

# HS2



Department  
for Transport

# HS2 Accelerator 7.0

## Application Support Webinar



**CATAPULT**  
Connected Places

# Event Schedule

Time	Section	Speaker/s
10:30	Opening Remarks	Jasmine Pollock – Connected Places Catapult
10:35	Introduction to High Speed 2 (HS2)	Jonathan Kelly – HS2 Ltd Robert Cairns – HS2 Ltd
10:40	Programme Challenges	Jonathan Kelly – HS2 Ltd Robert Cairns – HS2 Ltd
10:50	Introduction to Connected Places Catapult	Jasmine Pollock – Connected Places Catapult
10:55	Programme Overview	Jasmine Pollock – Connected Places Catapult
11:05	Eligibility & Application	Jasmine Pollock – Connected Places Catapult
11:15	Q&A	

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# Introduction to High Speed 2

Jonathan Kelly – Senior Innovation Manager, HS2 Ltd

Robert Cairns – Senior Innovation Manager, HS2 Ltd



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# Britain's new high-speed railway is now being built

## Key facts

- HS2 is the **first new intercity** railway to be built north of London in **over a century**.
- **140 miles** of track, **four** new, state-of-the-art stations, **two** depots and **32 miles** of tunnel.



# Progress update

Colne Valley Viaduct, West London



'Green' Tunnel, Northamptonshire



Old Oak Common station, West London



Curzon Street, Birmingham



# Value of innovation at HS2

**385**

Completed projects

**34**

Pipeline of projects

**£1bn**

Identified savings programme wide

**£16.3m**

Portfolio spend

**24**

Live projects

**£380m**

Enabled savings in cost reduction

**1.7m TCO<sub>2</sub>**

Identified Carbon Reduction

**£318m**

Enabled savings in cost avoidance



# Accelerator success to date



25

Start-ups supported



£220m

Funding & investment



24

Pilot projects secured



2.2x

Average team size growth



20%

Female CEOs & founders



420

New jobs created for industry



16%

BAME CEOs & founders



~£20m

Baseline cost savings



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# Programme Challenges

Jonathan Kelly – Senior Innovation Manager, HS2 Ltd

Robert Cairns - Senior Innovation Manager, HS2 Ltd





# Automating Asset Management

How can we identify, monitor and manage the condition of rail assets?

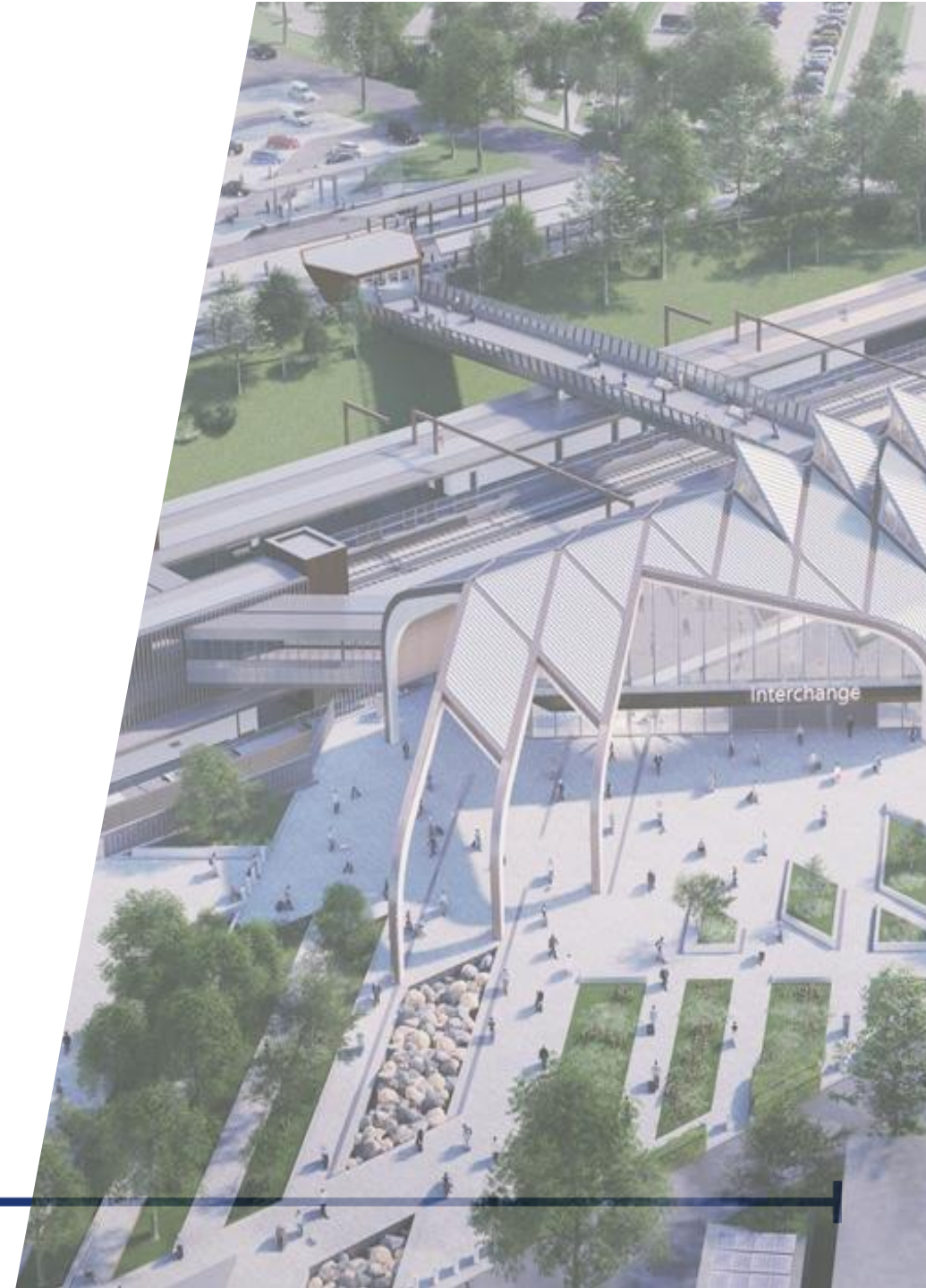
How can we ensure the integrity and accuracy of asset condition data throughout its lifecycle?



# Futureproofing Operations

How can we detect cybersecurity vulnerabilities and safeguard critical rail systems (such as signalling, telecoms, controls etc) from cyber threats?

How can we identify, monitor and prevent hazards, obstructions, unauthorised access, and trespassing in real-time?



# Maximising Site Productivity

How can we automate on-site installation and fit-out (including civils, stations and rail systems) to improve productivity and reduce risk?



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# Introduction to Connected Places Catapult

Jasmine Pollock – Accelerator Programme Manager



**CATAPULT**  
Connected Places



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

**CONNECT MARKETS**

**SPARK OPPORTUNITIES**

**ACCELERATE GROWTH**

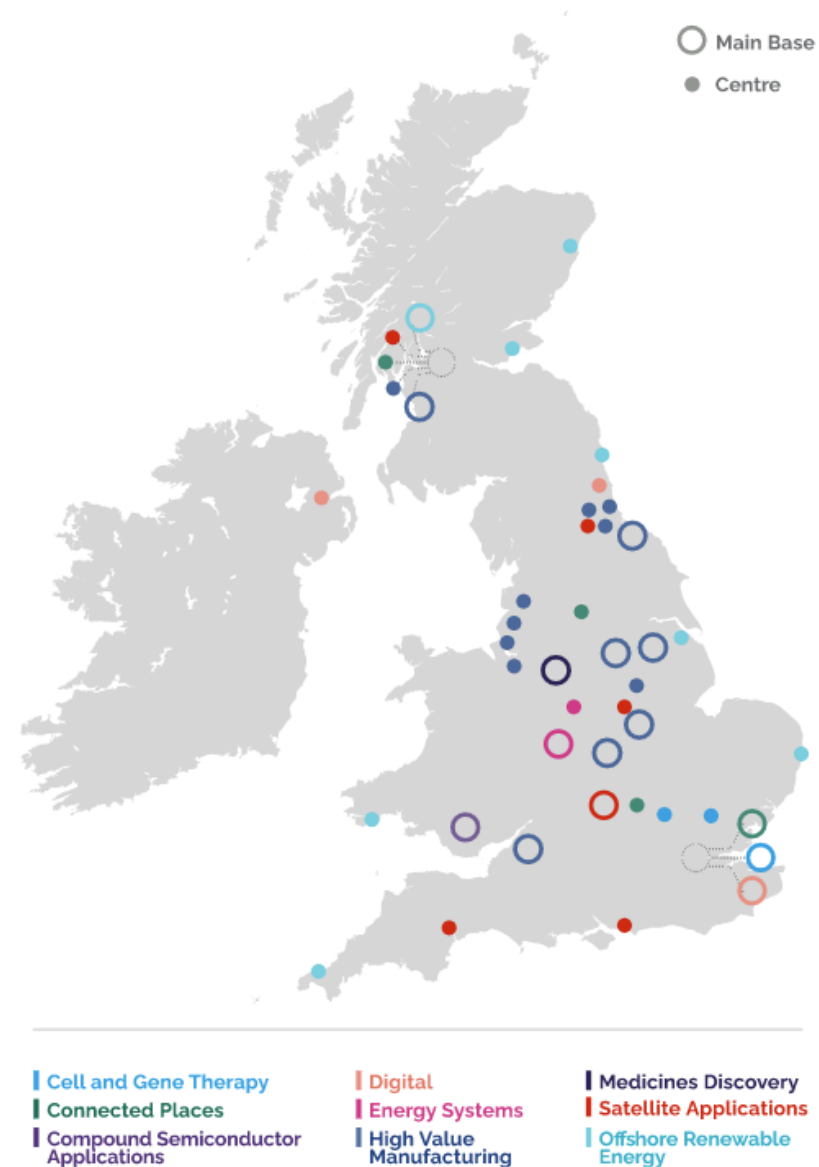


# THE CATAPULT NETWORK

## WHO ARE WE?

The Catapult Network is a collective of independent non-profit organisations transforming the UK's capability for innovation in sectors of strength.

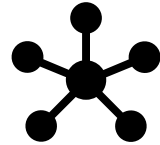
There are 9 Catapult centres in over 40 locations across the UK, with leading expertise in specific technology and/or sector domains.



# CONNECTED PLACES INNOVATION IMPERATIVES



Human  
Experience



Connected  
Intelligence



Climate  
Action

# CONNECTED PLACES MARKET VERTICALS



Rail & Stations



Air Mobility  
& Airports



Integrated  
Infrastructure



Ports &  
Maritime



Homes &  
Housing



Cities & Place  
Leadership

# CONNECTED PLACES

## ACTIVE ACCELERATOR PROGRAMMES



### Aviation & Airports

Future of Air Mobility Accelerator



### Maritime

Maritime Accelerator



### Roads & Networks

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



### Rail & Stations

Clean Futures  
High Speed 2 (HS2)  
Station Innovation Zone



### Integrated Infrastructure & Place Leadership

DIATOMIC Accelerator  
DfT Rural Transport  
DfT Decarbonisation



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# Programme Overview

Jasmine Pollock – Accelerator Programme Manager



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# Upcoming Dates



# Programme Support



# Support Timeline

## Bespoke 1-to-1 Mentorship

Procurement Readiness | Investment Readiness | Marketing & PR | Commercial Strategy

**Connect**  
with sponsors &  
stakeholders  
across HS2,  
supply chain &  
industry

**Month 1**

**Discover**  
the needs,  
challenges &  
requirements of  
sponsors &  
stakeholders

**Month 2**

**Identify**  
use cases &  
project ideas  
with sponsors &  
stakeholders

**Month 3**

**Develop**  
use cases &  
project ideas  
with sponsors &  
stakeholders

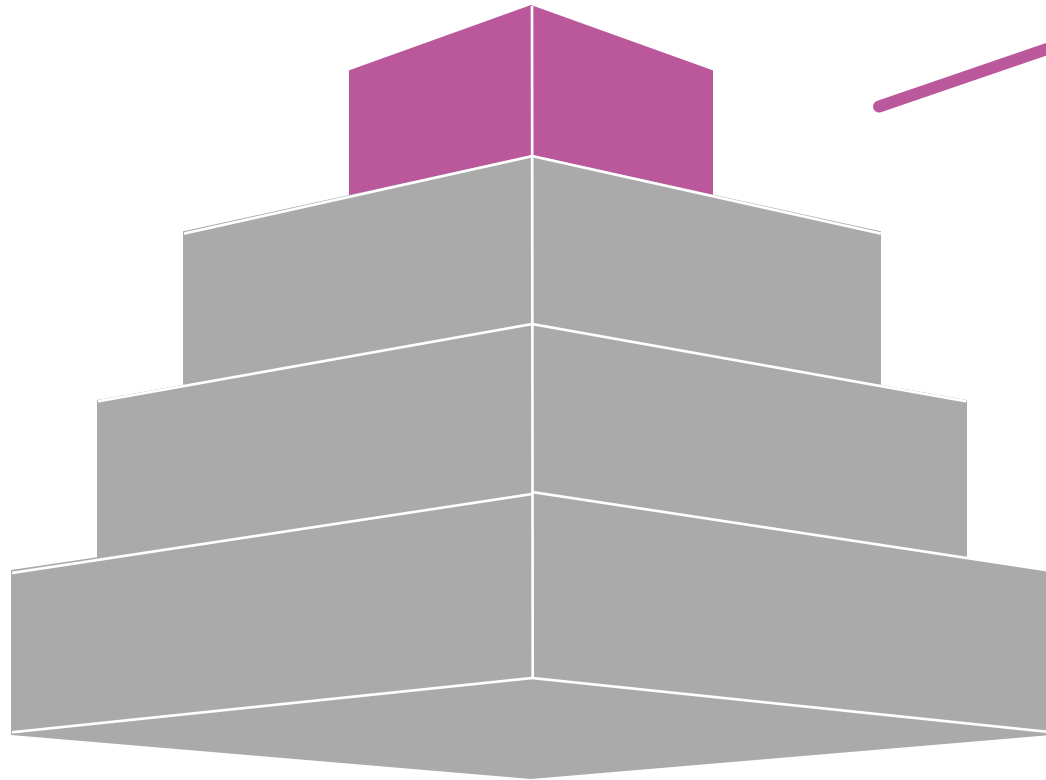
**Month 4**

**Submit**  
pilot proposal  
for funding &  
approvals by  
sponsor(s)

**Month 5**



# Programme Benefits

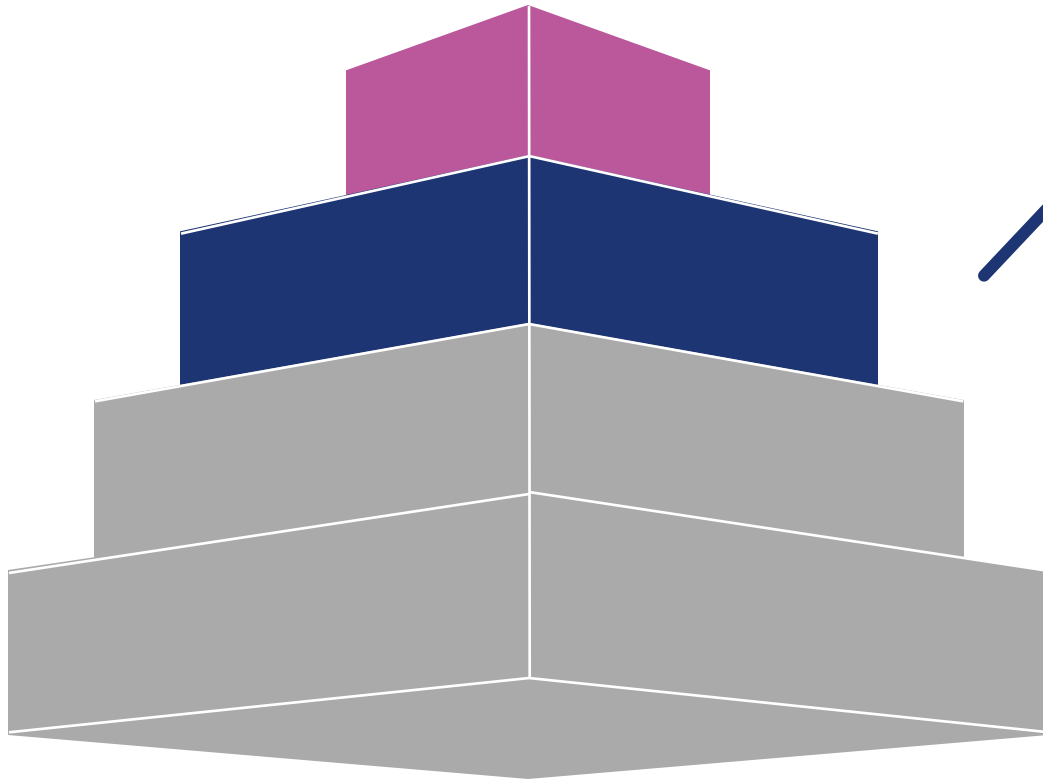


## Small Businesses

- Bolster credibility & recognition
- Explore commercial project opportunities with HS2 and wider industry
- Unlock innovation funding for proof-of-concept projects
- Build new use-cases and bolster product-market fit
- Access to industry-specific tech investors



# Programme Benefits

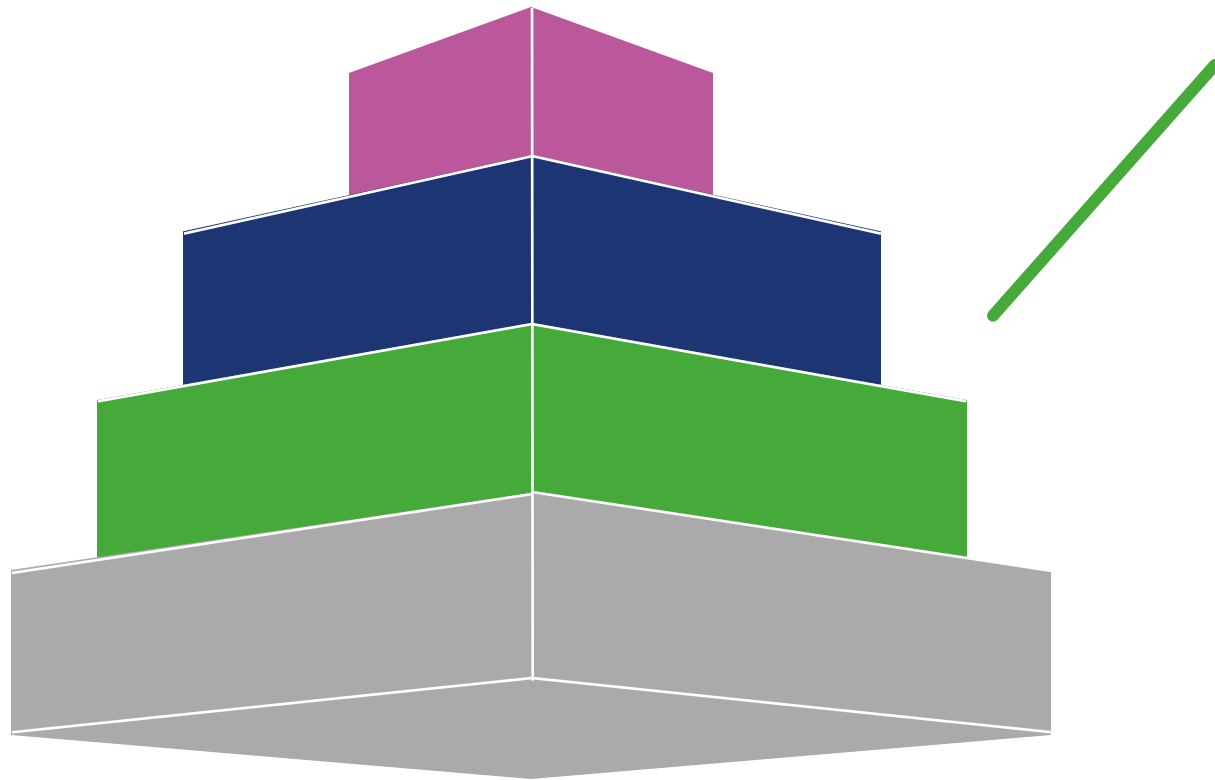


## High Speed 2 (HS2)

- Support strategic goals & innovation legacy
- Enhance project agility and derisk decision-making
- Save cost and carbon from project baseline
- Future-proofing



# Programme Benefits

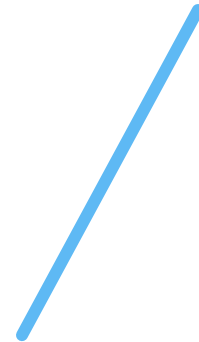
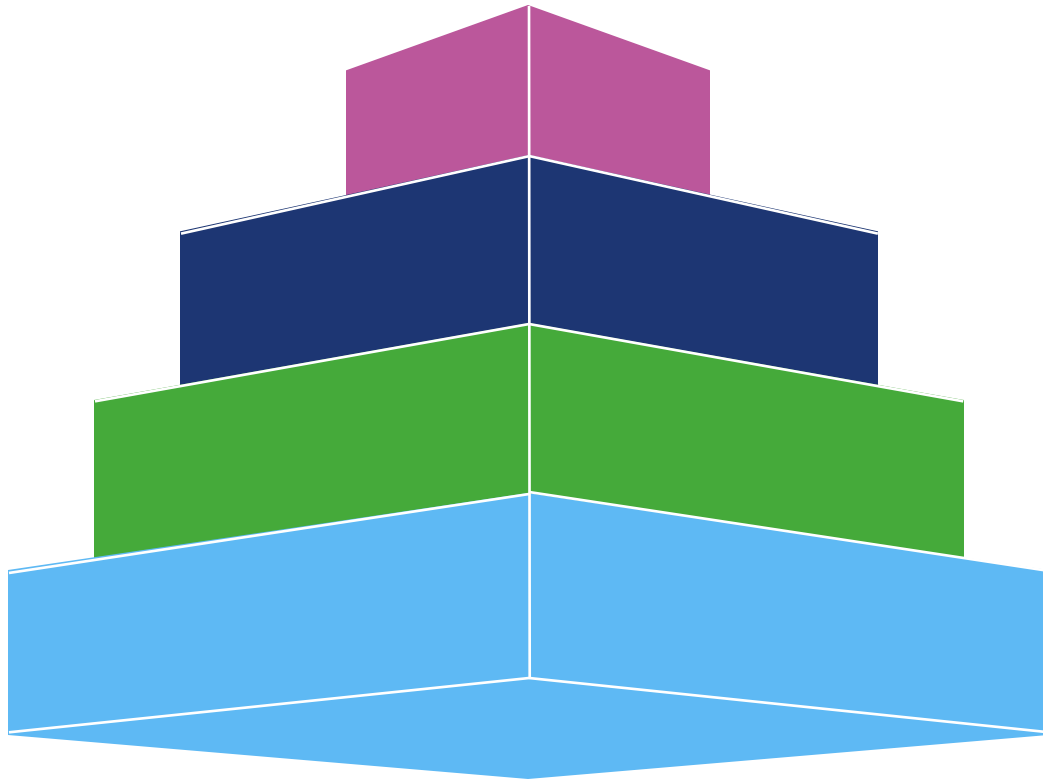


## Wider Industry

- De-risk innovative technologies and use-cases
- Collaborate on innovation projects to share learnings and value-add
- Catalyse industry step-change
- Attract new talent and new skills from future generations



# Programme Benefits



## Economy

- Cultivate entrepreneurship & innovation
- Create new jobs for future generations
- Influence policy-making to support new ways of working and emerging technologies





# Programme Success



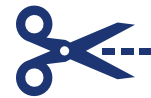
**25** start-ups supported



**400+** applications received



**24** pilot projects awarded



**£20m** baseline cost savings



**£220m** investment raised



**420** new jobs created for industry



**2.2x** average team growth



**20%** alumni with female founders / CEOs



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# Eligibility & Application

Jasmine Pollock – Accelerator Programme Manager



# Eligibility



Applicants must be a micro, small or medium-sized enterprise



Applicants must be headquartered or based within the UK or Europe



Applicants must have a solution which is technology readiness level (TRL) 5+ (This means that the solution has been tested or demonstrated in its intended environment)



# Application Questions

**FINANCIAL**

**TECHNOLOGY**

**PEOPLE**

**COMMERCIAL**

**FIT**

## **FINANCES**

- 1. Is the company profitable? Yes/No**
  - If no, how many months of financial runway does the business have?
  - If less than 6 months, how do you plan to sustain operations throughout the programme's lifespan?
- 2. Has the business ever received grant funding or investment? Yes/No**
  - If yes, please provide details including value and funder/investor.
- 3. Is the business planning to raise an investment round in the next 12-18 months? Yes/No**
  - If yes, what funding stage will this round be?
  - If yes, what will the funds be primarily used for?

# Application Questions

FINANCIAL

**TECHNOLOGY**

PEOPLE

COMMERCIAL

FIT

## TECHNOLOGY

1. Which challenge are you applying to?
  - Automating Asset Management
  - Futureproofing Operations
  - Maximising Site Productivity
2. What problem, in respect to the selected challenge, are you trying to solve and why? (150 words)
3. Please describe the solution, how it addresses the problem statement and why it is better than the current approach. (150 words)
4. How do the technical capabilities of your solution differentiate you from your competitors? (150 words)
5. What is your technology readiness level (TRL)?

# Application Questions

FINANCIAL

TECHNOLOGY

**PEOPLE**

COMMERCIAL

FIT

## **PEOPLE**

1. **What are the skills and experience of your current team?** (150 words)
  2. **What are the strengths and weaknesses of your current team?** (150 words)
  3. **How will the current team be developed or expanded in the next 12-18 months to address any weaknesses?** (150 words)
  4. **How many full time staff do you currently employ?**
  5. **Does the business operate as a consultancy firm?**
-

# Application Questions

FINANCIAL

TECHNOLOGY

PEOPLE

**COMMERCIAL**

FIT

## **COMMERCIAL**

1. **What commercial traction has the company had and what customers have been worked with to date?** (150 words)
2. **What project success has the company had and what measurable benefits have been realised for customers or partners?** (150 words)
3. **Who are your competitors and how do you differentiate from them?** (150 words)

# Application Questions

FINANCIAL

TECHNOLOGY

PEOPLE

COMMERCIAL

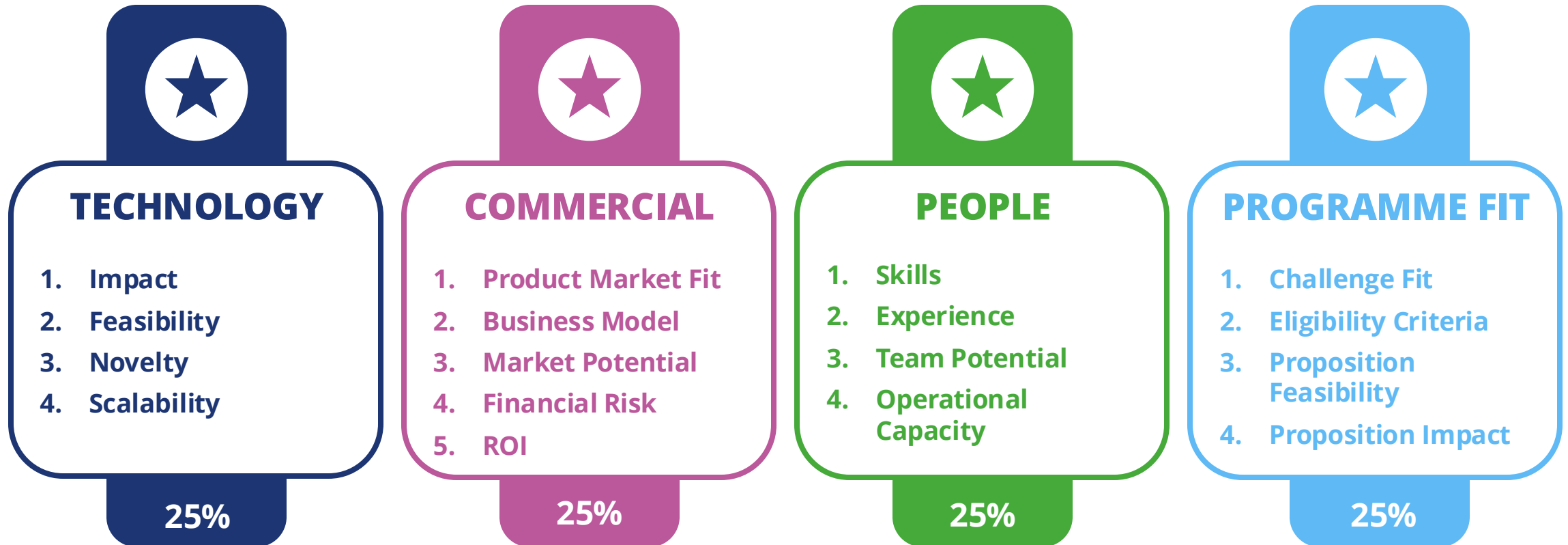
**FIT**

## **PROGRAMME FIT**

1. **What is your intended use case / proposition for HS2?** (150 words)
2. **What would be the expected benefits or value-add based on this use case / proposition, and how would you measure these?** (150 words)
3. **What are the risks, dependencies, and assumptions of this use case / proposition?** (150 words)
4. **Is the company currently on a business support programme?**
  - If yes, please specify which programme, the end date, and how you ensure you will commit adequate time and resource to this programme.
5. **Can the company commit to attending in-person activities with project stakeholders across London and Birmingham?**
6. **Does any member of the company's team (who will be involved) identify as a person with a disability or a person with accessibility needs?**



# Scoring Criteria



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Live Q&A

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