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Association of Directors of Environment, Economy, Planning & Transport

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PART OF TRANSPORT NETWORK

Live Labs II: Carbon Assessments

Future Highways Research Group



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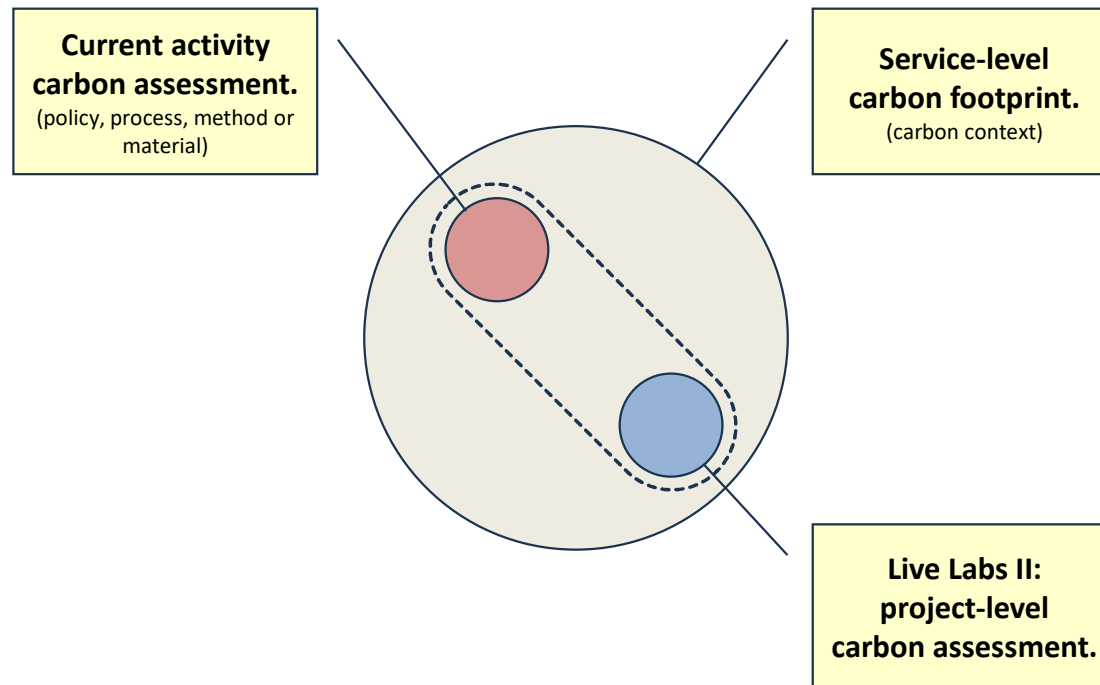
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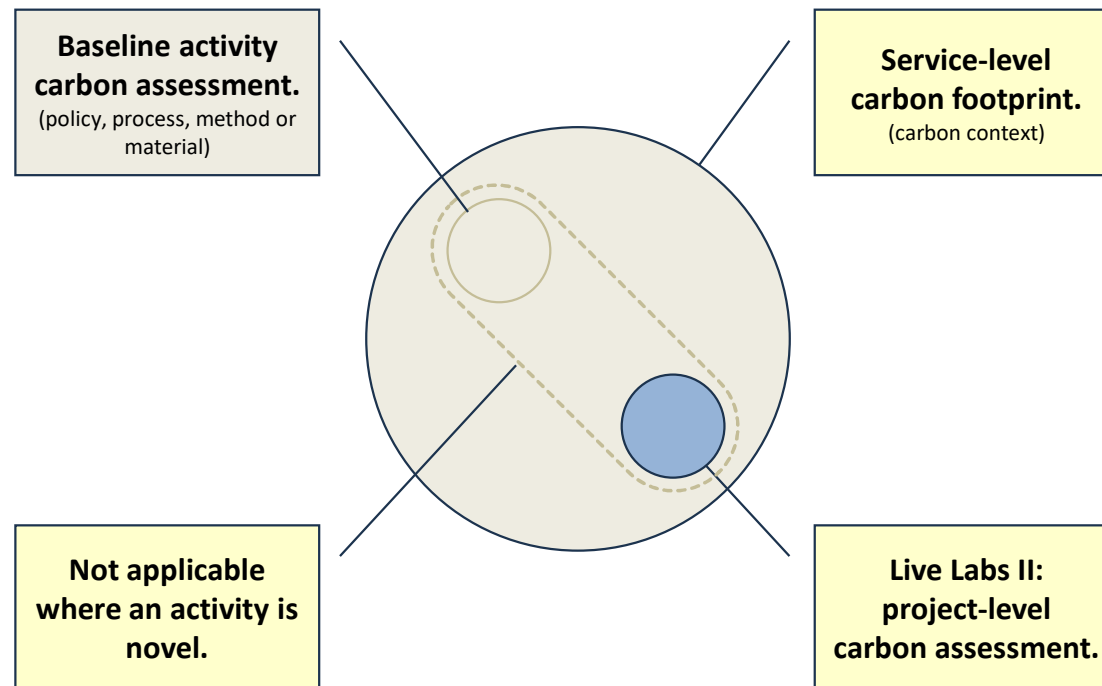
Overview

Live Labs II

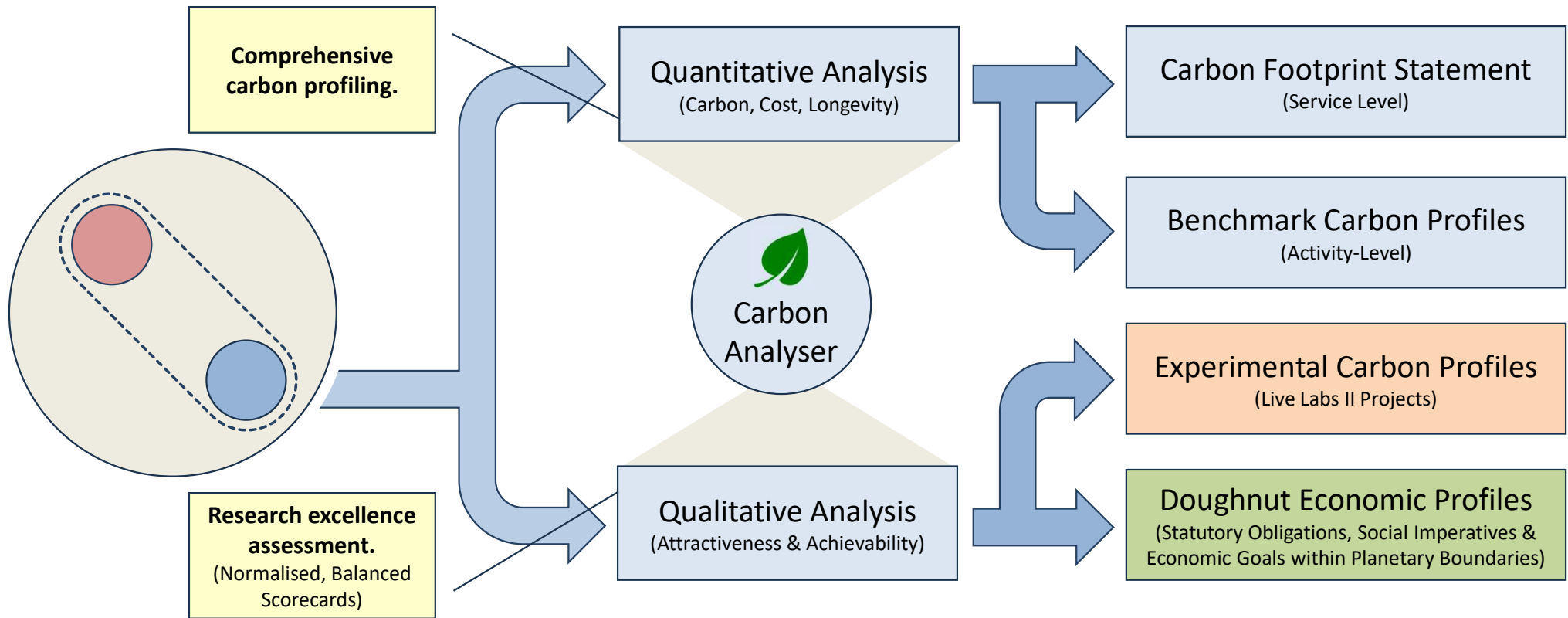
Live Labs II: Carbon Assessments



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Live Labs II: Carbon Assessments



Live Labs II: Scorecards for DE and Innovations

Research Excellence Assurance Example



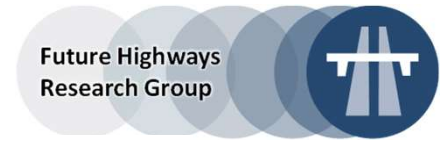
Attractiveness Analysis

- Strategic Alignment & Contribution
- Whole Lifecycle Carbon Profile (Aligned With EN15978 Modules)
- Weighted Benefits & Dis-Benefits Analysis
 - Class #1 & #2 HM Treasury Benefits)
- Doughnut Economic Modelling
- Wider Sector Benefits
- Constraints Analysis (Costs, Timescales & Resources)
- Scalability & Flexibility
- Consistency & Coherence
- Providers & Partners (Readiness & Capacity)
- Stakeholder Support & Sponsorship

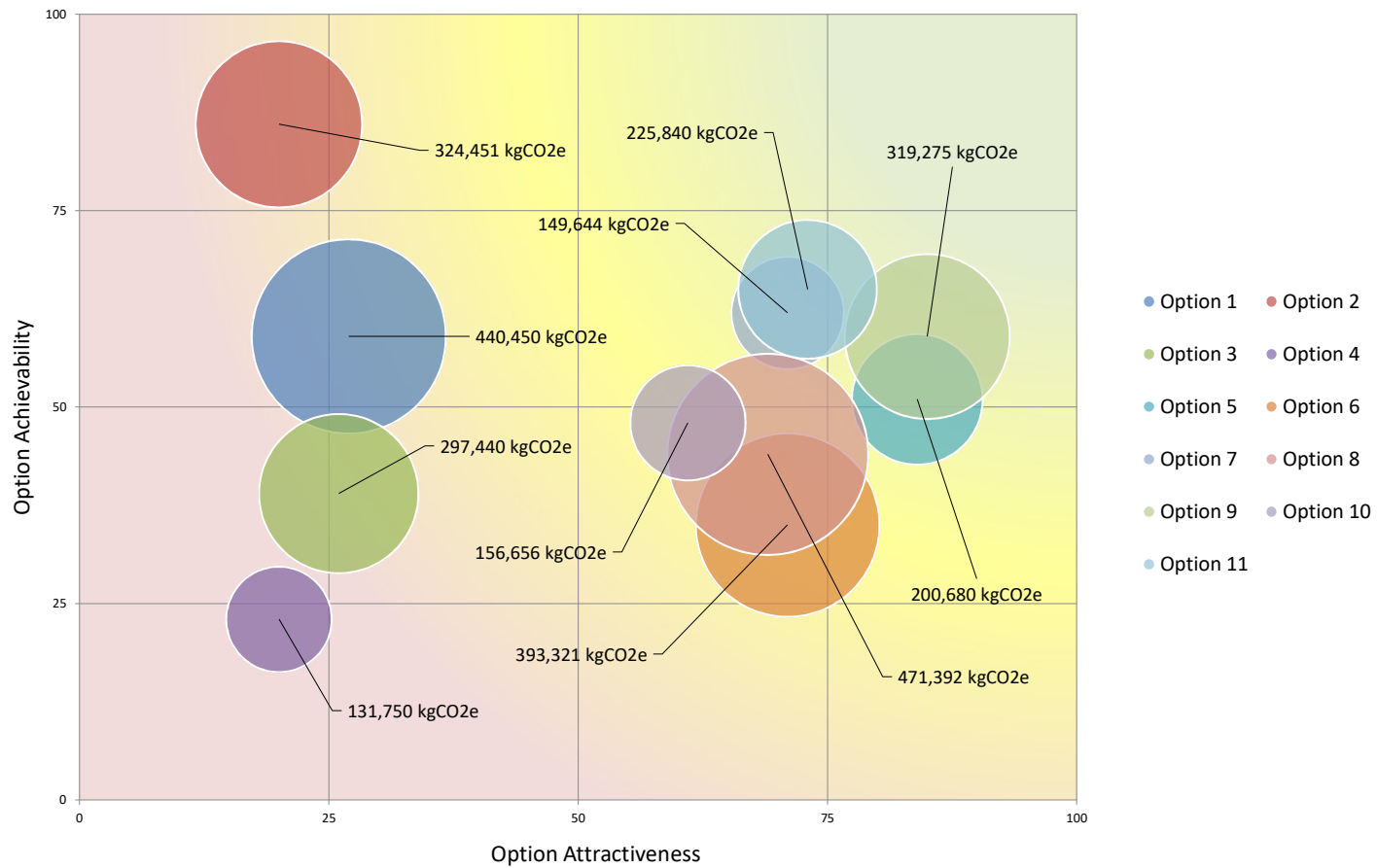
Achievability Analysis

- Experimental Variables & Validity Assurance
- Complexity Assessment (Inherent Risk)
- Affordability
- Resources Competence & Capacity
- Readiness Levels
 - Including TRL considerations
- Stakeholders' Clarity & Perception
- Governance & Accountability
- Alternatives Appraisals

Live Labs II: Options Portfolio Analysis

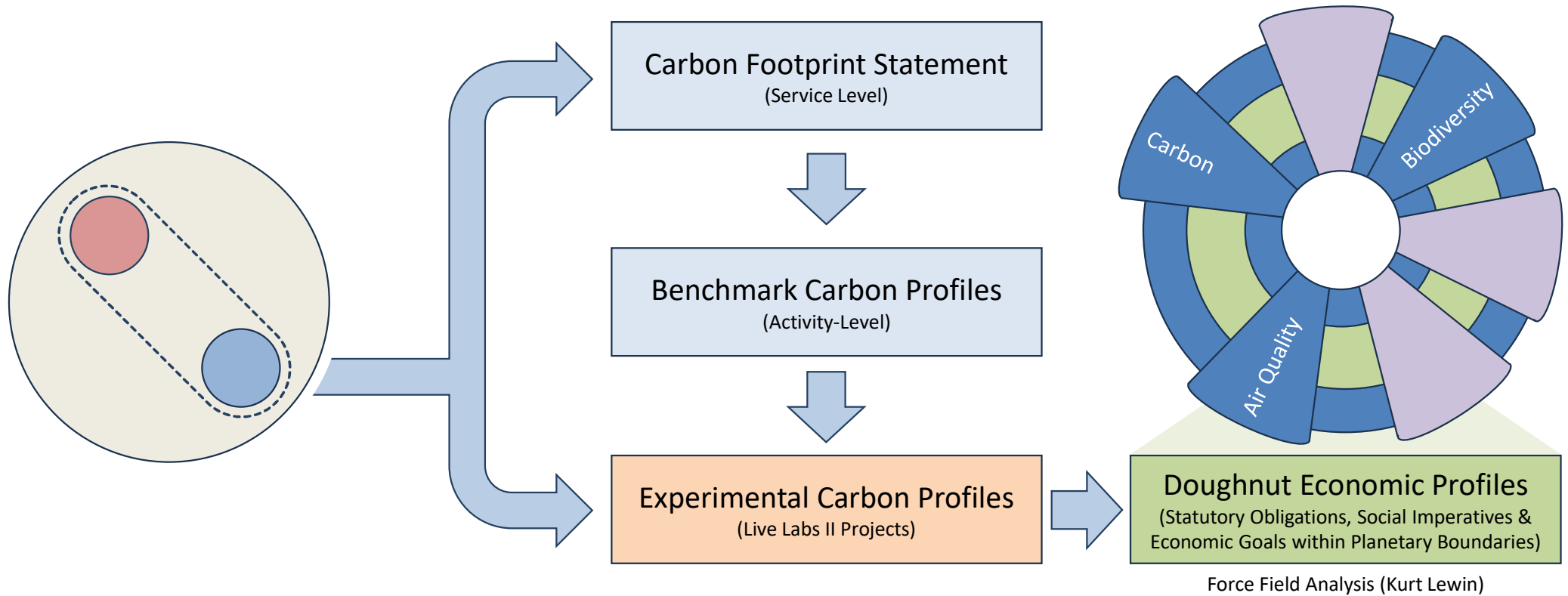
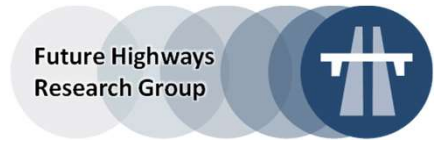


Programme Options Portfolio Analysis (Bubble Size = Carbon Saving (Illustration))



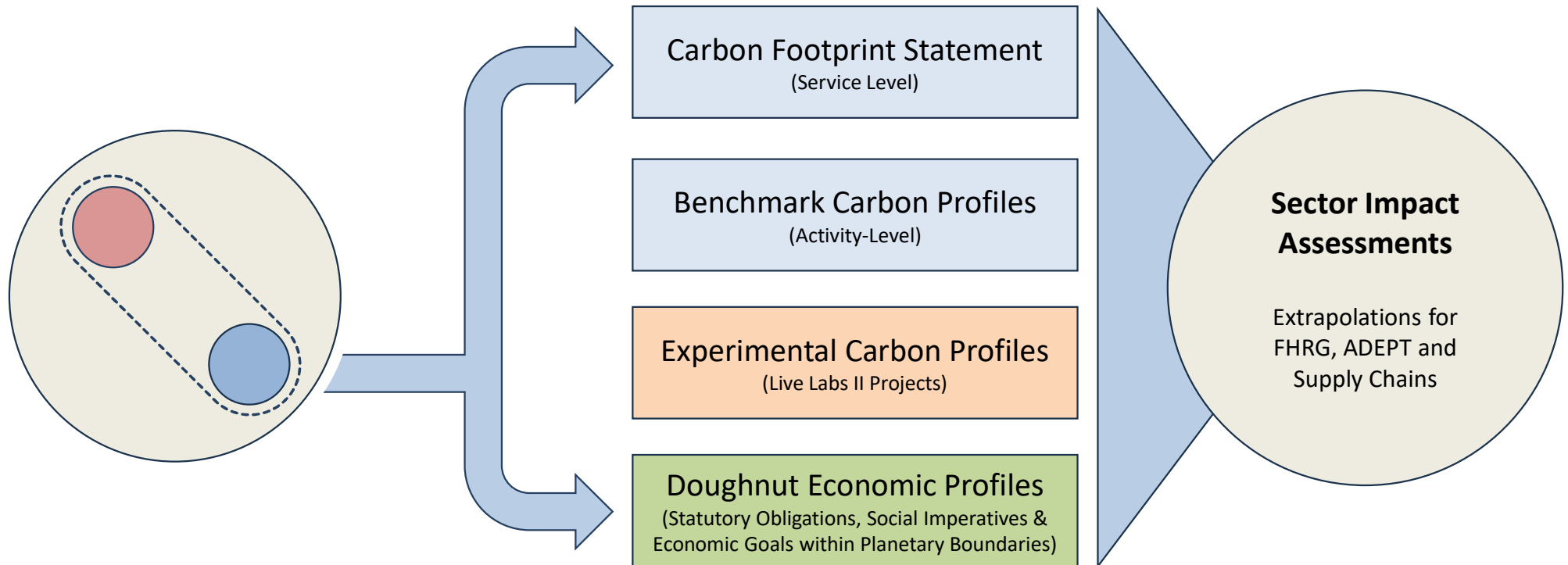
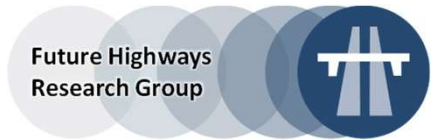
Live Labs II: Carbon Assessments

Sector Impact Assessment



Live Labs II: Carbon Assessments

Sector Impact Assessment





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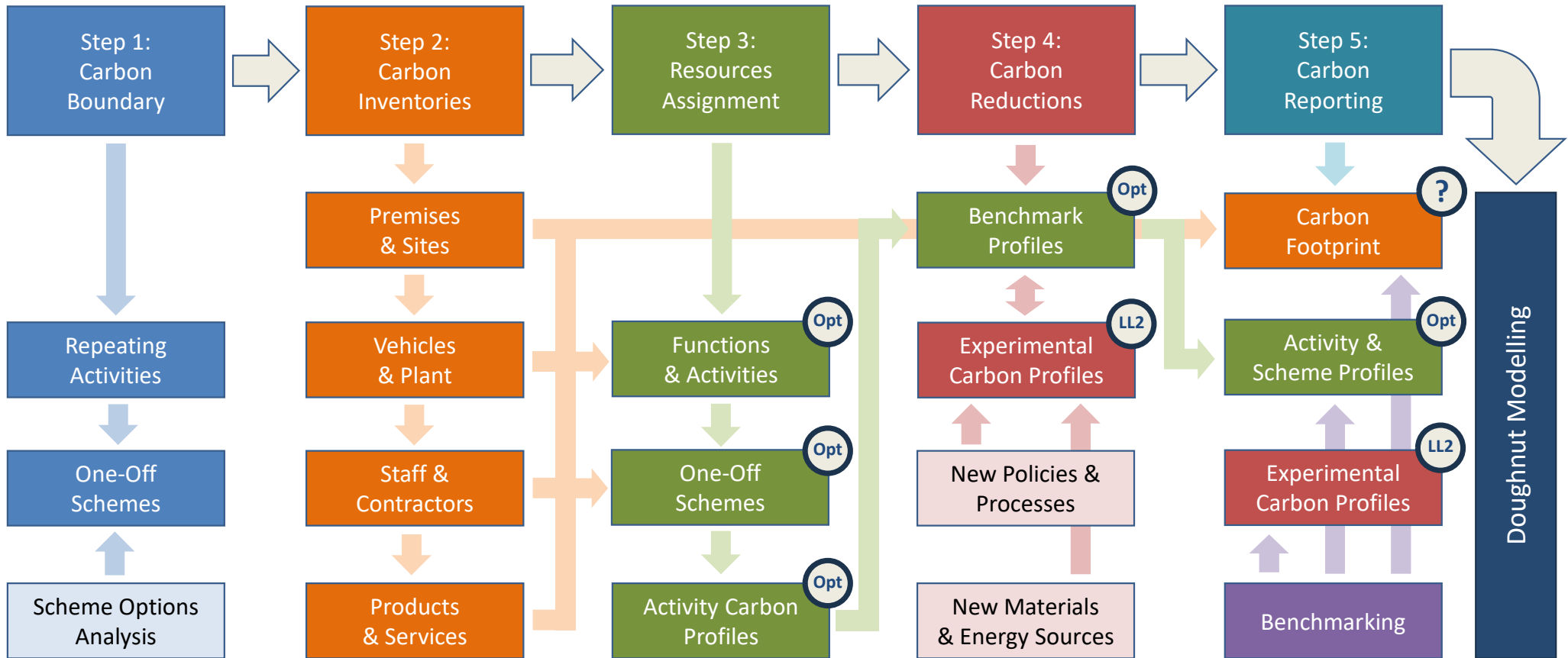
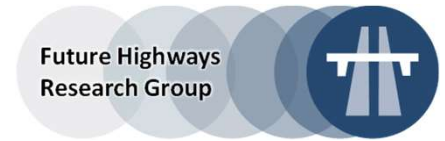
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Overview

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Five Step Process

High Accuracy, Low Overhead





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NICS Carbon Factors Dataverse

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National Infrastructure Carbon Schedule (NICS)

A Consistent Carbon Dataverse



Carbon Factor Lookup (NICS v4.5)

Reporting Year: 2023 | Class: Ops | Key Word(s) Filter: [Show All] | Unit of Measure: [Show All] | Filter Recommended

Factor Description	Unit Of Measure	Rec'd
[NH] Aggregates, Class 6N/6P fill to structures, Module(s): A5 {Ops:2023}	tonnes	
[NH] Aggregates, CLASS 6R, Class 6R Material, Module(s): A1-A3 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 6R, Class 6R Material, Module(s): A4 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 6R, Class 6R Material, Module(s): A5 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 6S, Class 6S Material, Module(s): A1-A3 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 6S, Class 6S Material, Module(s): A4 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 6S, Class 6S Material, Module(s): A5 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 7B, Class 7B Material, Module(s): A1-A3 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 7B, Class 7B Material, Module(s): A4 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 7B, Class 7B Material, Module(s): A5 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 7C, Class 7C Material, Module(s): A1-A3 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 7C, Class 7C Material, Module(s): A4 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 7C, Class 7C Material, Module(s): A5 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 7D, Class 7D Material, Module(s): A1-A3 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 7D, Class 7D Material, Module(s): A4 {Ops:2023}	tonne	
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[NH] Aggregates, CLASS 7E, Class 7E Material, Module(s): A1-A3 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 7E, Class 7E Material, Module(s): A4 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 7E, Class 7E Material, Module(s): A5 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 7F, Class 7F Material, Module(s): A1-A3 {Ops:2023}	tonne	
[NH] Aggregates, CLASS 7F, Class 7F Material, Module(s): A4 {Ops:2023}	tonne	

*Ops: Operations (Construction & Maintenance) WTT: Well to tank. T&D: Transmission & Distribution

Selected Factor Details

Aggregates, CLASS 7C, Class 7C Material, Module(s): A5
Notes: CLASS7CIMPFILL tonnes to kg (*1000)

Unit Of Measure: tonne

Weight Per Unit (kg): 1,000.00 | Density Per Unit (m3):

Ops (kgCO2e): 0.00069 | WTT (kgCO2e):

T&D (kgCO2e): | kgCO2e Per kg: 0.00069

kgCO2e Per Unit: 0.6889 | Total (kgCO2e): 0.00069

Certificate Type: National Highways | Certificate Expiry: 30 May 2024

Certificate Reference: bfc4-4523-cffa (GUID)

Buttons: Apply Filter, Clear Filter, New..., Edit..., Close, Select

6,966 RSTA, NH, BEIS and ICE emissions factors.

Updated National Highways CL emissions factors.

User definable and / or provider-specific emissions factors.

Emission factor descriptions and notes.

Certificate references and expiry dates.



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End of Document

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