



# Centre of Excellence for Decarbonising Roads

**South Campus Carbon Case**  
*25<sup>th</sup> September 2023*

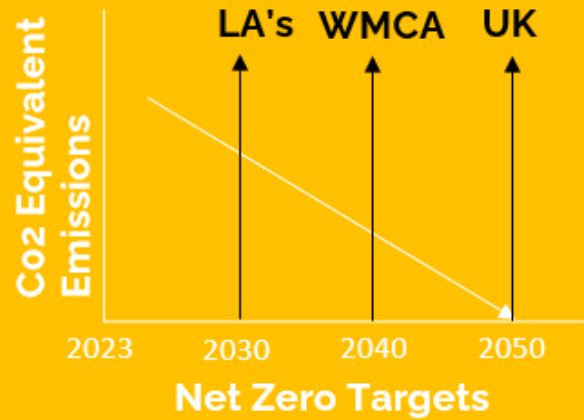




### Problem 1 - Silo'd Innovation



### Problem 2 - Net Zero Targets



Why?



## Materials Innovation



Innovation Funnel supported by an Expert Group



Demonstrator Trials



Online Knowledge Bank

HOW?

# Carbon Tools

**Carbon Baselineing  
Experimental Profiles**

**FHRG Carbon Analyser**



**Lifecycle Analysis**

**OneClick LCA**

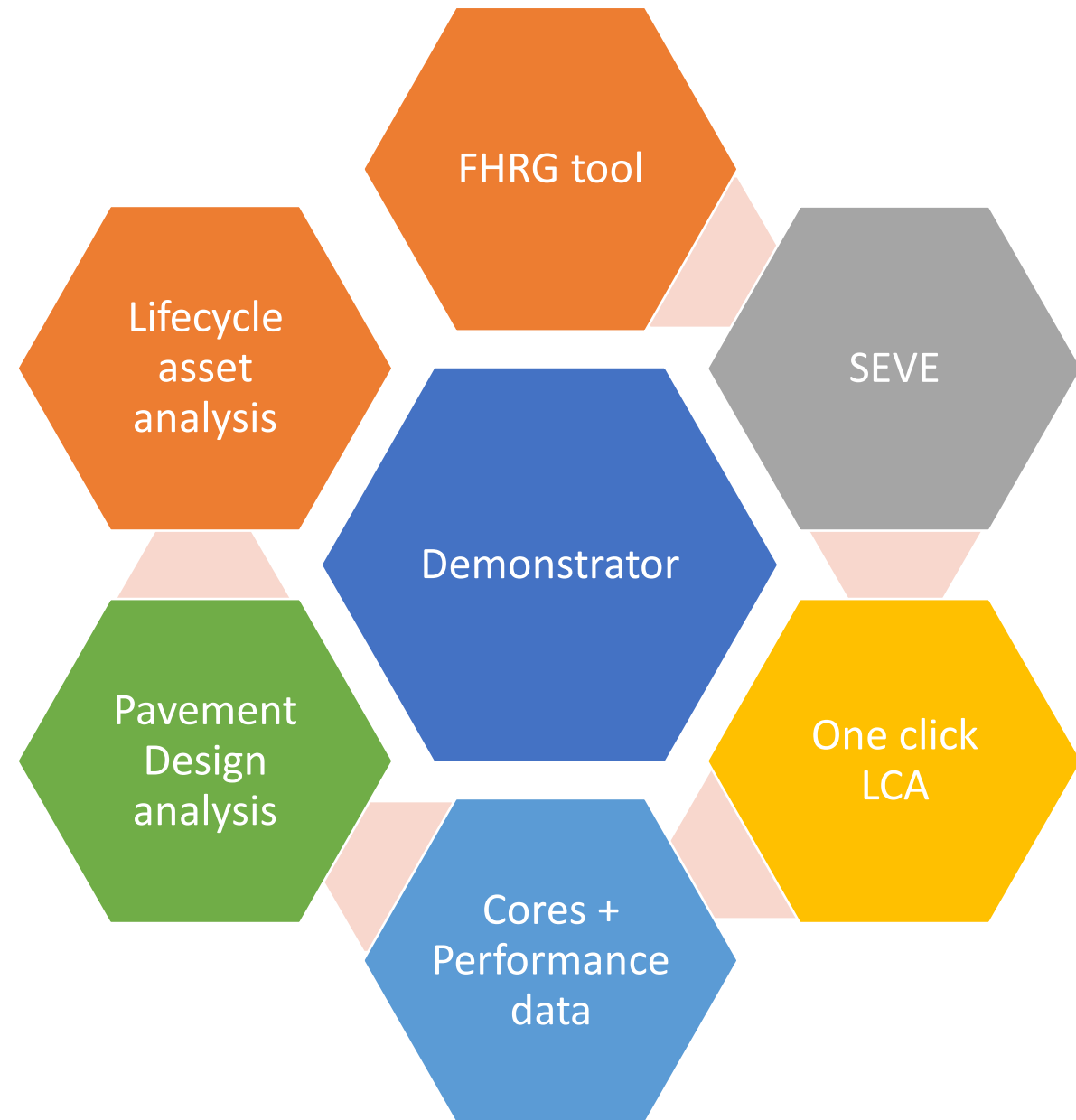


**Discrete scheme-based  
comparison tool**

**SEVE**

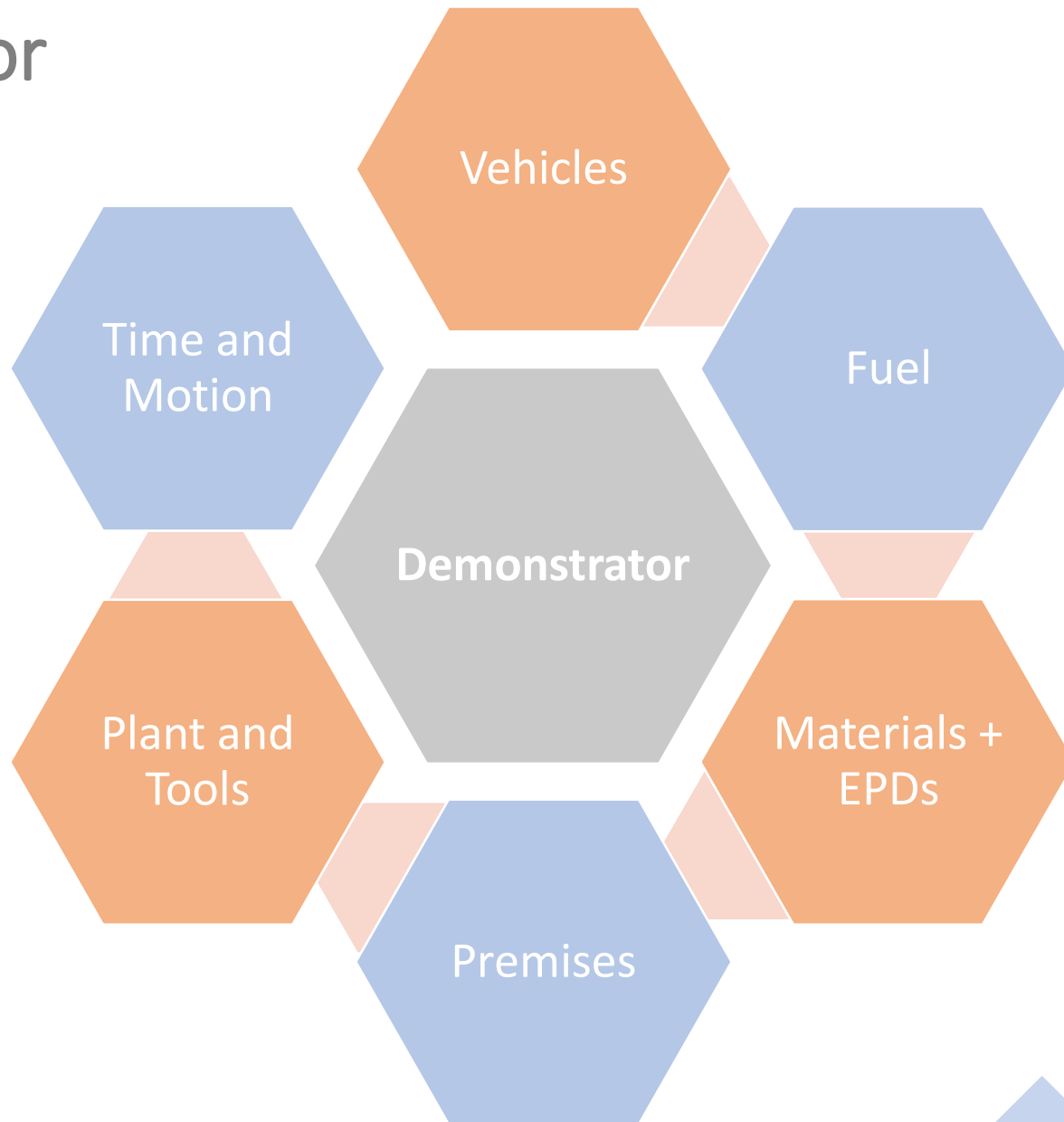


# Programme Evaluation



# Demonstrator Evaluation

Side by Side baselining



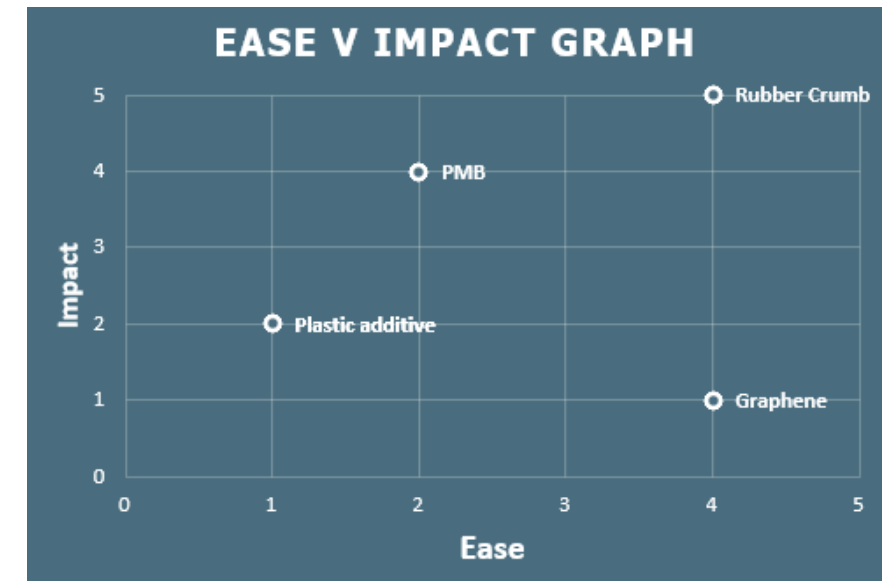
Hypothetical baselines

# Innovation Scorecard

- Pre-evaluation scorecard being developed
- A Scorecard for each innovation
- Scores are then collected
- Materials placed on an ease/impact matrix
- Simply an empirical measure – not definitive

Area	Weighting
<b>Strategic Alignment - Impact</b>	
How well does it fit the Centre's objectives?	50
Does the innovation support a reduction in whole life carbon?	100
Rolling Resistance - scope 3 etc road users	20
Is it future-proofed for climate change resiliency?	25
<b>Technical - Ease</b>	
How is the technical performance of the innovation?	100
Do we have the capabilities to deliver this innovation or solution?	50
<b>Standards and Specifications - Ease</b>	
Does it match the standards and specifications?	50
<b>Scalability and Adoptability - Ease</b>	
How scalable is this innovation?	50
How applicable is this innovation to different road classes?	25
How easy is the innovation to transfer and adopt?	50
<b>Value for Money - Impact</b>	
Could this represent good Value for Money compared to the existing standard?	25
Will the trial of this innovation represent good Value for Money for the programme?	25
Is the future cost model sustainable?	25

Innovation Name	The Centre's Scorecard										
	Ease	Impact	Strategic Alignment	Scalability & Adoptability	Standards & Specs	Value for Money	Social Impact	Technical	Uniqueness	Risk & Safety	Total Score
Plastic additive	1	2	2	5	1	3	15	7	9	5	4
PMB	2	4	3	5	8	9	6	1	2	7	2
Graphene	4	1	3	4	9	5	7	4	6	3	2
Rubber Crumb	4	5	2	4	5	6	10	15	1	3	3



# Carbon Baseline Progress

Roadshow completed in 5 LA's with focus on carbon data collection.

Identified schedule of functions and activities to include within the carbon reporting boundary for 5 of the 7 LAs

Identified functions and activities where a detailed activity-based analysis will be taken.

The responsible party for reporting carbon for each function/activity to be assessed has been identified and agreed.

Carbon baselining completed for one LA and data collection in progress for 4 LA's.