

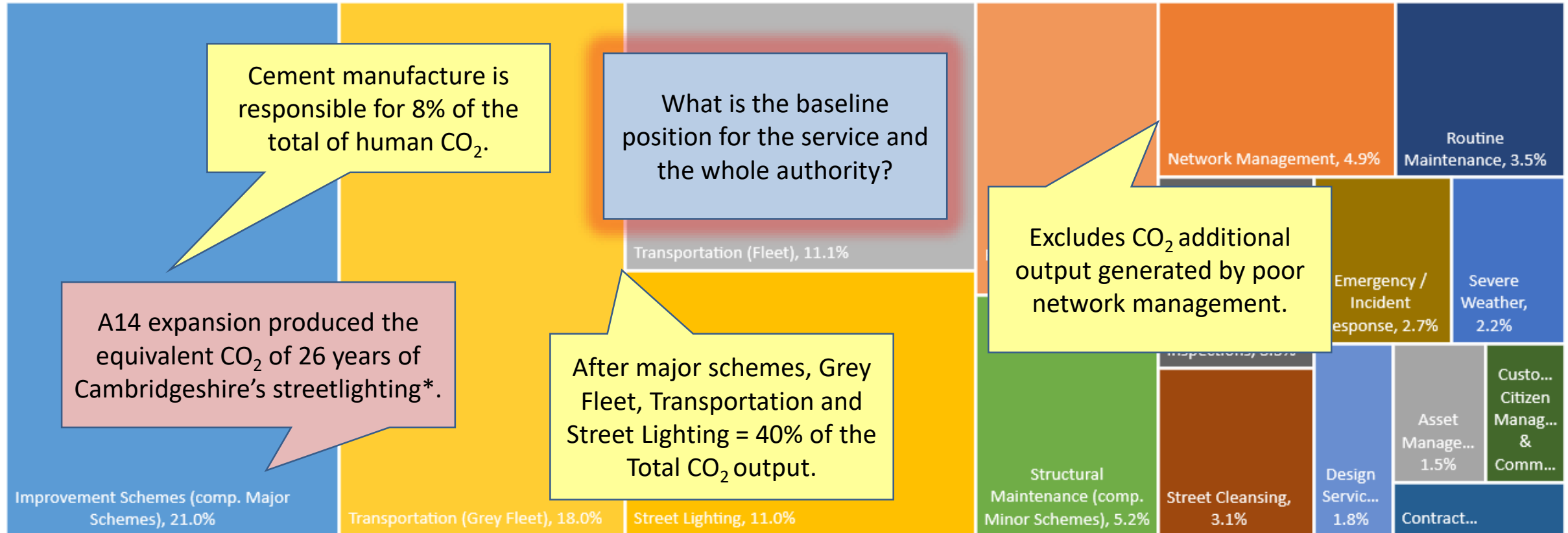


Climate Emergency

Impact on Highways & Transportation Services

CO₂ Sources By Highways & Transportation Function

% of Total CO₂ By Highways & Transportation Function



*Highways Agency (Replaced By Highways England), Cambridge to Huntingdon Improvement Scheme, Environmental Impact Assessment, August 2015

Climate Emergency

What does it mean for highways and transportation services?

- **Accelerated transition from carbon to green energy sources.**
 - Replacement of all fleet / grey fleet miles with EV miles.
 - Unprecedented infrastructure improvements to meet the demand for energy.
- **Increased investment in pedestrian, cycle routes, e-drones and ULV* routes.**
 - Replacing car journeys.
 - Reduced investment / development of traditional road networks (Dutch example).
- **Increased investment in local “green” public transport.**
 - Scheduled EV buses.
 - On-demand EV services.
 - Home-to-school alternatives to cars / buses.
- **Promotion of local green alternatives.**
 - Incentives for car sharing and / or EV taxi sharing schemes.
 - Incentives for home working.

*Ultra Light Vehicles, including e-scooters.



Strategic Options Analyser

Climate Emergency Options: Case Builder

Strategic Options Analyser (v1.8)

- **Combines three previous toolkits:**
 - Strategy Analyser (last edition v3.3, July 2019).
 - Commercial Options Toolkit (last edition v3.6, December 2019)
 - Climate Options Assessment Toolkit (last edition v0.6, December 2019)
- **Rapid, consistent method for options appraisal.**
 - Includes financial, social, stakeholder, air quality, achievability and emissions assessments.
- **Includes an integrated database for all options.**
 - Data can be imported and exported using the standard Excel functions.
- **Quickly assemble prioritised portfolios of viable options.**
 - Used to support internal planning and discussion.

Assessing & Prioritising Strategic Options

New Excel Application
(.xlsm) for Excel 2013, 2016 and
2019.

Strategic Options Analyser

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Double-Click on [Option] to open the analysis worksheet.

ID	Option	In Portfolio	Project Cost	Avg. Op. Profit	£ P	Generate	CDE Avg. Chang	CDE Payback Period	AQ Score	Social Value	Stakeholder Support	Ac
1010	Reduce Roads Capacity / Increase Private Vehicle Journey Times	No	£ 3,900,000	£ 2,952,000	£ 948,000	1.3 Years	-15,916	1.0 Years	55.6	113	-2.6	
1020	Increase Cycling & Pedestrian Priorities (Rights of Way)	No	£ 1,900,000	£ 34,800	£ 1,865,200	No Payback	-11,555	1.1 Years	55.6	24.0	8.4	
1030	Reduce Aviation Expansion / Number of Flights	No	£ 800,000	£ 120,000	£ 680,000	No Payback	-12,604	1.2 Years	26.7	-9.3	1.3	
1040	Workplace Parking Charges	No	£ 800,000	£ 120,000	£ 680,000	No Payback	-20,180	0.4 Years	68.9		-11.9	
1050	Ultra-Low Emission Zones	No	£ 3,800,000	£ 2,690,000	£ 1,110,000	1.4 Years	-16,282	0.8 Years	33.3	-32.0	-21.5	
1060	Congestion & Pollution Charging Zones	No	£ 2,200,000	£ 471,000	£ 1,729,000	4.7 Years	-13,667	1.2 Years	57.8	-28.0	0.0	
1070	License EV Taxis Only	Yes	£ 250,000	£ 168,000	£ 82,000	1.5 Years	-19,800	0.9 Years		25.3	-6.0	26.0
1080	Differential Charging for Parking Permits (Polluter Pays)	Yes	£ 1,440,000	£ 1,471,000	£ 31,000	1.0 Years	-19,672	0.5 Years		-12.0	-4.9	56.3
		Yes	£ 138,000	£ 66,000	£ 72,000		-16,627		64.4	6.7	0.9	32.0
		Yes	£ 4,160,000	£ 553,000	£ 3,607,000					-9.3	-12.9	48.0
		Yes	£ 500,000	£ 115,000	£ 385,000					9.3	17.6	64.2
		Yes	£ 217,000	£ 61,000	£ 156,000					34.7	5.2	47.0
		Yes	£ 595,000	£ 115,000	£ 480,000					10.7	7.9	83.3
		Yes	£ 1,700,000	£ 31,000	£ 1,669,000					12.0		46.7
		Yes	£ 12,000,000	£ 1,512,000	£ 10,488,000					16.0	8.0	75.0
1170	New Developments: Require Solar Thermal, PV or Heat Pumps	Yes	£ 870,000	£ 56,000	£ 814,000	No Payback	-24,170	0.8 Years	62.2	0.0		40.0
1180	Electric Buses On Subsidised Routes	Yes	£ 2,850,000	£ 548,300	£ 2,301,700	5.2 Years	-16,238	0.6 Years	20.0	17.3	25.3	33.0
1190	EV Charging With Local Micro-Generation	Yes	£ 4,900,000	£ 792,000	£ 4,108,000	6.2 Years	-13,794	0.9 Years	26.7	30.7	2.6	63.0
1200	Minimum Energy Efficiency Standards In Private Rented Sector	No	£ 282,000	£ 33,800	£ 248,200	8.3 Years				-39.3	8.7	62.5
1210	Connect Energy Companies & IoT Households to Improve Efficiency (BEIS, 2019)	No	£ 77,000	£ 11,520	£ 65,480	6.7 Years	-11,000	1.0 Years	37.8	0.0	7.0	50.0
1220	Retrofit Council-Owned Properties to EPC C or Higher	No	£ 32,000,000	£ 666,400	£ 31,333,600	No Payback		0.6 Years	35.6	-13.3	-17.4	62.5
1230	Enforce Building Standards: Test for Planning Permission Compliance	No						0.6 Years	33.3	9.3	0.1	57.0
1240	Implement Circular Economy Waste Policies	No						1.1 Years	46.7	-22.7	-23.3	39.0
1250	Zero Waste to Landfill or Incineration	Yes						0.8 Years	62.2	21.3	1.7	70.0
1260	Bio-Mass for	Yes						0.8 Years	48.9	20.0	-0.4	
	Community Properties	Yes						0.5 Years	66.7	6.7	-8.7	
	for Renewable Energy Generation	Yes						No Payback	31.1	21.3	-25.3	
		Yes						0.6 Years	31.1	32.0	-12.0	
	High-Speed Broadband	Yes	£ 2,600,000	£ 288,000	£ 2,312,000	9.0 Years	-13,420	0.5 Years	60.0	-5.3	6.6	
		Yes						0.6 Years	42.2	-5.3	16.0	

Analyse the financials:
costs and benefits over five years
and calculate the payback period.

Analyse the stakeholder
support; *members,*
officers, citizens.

Decide which to include in your
portfolio. Included options are
added to the dashboard.

Analyse the social impact:
wellbeing, equality, sustainability.

Analyse the environmental and
air quality benefits and dis-
benefits of each option.

Pre-loaded with 43 climate
emergency options (initiatives).

Assess the achievability
and commercial viability
of each option.

Building Cases

Fully automated with data stored in a Excel List database.

Simple, easy to use, industry standard frameworks for completing the analysis.

Have single or multiple strategic purposes for each option.

Double-clicking an option will reveal the detailed analysis.

Six sections to complete, typically requiring between 30 and 60 minutes, depending on the quality of the data.

Assess options for any service within the authority.

An initial portfolio of 20 options using roughly-estimated values can be completed in a day.

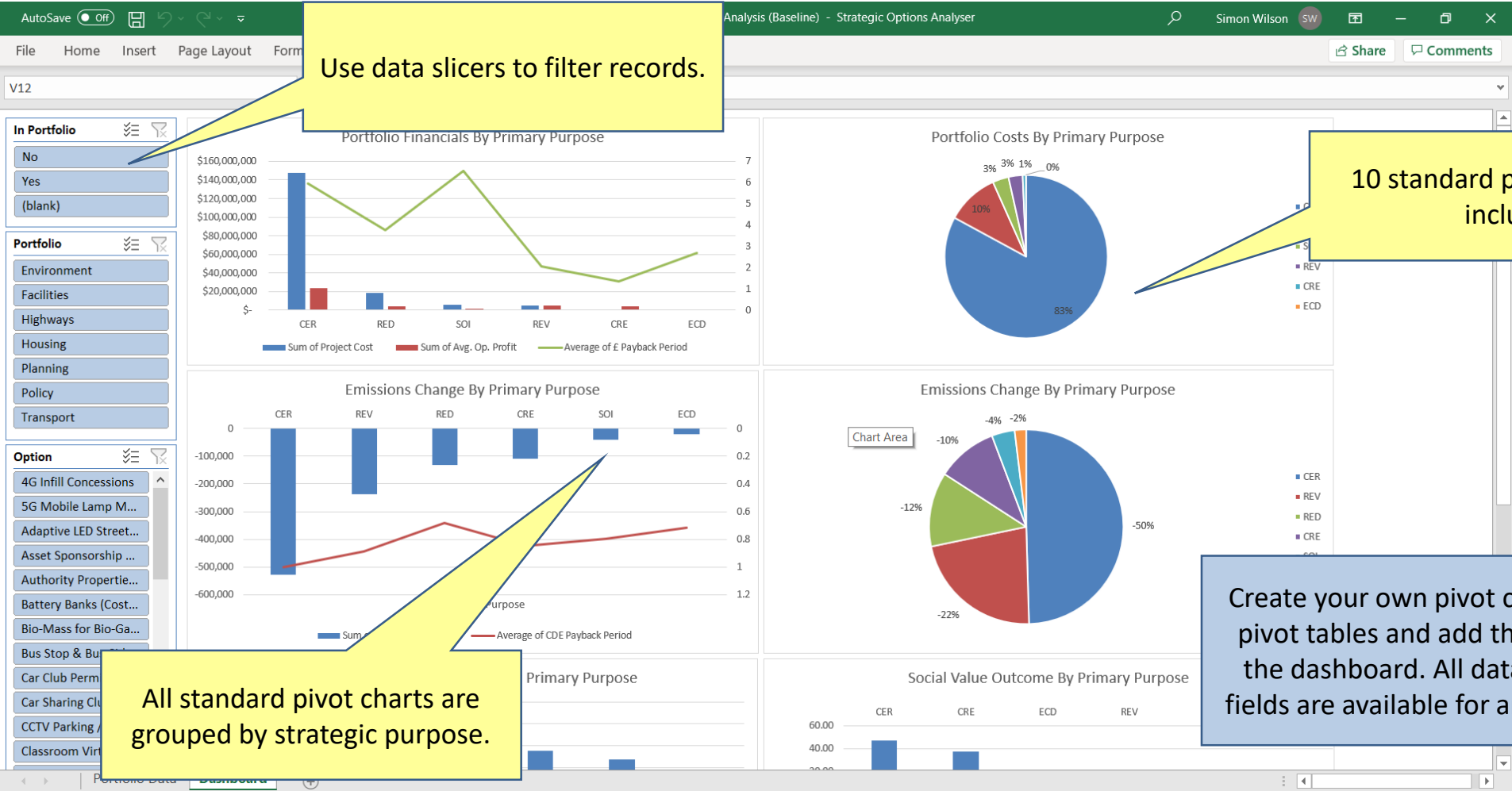
The screenshot displays the 'Strategic Options Analyser' software interface. The main window shows a table with columns for 'Year 1' and 'Year 2' under the heading 'Option Development'. The table includes various financial metrics such as 'Total Annual Revenue', 'Confidence-Adjusted Total Annual Revenue', 'Annual Cost of Service / Operations', 'Gross Operating Profit After All Fees', and 'Net Operating Profit'. A dialog box titled 'Option Rationale' is open, showing a list of 'Additional Purposes' with checkboxes for selection. The purposes include 'Local Economy Development (ECD)', 'Services Optimisation & Improvement (SOI)', 'Revenue Generation (REV)', 'Cost Reduction (CRD)', 'Cost Recovery (CRY)', 'Costs Offsetting (COF)', 'Increase Wellbeing (Social Value) (WEL)', 'Increase Equality (Social Value) (EQY)', 'Increase Sustainability (Social Value) (SUS)', 'Climate Emergency Response (CER)', 'Air Quality Improvement (AQI)', and 'Other (Specify In Comment) (OTH)'. The 'REV' checkbox is checked. The bottom of the interface shows a 'Portfolio' tab and a 'Selected Option' tab.

	Year 1	Year 2
Options Per Annum		
Revenue Per Transaction		
Savings / Efficiency Gains	£ 300,000	£ 300,000
Total Annual Revenue	£ 300,000	£ 300,000
Confidence In Revenue Projections (%)	100%	80%
Confidence-Adjusted Total Annual Revenue	£ 300,000	£ 240,000
Annual Cost of Service / Operations	£ 48,000	£ 48,000
Partner(s) Revenue Sharing / License Payments (%)		
Gross Operating Profit After All Fees	£ 252,000	£ 192,000
Annual Cost of Overheads		
Net Operating Profit	£ 252,000	£ 192,000
Operating Profit		
Period (Years)	1.5	
Stakeholder Group	Exec	
Awareness	Medi	
Influence	Low	
Consultation	Low	
Support (Post Consultation)	Low	
Stakeholder Score	+2.2	-4.87
Overall Stakeholder Score	-4.87	
Option Development / Implementation Emissions	+10,003	

Option Rationale Dialog Box:

- Primary Purpose: []
- Additional Purposes:
 - [] Local Economy Development (ECD)
 - [] Services Optimisation & Improvement (SOI)
 - [x] Revenue Generation (REV)
 - [] Cost Reduction (CRD)
 - [] Cost Recovery (CRY)
 - [] Costs Offsetting (COF)
 - [x] Increase Wellbeing (Social Value) (WEL)
 - [x] Increase Equality (Social Value) (EQY)
 - [x] Increase Sustainability (Social Value) (SUS)
 - [] Climate Emergency Response (CER)
 - [x] Air Quality Improvement (AQI)
 - [] Other (Specify In Comment) (OTH)

Create a Portfolio Dashboard



Roundtable Exercise

What climate emergency response initiatives are you planning?

Exercise

- Please review and discuss the list of climate change initiatives with your group.
- For your organisation, prioritise which options are intuitively:
 - 1. The most attractive (if so select “Yes” as a priority).**
 - Highest positive impact on CO₂ emissions and / or air quality.
 - Lowest cost.
 - Generate income or offset costs.
 - 2. The most achievable (if so select “Yes” as achievable).**
 - Lowest complexity and risk.
 - Enjoy wide-ranging stakeholder support.
 - 3. Are these the options your organisation is implementing?**
 - 4. Are there others that should be added to the list?**



Morning Coffee

Strategic Options Analyser

Income Generation, Cost Recovery & Cost Offsetting: Case Builder

Strategic Options Analyser

Other Options...

- **The wider portfolio will include options for:**
 - Income generation.
 - Cost reduction
 - Costs recovery.
 - Costs offsetting.
 - Social value initiatives.
- **Many options achieve multiple benefits:**
 - Some climate emergency responses reduce costs.
 - Some revenue generation initiatives reduce CO₂ levels.
- **Strategic Option Analyser includes 54 additional “commercialisation” options.**
 - [Strategic Option Analyser](#) quick review.
- **Please add and evaluate your own.**

Strategic Options Analyser available now.
Includes 43 climate emergency response initiatives.
Also includes 54 “commercialisation” initiatives.
No cost to ADEPT members.

Would you like to use the toolkit?
(A show of hands)

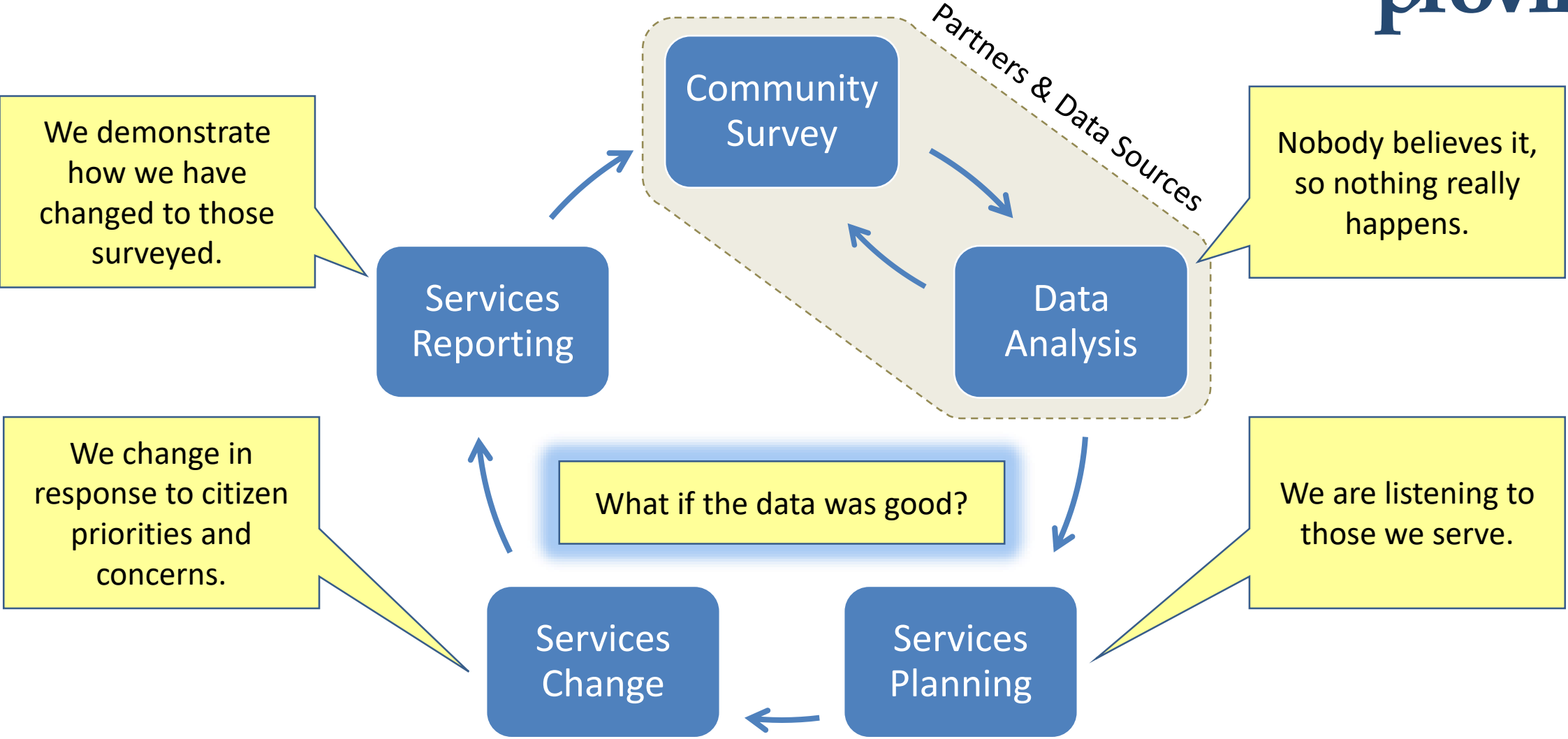


Pop-Up Street Surveys (Project Clarion)

Gauging Citizen Perceptions & Priorities

Closing the Planning Loop

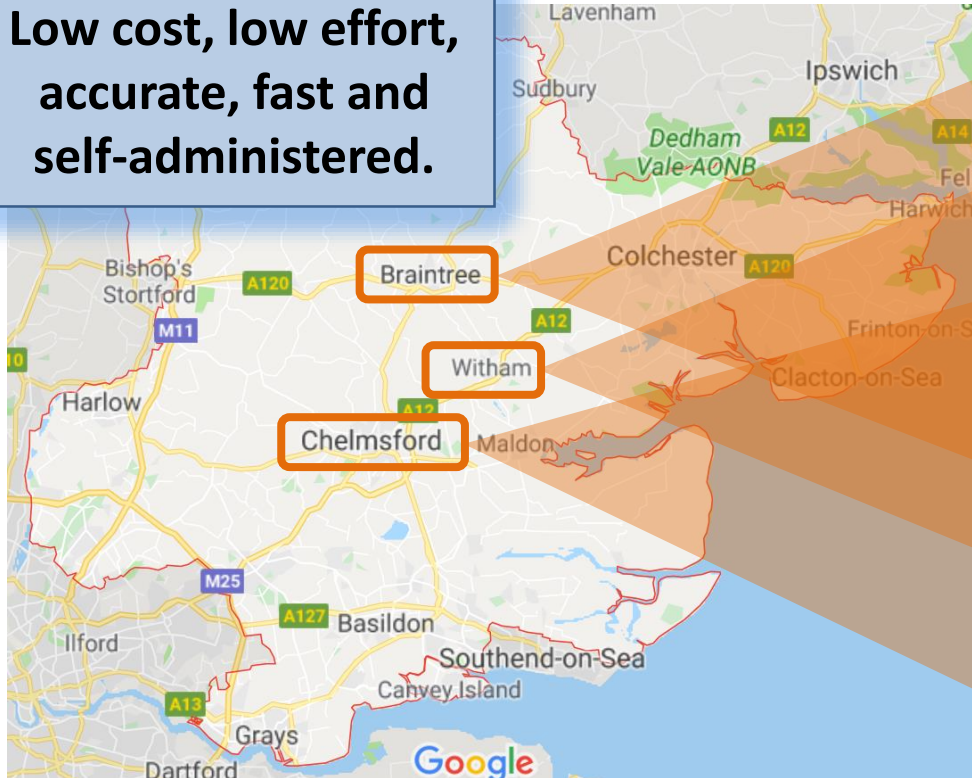
You told us, we listened, we answered.



FHRG Clarion Process: Pop-Up, Street Surveys

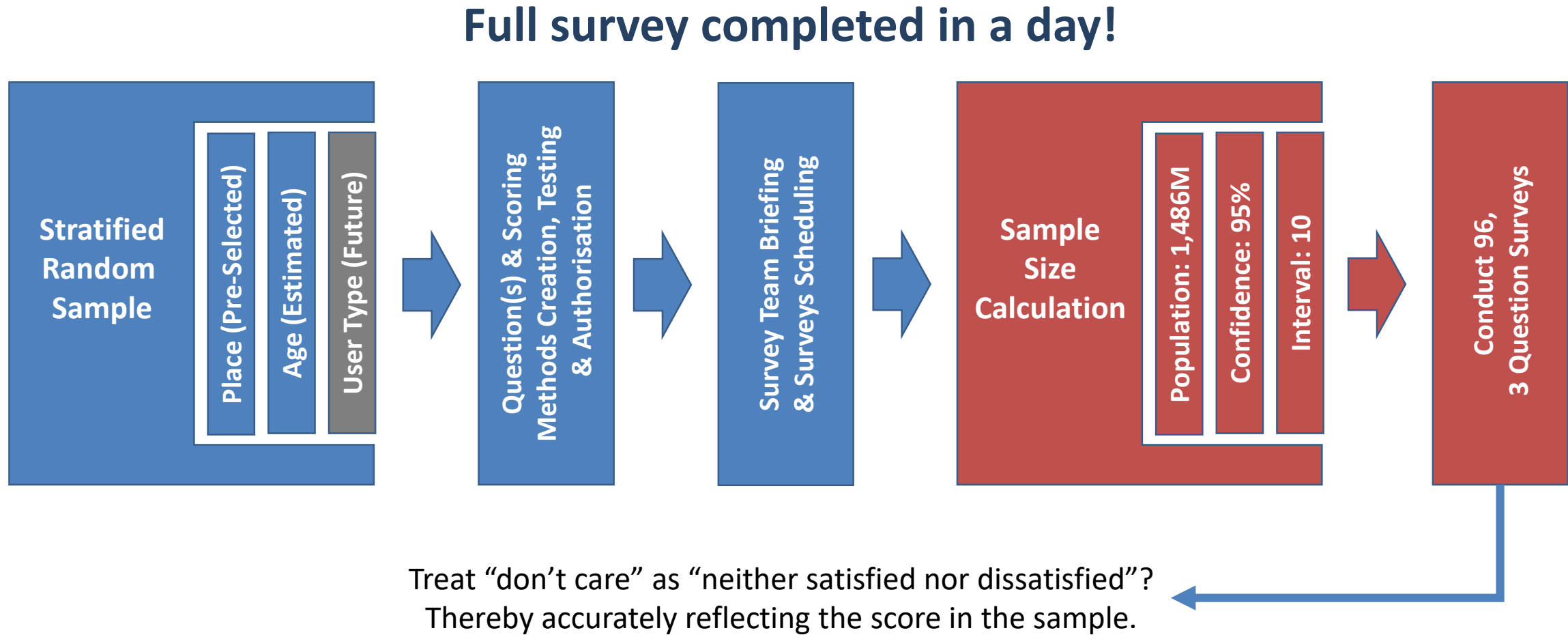
Select Sites Representing Served Communities (Essex Example)

**Low cost, low effort,
accurate, fast and
self-administered.**

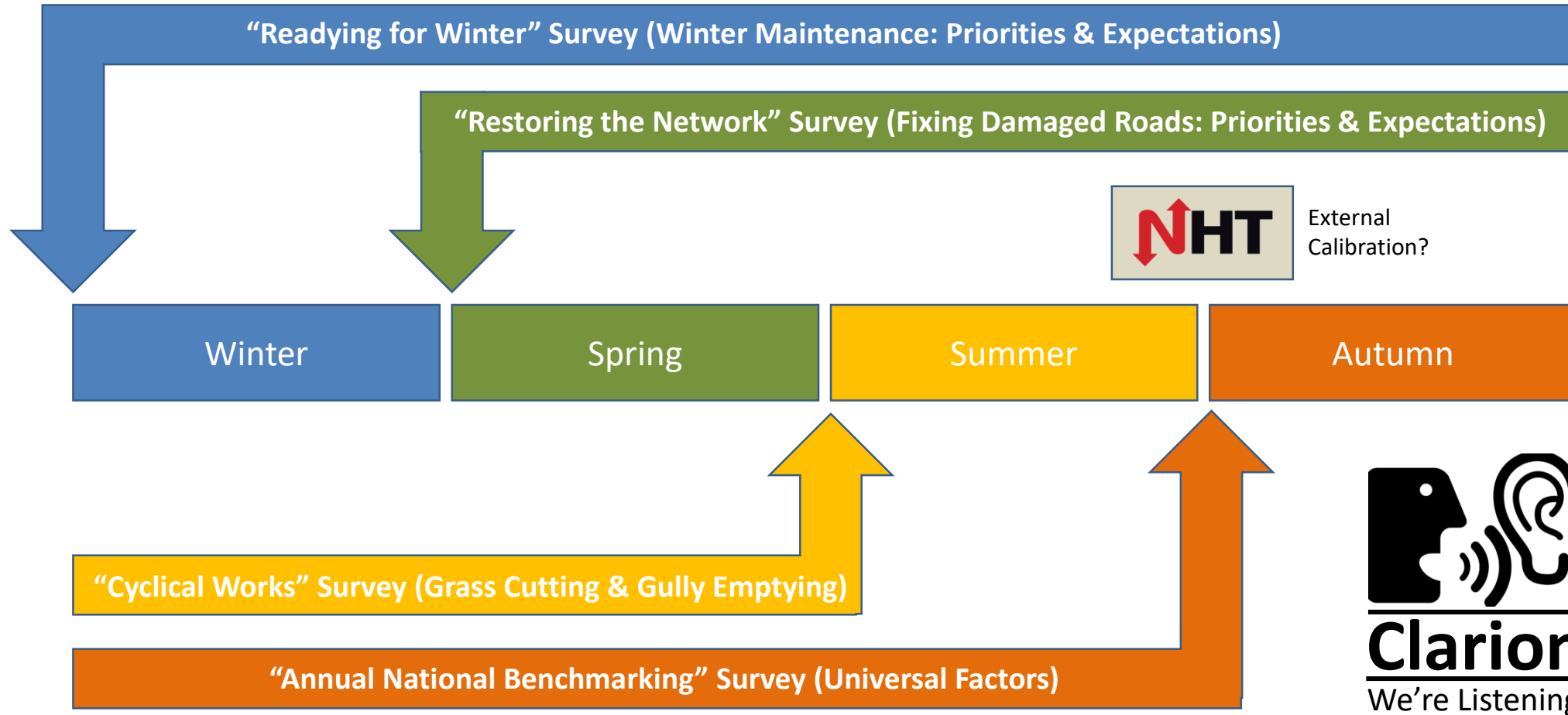


**Authority Staff (Branded), 2 Interviewers + 1 Supervisor Per Site, 3 to 5 Sites,
Sites Selected By Members, Rotated Between Surveys**

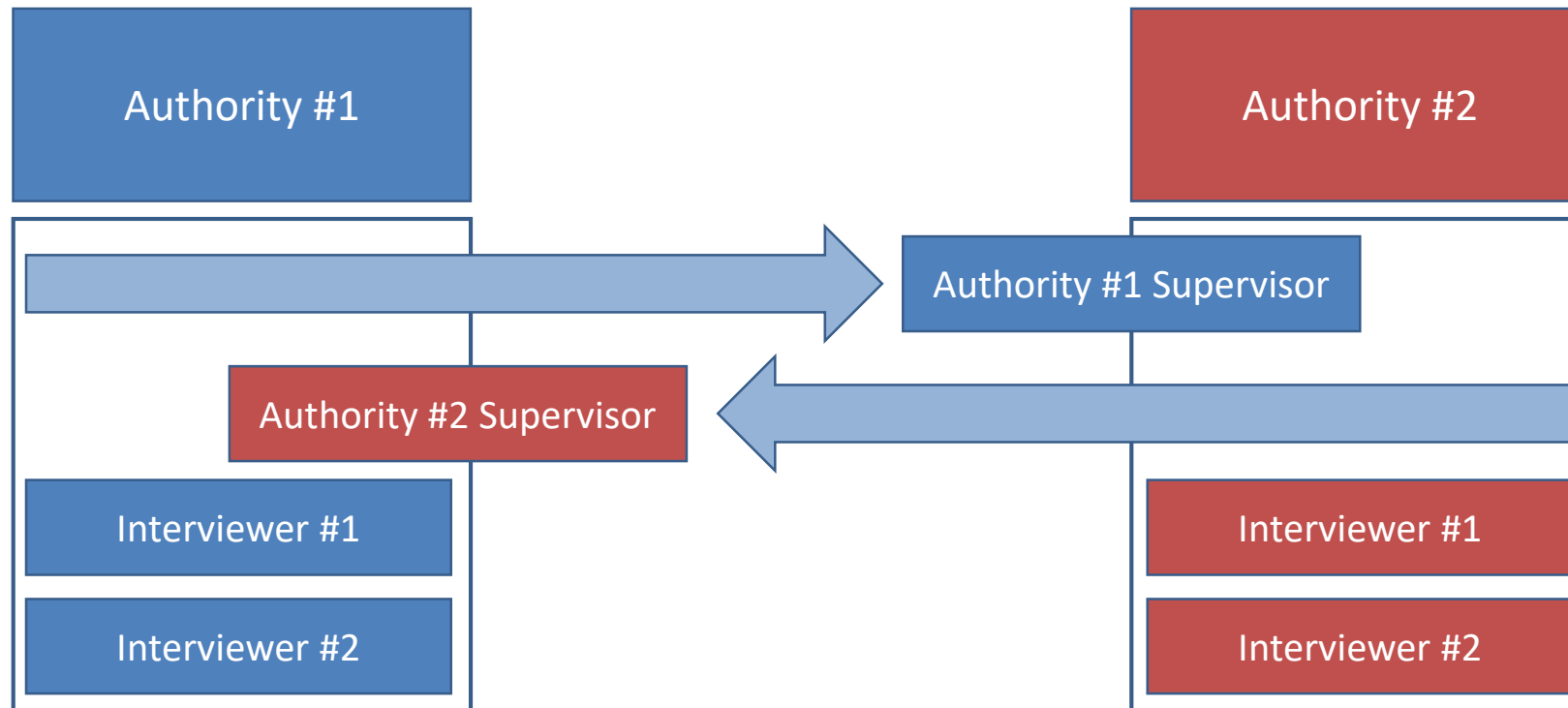
Sampling Method & Sample Size



Low-Cost, Self-Administered Seasonal Surveys



Ensuring Integrity: “Buddy Authority” Scheme



Clarion protocols, process guides and case examples available now.

No cost to ADEPT members.

Would you like to participate?

(A show of hands)