

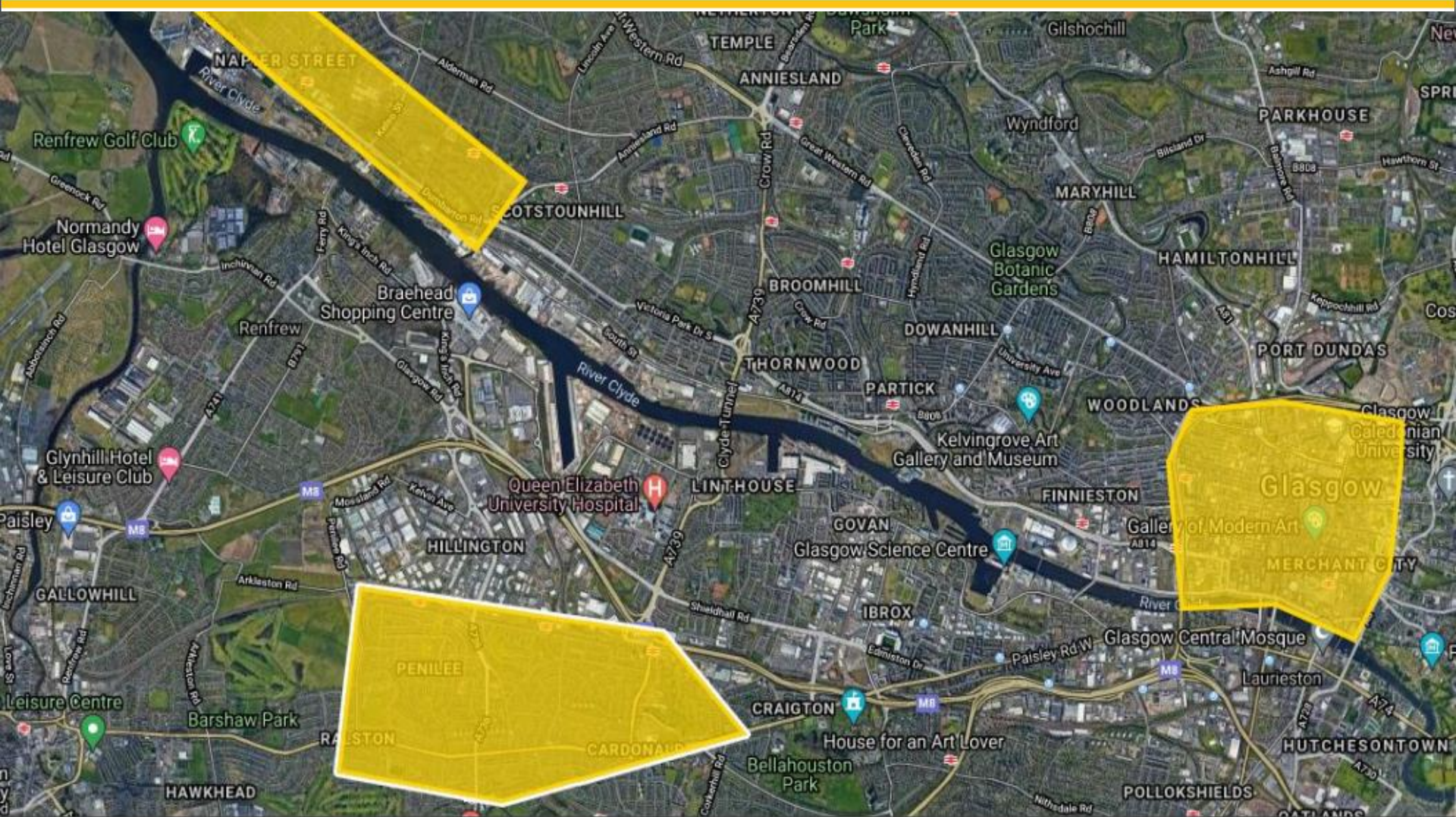
Frankie O'Rourke

Using technology to build our litter and flytipping data

- Project background
- Drone footage
- Data capture
- Key findings
- ‘Binsights’
- Tackling litter
- Targeted interventions

Glasgow City Council

Neighbourhoods, Regeneration and Sustainability



A world class city with a thriving and inclusive economy where everyone can flourish and benefit from the city's success.

OFFICIAL

Glasgow City Council

Neighbourhoods, Regeneration and Sustainability

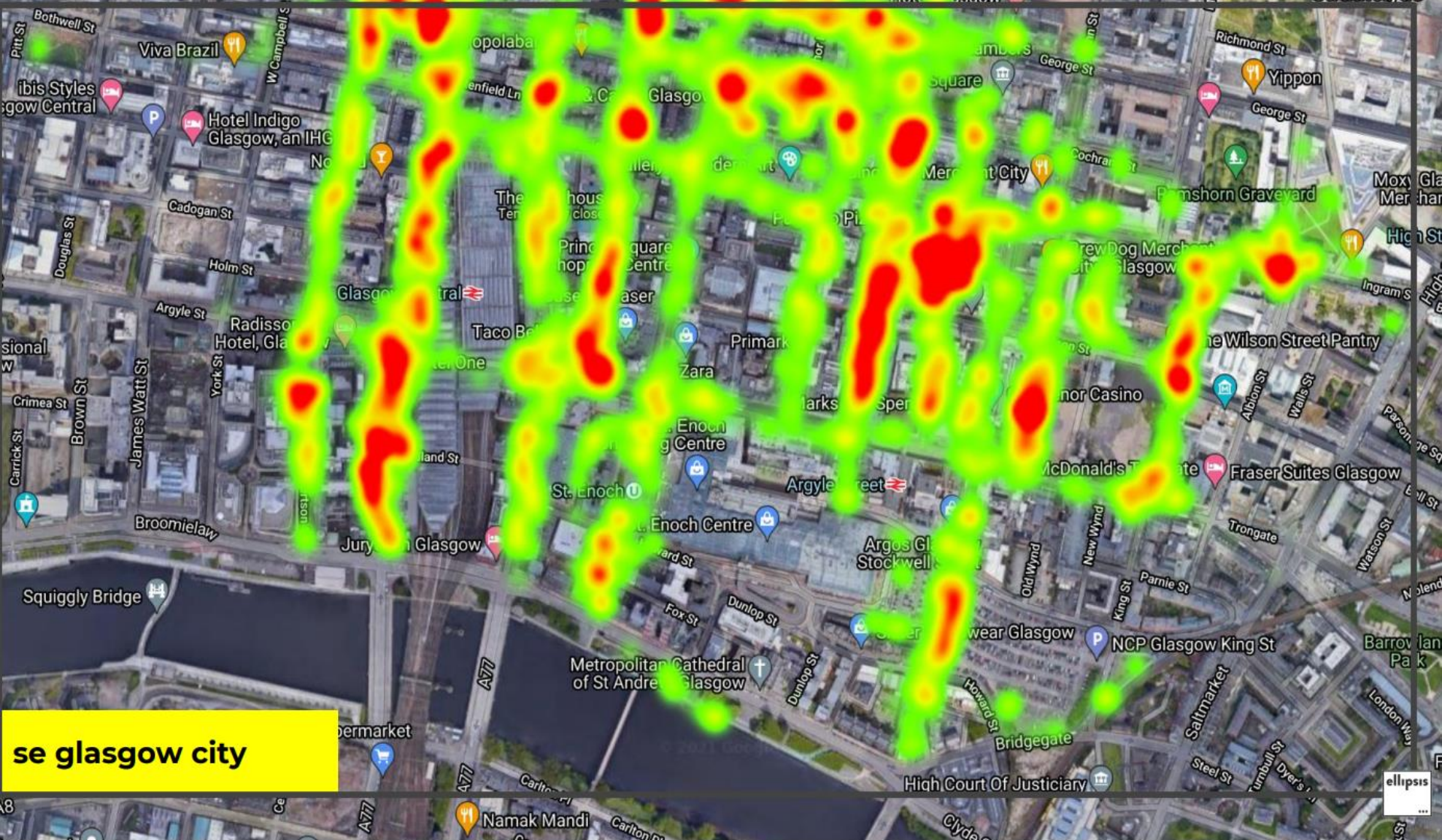


A world class city with a thriving and inclusive economy where everyone can flourish and benefit from the city's success.

OFFICIAL

Glasgow City Council

Neighbourhoods, Regeneration and Sustainability



A world class city with a thriving and inclusive economy where everyone can flourish and benefit from the city's success.

OFFICIAL

top level totals

round 1

169,597

identified items
of litter



4,210 kg



235 cu m



260,630,000 years

top level totals



67,799

cigarette butts



37,000

paper



8,951

glass bottle



7,596

plastic fragment



5,189

plastic film



4,884

confectionery
wrapper



4,552

drinks can



4,192

plastic lid/cap



3,597

plastic bottle

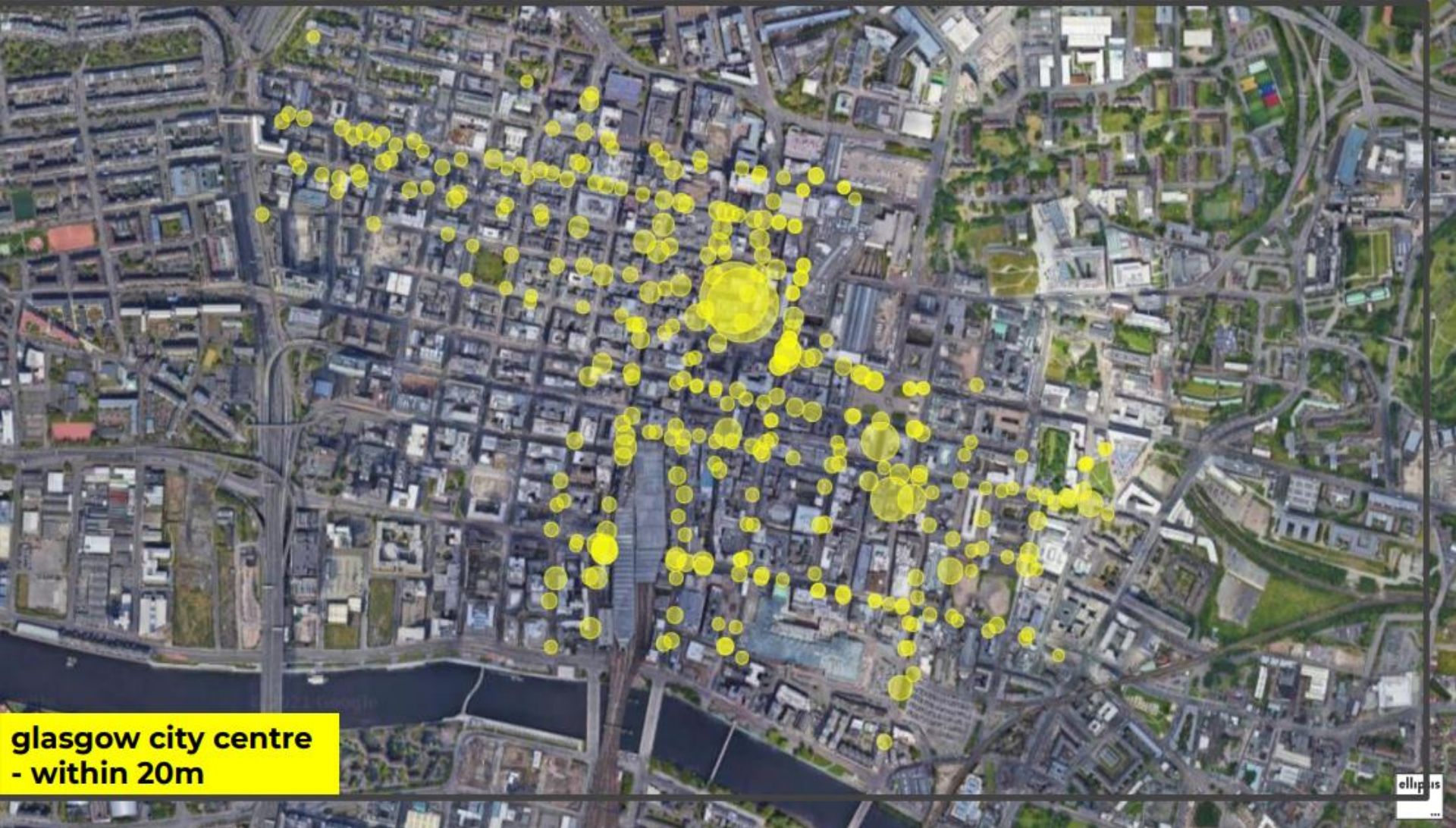


2,843

plastic bag

Glasgow City Council

Neighbourhoods, Regeneration and Sustainability



**glasgow city centre
- within 20m**

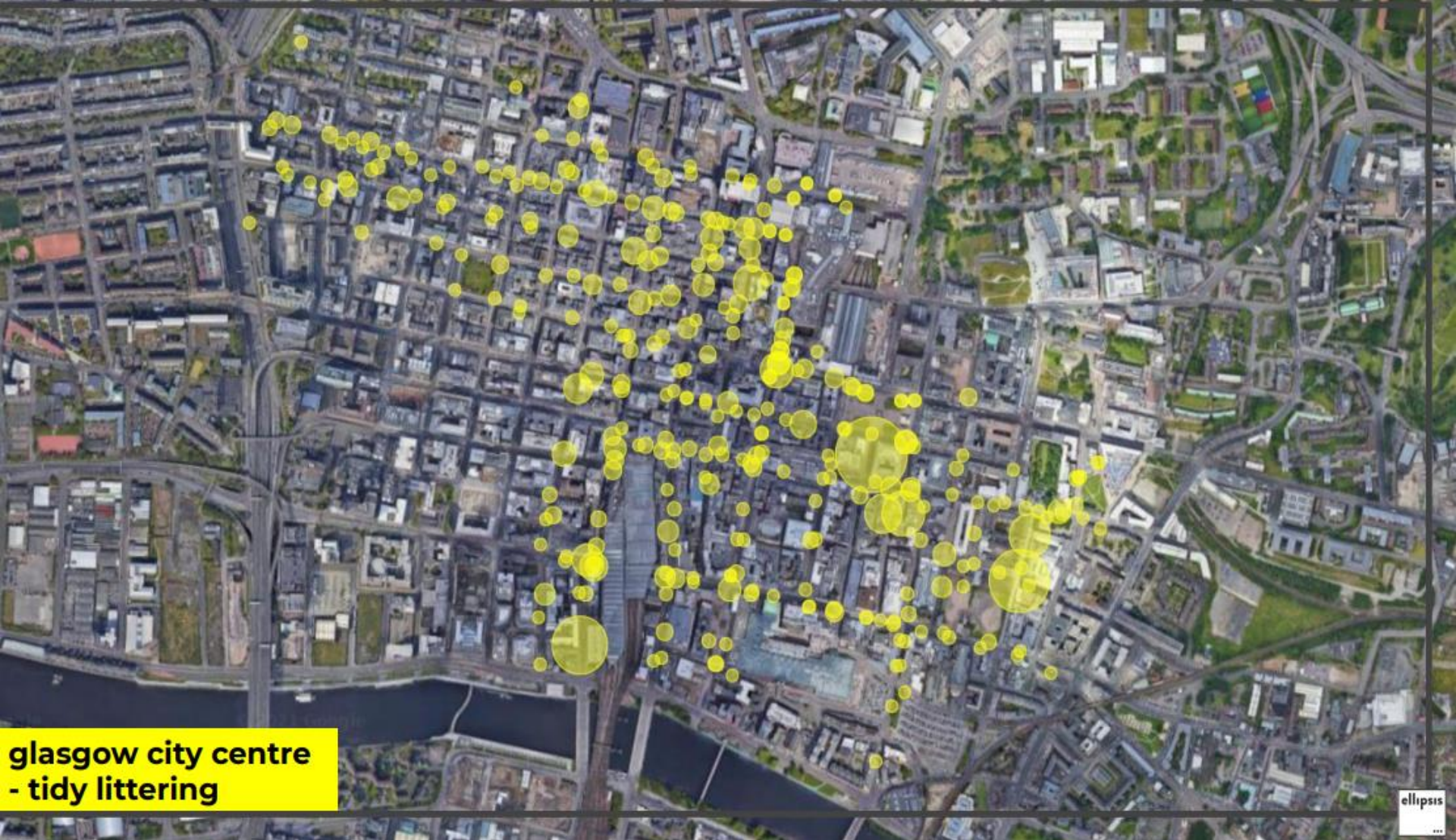
A world class city with a thriving and inclusive economy where everyone can flourish and benefit from the city's success.

OFFICIAL

ellip
...

Glasgow City Council

Neighbourhoods, Regeneration and Sustainability













**glasgow city centre
- tidy littering**













A world class city with a thriving and inclusive economy where everyone can flourish and benefit from the city's success.

OFFICIAL

key findings - insights

		key finding	opportunity to explore
1		Cigarettes make up the majority of litter by number (40%), while bottle caps are highest by environmental impact (49my). There are several key items to target to quickly/easily reduce total number, weight, volume or environmental impact .	Cigarettes and glass bottles would be key items to target for drastic reductions across a wide area, particularly tobacco in the city centre and drinks/glass bottles along Dunbarton Road
2		City centre littering is frequent (every 1 sec) and evenly spread across sites (item every 87cm), while Paisley & Dunbarton are lower overall.	City centre littering is drastically inflated by tobacco littering which makes up 50% of all litter in Glasgow city centre - again, targeting this could reduce city centre littering significantly
3		Glass bottles are a disproportionately prominent item by both quantity and weight, with several notable hotspots including green spaces and Dunbarton Road	Potential for exploring glass bottle banks, glass collecting extensions on bins, and glass bottle focused messaging, especially in green spaces and along Dunbarton Road
4		Littering of recyclable materials is high , with plastic and paper being the most commonly littered materials (65% and 25%)	Recyclable materials could be specifically targeted through bins, messaging or other interventions
5		Construction work is a major visible material item which may be impacting public perception of street cleanliness, especially Mon-Fri and particularly in the city centre when industrial litter is disproportionately high.	Need to work with council to better understand construction company responsibilities and rules around littering, visibility etc. Potential for collaborative project to reduce construction waste and boost street cleanliness perception. Possible A/B testing?
6		Tobacco littering in commercial spaces is twice as high as all other spaces, especially in Glasgow city centre where it comprises 50% of all litter	Key focus required here for cigarette butt littering, through provision of ashtrays, signage, public messaging, interactive/participatory/incentivised interventions for smokers
7		Waterfront areas have high levels of food and drinks litter but no small fragments of litter, indicating potential wind/water loss to rivers	Potential opportunity to focus on signage and messaging around small litter scraps, and/or education around environmental impact ('Upstream Battle' project)
8		Drinks litter is highest in parks and green spaces , and food and drinks litter in general is twice as high in out-of-town sites than the city centre, particularly in the evenings	Messaging to target key demographic of commuters/public transport users on their way home, or on a night out - fun, interactive and participatory/incentivised interventions
9		Cleaning schedules could be revised based on AM/PM breakdowns and Day of Week analysis which highlights several key trends	Working with the council to improve litter collection routes, optimising routes or schedules
10		Hot drinks littering is higher midweek , out of town food littering is highest in the evenings, tobacco littering higher in the city in the mornings, among other trends	Targeting interventions to specific locations and times to maximise impact, targeted to item type as well as possible user.

key findings - Binsights

		key finding	opportunity to explore
1		The current ashtrays on bins have little to no impact on cigarette butt littering across the city, possibly due to lack of visibility/signage or awareness	Installation of cigarette-butt focused interventions such as Hubbub's scientifically proven Ballot Bins, visible ashtrays or other clear signage or incentivised use of existing ashtrays
2		Bin performance is particularly good in Dunbarton and Paisley , partially due to residential/local ownership as well as clean street effect, while lack of tobacco capture is drastically reducing performance of bins in high tobacco-littering areas	Development of city centre pride/ownership campaign to boost resident responsibility, associated education campaign, and/or celebration of tidy areas, plus focus on tobacco littering in city centres to reduce noise around bin performance
3		Current bins have reasonable capture of food and drinks litter but little impact on paper, tobacco and other items	Clearer signage about correct paper disposal, better highlighting of integrated ashtrays
4		Bin performance decreases over the course of the day with least capture in the evenings, correlating with more littering in the evenings - potentially due to bins being dark/not visible, poor signage combined with public priorities	Encouraging bin use by people who are tired, want to get home, or going out having fun - working with Hubbub to develop a range of suitable targeted messaging
5		Closed bins (including solar bins) show very poor performance , while partially open bins perform twice as well, and open bins perform 50 times better.	Installation of supplementary open bins to support poor performing bins, or redesign of existing lids to allow greater access
6		Partially open bins show good capture of drinks litter but poor capture of food litter depending on aperture.	Review of aperture design of bins in particularly food-focused areas, and targeting of key hotspots for alternative open bins
7		General waste bins perform reasonably well, the small number of recycling bins perform better, small number of combi bins perform exceptionally well (10x) and glass bottle bins perform well for glass (100x) where installed	Exploring the possibility of deploying more combi bins across the city in key identified hotspots, and/or deployment of glass bottle bins or bottle banks in key identified hotspots
8		Signage on bins improves performance slightly (approx 15-20%), this could be improved and better targeted	Working with Hubbub and the council for the development of new/improved signage on existing bins and/or ensuring any new interventions have appropriate signage
9		91% of bins have signage , and only 7% of all bins were vandalised/damaged	Ensuring current bins remain clear of vandalism to maintain current performance standards
10		Bin performance was worse around bus stops and train stations , particularly in city centre - opportunity for comms piece	Opportunity to deploy a city wide comms piece or interventions targeting a captive audience at key transport hotspots

Tackling cigarette litter – Glasgow City Centre






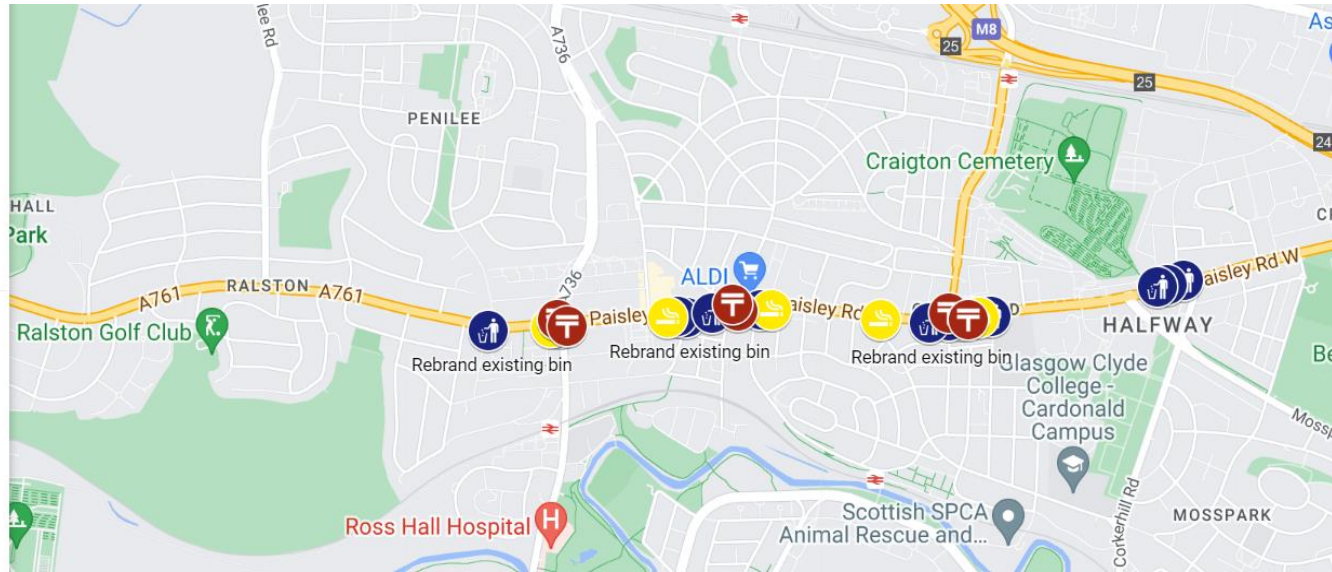
Tackling cigarette litter – Glasgow City Centre



Interventions 2023

Ellipsis recommended locations

-  Rebrand existing bin
-  Roadside Signage
-  Cigarette Ballot Bin



Working in Partnership to tackle littering –

Hubbub

Keep Scotland
Beautiful

- Place **Ballot Bin** to tackle cigarette littering
- Make ashtrays more prominent on existing bins
- **Target night-time littering** with glow in the dark bin and reflective signages
- Rebrand bins with colourful, playful design to boost bin use
- Place signage at junctions, e.g. using similar language to road signage e.g. “Next Bin in 100m”
- Place **ads** at litter hotspots at **peak littering times** e.g. commuting hours, weekend afternoon, school lunch (make it timely)

Ideas to tackle littering -

Dumbarton Rd

Paisley Rd
West and
nearby areas

- Organise **local litter picks** with store partners (in areas that can be accessed) together with local sports teams, influential figures. Make it a competition with prize for winning team, fun dress code for litter picking day (make it social and fun)



Thank you