



Centre of Excellence  
for Decarbonising Roads

# Knowledge Bank Overview

17<sup>th</sup> September



Department  
for Transport

ADEPT

**LIVELABS2**  
Decarbonising Local Roads



**NORTH  
LANARKSHIRE  
COUNCIL**



Transport for  
West Midlands

**Amey**



WE OPEN THE WAY



**Introduction to CEDR and the  
Knowledge Bank**



**Journey So Far**



**Demonstration**



**Feedback and Discussion**

# Purpose of the Session

Getting early feedback  
from our trusted 'critical  
friends' to support the  
development

# Introduction

**A Live Labs 2 theme - paving the way to a low-carbon future through material innovation and collaboration across the highways and local roads sector.**

Delivered by North Lanarkshire Council and Transport for West Midlands, in partnership with Amey and Colas



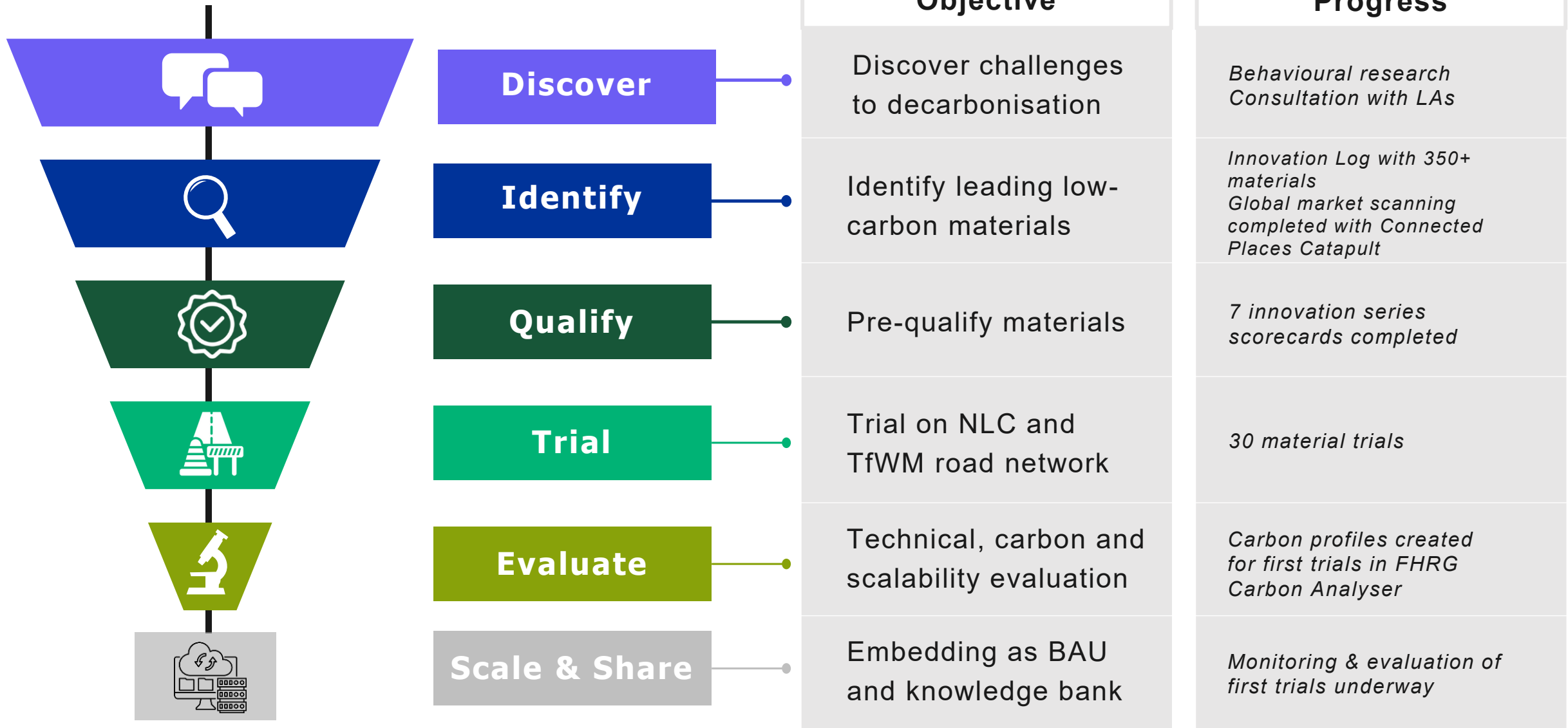
Aims to reduce siloed working and encourage low-carbon material adoption



Supported by live testbeds and knowledge bank for LAs



# The Innovation Funnel



# Intention of the knowledge bank

Evidence base for local authority innovation and excellence across the UK

Comprehensive menu of options, with carbon, cost and performance consistently measured

## Featured Case Studies

Discover sustainable road construction materials that reduce environmental impact while ensuring durability and safety.

- BEAR's Bio-Binders**  
Weatherline Plus | CarbonSink, [-0]  
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore...
- In-situ Recycling and Warm-Mix in Clackmannanshire**  
Weatherline Plus | CarbonSink, [-1]  
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore...
- Biogenic Binders in Lancashire**  
Shell Bitumen | CarbonSink, [-2]  
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- In-situ Recycling and Warm-Mix in Clackmannanshire**  
Weatherline Plus | CarbonSink, [-4]  
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- Biogenic Binders in Lancashire**  
Shell Bitumen | CarbonSink, [-6]  
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Peer reviews and culture of local authority collaboration

The screenshot shows the 'Materials' section of the Centre of Excellence website. It features a grid of material options, each with a thumbnail image, a title, a brief description, and key metrics: '12 USER RATINGS' (represented by stars), 'CARBON' (represented by a circle with a dot), and 'COST' (represented by a series of 'E' characters). The materials listed include SuperLow Carbon Bitumen, Foamix, Polymer-Modified Bitumen, Recycled Aggregate, and Graphene-enhanced asphalt (GI-Pave). Each material has an 'Add to Compare' button.

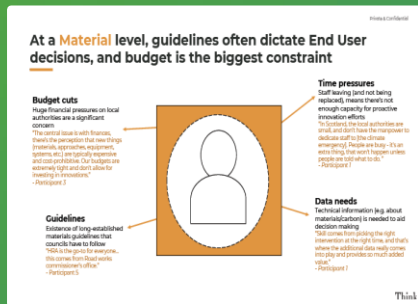
The screenshot shows the 'SuperLow Carbon Bitumen' product page. It includes a header with the product name and a brief description. Below this, there are sections for 'Considerations' (Carbon Negative, Warm Mix, Highly Workable), 'Images' (showing the material being applied), 'Carbon Impact' (with a table of carbon costs), and 'Reviews' (showing user feedback and ratings). The 'Carbon Impact' table is as follows:

A1 to A3 Carbon Cost / unit	A5 Default Carbon Cost / unit	Sequestered Carbon / unit
A1 Carbon cost per unit A2 Carbon cost per unit A3 Carbon cost per unit	A5 Carbon cost per unit	A1 Carbon cost per unit



# Journey so Far

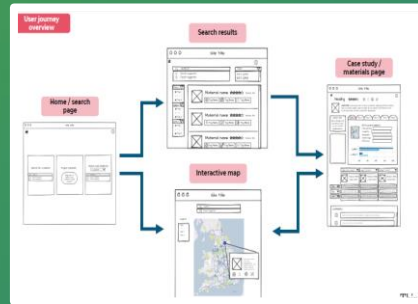
1



## End-User Requirements

Working with Thinks Insight, we conducted behavioural research with 10 LAs across the country to assess challenges and initial design prototypes

2



## High-level wireframes

Early-stage wireframes and End-User Requirements presented to suppliers

3



## IT options appraisal and onboarding

Three top suppliers rated against key criteria, and top supplier (Microsoft with Transparency) were onboarded

4



## Design and development

In-depth designs, development and UAT testing over the last 5 months

# Website demo



# What's Next for the Knowledge Bank



## Minor edits

- **Minor feature editing / addition**
- **Fixing any bugs**
- **Data cleanse and input**



## Launch

- **Launch event and webinar at the end of September**
- **LinkedIn campaign**
- **Press release**



## Phase 2

- **Based on your feedback, prioritisation of additional features such as:**
  - **AI**
  - **Mix design tool**



# Questions & Discussion