Kite Packaging

Courier Cost Saving Analysis

June 7, 2023

Analytical Avengers

Agenda

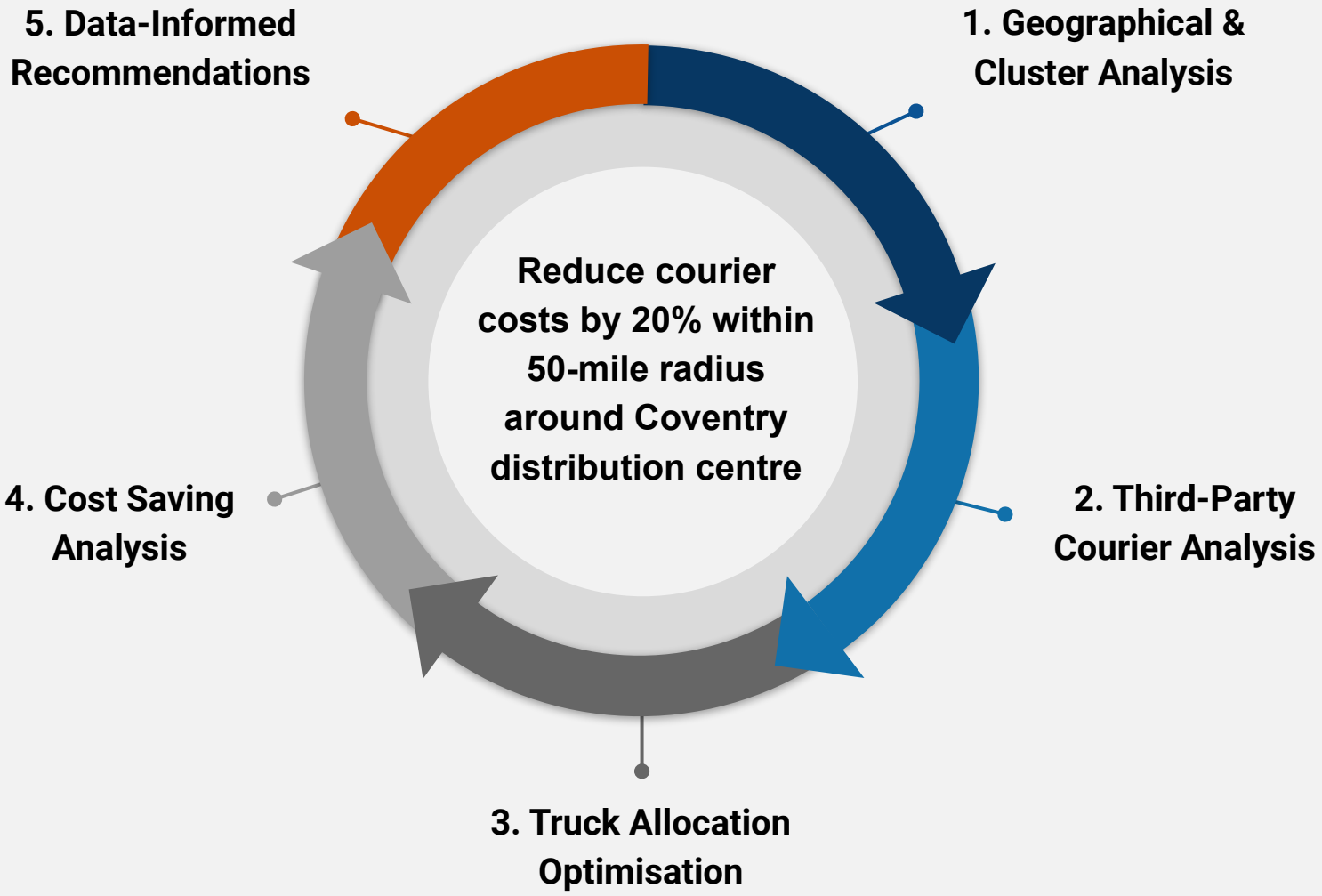
- Background
- Project Development Process
- Patterns, Trends, and Insights
- Conclusions

Background

Kite spends 10% of earnings on delivery costs

Source: Kite raw data from March 27, 2023 to April 22, 2023 for the Coventry distribution centre

Analytical approach

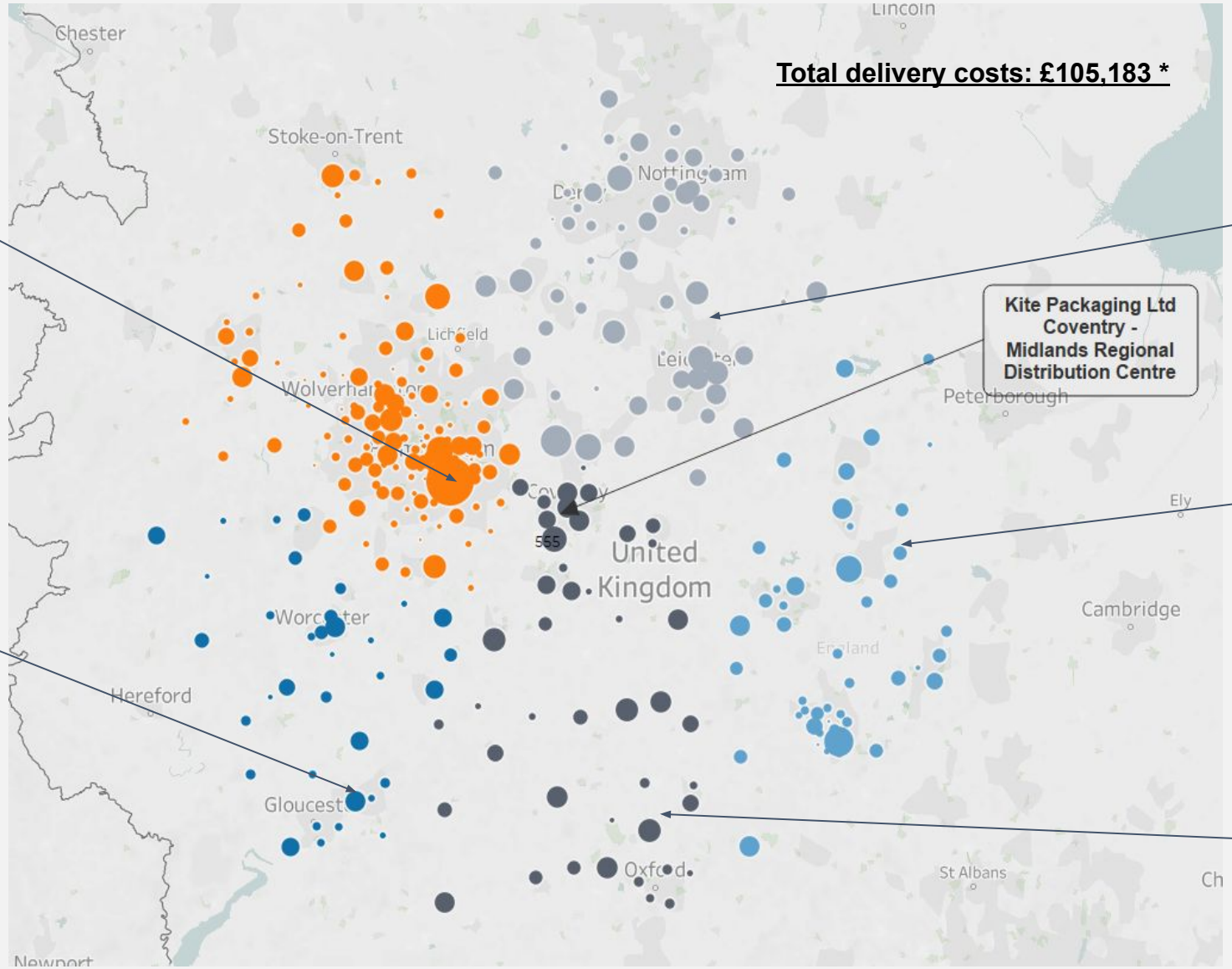



Project
Development
Process

Geographical analysis: five clusters

Birmingham
(33.2% of delivery costs)

Worcester / Gloucester
(8.5% of delivery costs)



Nottingham / Leicester
(26.8% of delivery costs)

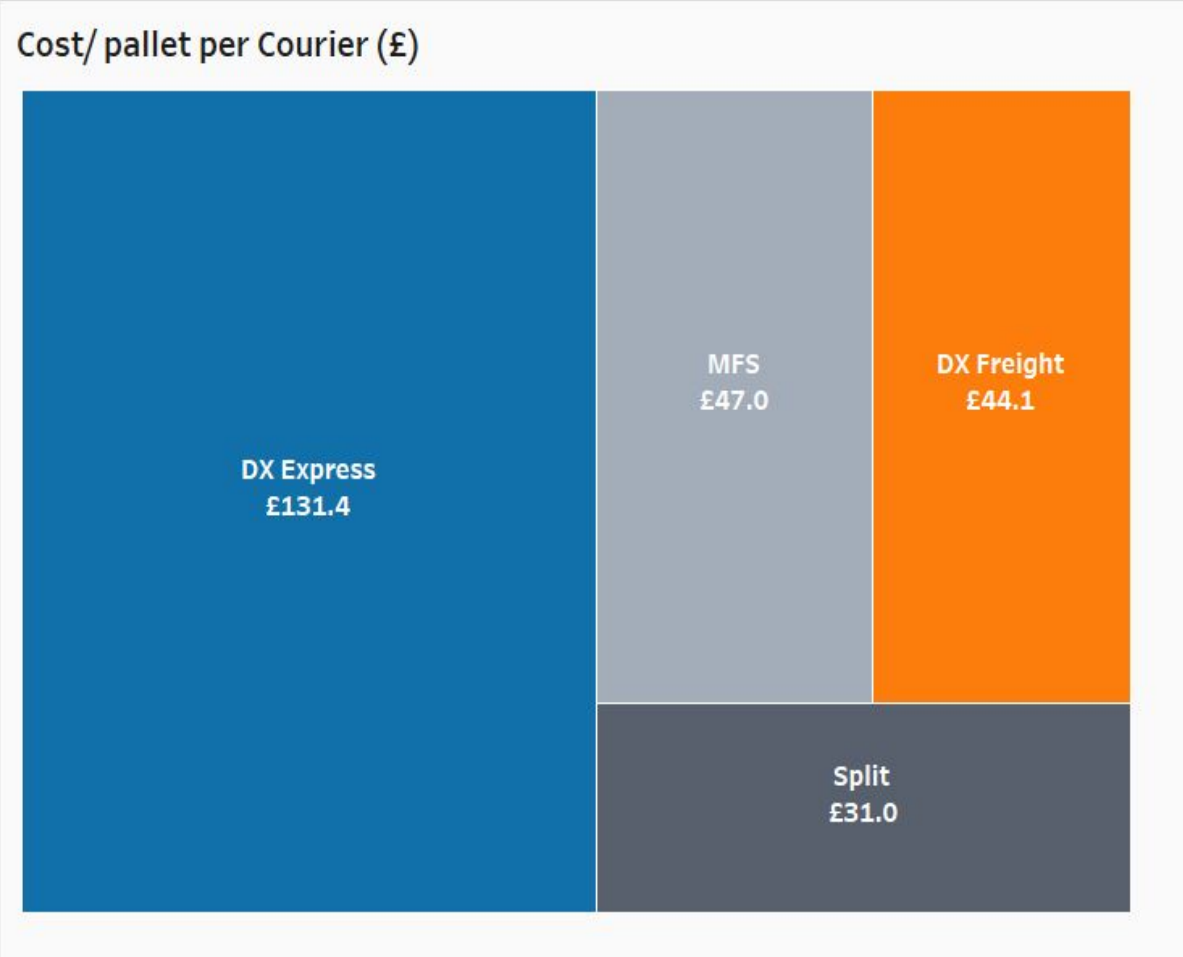
Milton Keynes
(14.0% of delivery costs)

Coventry / Oxford
(17.5% of delivery costs)

Source: Kite, Analytical Avengers, *Delivery costs March 27, 2023 to April 22, 2023
Note: size of dots represent sum of delivery costs

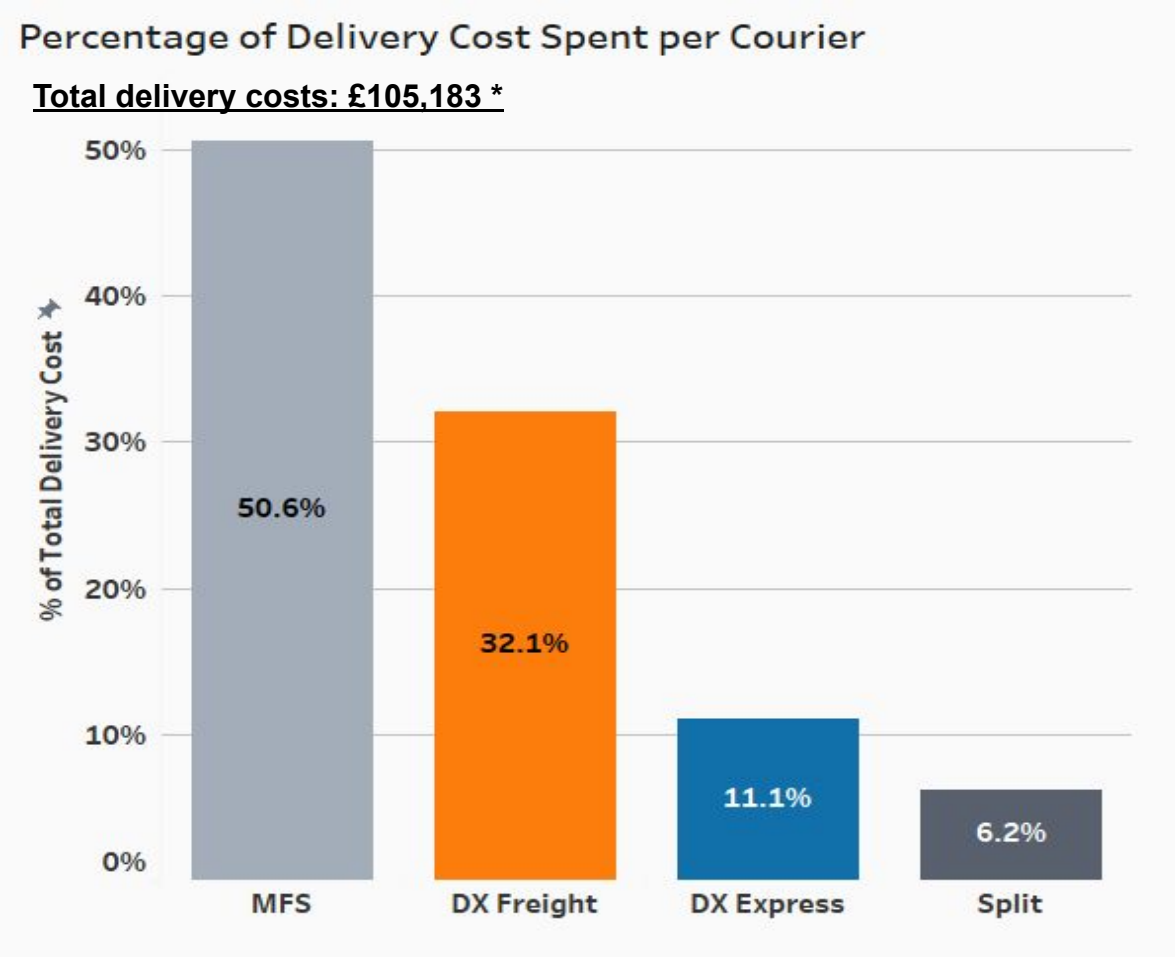
Freight and courier analysis: costs and breakdown

DX Express: Highest cost per pallet



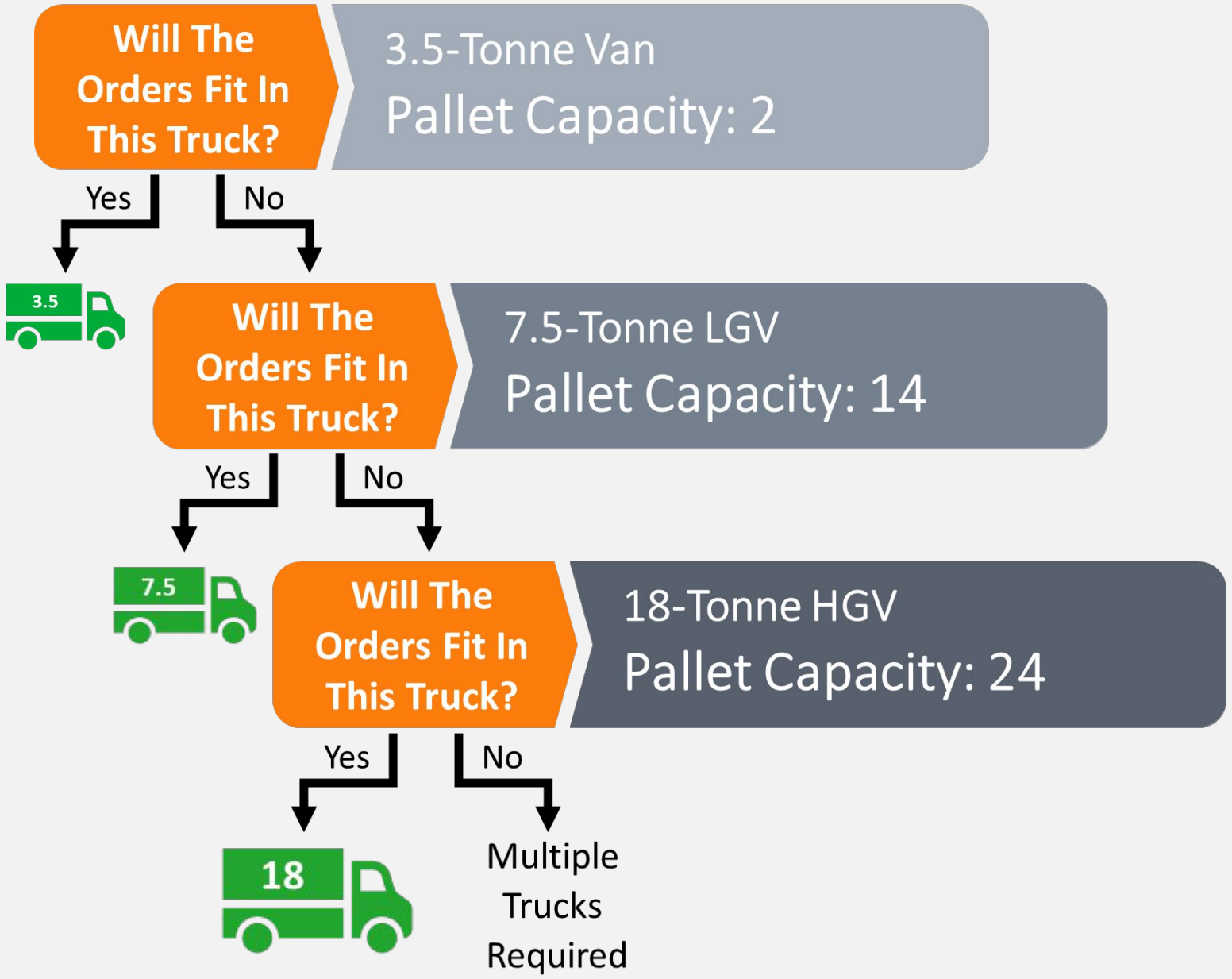
Note: DX Express does not deliver pallets so cost per pallet estimated using volume

MFS & DX Freight: highest proportion of delivery costs



* Delivery costs March 27, 2023 to April 22, 2023

Truck allocation function



Cost saving analysis approach

Feedback from stakeholder meeting with Kite

Cost savings based on trucks allocated for minimum daily pallets only

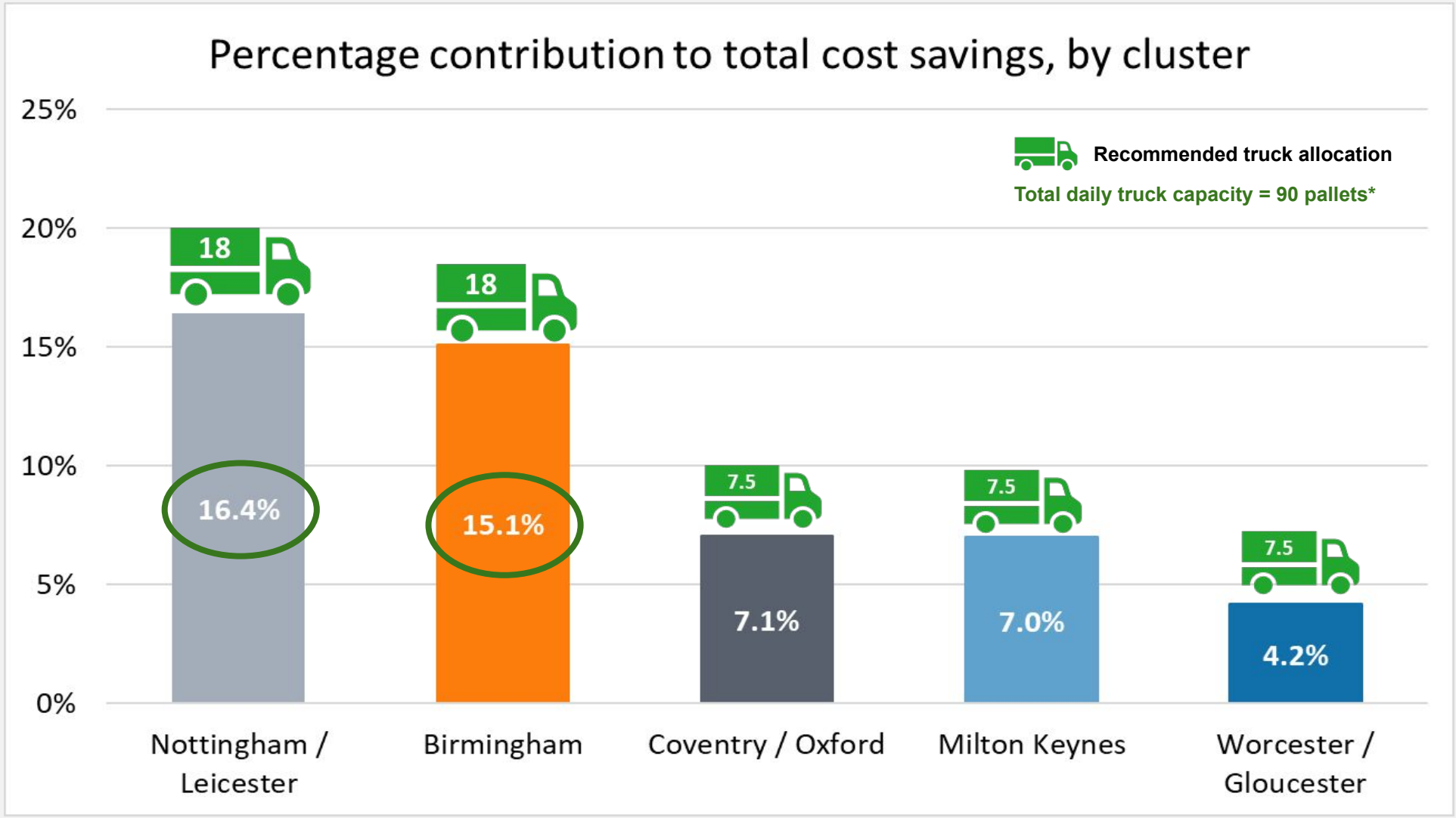
Cost savings based on **full** trucks allocated for minimum daily pallets

Cost savings based on **full** trucks allocated for median daily pallets


Patterns, Trends,
and Insights

Model 1 allocates five trucks using minimum pallets

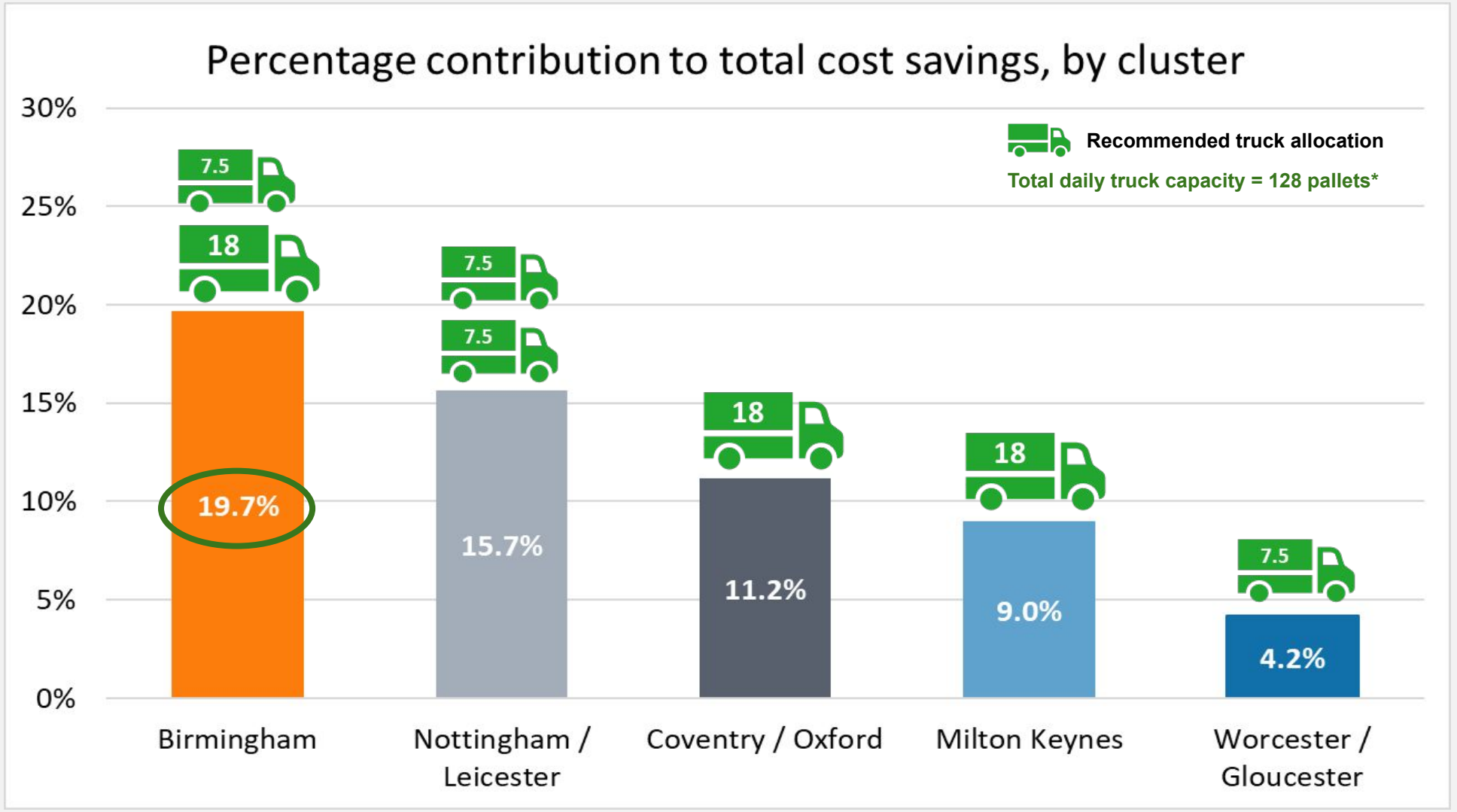
Nottingham/Leicester and Birmingham clusters each achieve ~20% total savings



Note: Based on total monthly delivery costs of £113,481 (raw data scaled to a full business month)
* Truck capacity data supplied by Kite

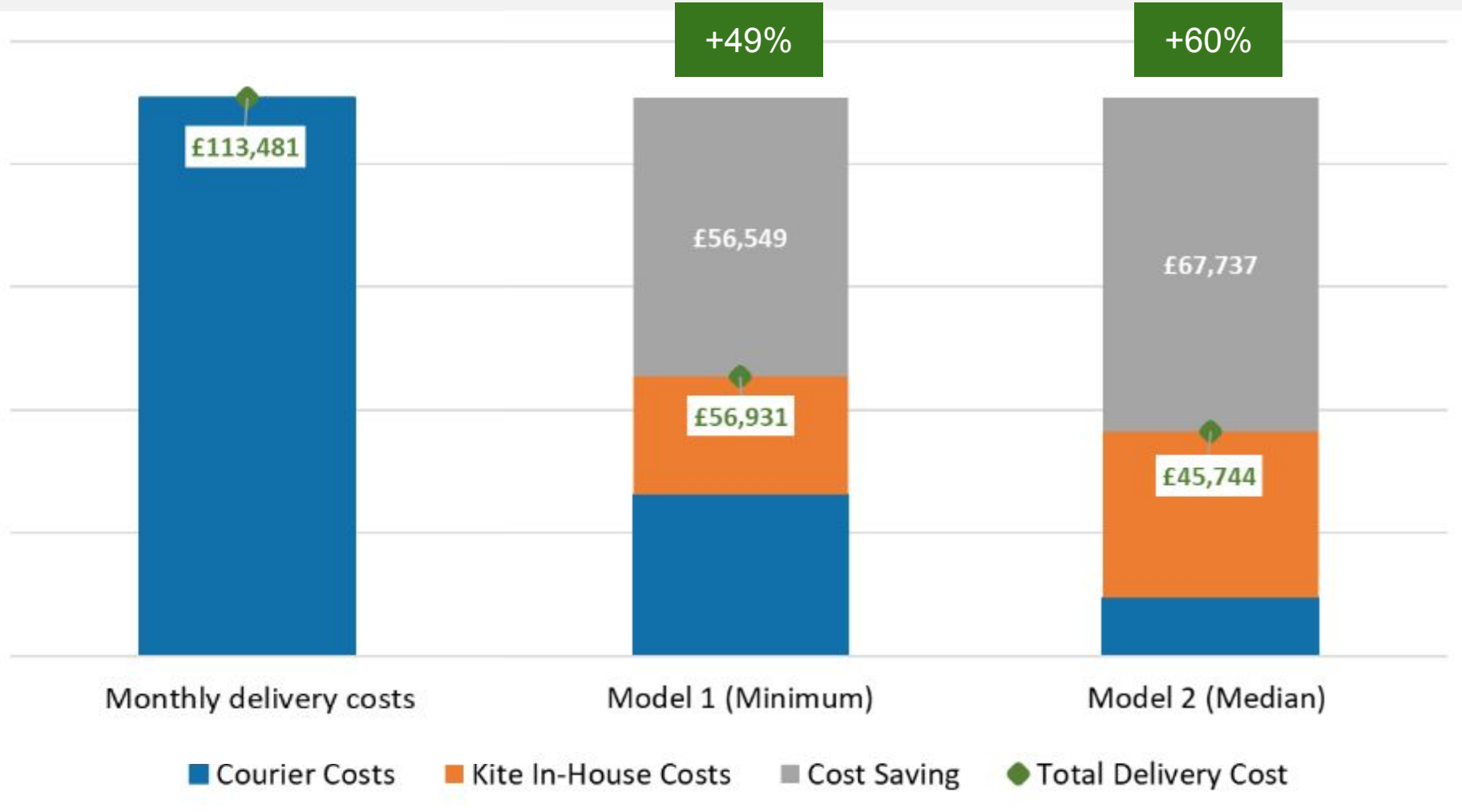
Increasing fleet with Model 2 leads to higher cost savings

Birmingham cluster alone achieves 20% total cost savings!



Note: Based on total monthly delivery costs of £113,481 (raw data scaled to a full business month)
* Truck capacity data supplied by Kite

Total cost savings of up to 60% possible for Kite



Note: Raw data scaled to a full business month

Why is this important to Kite?

Improved company brand and reputation

Increased profitability

£ £

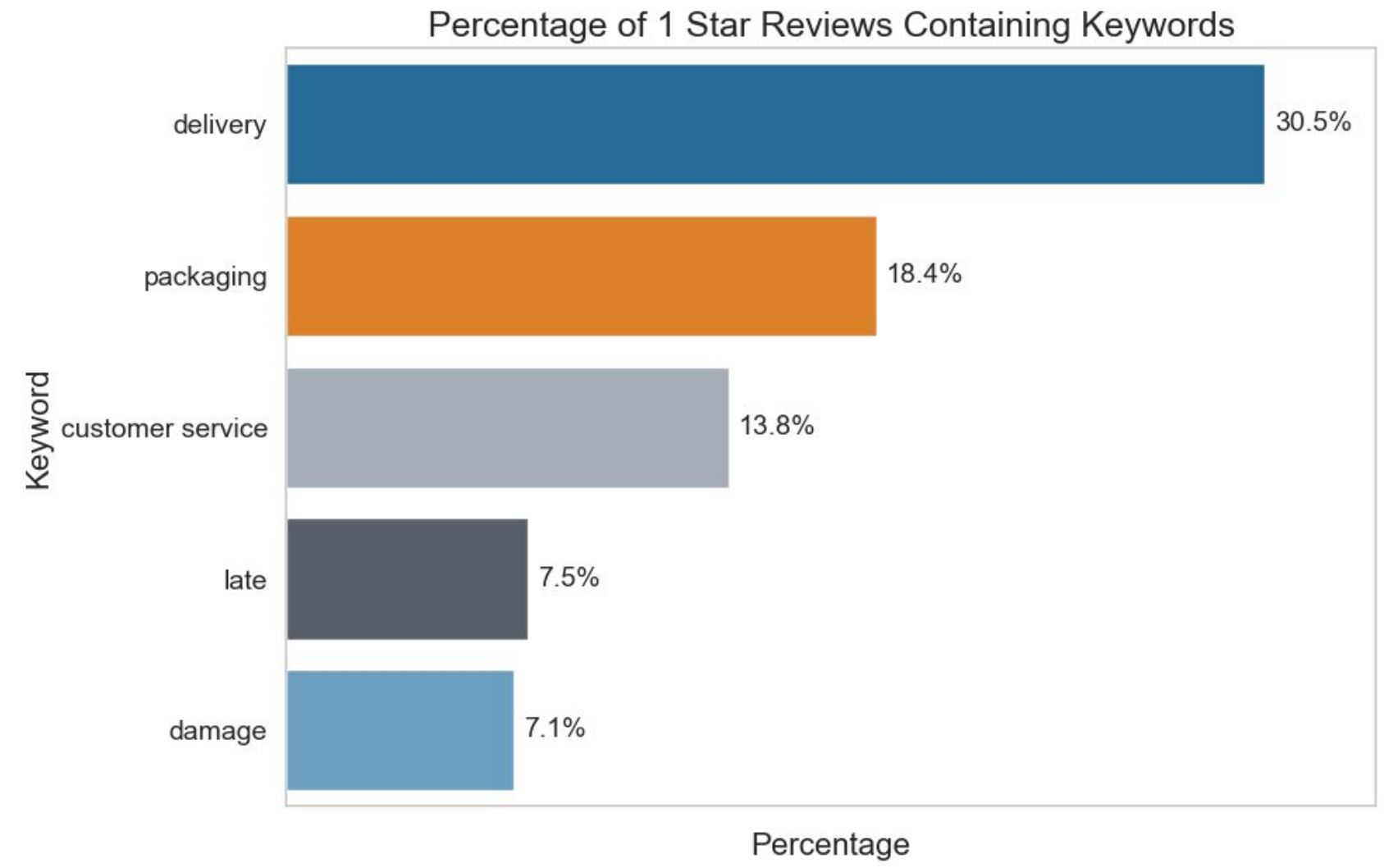
Control over delivery times

Increased sales opportunities

Control over delivery quality

Increased customer satisfaction

Delivery issues a leading cause of low customer ratings



Source: Trustpilot (January 2022 - May 2023)

RA **Rachel**
2 reviews GB

Verified Updated 11 Apr 2023

It hasn't arrived

It hasn't arrived. Was shown as out for delivery on Thursday 6th and never appeared. Despite the driver saying delivery was attempted we were at the address until 19.30 and nobody turned up. We've double checked cameras and can't see anyone attempt delivery at that time.
It has arrived on Tuesday 11th

Date of experience: 05 April 2023

CU **customer**
3 reviews GB

Verified 16 Apr 2023

shocking service from courier company...

shocking service from courier company DX
2 large boxes left at back door, totally squashed and ripped open on the sides, it was pouring with rain-
no note through the letterbox to tell us boxes had been left
probably won't be ordering from Kite again, they need to sort out their couriers....

Date of experience: 10 April 2023

RR **Ros Reynolds**
4 reviews GB

Verified An hour ago

Consistently fails to deliver full...

Consistently fails to deliver full order

Past few orders I have placed, I had to chase missing items. Maybe the delivery drivers fault, but it seems Kite struggle if there are more than 4 boxes to deliver. I end up having to chase after this.

Date of experience: 17 May 2023

Recommendations

Run a pilot study in Birmingham

Minimise risk by scaling up across clusters

Truck allocation using median daily pallets = higher cost savings

Next steps: route optimisation software, investment in electric vehicles, analysis of national data, hub and spoke model

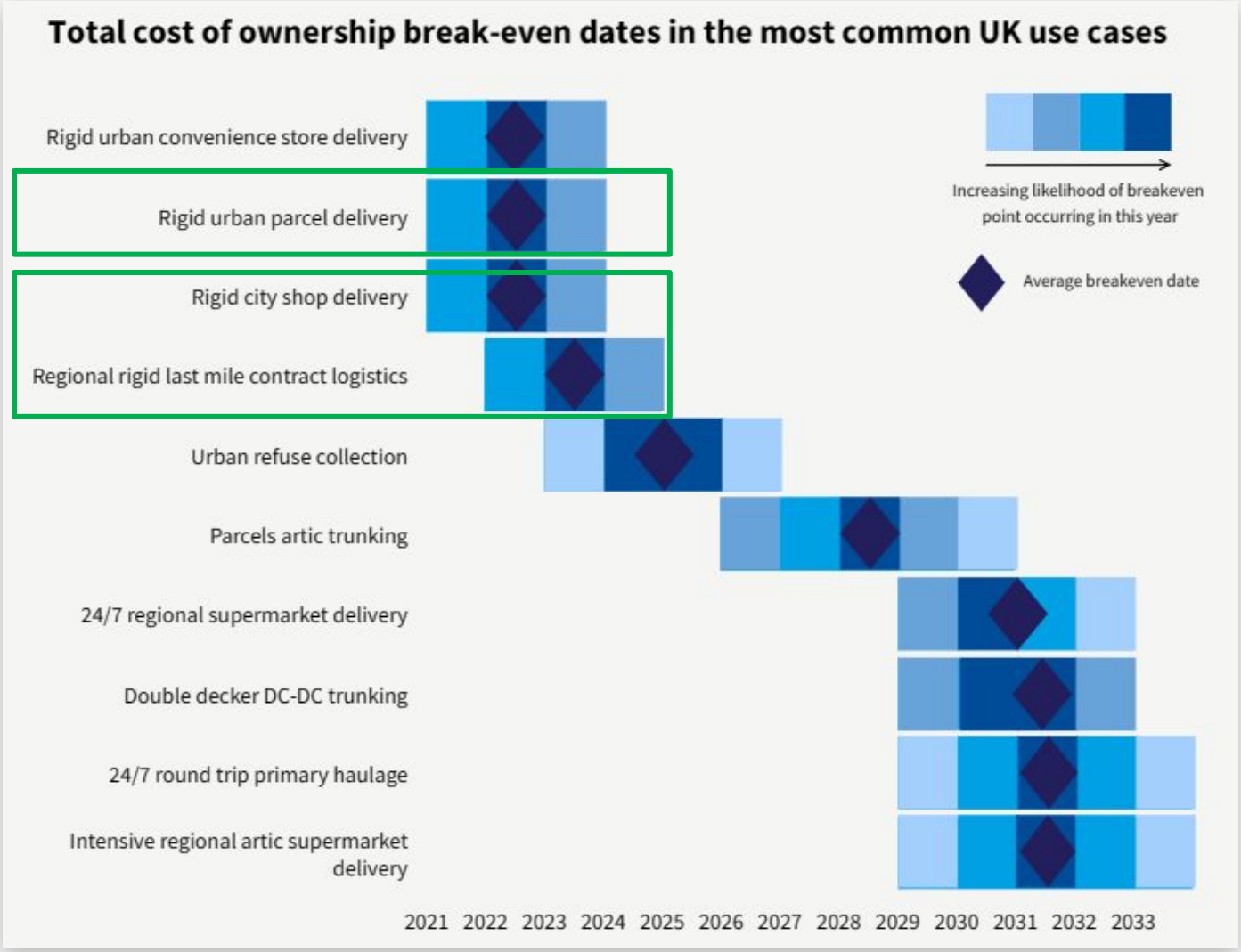
Case study: Route optimisation software

OPTIMISER	COMPLETE
£35 per vehicle/month	£50 per vehicle/month
Automated route planning optimiser	‘Optimiser’ PLUS extra features

Electric vehicle considerations

WE ARE CARBON NEUTRAL CERTIFIED

Electric trucks will reach cost parity with diesel trucks in the next 2-3 years



Source: Transport & Environment (May 2023)

Conclusions

Conclusions

Clear benefits of bringing at least some deliveries in-house

- 20% total cost savings achieved just around Birmingham using median pallets.
- Non-financial benefits: control over brand and customer experience.

Limitations to model

- Factors not considered: distance, maximum daily orders, multiple daily trips, additional costs, etc.

Next steps

- Route optimisation software and electric vehicles investment.
- National data.
- Feasibility of hub and spoke model.


Q&A

Appendix

Model 1: Total cost savings

Cluster	Total delivery cost per month	Minimum daily pallets	Monthly minimum pallets for Kite	Minimum trucks required	Trucks cost	Monthly pallets for couriers	Courier cost	Cost savings	% cost saving by cluster	% total cost savings
Worcester / Gloucester	**£9,456**	4.1	194	1 x 7.5 tonne LGV (14 pallets)	£4,450	5	£258	£4,748	**+50%**	**4%**
Birmingham	**£37,955**	19.2	522	1 x 18-tonne HGV (24 pallets)	£5,400	357	£15,415	£17,140	**+45%**	**15%**
Nottingham / Leicester	**£30,324**	18.1	511	1 x 18-tonne HGV	£5,400	132	£6,226	£18,697	**+62%**	**16%**
Coventry / Oxford	**£19,892**	9.4	296	1 x 7.5 tonne LGV	£4,450	176	£7,417	£8,025	**+40%**	**7%**
Milton Keynes	**£15,854**	9.0	290	1 x 7.5 tonne LGV	£4,450	81	£3,465	£7,939	**+50%**	**7%**
Total	**£113,481**	-	-	-	**£24,150**	-	**£32,781**	**£56,549**	-	**49%**

Note: Figures taken from model results which used rounded up values.

For all clusters, using filled trucks for **minimum daily pallets** could save Kite **49% in delivery costs per month** around its Coventry distribution centre.

Model 2: Total cost savings

Cluster	Total delivery cost per month	Median daily pallets	Monthly median pallets for Kite	Minimum trucks required	Trucks cost	Monthly pallets for couriers	Courier cost	Cost savings	% cost saving by cluster	% total cost savings
Worcester / Gloucester	**£9,456**	8.5	194	1 x 7.5 tonne LGV	£4,450	5	£258	£4,748	**+50%**	**4%**
Birmingham	**£37,955**	36.9	745	1 x 18-tonne HGV; 1 x 7.5 tonne LGV	£9,850	134	£5,801	£22,304	**+59%**	**20%**
Nottingham / Leicester	**£30,324**	27.4	565	2 x 7.5 tonne LGV	£8,900	77	£3,651	£17,773	**+59%**	**16%**
Coventry / Oxford	**£19,892**	20.9	430	1 x 18-tonne HGV	£5,400	43	£1,795	£12,697	**+64%**	**11%**
Milton Keynes	**£15,854**	16.2	366	1 x 18-tonne HGV	£5,400	6	£239	£10,215	**+64%**	**9%**
Total	**£113,481**	-	-	-	**£34,000**	-	**£11,744**	**£67,737**	-	**60%**

Note: Figures taken from model results which used rounded up values.

For all clusters, using filled trucks for **median daily pallets** could save Kite **60% in delivery costs per month** around its Coventry distribution centre.