

What are the future strategic aims of the business partner?

The KTP is a key component in the company's medium term growth strategy and the KTP is directly expected to contribute up to £3m new revenue and £1.2m new net profit by year 5 post-KTP. This will be achieved primarily through improving the productivity of pre-sales business processes (specification and design) and sales conversation rates, and through expanding market share in the company's existing core markets.

The objective of the KTP is equipping J Wareing with new data-driven capabilities to deliver operational productivity improvements, which in turn will significantly increase the company's capacity to competitively expand its regional and national market share. A number of significant customer behaviours, market dynamics and regulatory drivers are increasing the complexity and competitiveness of the construction industry, particularly in agricultural construction. This includes, inflation in the costs of raw materials and finished manufactured products, supply chain disruption, carbon net zero targets, and new competitive market entrants. However, one of the greatest challenges is responding to disruption through data-driven and digital innovation. Like many other sectors, construction is facing widespread transformation through the implement of data-driven construction approaches to create better products, serve customers more effectively, and see increased ROI. Larger construction firms are better equipped with the capabilities and resources to exploit this, whereas many SMEs (like J Wareing) have poor use and analysis of data, incomplete planning and modelling capabilities, and a lack streamlined business processes waste time and money.

This KTP will transform J Wareing's data-driven capabilities to: improve their pre-sale design processes, reducing errors and rework; automate labour intensive business processes, particularly during quotation and design and pre-sales processes; tracking submittals throughout the project lifecycle; improve knowledge flows between internal teams and external customers or suppliers; and improve business decision making through advanced analytics (going beyond standard data management or analytics). The use of predictive analytics, machine learning, and simulation modelling are areas which will drive the most effective data-driven decisions, particularly in J Wareing's context when applied to building specification and design.

21. Use of knowledge, technology and expertise

What missing knowledge, technology or expertise does the business partner need from the knowledge base partner?

Answer yet to be provided

22. Reason for partnership

Why is an academic and business partnership the most appropriate approach for this activity?

The project will deliver and embed new knowledge and expertise in a key business function within J Wareing, acting as the catalyst to a major strategic change in their approach to new project development.

The complexities of this project mean it could not be delivered through an off-the-shelf solution, simply hiring a graduate alone, or via consultancy. A long-term partnership is required which develops a deep understanding of the strategic and operational challenges and scenarios to be addressed, working with internal stakeholders and the University's research base.

XXXX - examples of specific challenges inside J Wareing

There is strong synergy between the research of the academics and this KTP:

- Prof. Trovati's research is in mathematical modelling, machine learning, data and text mining, applied in a range of industrial contexts.
- XXXX

J Wareing engaged with Edge Hill's SME Productivity and Innovation Centre in mid-2021 to examine their strategic objectives and has created a deep shared understanding of the challenges to be addressed and the intended arising benefits. The KTP is now a continuation of this work.

23. Market opportunity and Route to market

What genuine market opportunities relating to the business case will your project open up?

Answer yet to be provided

24. Commercial Impacts

What are the likely impacts of your project?

Answer yet to be provided

25. Additional business actions and investments

What additional business actions and investments will be needed to commercialise the outputs from your project and deliver the benefits described?

Answer yet to be provided

26. Supplementary benefits

What additional benefits will be delivered as part of your project?

Answer yet to be provided

27. Associate arrangements

How will the associate or associates be supervised?

The Associate will be based and work solely at the business premises, co-located and working alongside within the design and specification team, which includes the Business Partner Supervisor. A workstation will also be available at the University if required. The Business Partner Supervisor will provide day-to-day line management of the Associate.

The Academic Supervisor will be providing a minimum half-day per week onsite supervision for the Associate and draw upon the expertise and support of the Lead and Support Academic as required in the project plan. Weekly supervision will be focussed on specific tasks and outputs and, in the early stages of the KTP, will be conducted on site. As the project progresses periods of virtual supervision will be introduced as appropriate and by agreement of both Supervisors.

The Associate and Supervisors will also meet together on a monthly basis to review progress against the project plan, the project's benefits log, expenditure, and the Associate's development needs. This provides a layer of management oversight between the LMCs.

The company and University will both provide full inductions to the Associate in the early stage of their employment to familiarise them with the relevant policies, processes, systems and support.

28. Associate's challenge

What makes this a challenging project for the associate?

Answer yet to be provided

29. Associates Skills and Attributes

In order to deliver your project successfully, what are you looking for from your associates?

The associate must possess academic or professional experience in statistical techniques for data mining, predictive modelling, and machine learning. A strong first degree and an MSc in a Computer Science discipline is essential. A relevant PhD would also be suitable. Elevated Associate employment costs are requested to attract this calibre.

The associate must demonstrate in-depth knowledge of application development using a recognized object-oriented language and web application development, plus strong understanding of information and cyber security. The associate must understand development of database systems, data mining of large data-sets, and of Extensible Markup Language. The associate must also demonstrate experience of accessible user experience design.

The associate must be able to critically analyse literature in predictive analytics, with an ability to assess trends and evaluate risks and opportunities.

The associate must have strong interpersonal and communication skills for regular liaison with stakeholders, be highly organised, and able to work to strict deadlines.

The Associate salary is benchmarked against the Tier 1 skilled worker visa going rate for programmers and software development professionals to support an overseas candidate if required.

This job market sector is intensely competitive, as is reflected in the salary requested.

30. Knowledge base partner's challenges

What challenges does the knowledge base partner have that will be addressed through this partnership?

Answer yet to be provided

31. Knowledge Base partner impacts and outcomes

What impacts and outcomes does the knowledge base partner expect to arise as a result of this partnership?

Answer yet to be provided

32. Workplan

How will you manage your project effectively?

Answer yet to be provided

33. LMC members

You must confirm that each member of the local management committee (LMC) is aware of their role and responsibility.

Yes

34. Previous business partner KTPs

Has the business partner now or ever undertaken a KTP?

No

35. Previous funding information

Have any of the partners previously received non-KTP awards that relate to this application within the last 5 years?

No

36. Joint commitment statement

The knowledge base partner and business partner must declare a commitment to work together on the project by completing our joint commitment statement template.

Answer yet to be provided

37. Potential supporters

Which funder do you want to financially support your project?

UKRI KTP (Innovate UK)

38. Supporting documents 1

You can use this question to upload up to 3 other supporting documents as appendices.

Answer yet to be provided

39. Supporting documents 2

You can use this question to upload up to 3 other supporting documents as appendices.

Answer yet to be provided

40. Declaration of accuracy

You must agree to the following declaration.

Answer yet to be provided

41. Declaration of knowledge transfer adviser approval

You must agree to the following declaration.

Answer yet to be provided

The finances of all project partners are included in this summary.

[Return to your project finances \(/application/10089006/form/section/14601/\)](/application/10089006/form/section/14601/) to complete or make changes to your organisation's financial information.

You have not marked your project finances as complete.

[Return to your project finances \(/application/10089006/form/FINANCE/\)](/application/10089006/form/FINANCE/) to complete the finance section.

This application cannot be submitted until all items in the finances section have been marked as complete by all partners.

	Total costs (£)	Funding level (%)	Funding sought (£)	Company contribution (%)	Company contribution (£)	Other funding (£)
Edge Hill University Organisation View finances (/application/10089006/form/FINANCE/65116/)	0	67.00	0	0	0	0
J Wareing & Son Wrea Green Ltd (pending)	0	0.00	0	0	0	0
Total	£0		0	0	0	0

Project costs summary

Edge Hill University	
Organisation	Cost (£)
Associate Employment	0
Associate development	0
Travel and subsistence	0
Consumables	0
Knowledge base supervisor	0
Estate	0
Additional associate support	0
Other costs	0
Total	£0

Terms and conditions

Award terms and conditions

Partner	Terms and conditions	Status
Edge Hill University (Lead)	Knowledge Transfer Partnership (KTP) (/application/10089006/form/terms-and-conditions/organisation/65116/question/35820)	Accepted

