

## **BUILDING A COLLABORATIVE ACTION FRAMEWORK FOR ADDRESSING WICKED PROBLEMS IN WEST YORKSHIRE**

### **INTRODUCTION TO INGENUITY**

Ingenuity Leeds is an initiative designed to drive sustainable and inclusive innovation by bringing together organisations from across sectors to tackle complex societal challenges. Being developed at White Rose Park, South Leeds, Ingenuity's mission is to create a collaborative environment where businesses, universities, government, community groups, and other stakeholders can work together to explore, develop, and test solutions to complex challenges ('wicked problems'), driving them toward implementation and impact.

To enable this, Ingenuity is developing a novel Innovation Infrastructure as a Service (IaaS) model that will provide access to spaces, tools, and data resources designed for collaborative problem-solving. This includes a new 16,000 sq ft innovation hub (2026), 27-acre 5G Internet of Things testbed for real-world trials, digital twin for data-driven modelling, and data centre with novel carbon capture to power analytical work (all in 2025). Equitable Access to this innovation infrastructure will be via a portfolio of bespoke programmes co-developed with partners:

- **Future Innovators** – inspiring 100,000 young innovators by 2025 through access to resources, mentorship, and hands-on opportunities (cornerstone programme)
- **Startup Launchpad** – early-stage ventures needing foundational support, workspace, and networking to start and grow
- **Scale-Up Accelerator** – established businesses looking to optimise, refine, and expand into new markets
- **Enterprise Suite** – large enterprises requiring collaborative spaces, R&D support, and showcase opportunities
- **Research Insights** – researchers seeking access to advanced facilities, specialised data, and collaboration.
- **Government Partnership** – government bodies aiming to tackle societal challenges through shared resources and joint projects.

### **WHY ARE WE ASKING THE UNIVERSITY OF LEEDS TO WORK ON THIS CHALLENGE?**

Universities are essential players in today's innovation ecosystems, particularly when it comes to tackling complex societal challenges that require cross-sector collaboration. Universities bring the following strengths to this role:

- **Interdisciplinary research and evidence-based insight**  
Universities conduct advanced research across disciplines, from STEM to social sciences, providing data, insights, and expertise critical to addressing multi-dimensional challenges. Their work not only enhances understanding of complex issues but also grounds collaborative efforts in evidence-based, mission-led approaches. For instance, university-led initiatives like Y-PERN (Yorkshire and Humber Policy Engagement and Research Network) and LPIP (Local Policy Innovation Partnerships) have connected academic experts with policymakers, creating a foundation of insights into regional inequalities and economic development. This challenge builds on these efforts, moving from insight to structured, mission-driven solutions with measurable, long-term impact.
- **Neutral facilitation and convening power**  
With established networks across government, industry, and community sectors, universities are trusted facilitators of collaboration. This neutral position allows them to convene diverse stakeholders to create balanced and effective partnerships that tackle challenges holistically. The Combined Authority's has interest in piloting with the University of Leeds a collaborative innovation process to address complex societal challenges adds momentum and support to this mission-led, systems-thinking approach. By leveraging this local backing, the University can drive an innovation process that translates research into actionable, impactful solutions.

- **Insight generation, systems thinking, and testing**

Universities excel in systems thinking and mission-driven methodologies, making them well-suited to structure collaborative efforts that address societal challenges holistically. Through research trials, pilot projects, and data analysis, universities generate insights that inform practical, adaptable solutions. Their role extends beyond insight generation, encompassing the development of frameworks that enable continuous improvement and impact. By building on initiatives like Y-PERN and LPIP, this challenge enables universities to not only produce research but also design a mission-led approach that systematically transforms these insights into real-world change.

### **CHALLENGE OVERVIEW**

Participants are invited to develop an action framework for collaborative innovation aimed at addressing complex, wicked problems impacting West Yorkshire. These wicked problems, such as climate resilience, health inequalities, and digital inclusion, are multi-dimensional, demanding coordinated efforts across sectors. This challenge centres on creating a flexible, strategic framework that empowers stakeholders to engage in sustained, effective collaboration, transforming research insights into practical, impactful solutions and establishing a foundation for lasting change.

An action framework provides a structured blueprint for organising collaboration, outlining essential elements and steps to foster innovation without prescribing a single solution. This is the primary challenge: to design a framework that enables diverse stakeholders to work together and adapt strategies to specific needs and dynamics. To help develop your framework, you may choose to focus on a particular issue as a practical context. This focus can help illustrate how the framework can define roles, action steps, and pathways to achieve measurable impact.

This is an opportunity to shape how West Yorkshire's innovation ecosystem tackles some of its most pressing challenges. The action framework you develop here could serve as a model for ongoing, collaborative problem-solving in the region, helping practical solutions emerge from research insights and creating a pathway for scalable, future-oriented innovations.

### **CONSIDERATIONS FOR DEVELOPING THE SOLUTION**

The core challenge is to create an action framework for collaborative innovation that effectively engages diverse stakeholders in addressing complex, wicked problems in West Yorkshire. To shape your framework, you may choose to focus on a specific challenge as a practical context. This focus can help structure actions, refine approaches, and make your framework adaptable to real-world applications. Below are considerations to guide your development process:

- **Define the chosen challenge in practical terms (optional).**  
If you decide to work within a specific challenge area, clearly define the issue. For example, within climate resilience, you might focus on community adaptation or infrastructure resilience. This clarity can ground your framework and help you design actionable steps.
- **Structure with overarching and sub-challenges.**  
Complex issues often benefit from being broken into smaller, manageable components. Identifying overarching goals alongside specific sub-challenges helps clarify the scope and roles within the framework, supporting a feasible, structured approach.
- **Engage key stakeholders and define roles.**  
Consider stakeholders relevant to collaborative innovation in West Yorkshire—such as government, industry, academic researchers, community groups, and funders. Define how you would bring these groups together, establish roles, and foster shared ownership.
- **Ensure 'downstream pull' for implementation and impact.**  
Reflect on how the framework will convert research insights into sustainable change. Identify potential champions or sponsors who can support implementation, ensuring solutions are tested, refined, and scalable.

- **Prototype and test adaptively.**

Consider piloting your framework on a small scale to allow for iterative improvements. Focusing on a specific challenge can provide a practical testing ground, offering feedback and insights that make the framework more adaptable and effective.

**EVALUATION CRITERIA (OPTIONAL IF NOT JUDGING)**

Your proposed approach will be evaluated based on the following criteria, though you are encouraged to interpret and define success in a way that aligns with your unique approach:

- **Practicality and feasibility** – is the approach realistic and adaptable within West Yorkshire's innovation ecosystem?
- **Adaptability and scalability** – can the approach be applied across multiple challenges and scaled to address other complex issues in the future?
- **Stakeholder integration** – does the solution effectively bring together stakeholders from different sectors to collaborate routinely and impactfully?
- **Alignment with Ingenuity's mission** – does the solution support Ingenuity's mission to drive inclusive, sustainable innovation while fostering new ways of working across the region?

For further information or assistance, please reach out to us:

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