Decision Equipped.

proving

Future Highways Research Group

ADEPT

Association of Directors of Environment, Economy, Planning & Transport

Proving Services & Future Highways Research Group

Value for Money Assessment & High Sector Carbon Accounting

Contents

Future Highways Research Group

1. **Introduction to Proving and the Future Highways Research Group (FHRG)**
2. **The FHRG VfM Framework & Assessment Portfolio**
3. **Characteristics of VfM Improvement & Success**
4. **The Impact of the Skills Shortage on VfM**
5. **Carbon Accounting & Carbon Reduction**
   - Carbon Calculation Accounting Standards (CCAS) & LHA Guidance
   - VfM Trade-off (Short to Long Term Impact)
6. **FHRG & MHA+ - Future Collaboration & Actions**

Decision Equipped.

proving

Future Highways Research Group

ADEPT

Association of Directors of Environment, Economy, Planning & Transport

Proving & The Future Highways Research Group: An Introduction

Value for Money Assessment

Background to Proving Services

Future Highways Research Group

- Formed by two directors from Cranfield University School of Management in 2003, joined in 2017 by the Commercial Operations Director of CIPFA.
- Developers of sector-leading, research-led tools and processes for the evaluation of *strategic options*, *innovation, business change*, *value for money* and *value chain relationships,* endorsed by CIPFA and ADEPT, and widely adopted by organisations within both the private and public sectors.
- Our business ethos is to support our research colleagues and partners in developing their internal capabilities and competencies.
- Have worked with local authorities to help evaluate VFM in many service areas including Fire and Rescue, Highways, Transport, Waste and Recycling.

Future Highways Research Group Goals
(Formed 2016)

- **To identify, qualify and quantify the challenges facing the sector.**
  - Including the early identification of small signals.
- **To engage in strategic research and knowledge development.**
  - Driven by members and the identified sector challenges.
  - Exploring step-change strategic options in a changing strategic environment.
- **To provide a forum for highways services leaders.**
  - To exchange ideas, challenges and best practice.
- **To create pragmatic, transferable solutions.**
  - Including methods, technologies, toolsets and template documents.
- **To engage with new market entrants and adjacent market practitioners.**
  - Introducing and testing innovations from other disciplines.
- **To provide sector-wide benchmarking.**
  - Including biennial Value for Money (VfM) assessments for members.

Future Highways Research Group Membership

Excludes Applications & Research Associates

- Buckinghamshire County Council
- Central Bedfordshire Council
- Cheshire East Council
- Cumbria County Council
- Derby City Council
- Derbyshire County Council
- Devon County Council
- Dorset County Council
- East Sussex County Council
- Essex County Council
- Hampshire County Council
- Herefordshire County
- Hertfordshire County Council
- Kirklees Council
- Kent County Council
- Lancashire County Council
- Leicestershire County Council
- Lincolnshire County Council
- London Borough of Barnet
- London Borough of Newham
- London Borough of Haringey
- Luton Borough Council
- Milton Keynes Council
- Norfolk County Council
- North Yorkshire County Council
- Northumberland County Council
- Nottinghamshire County Council
- North Somerset Council
- Oxfordshire County Council
- Shropshire County Council
- Somerset County Council
- South Gloucester Council
- Staffordshire County Council
- Suffolk County Council
- Surrey County Council
- West Sussex County Council

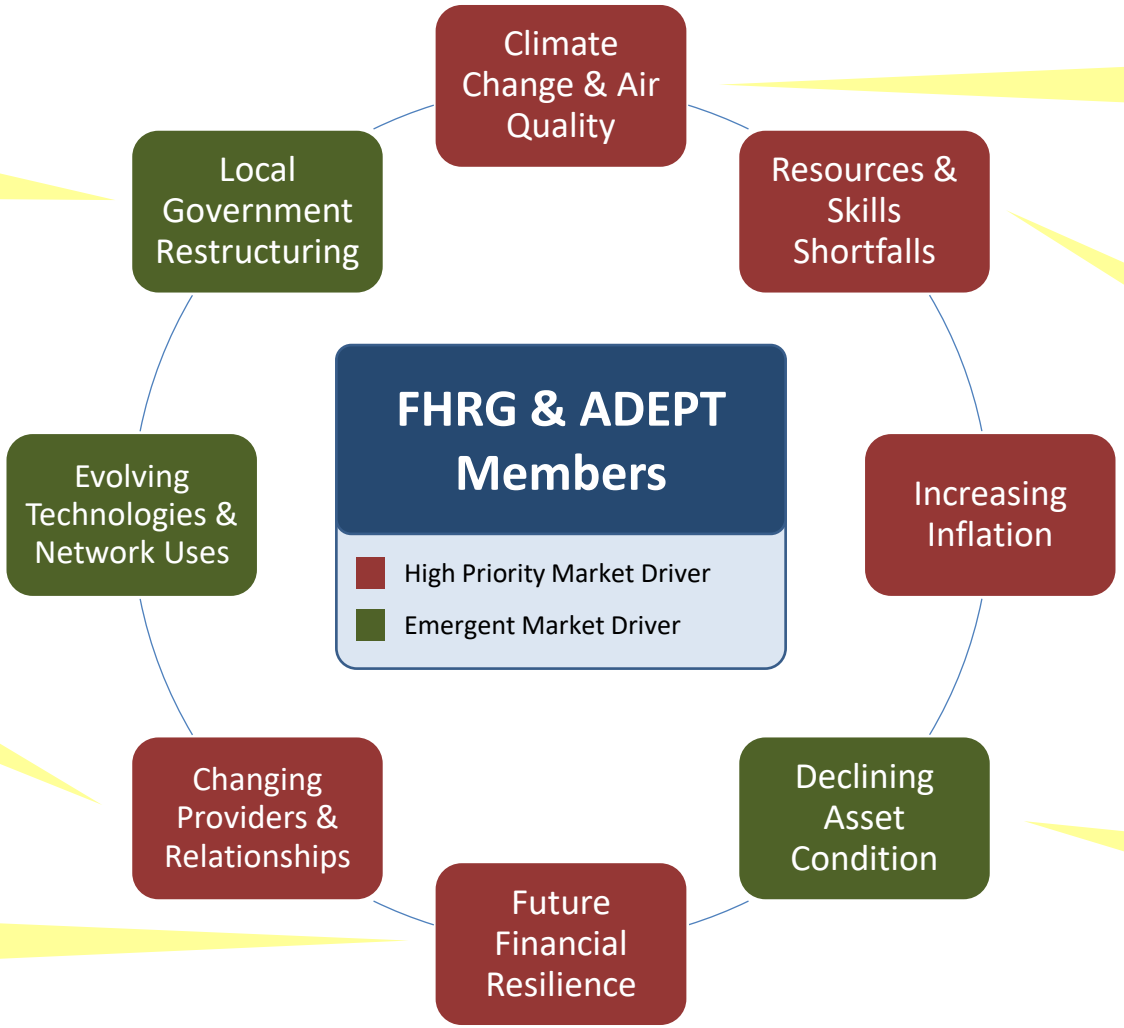
FHRG Board

Simon Wilson (Research Director)
Karen Farquharson (Proving)
Andy Perrin (Proving)
Hannah Bartram (ADEPT)
Dominic Browne (Highways Magazine)

Dominant Market Drivers

Based on 21+ Interviews & Reviews

Future Highways Research Group



Accelerating transitions to to deliver better value for money: economy, efficiency, effectiveness and stakeholder value.

Increasing re-purposing of assets for electric vehicles and e-scooters, community hubs, pedestrians and cyclists.

New “mixed economy” provider relationships and estate sharing with new entrants.

From liability to true asset… revenue generation, costs offsetting and recoverable costs billing.

86% of FHRG members have declared a climate emergency, all aspire to environmentally friendly services.

An aging workforce, new skills demands, high vacancy levels, higher staff costs and sector resources cannibalisation.

Driving up the costs of people, fuel, equipment, and materials (sometimes by as much as 100%).

The long-term impacts of underfunding and underinvestment in the network.

Decision Equipped.

proving

Future Highways Research Group

ADEPT

Association of Directors of Environment, Economy, Planning & Transport

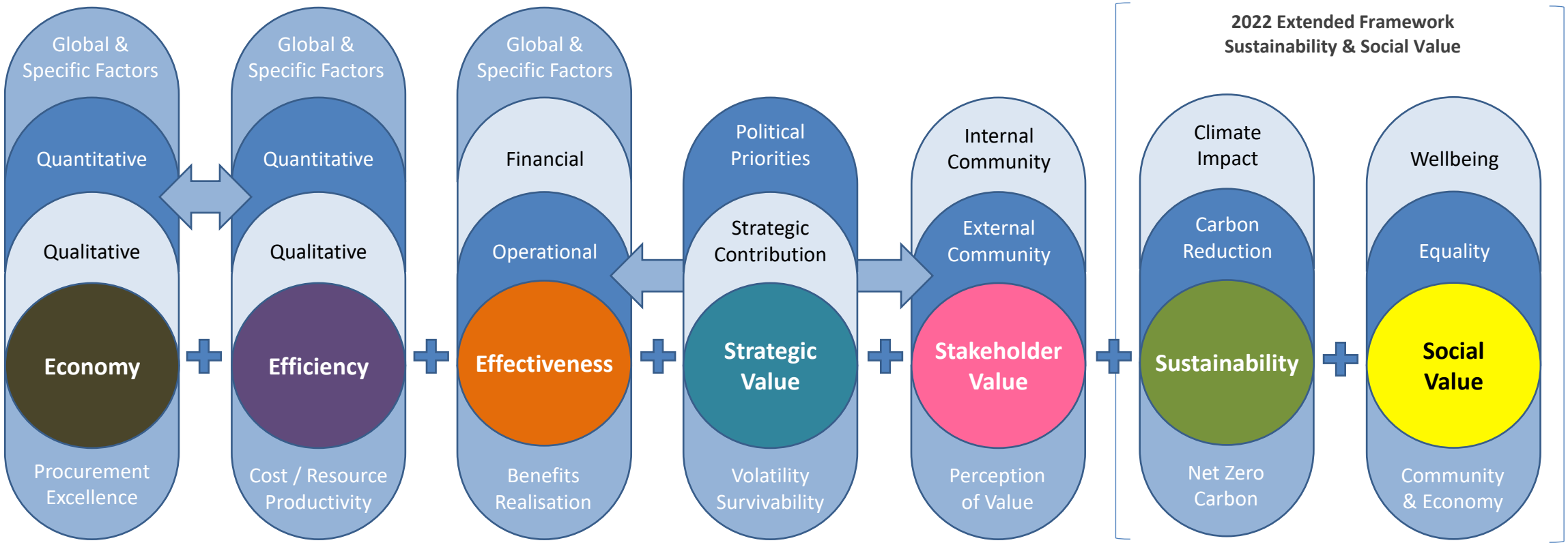
Comprehensive, Modern Value for Money Assessments

Value for Money Assessment

Value for Money Analysis

Identifying & Proving Best Value & Sustainable Services

Future Highways Research Group



Research Programme (CVRC, 2011) ©Proving, Farquharson, Perrin & Wilson 2022

Detailed Factor Set & Scoring Guide

Future Highways Research Group

ID	Dimension	Factor Name	Weighting
200	Efficiency	**External Resource Efficiency (Commissioned / Outsourced Service Contract)**	
201	Efficiency	Productivity of Management	100
202	Efficiency	Productivity of Staff	100
203	Efficiency	Other Resource (Productivity)	100
204	Efficiency	**Internal Resource Efficiency**	
205	Efficiency	Productivity of Management	100
206	Efficiency	Productivity of Staff	100
207	Efficiency	Other Resource (Productivity)	80
208	Efficiency	**Efficiency Performance Management**	
209	Efficiency	Service / Function Productivity & Throughput	100
210	Efficiency	Service Optimisation	100
211	Efficiency	Service Utilisation	100
212	Efficiency	Service Sustainability	100
213	Efficiency	Stakeholder Management (Internal & External)	100
214	Efficiency	Service Agility (Scope & Scale of Operations: Demand Matching)	80
215	Efficiency	IT / IS Management	100
216	Efficiency	Information Analysis & Reporting Management	80
217	Efficiency	Travel & Accommodation	40
218	Efficiency	Efficiency Improvement Plan	60

212	Efficiency Performance Management Service Sustainability
Description	An assessment of whether the current level of service can be sustained for the next 5 years given current or expected resource and expenditure levels.
Weighting	**High (100)**
Scoring	
Excellent	The service is currently achieving all the service objectives as defined in the AMP. All parties undertake a joint 'horizon scan' on a regular basis and put in place the necessary measures to address forecast challenges in service delivery before they arise. The service currently has acceptable levels of resource necessary to deliver the service to an agreed standard. It is anticipated that there will be no significant reduction in resource and service budget or, when such reductions are forecast, these have been fully profiled and mitigated across a five-year horizon. There are robust and comprehensive business continuity plans in place which are owned jointly by all parties involved in service management and delivery.
Good	The service is currently achieving most of the service objectives as defined in the AMP. All parties undertake a joint 'horizon scan' on a periodic basis and put in place the necessary measures to address forecast challenges in service delivery before they arise. The service currently has acceptable levels of resource necessary to deliver the service to an agreed standard. It is anticipated that there will be no significant reduction in resource and service budget or, when such reductions are forecast, these have been fully profiled and largely mitigated across a five-year horizon. There are business continuity plans in place which most of the service and are owned jointly by all parties involved in service management and delivery.
Satisfactory	The service is currently achieving most of the service objectives and standards as defined in the AMP. The service currently is at full capacity and in some areas, is under resourced. It is anticipated that there will be some further budgetary pressure which will impact adversely on the service. There are plans in place to mitigate the majority of forecast budgetary pressures but beyond a two-year horizon the alternative funding sources or service adaptations necessary have not yet been fully identified.
Requires Improvement	The service is failing to some of the service objectives and standards as defined in the AMP. The service currently is under-resourced. It is anticipated that there will be further significant budgetary pressure which will impact adversely on the service. There are robust plans in place to strengthen resilience and sustainability.
Poor	The service is failing to meet most of the service objectives and standards as defined in the AMP. The service currently is significantly under-resourced. It is anticipated that there will be further significant budgetary pressure which will impact adversely on the service. There are no robust plans in place to strengthen resilience and sustainability.

Structure of the VfM Assessment

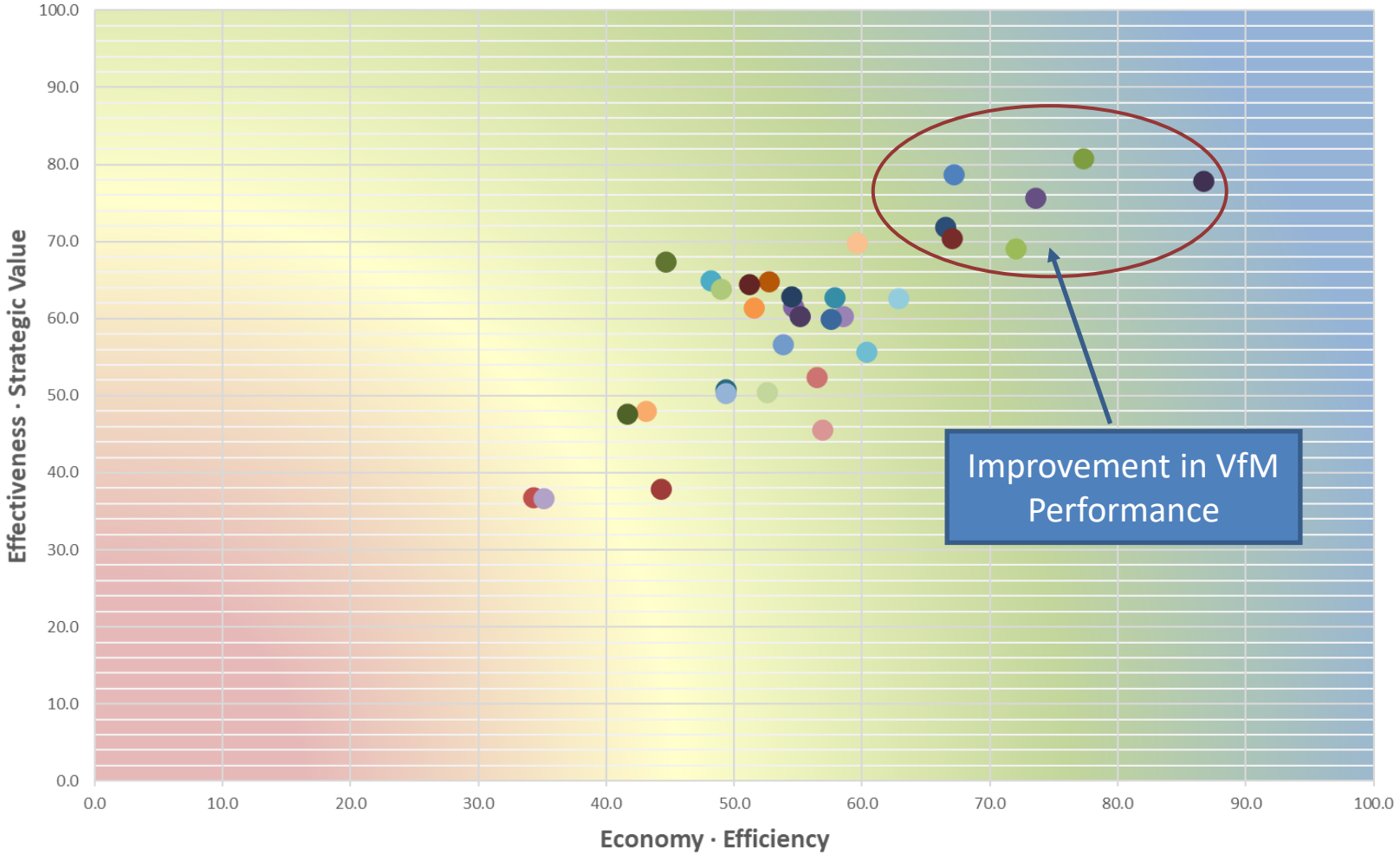
Future Highways Research Group

1. **Involves the Highways Service management and (representatives of) the delivery teams. Key partners are also encouraged to be involved.**
2. **The views of the portfolio holder are sought to provide a member perspective.**
3. **FHRG peer reviewers participate in the assessment.**
   - Their role is to challenge, advise but also learn from each authority.
4. **Comprehensive scoring guidance has been developed for each assessment factor to ensure consistency and clarity.**
5. **Proving Services acts as a facilitator seeking evidence and consensus to support the performance scores.**
6. **For each factor the participates are asked to identify and define any 'opportunities to improve'.**

FHRG VFM Benchmarked Portfolio

Assessed Within Last 18 Months

Future Highways Research Group



Value for Money: Characteristics of Success

Future Highways Research Group

- **A stable highways management team that is cohesive, dedicated and mutually supportive.**
- **The service has developed an intelligent, commercial and strategic management capability.**
- **Increasingly, a 'Mixed Economy' / Commissioning operating model.**
  - An in-house capability with a range of outsourced / top-up suppliers procured through competitive frameworks and contracts.
  - This allows the authority (members) to have authority and control.
- **The delivery model encourages competition between providers within the framework and the in-house teams to ensure the most cost-effective service is provided.**
- **An ethos of continuous VfM improvement through regular review and challenge.**
  - This extends to the relationships with, and expectations of, all service delivery partners.
- **Considerable effort has been put into ensuring that that the full benefits of any Highways Alliance and associated frameworks are realised.**
  - This includes competitive tendering, benchmarking, working groups to explore new opportunities and ways of working, and supporting other alliance members.

Value for Money: Characteristics of Success
Continued…

Future Highways Research Group

- **The service has strong support from the portfolio holder who acts as effective conduit in managing the relationship and expectations of other members.**
- **Risk is very well-managed by the service, with a low number of compensation events, a high repudiation rate for claims (95%), and a policy of continuous risk management and scrutiny at all levels within the service and wider authority.**
- **The service and its staff have access to the necessary IT/IS to support them in their duties.**
- **All highways authorities, have the challenge of managing a declining asset with insufficient funding. A significant and currently unaffordable level of investment would be required to bring the highway network up to the desired standard.**

Decision Equipped.
proving

Future Highways Research Group

ADEPT
Association of Directors of Environment, Economy, Planning & Transport

Human Capital Management: Research Programme

Objectives & Interim Findings

FHRG Value for Money Assessments

Impact of the skills shortage

Future Highways Research Group

Economy	Efficiency	Effectiveness	Strategic Value	Stakeholder Value
Staff paid at or typically below market rates.	Significant skills gap (capacity & capability).	Decline in the quality of service provided.	Focus on short-term operational activities, rather than realising strategic objectives.	Perceived poor performance of service.
Increasing (but unsustainable) use of salary premiums.	Staff 'overworked, constant fire-fighting, stressed and low moral'.	Reduction in the scope and scale of services offered.	Unable to afford, attract and retain specialist skills necessary to deliver strategic objectives, incl: • Carbon reduction • Environmental • New materials • Digitalisation	Difficult relationships (officers, members, providers).
Long-term use of expensive agency staff.	Staff fully utilised but not optimised or fully productive.	Inability to take advantage of revenue generating opportunities.		Pressure to change operating / delivery model.
Increasing reliance on external top-up or outsourcing.	Strained channels of communication (members & customers).	Decline in customer and member satisfaction.		Increased staff turnover (early retirement).
	A 'thin client' leads to a decline in effective collaboration with partners.	Repeated service re-organisations.		

The problem is getting worse, exacerbated by inflation, underfunding and demands from competing sectors.

Human Capital Management
Research Questions

Future Highways Research Group

- **What is the true scale (empirical evidence) of the problem?**
- **What are the key factors and drivers leading to the current human capital position?**
- **What are the key drivers that will influence the future requirements for human capital?**
- **What are the implications for the sector if the human capital challenges are not addressed?**
- **What are the solution options available, and changes necessary, to address the identified challenges?**
- **Moving forward, how does the sector monitor and report on the future human capital position and the impact of funding, policy decisions, structural and operational changes?**

Gathering Empirical Evidence: Surveying the Sector

Future Highways Research Group

Stage 1: FHRG Members (Completed)

Stage 2: All remaining Local Highways Authorities, via ADEPT (June 2022)

Stage 3: Private Sector Organisations - Primary Tier 1 &2 Providers (July 2022)

Stage 4: National Highways / Industry Bodies / Wider Supply Chain (Aug /Sept 2022)

Anonymised survey findings will be published by the early autumn.

HCM Survey – Interim Survey Results
(25 Local Highways Authorities, majority DLO or Mixed Economy)

Future Highways Research Group

Role	Vacancies	Agency
Engineer/Technician/Specialist/Operative	27%	18%
Service/Function Manager	28%	13%
Professional/Design/Contract Support/Project Managers	23%	24%
Services Commissioner/Asset Manager/Planner	15%	5%
Customer Services/Community Engagement/Communications	12%	1%
Graduate Trainees	10%	-
Apprenticeships (Advertised)	12%	-

HCM Survey – Interim Findings (cont..)

Future Highways Research Group

- **76% of workforce are men.**
- **84% (where provided) are white - British, European or other.**
- **Age profile.**
  - 11% - 30 and under
  - 22% - between 31 and 40
  - **34% - between 41 and 55**
  - **33% - 56 and over**
- **Top 3 reasons provided as difficult to recruit:**
  1. Pay and conditions (93%).
  2. Fewer people choosing a career in the public sector (80%).
  3. Competing opportunities within the sector (70%).

Decision Equipped.

proving

Future Highways Research Group

ADEPT

Association of Directors of Environment, Economy, Planning & Transport

LHA Carbon Accounting & Carbon Reduction

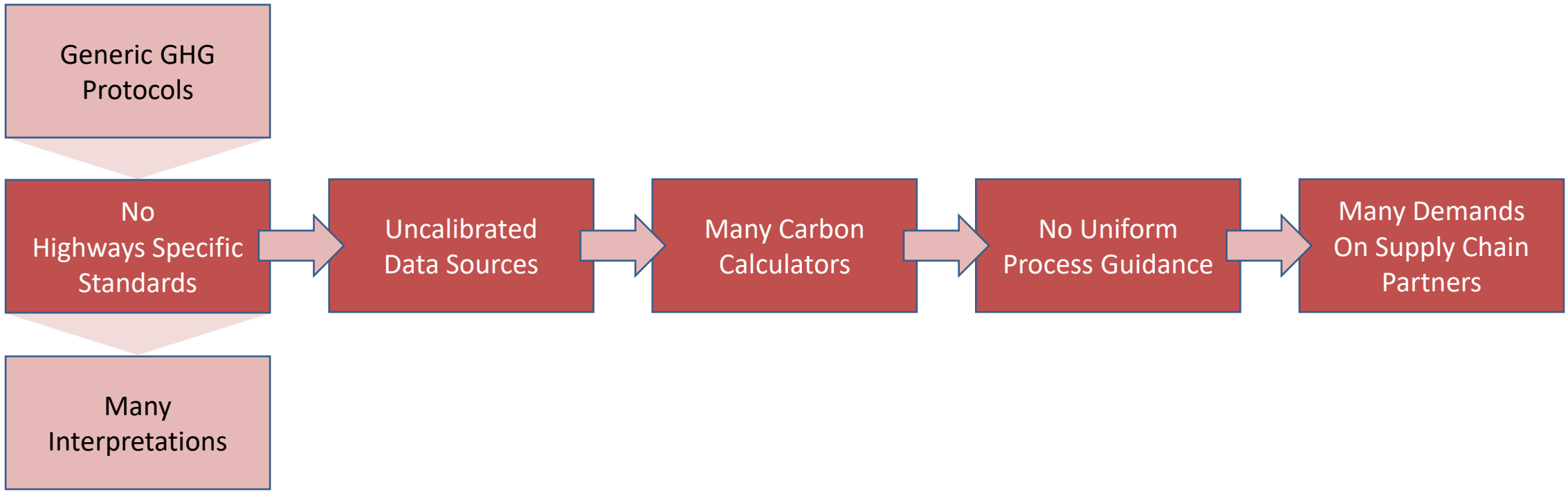
Future Highways Research Group

Research Partners

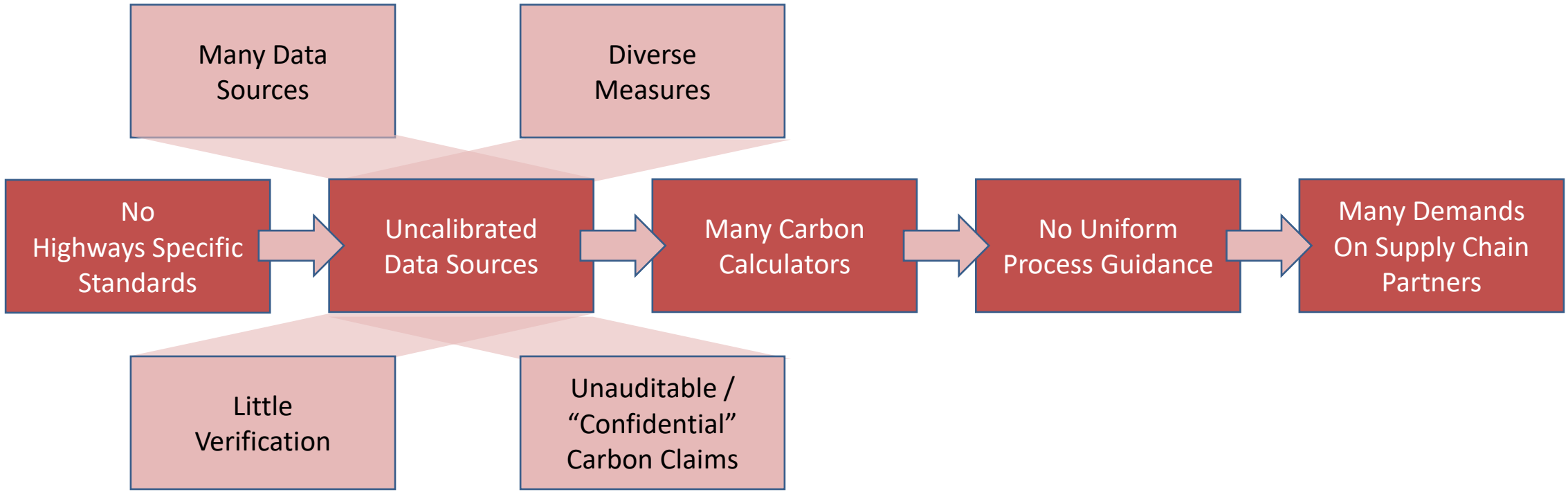
Agencies, Institutions & Academic Partners

- **Future Highways Research Group (FHRG)**
  - Led By Devon County Council
- **Association of Directors of Environment, Economy, Planning and Transport (ADEPT)**
- **National Highways**
- **University of Exeter (Sustainability Group)**
- **Chartered Institution of Highways and Transportation (CIHT)**
- **Civil Engineering Contractors Association (CECA)**
- **Local Government Technical Advisers Group (LGTAG)**
- **Highways Magazine & Highways UK (As Publishing, Roundtable & Events Partners)**
- **Road Surface Treatments Association (RSTA)**
- **Department for Transport**
- **Colas**
- **Atkins**
- **Ringway**
- **Breedon**
- **FHRG Members**

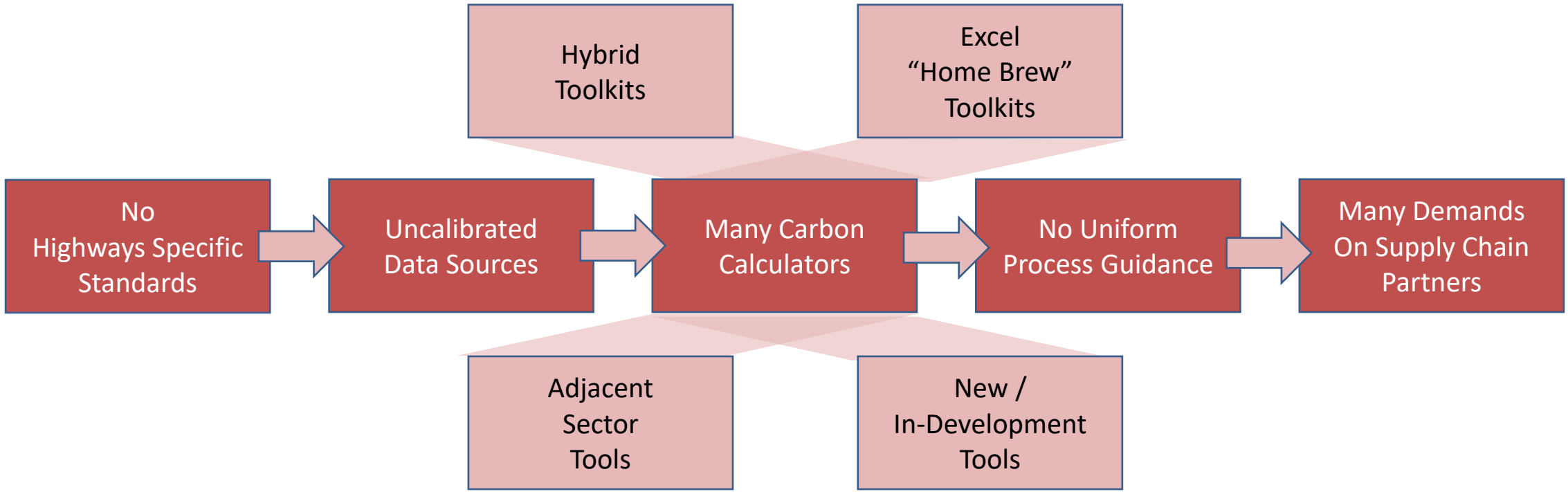
The scope 3 challenges…



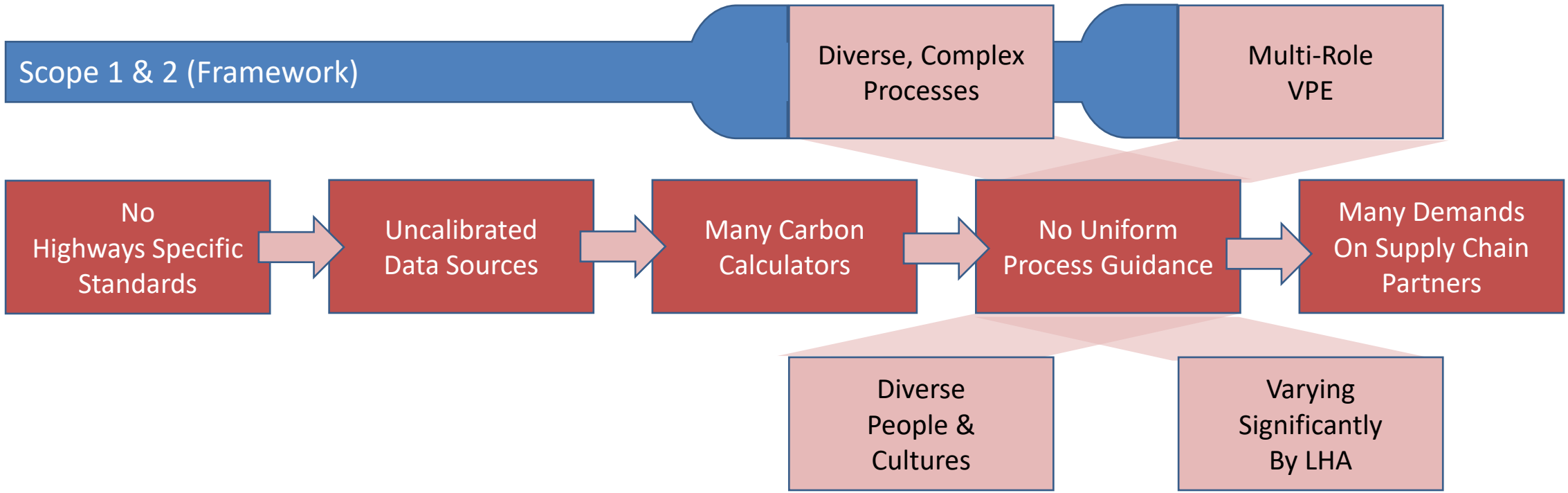
The scope 3 challenges…



The scope 3 challenges…

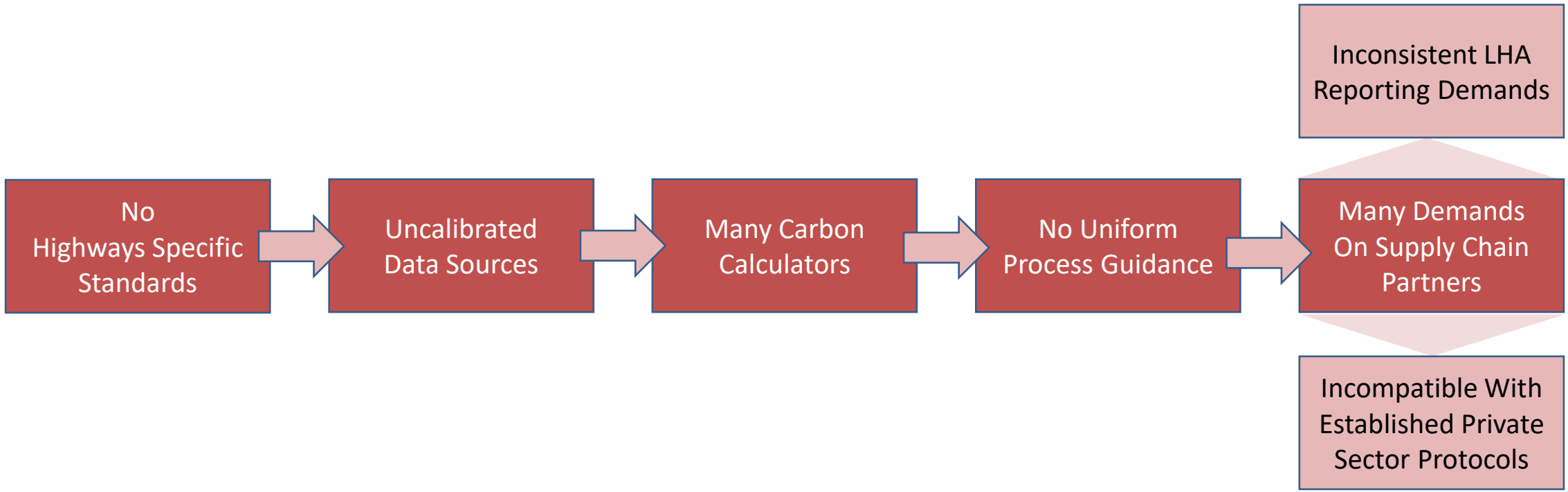


The scope 3 challenges…



The scope 3 challenges…

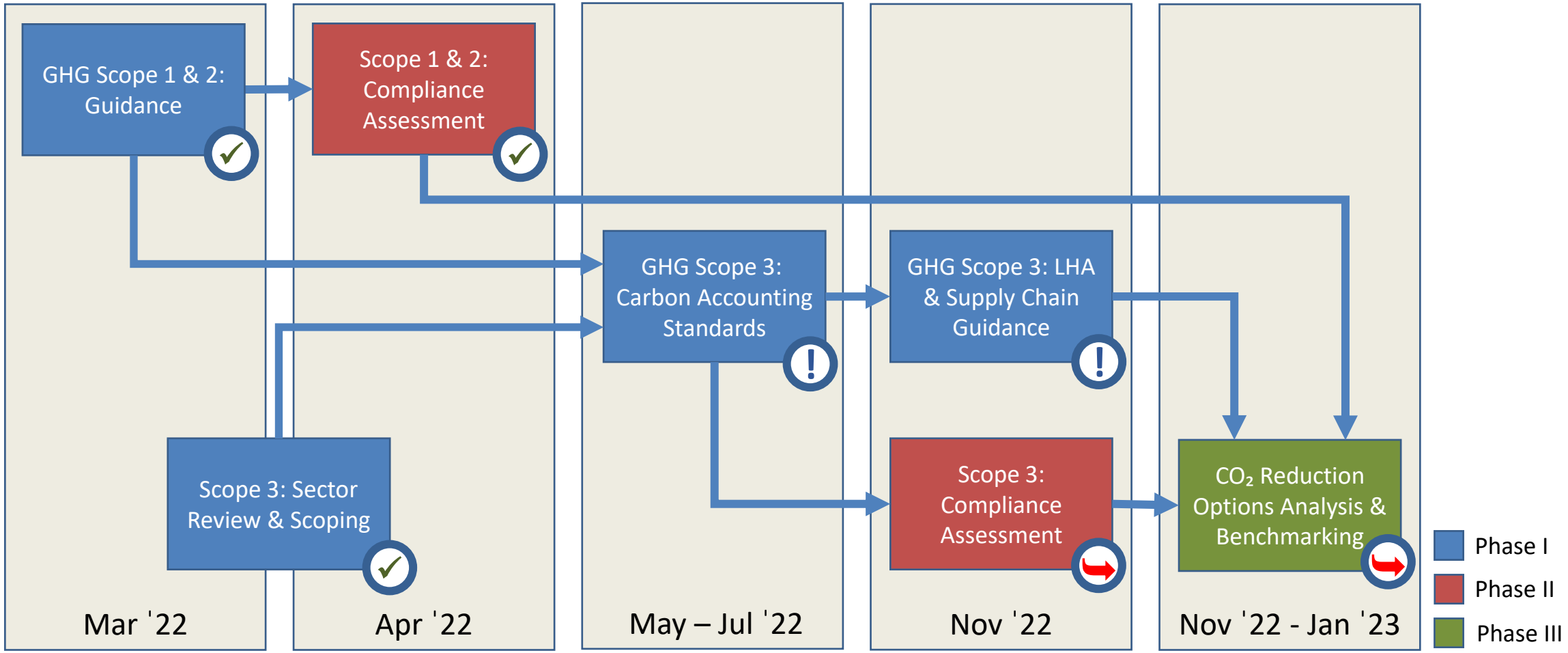
Future Highways Research Group



Zero Carbon Highways: Route Map

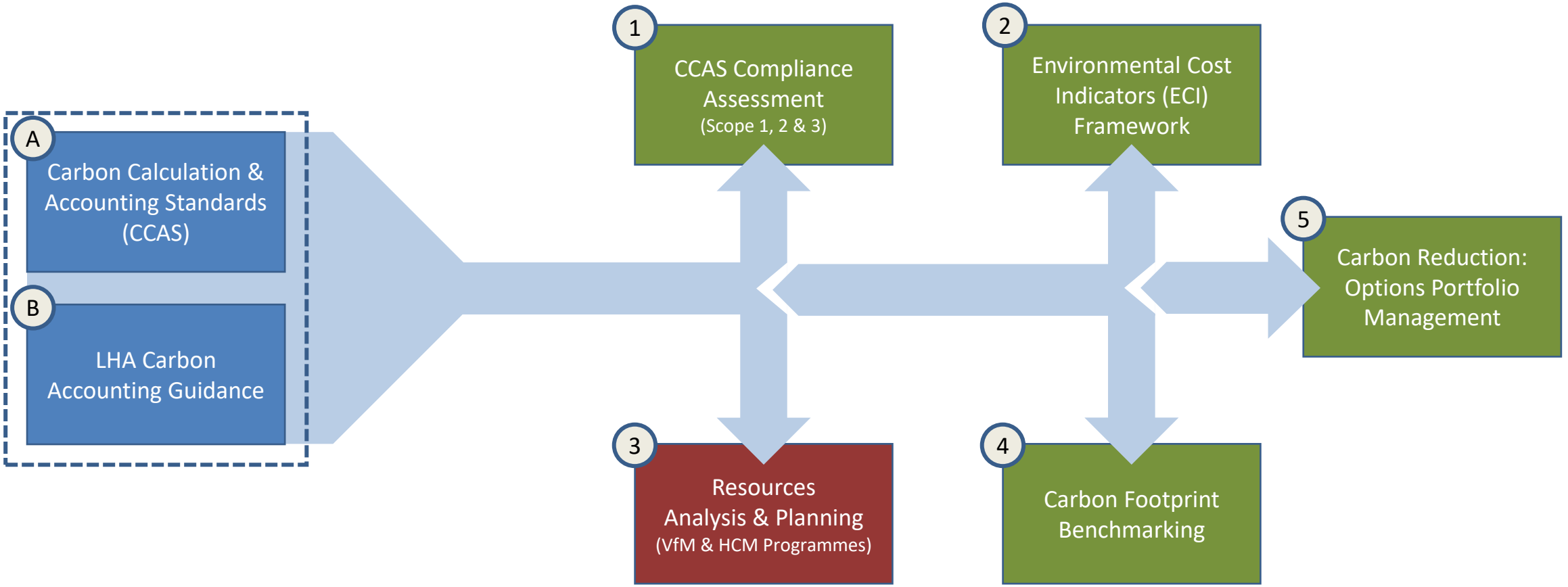
Measurement, Options Development & Emissions Reduction

Future Highways Research Group



Future Phases

Future Highways Research Group



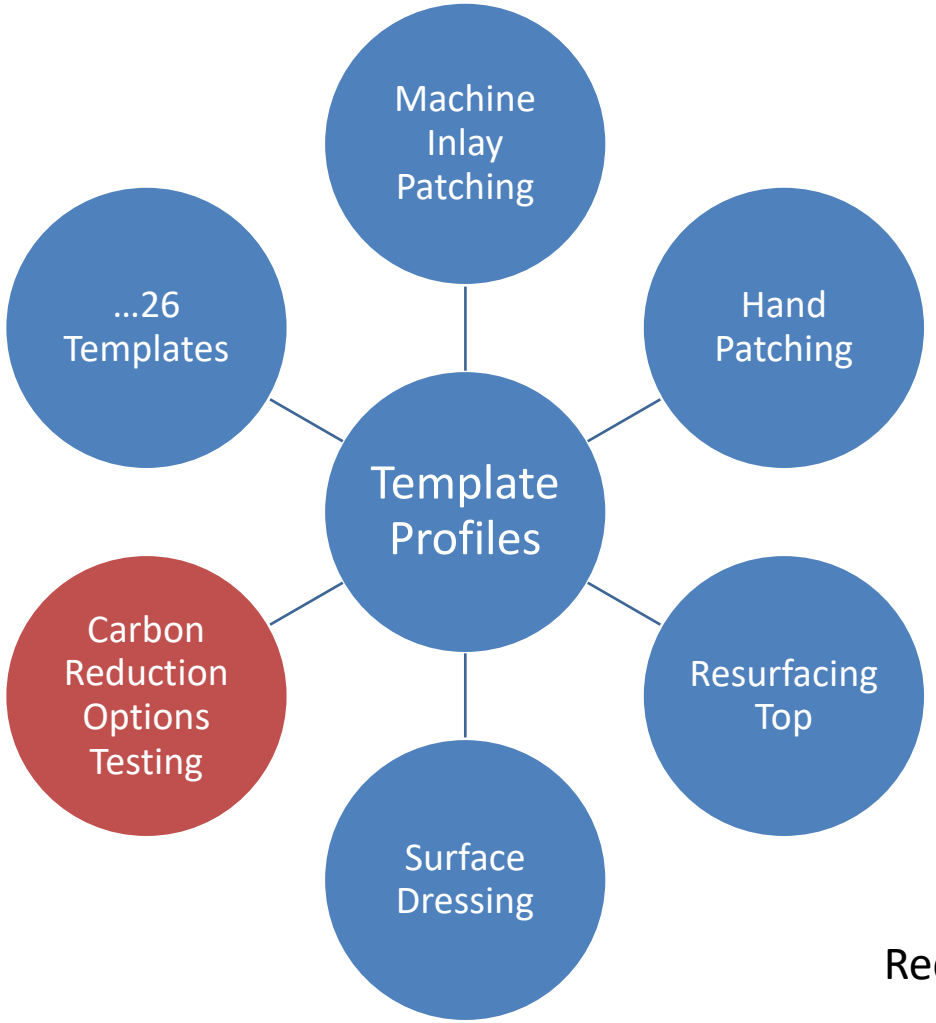
Decision Equipped.
proving

Efficient & Effective Scope 3 Carbon Accounting

Future Highways Research Group

Effective & Efficient Analysis & Carbon Reporting

Future Highways Research Group



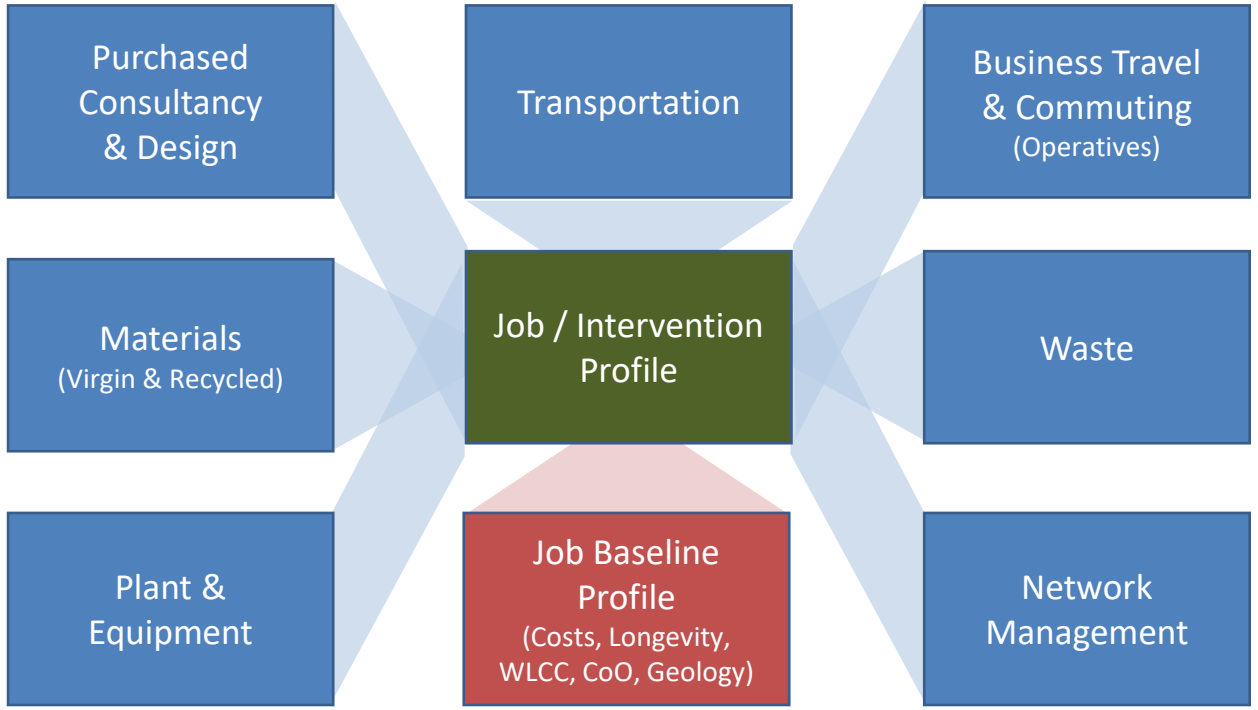
Agreed With Supply Chain → Multiplied By Use Instances → Standardised Scope 3 Calculation & Reporting

Define once and reuse.
Reduces the administrative burden of the authority and supply chains.

Creating & Applying Template Job Profiles

Reducing Carbon Accounting Overheads

Future Highways Research Group



Standard Profiles

Future Highways Research Group

- **Machine Inlay Patching**
- **Hand Patching**
- **Overlay Patching**
- **Resurfacing Top**
- **Resurfacing Full**
- **Surface Dressing**
- **Micro Asphalt**
- **Slurry Seal**
- **Joint Seal**
- **HFS**
- **Dragon Patcher**
- **Concrete**
- **VRS**

- **Fencing** (New & Replacement)
- **Lining hand**
- **Signage**
- **Street Lighting** (Column / Lantern Replacement)
- **Grass cutting**
- **Gully Cleaning**
- **Cattle Grid Cleaning**
- **Grips, Easements & Buddle Holes (GEB)**
- **Pothole Repair**
- **Street lighting: LED Upgrade**
- **Street lighting: Outage Resolution**
- **Kerbing**
- **Plus User Defined…**

Decision Equipped.

proving

Future Highways Research Group

ADEPT

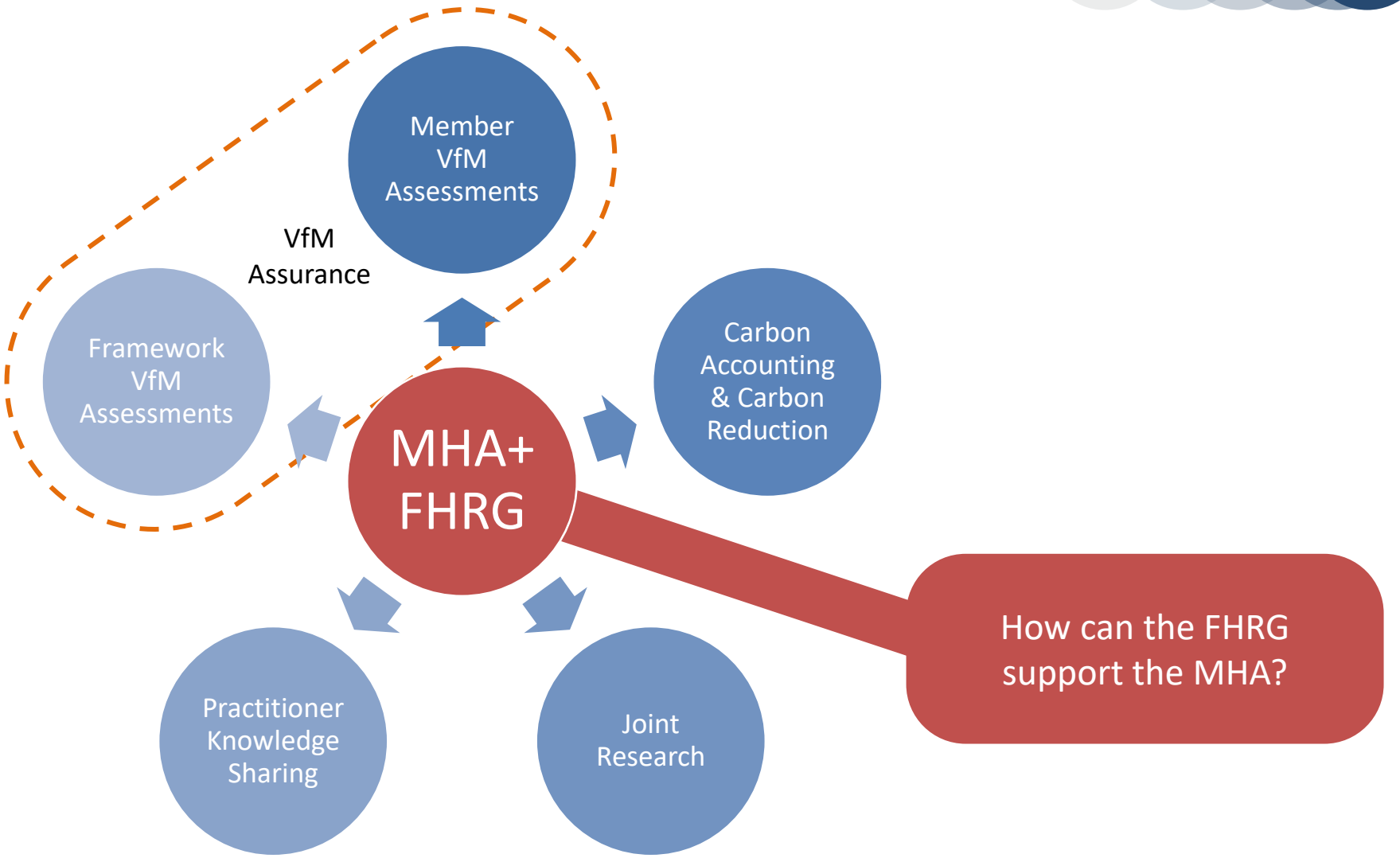
Association of Directors of Environment, Economy, Planning & Transport

FHRG & MHA+

Working Together

FHRG & MHA+: Working Together

Future Highways Research Group



Decision Equipped.

proving

Future Highways Research Group

ADEPT

Association of Directors of Environment, Economy, Planning & Transport

End of Presentation