

29 July 2025

# WEBINAR: DIATOMIC DIGITAL ACCELERATOR



**CATAPULT**  
Connected Places

**We**

# WELCOME



## Session agenda

**11:00 – 11:05** - Welcome and Housekeeping - Agathe Parois

---

**11:05 – 11:10** - Overview of Connected Places Catapult & DIATOMIC Programme - Agathe Parois

---

**11:10 – 11:15** – Overview of the Birmingham Knowledge Quarter – Catherine Hadfield

---

**11:15 – 11:20** - Overview of the Wolverhampton Green Innovation Corridor – Paul Woodcock

---

**11:20 – 11:35** – Overview of the Birmingham Knowledge Quarter Challenges – Raj Mack

---

**11:35 – 11:45** - Overview of the Green Innovation Corridor Challenges – David Heesom & Kiran Gulia

---

**11:45 – 11:55** – Overview of the Digital Twin Platform – James Bellingham

---

**11:55 – 12:05** - Application Process – Agathe Parois & Clair Petheram

---

**12:05 – 12:30** - Q&A

---

# OVERVIEW OF CONNECTED PLACES CATAPULT



**WE ARE THE UK'S INNOVATION  
ACCELERATOR FOR CITIES, TRANSPORT  
AND PLACE LEADERSHIP**

**CONNECTING  
THE MARKET**



**SPARKING INNOVATIVE TECHNOLOGY.  
ACCELERATING COMMUNITIES**

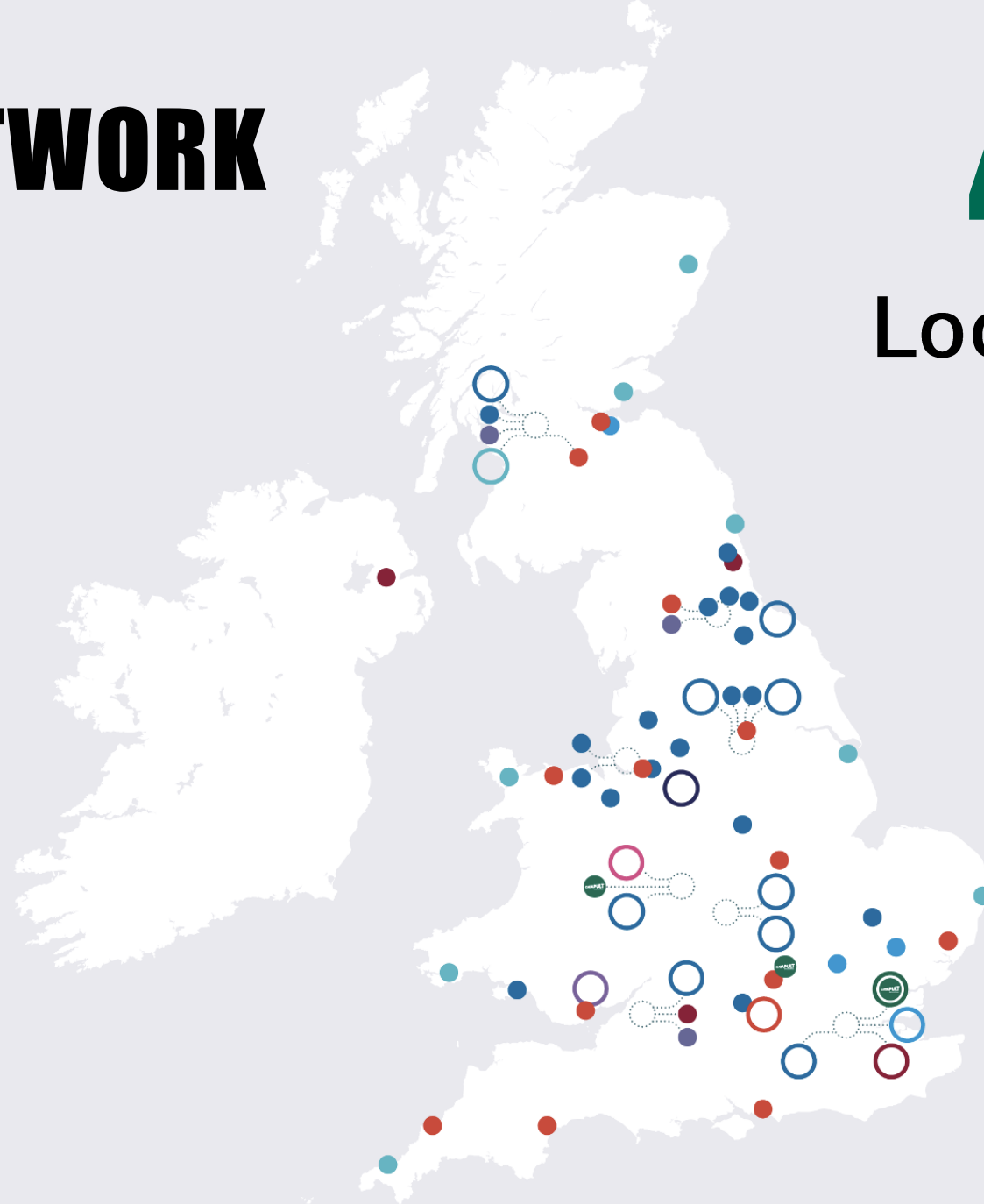
# CATAPULT NETWORK

9

Centres



- Cell and Gene Therapy
- Compound Semiconductor Applications
- Connected Places
- Digital
- Energy Systems
- High Value Manufacturing
- Medicine Discovery
- Offshore Renewable Energy
- Satellite Applications



40

Locations

1

Catapult  
Network



**CATAPULT**  
Network

# CATAPULT – ACCELERATORS



## Aviation & Airports

- Future of Air Mobility Accelerator



## Maritime

- Maritime Accelerator



## Rail & Stations

- Clean Futures
- High Speed 2 (HS2)
- Station Innovation Zone



## Roads & Networks

- National Highways – Low Carbon
- National Highways - Hazard Protection
- National Highways – Roadworks
- Freight Innovation Fund



## Integrated Infrastructure and Place Leadership

- DIATOMIC Accelerator
- DfT Rural Transport
- Local Authorities Decarbonisation

# OVERVIEW OF DIATOMIC



# DIATOMIC: DIGITAL INNOVATION TRANSFORMATIVE CHANGE



## Programme aims

The DIATOMIC programme will build the innovation capability and capacity to drive growth locally, prosperity nationally and enhance the reputation of the West Midlands globally, by creating an interdisciplinary, cross-cutting framework that will become a model for other UK regions.



Leverage the data economy



Increase spend with the social economy



Embed entrepreneurialism into society



Build international trade



Generate bilateral innovative solutions that respond to local & global challenges

# DIATOMIC STAKEHOLDERS

## Project sponsors



West Midlands Combined  
Authority



InnovateUK

## Challenge owners



Birmingham City Council

**B-KQ**

Birmingham Knowledge  
Quarter



Wolverhampton University



Wolverhampton City Council

Green Innovation Corridor

## University technical partners



Birmingham City  
University



Aston University



University  
of Birmingham

# ACCELERATOR OBJECTIVES



## Addressing challenges



To solve critical challenges faced by Birmingham Knowledge Quarter (BKQ) and Wolverhampton Green Innovation Corridor (GIC).

## Accelerating innovation



To accelerate up to 10 innovative West Midlands SMEs, offering solutions to the challenge areas. Up to 5 SMEs trialling their solutions using the Digital Twin Platform.

## Local development

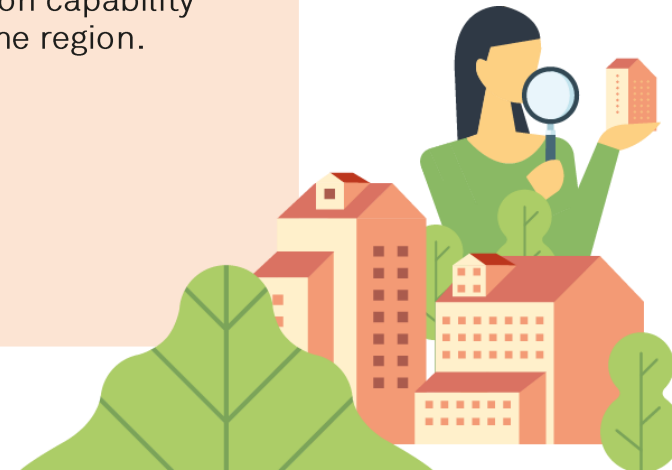


To support Birmingham City Council, Wolverhampton City Council and the BKQ /GIC partners to implement new procurement tools and methodologies that encourage them to procure more innovative solutions.

## Regional growth



To drive economic growth in the West Midlands by creating new jobs and bolstering the technology & innovation capability within the region.



# PROGRAMME STREAMS

## Technical

Technical support on both trials and overall technical development.

***Accelerating*** new products and services to market



# PROGRAMME STREAMS

## Commercial

Bespoke commercial development  
support

***Accelerating*** commercial growth and  
development





# DIATOMIC UK ACCELERATOR

## YEAR 1 IMPACT



9

SMEs  
Accelerated



9

Completed  
Trials



414

Networking  
opportunities



6

FTE Jobs  
created



1,414

Hours of  
business  
support



£238,512

of SME match  
funding



1

Patent  
approved on  
the programme



1

SME  
contracting  
with the council



£118,000

additional  
funding secured  
by SMEs



£266,000

spent by SMEs on  
R&D

OFFICIAL

# DIATOMIC INDIA ACCELERATOR

## YEAR 2 IMPACT



7

SMEs receiving  
bespoke  
support



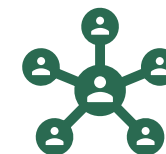
1

International  
NDA Signed



2

Market visits  
to India



65

Showcasing  
opportunities



260+

business  
networking  
opportunities



90

Investor  
Introductions



3

SMEs Increased  
TRL



1

In-market trial



800+

Hours of  
business  
support



5

Jobs created



62

International  
export  
opportunities

OFFICIAL

# OVERVIEW OF THE BIRMINGHAM KNOWLEDGE QUARTER



Download our  
prospectus:



# **BIRMINGHAM KNOWLEDGE QUARTER**

**DELIVERING A GLOBAL INNOVATION DISTRICT**



# BKQ: Delivering a new global innovation district



CURZON HS2

CITY CORE

JEWELLERY QUARTER

SNOW HILL & CBD

BCU + MILLENNIUM POINT

LANCASTER CIRCUS REDEVELOPMENT

GUN QUARTER

B'HAM - FAZELEY CANAL

CURZON WHARF

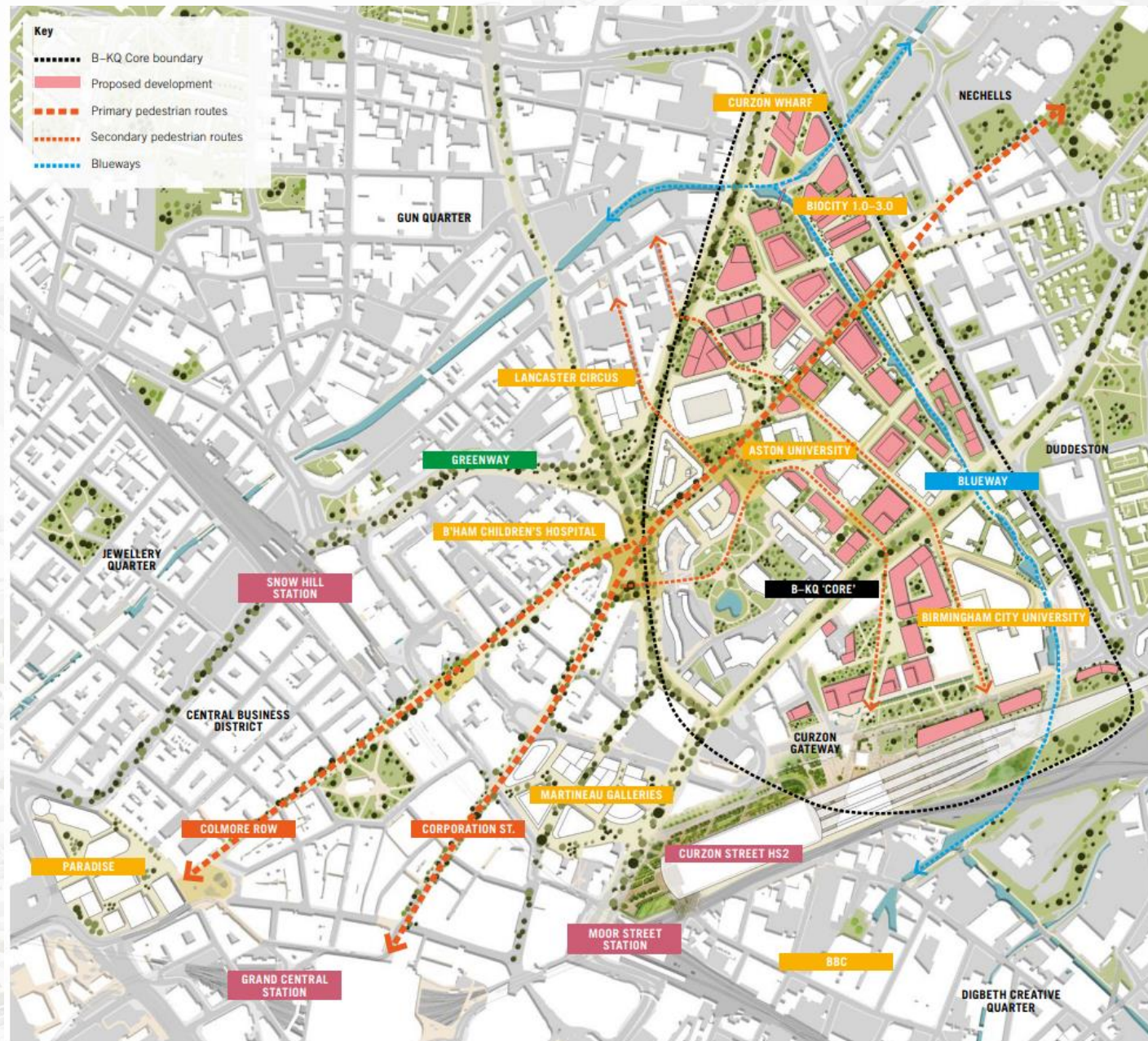
ASTON EXPRESSWAY

MIDDLEWAY

FUTURE HEARTLAND ECO-TOWN

NEW GREENWAY





# Masterplan Framework

This diagram shows a high-level spatial framework of the “BKQ-Core” site. The core is about 55 hectares and comprises 6 tax sites across Aston University, Birmingham City University, Bruntwood SciTech, and Woodbourne Group.

BKQ is focussed on **life sciences, med-tech, health-tech and digital sectors.**



# The partners



A leading university of science,  
technology and enterprise



**BIRMINGHAM CITY**  
University

A dynamic, practice-led research-inspired  
institution. Renowned for strengths in digital and  
immersive technologies, cleantech and STEAM-  
driven innovation



**Birmingham**  
City Council

Europe's largest local authority,  
representing Europe's youngest, most  
diverse urban population

**bruntwood**  
SciTech

The UK's largest provider of office, lab, scientific  
services and specialist support for the science,  
tech and innovation sectors



**WOODBOURNE**  
GROUP PLC

A leading sustainable, mixed-use developer Shaping  
Future Places, based in Birmingham

# OVERVIEW OF THE GREEN INNOVATION CORRIDOR

## Green Innovation Corridor (GIC)

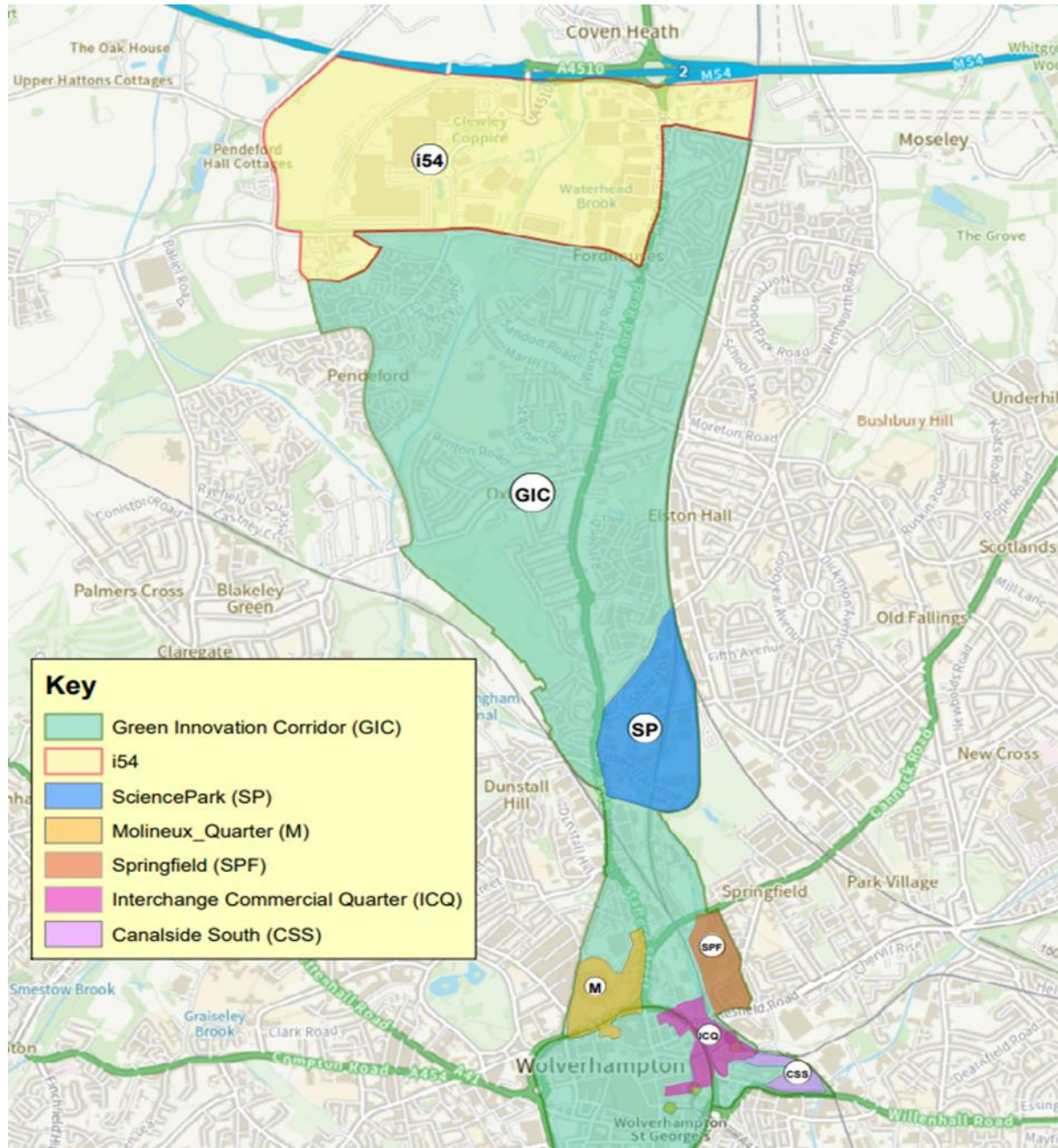
- The Green Innovation Corridor (GIC) has an ambition to be a world-leading **research-led cluster** in green technologies.
- Through a focus on **green construction, green computing and green engineering.**
- Driving a more productive, sustainable, highly skilled and innovative industry.
- Central to GIC's ecosystem is the University of Wolverhampton's assets and of course the existing business base.



[investwolverhampton.com](https://investwolverhampton.com)



The GIC goes from the **City Centre** out to the **i54**, taking in the **Springfield Campus** and the **Science Park**





# A POWERHOUSE FOR R&D

Access to internationally recognised research and expertise, such as :

- National Brownfield Institute
- Centre for Excellence for Shaped Laser Additive Manufacturing
- Centre for Cyber Resilience and Artificial Intelligence



# GIC Strengths & Assets

- Significant **Strengths and Centres of Excellence**
- **Innovative/world leading businesses** (e.g. JLR, Collins Aerospace, Moog)
- **Employment, Education, Training and Skills** strengths in key sectors
- Triple Helix **Partnership** – UoW, CWC, WMCA, Private Sector
- **Investment Zone** Status and LUF3 funding
- Strong **existing business base** with available land and buildings to grow
- **Cluster & agglomeration** from the City Centre to Springfield Campus to i54

**WOLVERHAMPTON**  
**INNOVATING** FOR  
**SUSTAINABLE**  
**GROWTH**



[investwolverhampton.com](https://investwolverhampton.com)

# OVERVIEW OF THE BIRMINGHAM KNOWLEDGE QUARTER CHALLENGES

# 1 MOBILITY & LAST MILE BIRMINGHAM KNOWLEDGE QUARTER

---

- Create interconnected green pathways and clear navigation.
- Shared urban spaces with various transport options can be complex: This area will include walking, micromobility, rail, bus, and light transit routes.
- Digital twin strategies can enhance current mobility and predict future needs:
  - **Wayfinding** – Enhancing awareness of navigation while addressing perceived and physical obstacles.
  - **Identity and sense of place** – Understanding the effects of tramways, rapid bus routes, and developments on walking and micromobility for a smooth experience in BKQ.
  - **Transport planning** – Solutions for developing new transport services.
  - **Delivery infrastructure** – Designing BKQ as a low vehicle zone, accommodating delivery vehicles, drones, and taxis.
  - **Establishing and optimising** last mile mobility modes and routes to enable interconnectivity within the BKQ and its surrounding neighbourhoods

# 2 LAND USAGE & UNDERGROUND INFRASTRUCTURE

## BIRMINGHAM KNOWLEDGE QUARTER

---

- **Decision-making when planning land usage and accelerating new developments.**
- **Underground infrastructure** includes water, electricity, gas, digital fibre and has parameters such as understanding what infrastructure is in use or defunct, as well as whether it is a public or private asset.
- **Digital twin strategies can enhance current understanding and predict future needs:**
  - **Mapping existing infrastructure** – Innovations that map and collate all underground infrastructure and land classification.
  - **Planning at speed** – Innovations which help decision making on land use, which in turn reduces cost, planning and forecasting.
  - **Better land use** – Innovations that can help when re-zoning and future developments. Could the land be used differently to deliver better impacts and outcomes?
  - Identification of potential barriers (regulatory and physical) that delay development and regeneration

# 3 DIGITAL CONNECTIVITY

## BIRMINGHAM KNOWLEDGE QUARTER

---

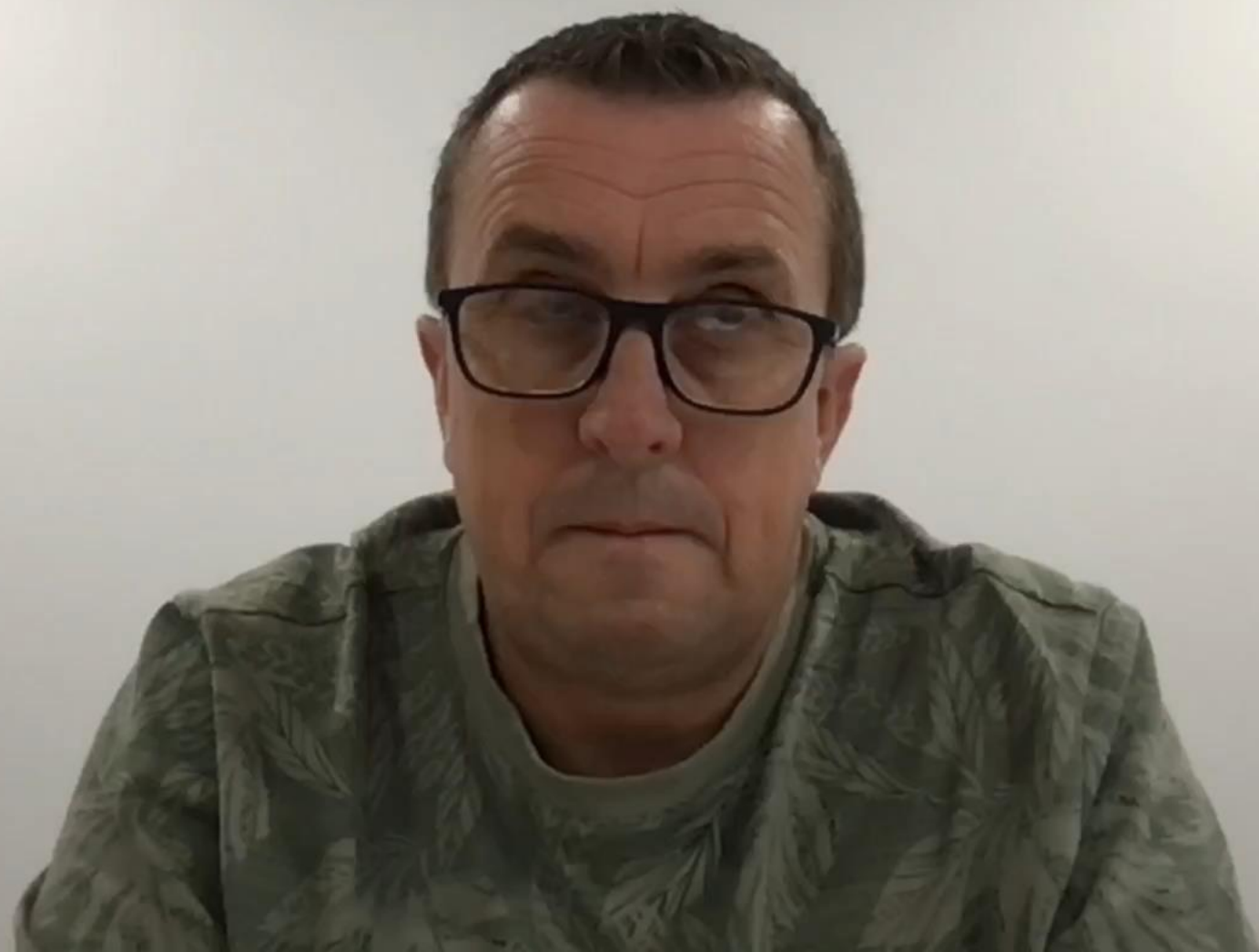
- Explore how to model and provide seamless digital connectivity in the BKQ area, ensuring a future-ready wired and wireless infrastructure.
- Urban regions often struggle with inconsistent digital connectivity due to physical barriers, network congestion, and uneven infrastructure. Planning for new connectivity assets like fibre lines, 5G towers, or public Wi-Fi nodes is complicated.
- Digital twin strategies can assist with:
  - Mapping existing wired and wireless provision – to identify inadequate provision
  - Planning for new connectivity assets, helping decide the best locations for fibre lines, 5G towers, or public Wi-Fi nodes, including whether to use building masts or external ones.
  - Ensuring a smooth digital connection experience, allowing for interoperability as users and devices transition through spaces, such as seamless shifts from 5G to Wi-Fi.
  - Addressing urban challenges where connectivity is impacted by tall buildings, high-density development, and a large number of users.

# 4 BUILDING OPTIMISATION BIRMINGHAM KNOWLEDGE QUARTER

---

- The Woodcock Building is a significant structure on Aston University's BKQ campus, designed to be a multi-purpose facility.
- The [Woodcock Street](#) facility spans 220,000 sq ft and will include:
  - [Aston Business Hub](#)
  - Aston Integrated Healthcare Hub
  - The [Green Energy Centre](#)
- Digital twin strategies can assist with:
  - **Modelling the building** – Innovations which help decisions on where to put connectivity assets such as fibre lines, 5G towers or public wi-fi nodes.
  - **Net zero, efficiency and energy** – Ensuring the building is minimising emissions and wastage while supplying energy needs.
  - **Climate resilience** – Understanding risks and possible extreme scenarios.
  - **Usage** – Analysing how people utilise the space, including design considerations for peak and low occupancy times.

# **OVERVIEW OF THE GREEN INNOVATION CORRIDOR CHALLENGES**





# 6 RENEWABLE ENERGY GREEN INNOVATION CORRIDOR

---

The Green Innovation Corridor has big ambitions to develop its renewable energy programme alongside the vast development in the area.

The four main areas it wants to focus on are:

- **Renewable energy integration in the GIC** – The GIC would like to explore new renewable energy integration to optimise renewable energy deployment, grid stability and energy storage.
- **Automating data processing** – They are seeking tools to automate data processing for areas such as predictive maintenance plans, fault detection, and how to enhance the life of the assets.
- **Risk modelling** – Innovations which undertake modelling and scenario testing to qualify the uncertainties and risks which come from scaling renewables such as grid capacity constraints, supply chain risk and regulatory changes.
- **Data reformatting** – Innovations which can look to standardise renewable energy datasets to enable integration with national digital twin programmes.

# **DIGITAL TWIN PLATFORM DEMO**

# APPLICATION PROCESS

# PROGRAMME: STAGES & KEY DATES



Scouting &  
Recruitment

17<sup>th</sup> July – 31<sup>st</sup> August



Assessment &  
Selection

3<sup>rd</sup> September – 6<sup>th</sup> October  
Interviews: 22<sup>nd</sup> – 24<sup>th</sup> September



Programme

8<sup>th</sup> October – March 2026



Impact &  
Evaluation

March 2026

# APPLICANT REQUIREMENTS

- A registered office or main operational base in the **West Midlands**.
- Be a **UK registered company**.
- Solution **preferable TRL 4+**.
- Address **at least one of the challenges** with your solution.
- Have an **innovative idea or solution** you are willing to either **develop or test** in collaboration with the partners.
- Attend **key events in person**.
- **Commitment** and willingness to engage with the programme (coaching, workshops etc).
- You can **apply to multiple challenges** by submitting several applications.



# PROGRAMME BENEFITS



Coaching and  
Mentoring



Tailored business  
support



Investment  
readiness  
programme



Access to technical  
experts



Introductions to  
potential  
customers and  
investors



Showcase /  
Networking events



Trial opportunity



Collaboration with  
programme  
partners

# TRIALS



**5**

Up to 5 SME trials  
available during  
the programme

**£100k**

Pot of £100k  
available for trials  
• Up to £20k per trial



**Oct 25**  
-  
**Mar 26**

Trial period: from  
October 2025 until  
March 2026



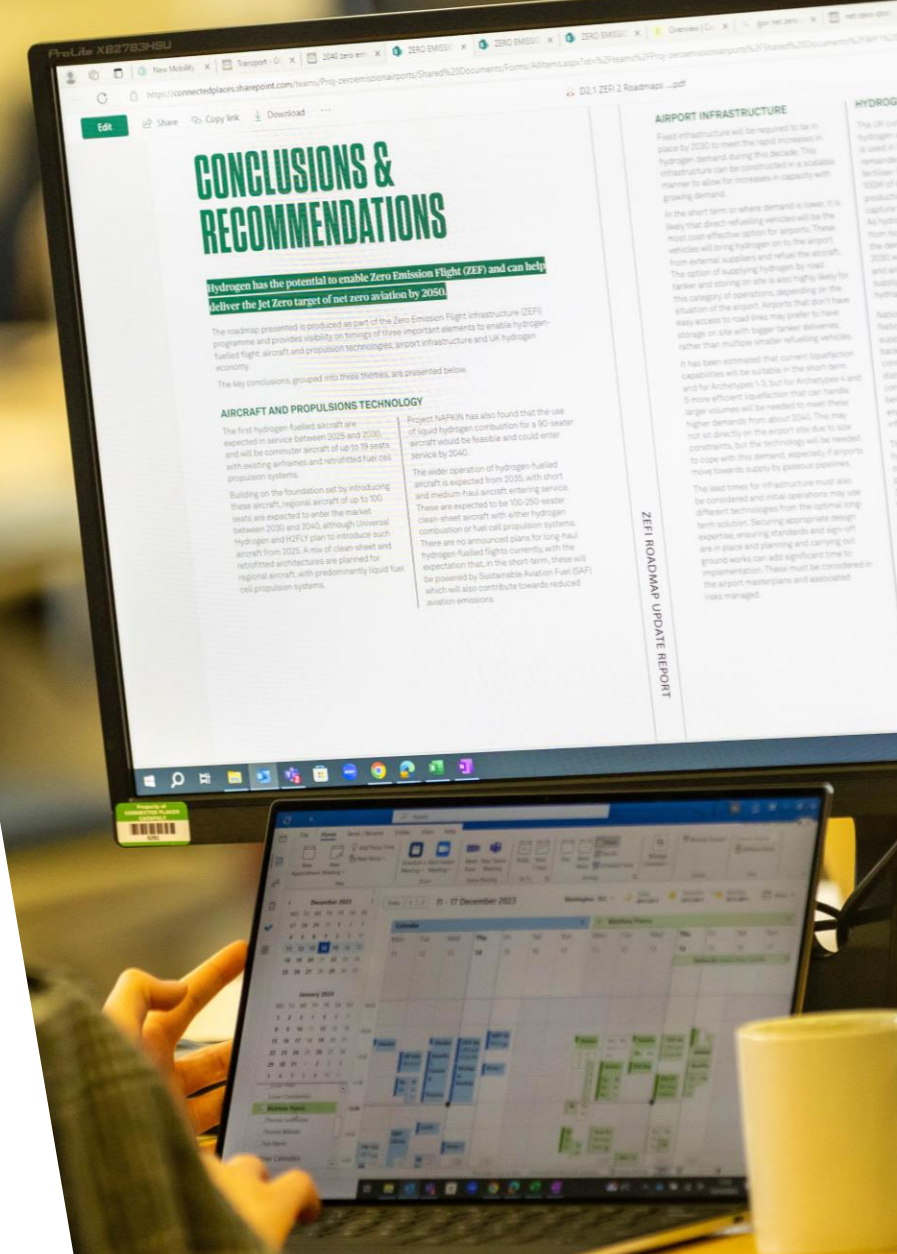
Technical expertise  
available



# SELECTION PROCESS

SELECTION IS CONDUCTED BY A PANEL OF EXPERTS

1. Application Scoring
2. Shortlisting
3. Interviews: 22<sup>nd</sup> - 24th September You will be asked to prepare slides and present as part of the interviews
4. Final Deliberation & Selection
  - We will select up to 10 SMEs
  - Up to 5 SMEs will receive trial funding





# SCORING



Solution & Innovation	25%	
Programme Fit	25%	
Trial Readiness & Feasibility	20%	
Team	15%	
Market & Traction	15%	

# SCORING



Solution & Innovation	25%	
Programme Fit	25%	
Trial Readiness & Feasibility	20%	
Team	15%	
Market & Traction	15%	

1. Demonstrates **high level of innovation** & clear USP?
2. How does **it compare with other solutions**?
3. Is the **IP** within their innovation protected?

# SCORING



Solution & Innovation

25%



Programme Fit

25%



Trial Readiness & Feasibility

20%



Team

15%



Market & Traction






15%



1. Does the Innovation have potential to **deliver high level of impact** in the challenge areas.
2. Is the **TRL (Technical Readiness Level)** within scope?
3. Evidence of **how programme participation could add value** and generate impact

# SCORING








Solution & Innovation	25%	
Programme Fit	25%	
<b>Trial Readiness &amp; Feasibility</b>	<b>20%</b>	
Team	15%	
Market & Traction	15%	

1. Is the **trial feasible** within the given programme timeframe?
2. Is the **trial detail highly articulated** with focus on key external constraints?
3. Is the **allocation of funds clear** across proposed trial?
4. Will the solution **work with existing systems**?
5. Is it clear **what datasets** will be needed / brought by the SME.

# SCORING



Solution & Innovation	25%	
Programme Fit	25%	
Trial Readiness & Feasibility	20%	
Team	15%	
Market & Traction	15%	

1. Is the team **multi-disciplinary** and has the expertise to execute?
2. Has the team demonstrated the needed **sector experience and capability**?
3. Are the team committed to the **SME full time**?
4. Has the team experience with **digital twin**?

# SCORING



Solution & Innovation

25%



Programme Fit

25%



Trial Readiness & Feasibility

20%



Team

15%



Market & Traction

15%



1. Does the SME have **market traction** demonstrating a product market fit?
2. Is the SME already **working with clients**?
3. Has the SME **generated revenue**, access to grants?
4. Has SME **delivered previous industry trials**?
5. Has the SME considered the **risks for the solution and how to mitigate them**?

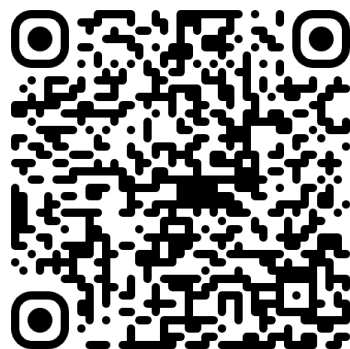
# HOW TO APPLY



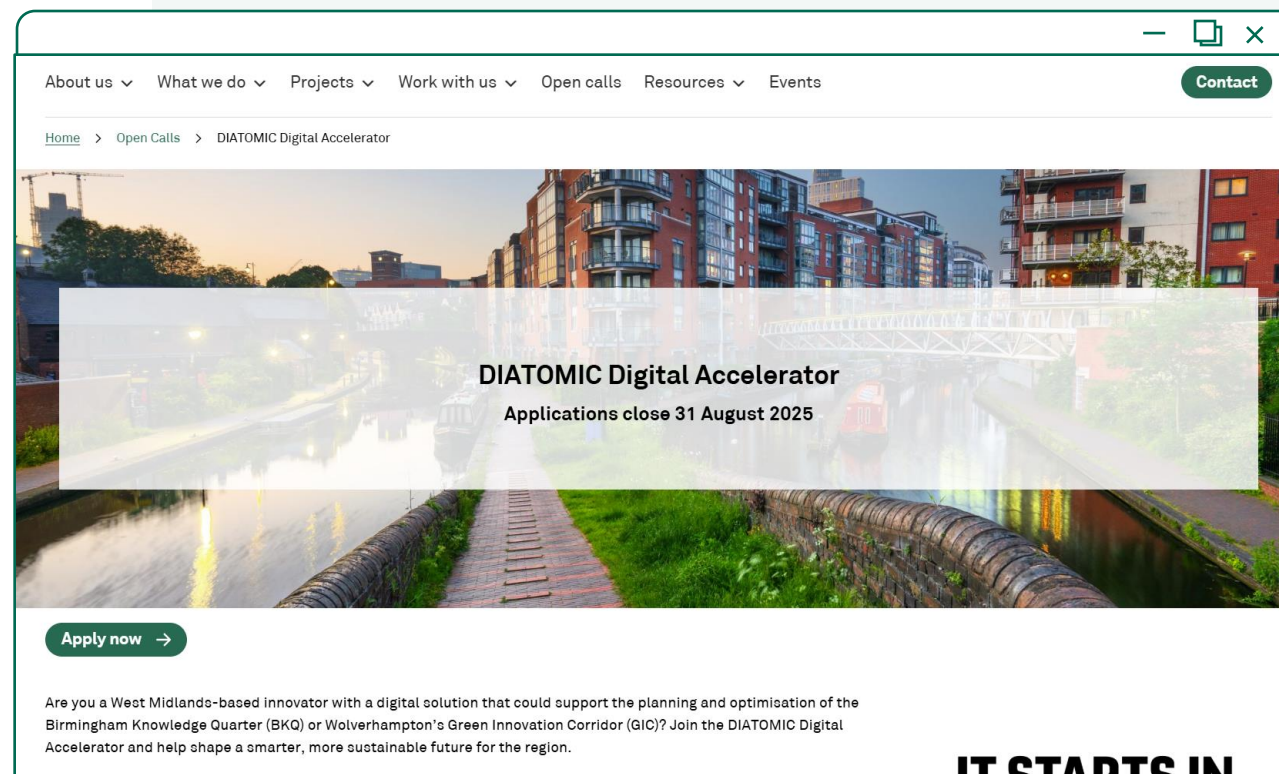
**Deadline: 31<sup>st</sup> August 11:59pm**

If you go to the Connect Places Catapult website at the following address;

<https://cp.catapult.org.uk/opportunity/diatomic-digital-accelerator/>



you will be **able to apply**, find more **information** on this programme, **case studies** from other programmes and **other Connected Places Catapult projects**.



# Q&A

**Please use the Q&A box to  
share your questions**



# CONTACT US

**Accelerator Programme  
Manager:** Agathe Parois

**Email:**

[Agathe.parois@cp.catapult.org.uk](mailto:Agathe.parois@cp.catapult.org.uk)