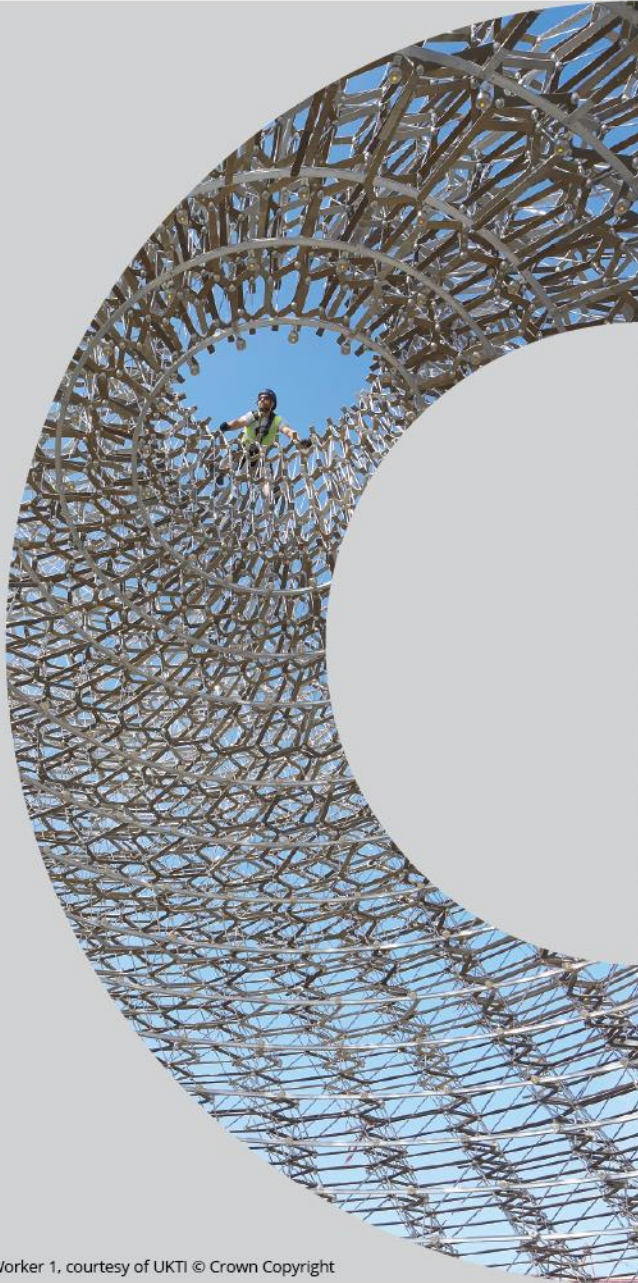


Belfast: Summary from Northern Ireland Gap Analysis



Modelled Scenarios Outlined

Scenario code	Refuse	Dry	Food	Garden
1a	3-weekly collection frequency	No change to each LA's current service	No change to each LA's current service service	No change to each LA's current service service
1b	3-weekly collection frequency	No change to each LA's current service	Fortnightly mixed food and garden collection	No separate garden collection
1c	3-weekly collection frequency	No change to each LA's current serviceE	Weekly separate food collection	Separate free fortnightly garden collection
1d	3-weekly collection frequency	Multi stream /source separated	Weekly separate food collection	Separate free fortnightly garden collection
1e	3-weekly collection frequency	Two stream - fibres separate (paper/card)	Weekly separate food collection	Separate free fortnightly garden collection
1f	3-weekly collection frequency	Two stream - glass separate	Weekly separate food collection	Separate free fortnightly garden collection
1g	3-weekly collection frequency	Multi stream /source separated	No change to each LA's current service	No change to each LA's current service
1h	3-weekly collection frequency	Two stream - fibres separate (paper/card)	No change to each LA's current service	No change to each LA's current service
1i	3-weekly collection frequency	Two stream - glass separate	No change to each LA's current service	No change to each LA's current service

3-Weekly residual

Scenario code	Refuse	Dry	Food	Garden
2a	Residual bin capacity restricted to 180 litres	No change to each LA's current service	No change to each LA's current service	No change to each LA's current service
2b	Residual bin capacity restricted to 180 litres	No change to each LA's current service	Fortnightly mixed food and garden collection	No separate garden collection
2c	Residual bin capacity restricted to 180 litres	No change to each LA's current service	Weekly separate food collection	Separate free fortnightly garden collection
2d	Residual bin capacity restricted to 180 litres	Multi stream /source separated	Weekly separate food collection	Separate free fortnightly garden collection
2e	Residual bin capacity restricted to 180 litres	Two stream - fibres separate (paper/card)	Weekly separate food collection	Separate free fortnightly garden collection
2f	Residual bin capacity restricted to 180 litres	Two stream - glass separate	Weekly separate food collection	Separate free fortnightly garden collection
2g	Residual bin capacity restricted to 180 litres	Multi stream /source separated	No change to each LA's current service	No change to each LA's current service
2h	Residual bin capacity restricted to 180 litres	Two stream - fibres separate (paper/card)	No change to each LA's current service	No change to each LA's current service
2i	Residual bin capacity restricted to 180 litres	Two stream - glass separate	No change to each LA's current service	No change to each LA's current service

Restricted Residual capacity

Missing Materials	Scenario code	Refuse	Dry	Food	Garden
	3a	No change to each LA's current service	No change to each LA's current service+PTTs	No change to each LA's current service	No change to each LA's current service
	3b	No change to each LA's current service	Two stream fibres separate (paper/card) and comingled collections change to Two stream glass separate adding glass where not currently collected	No change to each LA's current service	No change to each LA's current service
	3c	No change to each LA's current service	Two stream fibres separate (paper/card) and comingled collections change to Two stream glass separate adding glass & PTT where not currently collected	No change to each LA's current service	No change to each LA's current service

Flats	4a	No change to each LA's current service	No change to each LA's current service but adding missing materials where not currently collected	Weekly separate food collection	No collection of garden at flats
	4b	Restricted residual capacity	No change to each LA's current service but adding missing materials where not currently collected with assumed increased yield	Weekly separate food collection with assumed increased yield	No collection of garden at flats

Missing materials/ Flats

Food waste

Scenario code	Refuse	Dry	Food	Garden
5a	No change to each LA's current service	No change to each LA's current service	Fortnightly mixed food and garden collection	No separate garden collection
5b	No change to each LA's current service	No change to each LA's current service	Weekly separate food collection	Separate free fortnightly garden collection
5c	No change to each LA's current service	Multi stream /source separated	Weekly separate food collection	Separate free fortnightly garden collection
5d	No change to each LA's current service	Two stream - fibres separate (paper/card)	Weekly separate food collection	Separate free fortnightly garden collection

Communications

6a	No change to each LA's current service	No change to each LA's current service plus 10kgs/hh/yr	No change to each LA's current service	No change to each LA's current service
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HHWRC

7a	Improvements at Household waste recycling centres; 7.1 Additional materials where not currently collected 7.2 Meet & greet policy and trade restriction
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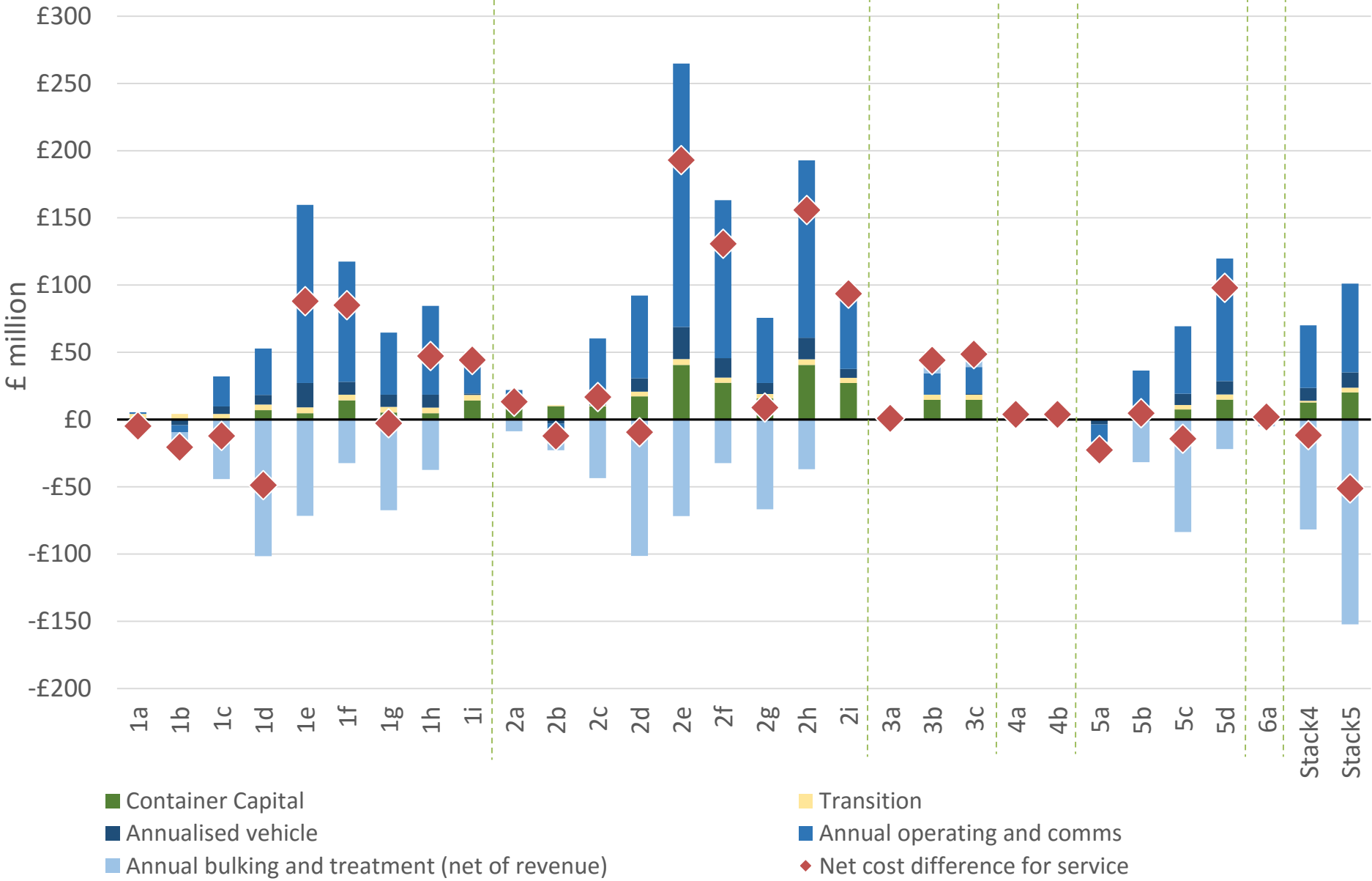
Food / Comms / HHWRC



Scenario code	Refuse	Dry	Food	Garden
Stack4	180 litres @ low-rise restricted @ flats	No change to each LA's current service but adding missing materials where not currently collected @ all	Weekly separate food @ all	Separate free fortnightly garden collection @ low-rise
Stack5	180 litres @ low-rise restricted @ flats	Multi-stream @ low-rise plus adding missing materials where not currently collected @ all	Weekly separate food @ all	Separate free fortnightly garden collection @ low-rise

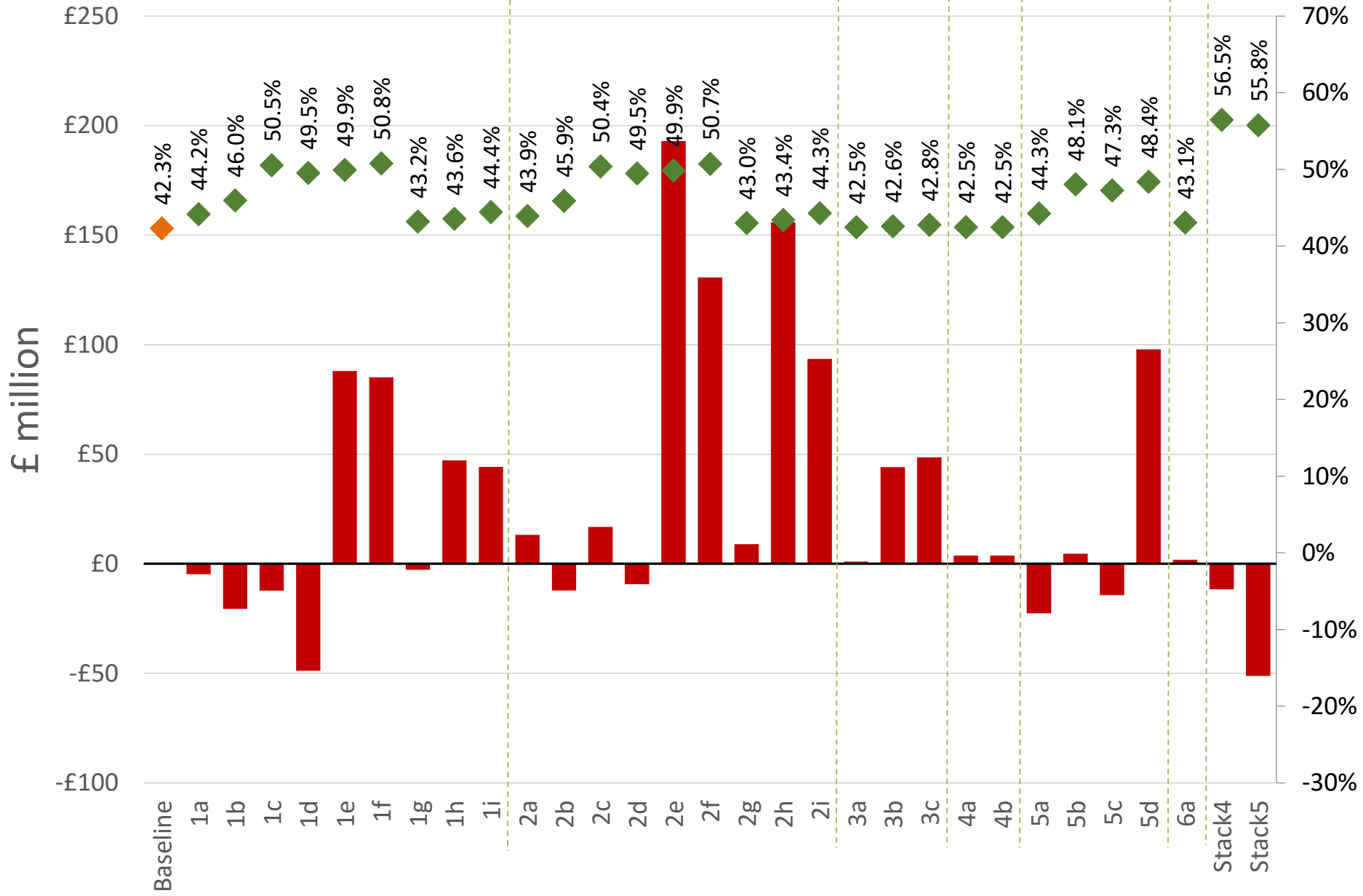
Stacked scenarios

NI Gap Analysis Summary of Results



NI Cumulative Net Service Cost breakdown (£m) - *compared to baseline* (2018/19-2025/26)

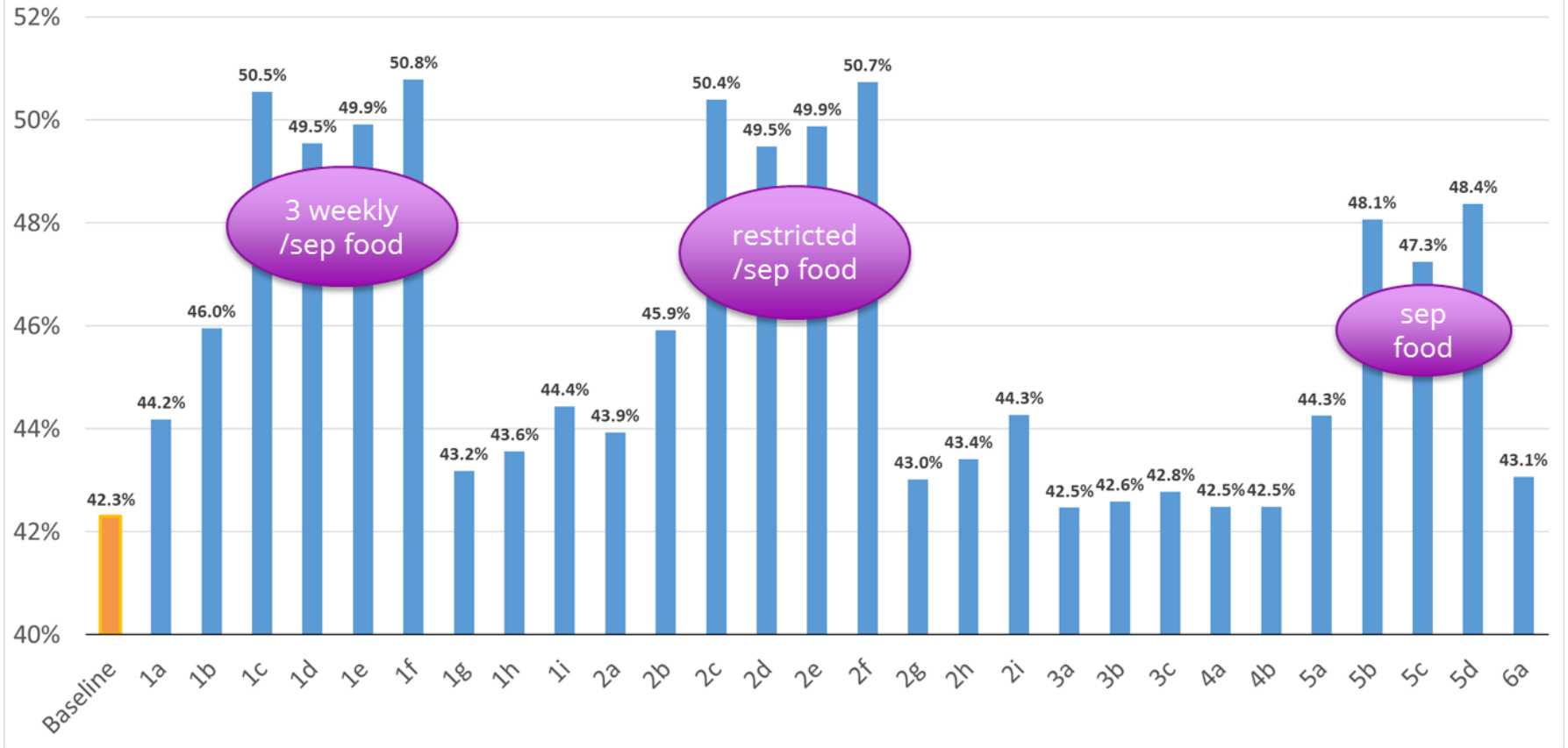




NI Cumulative Net Service Cost breakdown (£m) - compared to baseline (2018/19-2025/26)



Recycling Rate by 2025/26



Target areas

1. Possible to meet 50% from kerbside scenarios
2. Possible to meet 50% in 2020 (just) assuming all NI LAs start in 2018/19
3. The groups of scenarios which meet 50% all include either 3 weekly residual or restricted residual bin volume
4. 3-weekly residual scenarios are consistently lower cost than restricted volume
5. Least cost scenarios all include multi-stream (savings coming from co-collection of separate food waste)
6. Separate food waste collections increase the recycling rate by over 6% compared to 2% from mixed garden and food waste

NI Key conclusions

7. HHWRC scenarios add potentially 2.5% and would support kerbside scenarios to increases beyond 50%
8. Scenarios including flats, adding in missing dry materials at kerbside, communications add minimal increase to the recycling rate
9. Communications and associated implementation resources are considered essential in transition to achieve the performance detailed in scenarios
10. Recycling rate depends on scenarios included, when they start and what enables the change to happen

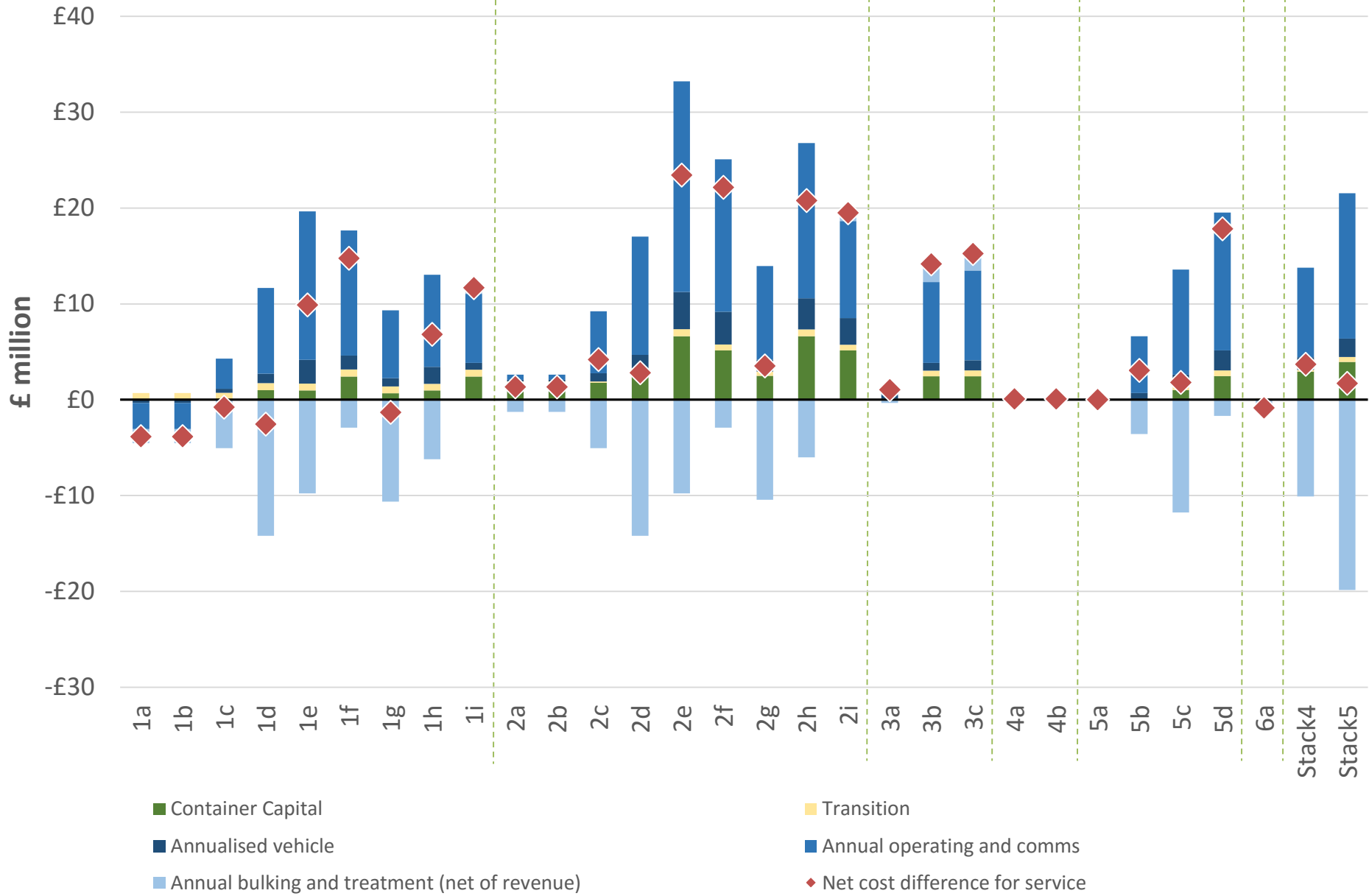
Key conclusions cont.

Belfast

Summary Extract

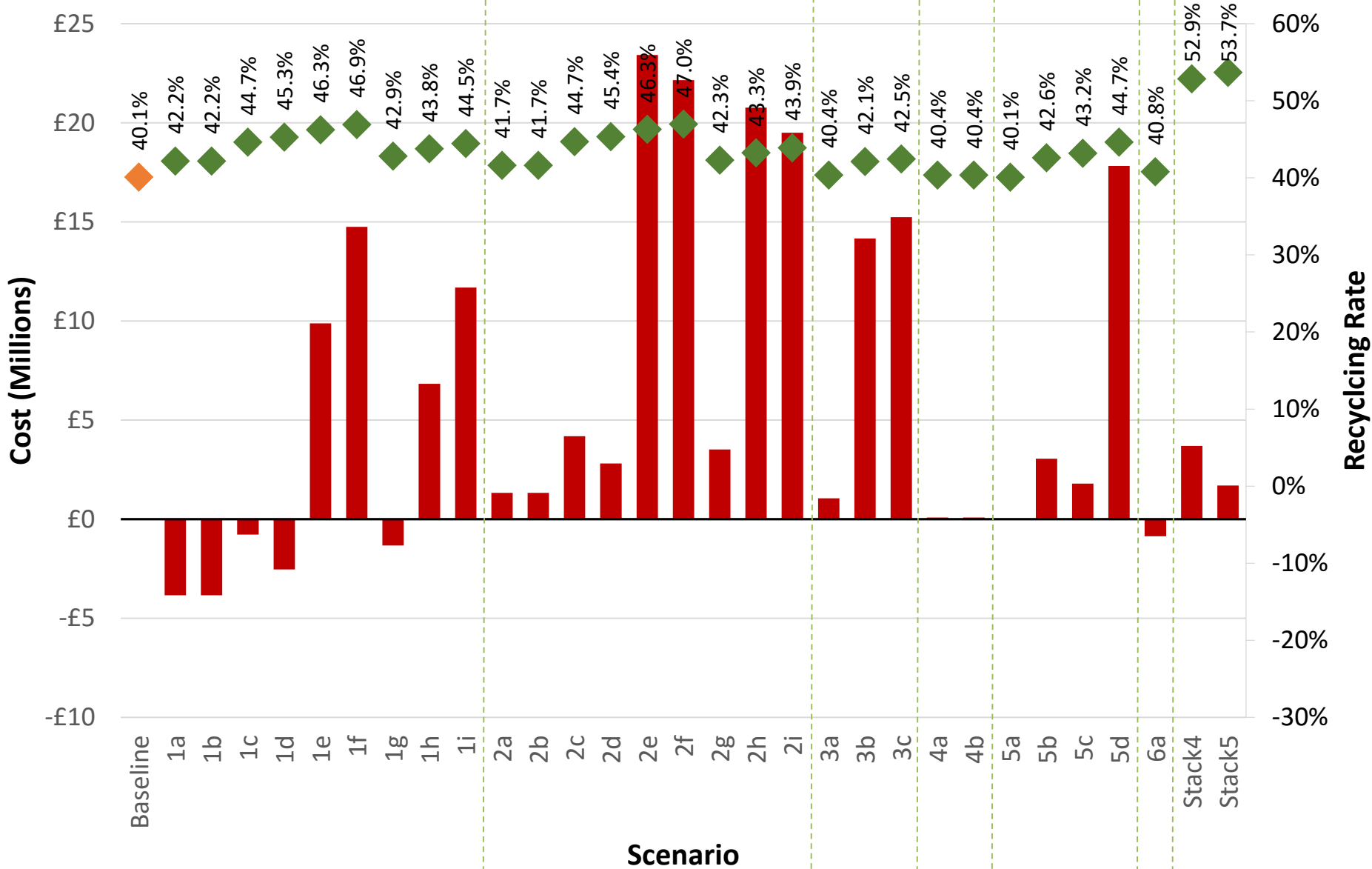
Waste stream	Scheme	Frequency
Dry	Comingled (65,829) Multistream (58,000) Two Stream (22,000)	Fortnightly Weekly Fortnightly
Residual		Fortnightly
Separate food	58,000 households	Weekly
Mixed food and garden	87,829 households	Fortnightly
Garden	#N/A	
Recycling rate 40.1%		

Starting Point



Belfast Cumulative Net Service Cost breakdown (£m) - *compared to baseline* (2018/19-2025/26)





Belfast Cumulative Net Service Cost breakdown (£m) - compared to baseline (2018/19-2025/26)



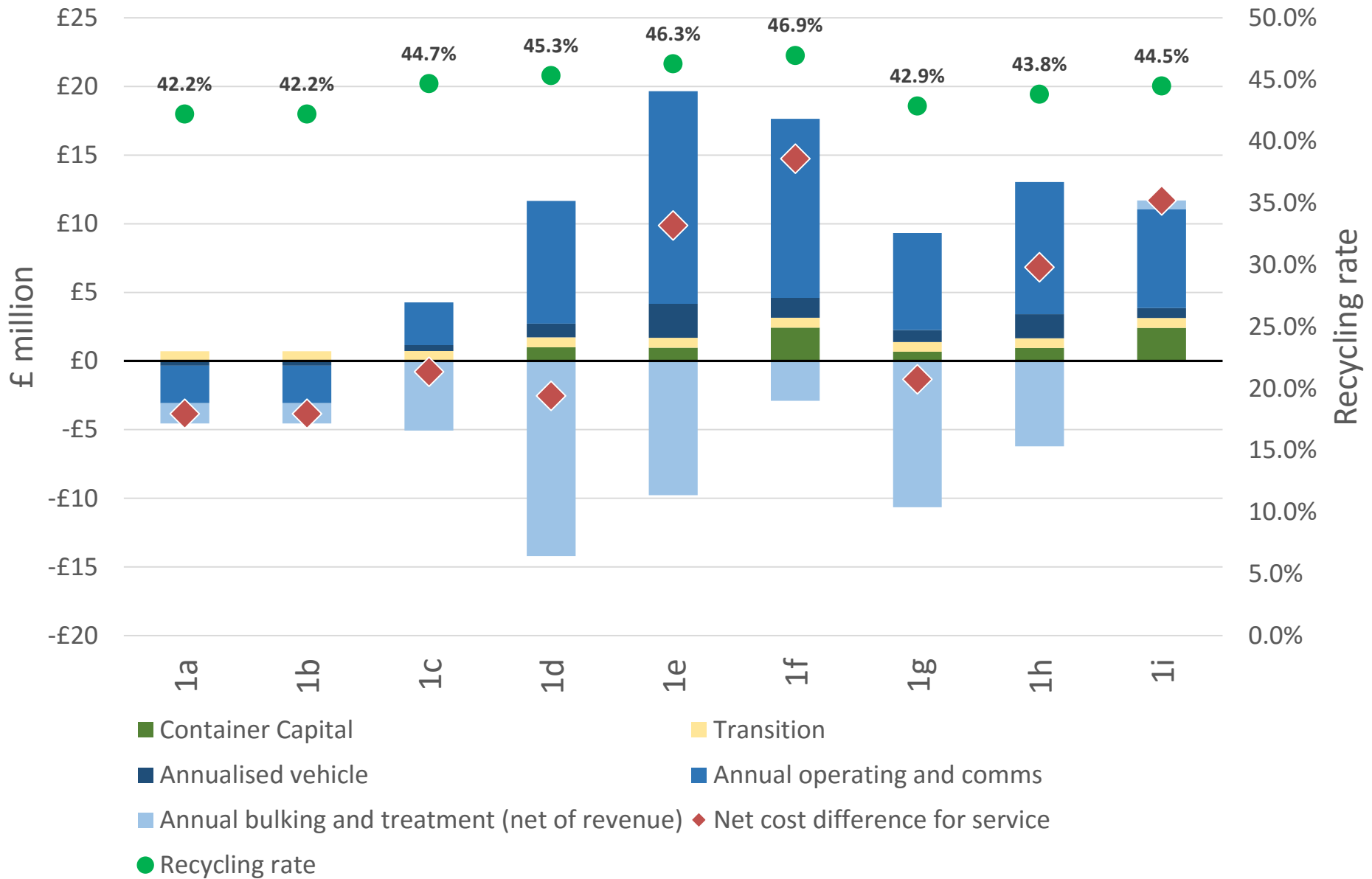
Biggest cost savings associated with;

- 3-weekly residual
- Separate weekly food/ Mixed Food and Garden
- Weekly Multi-stream dry recycling

Biggest recycling rate uplifts associated with;

- Combining 3-weekly residual with separate food
- Combining 3-weekly residual with separate food and multi-stream recycling
- Combining 3-weekly residual with separate food and two-stream recycling
- Combining restricted residual with separate food
- Combining restricted residual with separate food and multi-stream recycling
- Combining restricted residual with separate food and two-stream recycling

Summary



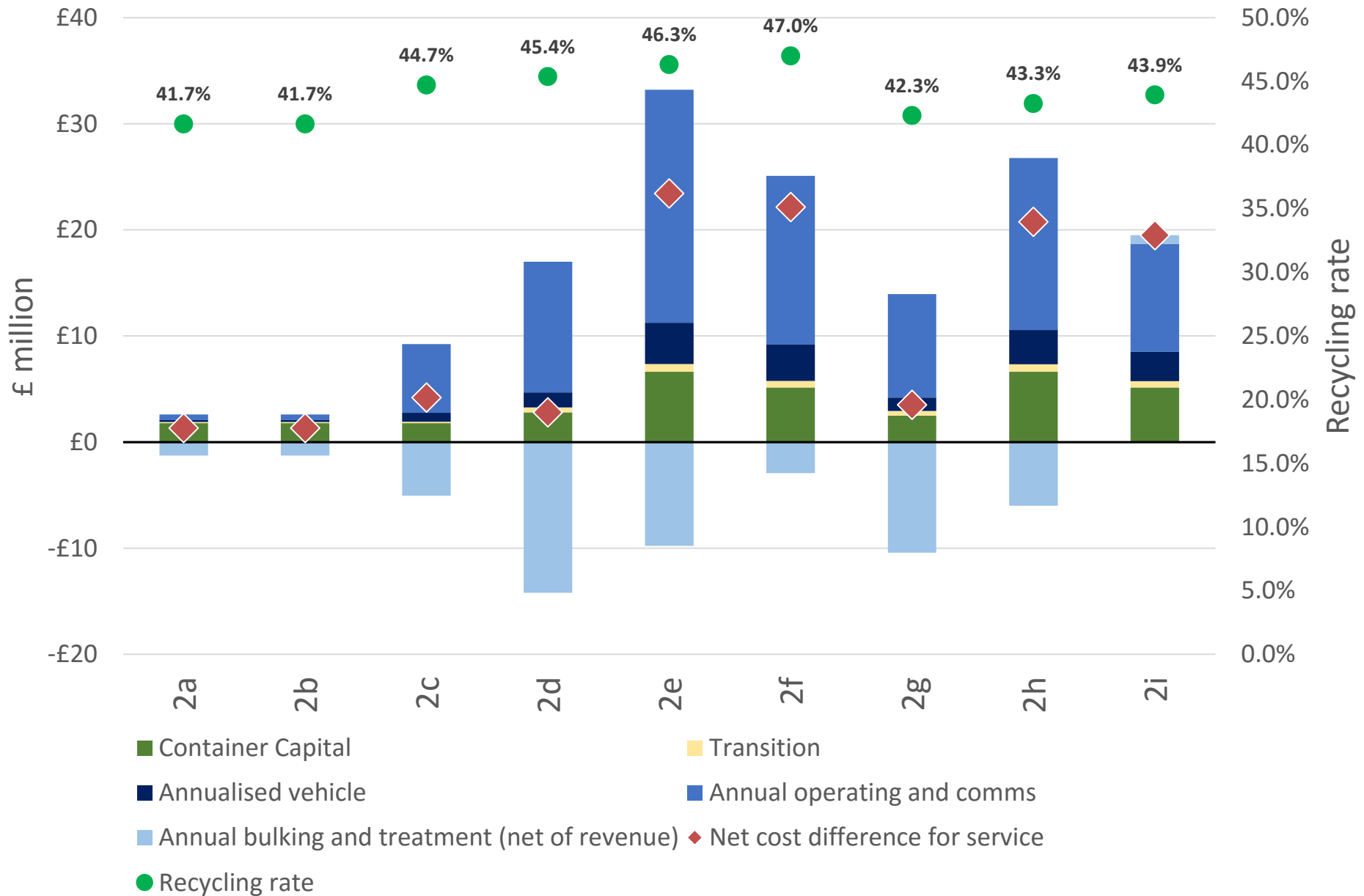
3-weekly residual - Cumulative Net Service Cost breakdown (£m) - *compared to baseline* (2018/19-2025/26)

Biggest cost savings associated with;

- Implementing 3-weekly residual due to operational and residual disposal cost savings.
- Implementing food collections due to increased avoided disposal costs.
- Implementing Multi-stream collections – Increased quality of recycle

Biggest recycling rate uplifts associated with;

- Combining 3-weekly residual with separate food
- Combining 3-weekly residual with separate food and multi-stream recycling.
- Combining 3-weekly residual with separate food and two stream recycling



Restricted residual - Cumulative Net Service Cost breakdown (£m) - *compared to baseline* (2018/19-2025/26)

Lowest costs associated with;

- Implementing restricted residual due to operational and residual disposal cost savings. No net cost saving due to having no reduction in operational costs and additional capital container costs.
- Implementing food collections due to increased avoided disposal costs.
- Implementing Multi-stream collections – Increased quality of recycle

Biggest recycling rate uplifts associated with;

- Combining restricted residual with separate food
- Combining restricted residual with separate food and multi-stream recycling.
- Combining restricted residual with separate food and two stream recycling