

# Towards a plastic free high street

Investigating the use of plastics by businesses on Roman Road, London



A report by the School of Geography, Queen Mary University of London for the Roman Road Trust, December 2018

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The School of Geography, Queen Mary University of London

This report was commissioned by the Roman Road Trust and was written by Stephen Taylor and Alastair Owens of the School of Geography at Queen Mary University of London. It is based on research undertaken between 24 and 28 September 2018 by a group of almost 200 first year undergraduate students from the School of Geography.

*Cover image*

Plastic bottles of water, also wrapped in plastic, stacked outside a convenience store on Roman Road. Photograph credit: Massimo Ianette.

**Acknowledgements**

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We are very grateful to all the Roman Road businesses who agreed to participate in our survey or to be interviewed.

Our greatest debt is to the amazing team of first-year undergraduates from the School of Geography who undertook the survey and interviewing work that underpins this report. Their enthusiasm and commitment to the project ensured its success.

# Towards a plastic free high street

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## Introduction

There is growing concern about the volume of plastic waste that is produced in the UK. Recent media reports, TV documentaries and campaigns by a range of environmental groups have raised public awareness of the impact that plastic waste is having on our environment. Particularly shocking are accounts of the extent of plastic pollution within the world's oceans, where much discarded plastic eventually ends up. Meso and macro plastics present within the oceans are harmful to marine life, while beaches and coastal environments are increasingly littered with washed-up plastic waste. Plastics also end up in landfill where they are slow to degrade and where there are risks of leaching and contamination. While scientific research is beginning to document that scale of the plastics challenge, the full impacts of plastic pollution – including the way that discarded plastics are cycled within the environment – are barely understood. The plastic problem is a key issue for the contemporary world and there is a growing sense of urgency that something needs to be done to address it.

The plastic problem is far from being ignored. Concern about single-use plastics in particular – disposable plastic items like cups, straws and bottles that are designed to be used once and then discarded – has begun to shape government policies and corporate initiatives relating to waste reduction, management and recycling. For example, the recently introduced charge for plastic bags in UK supermarkets has resulted in dramatic reductions in their usage. According to government statistics, each member of the population used on average 25 bags during 2016 to 2017, compared to around 140 bags a year before the charge was introduced.<sup>1</sup> The latest official statistics also suggest that the UK is getting better at recycling its waste. It produces around 2.26 million tons of plastic packaging waste every year, but 44.6% is now recycled (double the average of other EU member states), compared to virtually nothing twenty years ago.<sup>2</sup> Rates of recycling in the London Borough of Tower Hamlets have historically been lower, but its recently published *Draft Waste Management Strategy, 2018-2030* articulates a strong ambition to increase reduce waste and increase recycling, including of single-use items like plastics.<sup>3</sup>

Across the UK, businesses and communities have developed initiatives and strategies to tackle the plastic problem at local level by reducing use of plastics and seeking alternatives. In 2017 Penzance became the UK's first plastic free town and more than 330 communities from other parts of the country are attempting to follow suit, including Canary Wharf in East London.<sup>4</sup> The Roman Road Trust is a citizen-led regeneration group operating around the Roman Road

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<sup>1</sup> Department of Environment, Food and Rural Affairs, *Research and analysis: Single-use plastic carrier bags charge: data in England for 2016 to 2017* (London: Her Majesty's Government, 2018) Available via [www.gov.uk](http://www.gov.uk)

<sup>2</sup> Department of Environment, Food and Rural Affairs, *UK Statistics on Waste* (London: Her Majesty's Government, 2018) Available via [www.gov.uk](http://www.gov.uk)

<sup>3</sup> London Borough of Tower Hamlets, *Draft Waste Management Strategy, 2018-2030* (London: London Borough of Tower Hamlets, 2018)

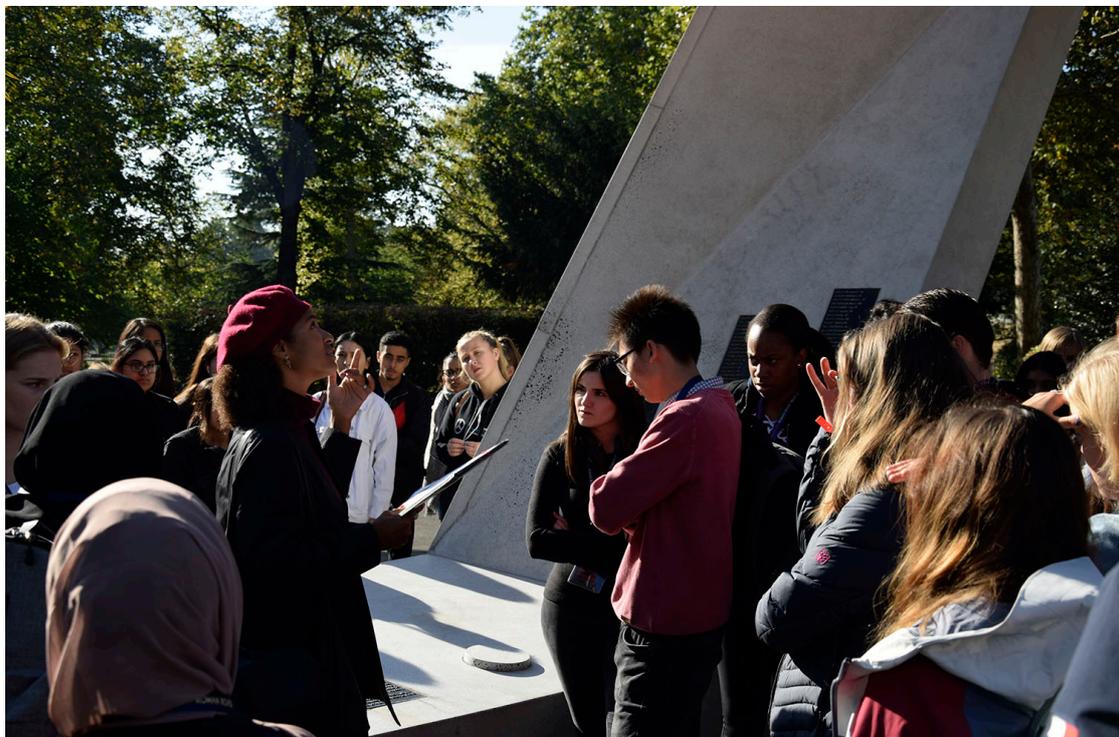
<sup>4</sup> Simon Osborne 'How Penzance became Britain's first ever plastic-free town' *The Guardian*, 18 July 2018

area in Bow and Bethnal Green in East London. It was set up to help improve the high street, and its vision is for a thriving local economy that gives the opportunity and space for communities to flourish. It sees the reduction of the use of plastics by both businesses and consumers as part of its mission of creating a sustainable neighbourhood. It has an ambition for the Roman Road become one of London's first plastic free high streets.

Members of the Roman Road Trust and representatives of local community groups met with staff from the School of Geography at nearby Queen Mary University of London (QMUL) in June 2018 to discuss areas of mutual interest and opportunities for collaboration. The role of plastic waste in the environment was one such theme of mutual interest and was, importantly, an idea which community members had themselves earlier identified as a key local priority. All parties agreed to work together to undertake research to better understand the use of plastics by businesses on Roman Road to provide a foundation and evidence base upon which local community groups and the Roman Road Trust could develop a plastic free campaign. A programme of research was devised to coincide with the induction of new first year undergraduate students commencing degrees in the School of Geography in the Autumn of 2018. Students were commissioned to work in small groups to undertake surveys with businesses on Roman Road, and to carry out interviews with visitors and residents.

The research aimed to address three key questions:

1. What is the current usage of plastics by businesses on Roman Road?
2. Is there an appetite among businesses to reduce the use of plastics?
3. What are the challenges and opportunities for businesses associated with the reduction of plastic use?



**Neba Sere (Roman Road Trust) introduces QMUL students to the history of Roman Road at the Bethnal Green Tube Disaster Memorial. Photograph credit: Massimo Iannetti.**

## Methodology

An online survey was first devised by representatives of local community organisations (Lizzy Mace from Cranbrook Community Food Garden and Tunde Morakinyo from Friends of Meath Gardens) with later input from Roman Road Trust and QMUL staff. The survey sought to explore businesses' use of plastics; their knowledge of and appetite for finding alternatives; the challenges and opportunities associated with a reduction of plastic use; and their attitudes to recycling. The survey contained a mix of closed, scalar and opened ended questions and was designed to take no more than 5 minutes to complete. A recent list of all businesses operating on the street was obtained and small groups of students were assigned a selection of businesses to visit and survey. Surveying took between 24 and 27 September 2018 between roughly 10am and 4.30pm. All businesses were visited and return calls were made if the premises were closed or no one was available upon the first visit. Out of a total of 189 identified businesses 83 were willing to be surveyed (as response rate of 44% – considered a good rate by social scientists).

In addition to carrying the surveys, student researchers also conducted short interviews with visitors to and others about Roman Road and undertook observational work.

Questionnaires and interviews were answered anonymously. After explaining the purpose of the research, participants were given the option to decline to take part in the survey. Ethical approval was obtained for this research from QMUL's Research Ethics Committee.

Analysis of the research materials was undertaken by Stephen Taylor and Alastair Owens. Initial findings were shared with the student researchers, Roman Road Trust, community representatives and others at a meeting on 28 September 2018. Discussions, feedback and suggestions made at that meeting and subsequently have been incorporated into this report.



**QMUL students (right) carry out the plastic audit at Quarantacinq, a coffee shop on Roman Road. Photograph credit: Massimo Iannetti.**



**QMUL students conducting the survey and speaking to business owners along the entire length of Roman Road as part of the plastic audit. Photograph credit: Massimo Iannetti.**

## Key survey findings

### *The survey sample*

The survey was successfully completed in 83 of the 189 businesses visited by surveyors along Roman Road; this means that **44 percent of businesses provided responses to the survey**. Figure 1 breaks down the type of businesses found in the sample and this seems to reflect the varied nature of businesses operating in the area:

Type of Business	Number
Bar/Pub/Wine Bar	5
Cafe	11
Fashion and Accessories	10
Fast Food and Takeaway	7
Food shop	14
Health and Beauty	9
Health Services	6
Homeware	7
Leisure and Hobbies	2
Other services (e.g dry cleaners)	12

**Figure 1: A table to show the number of businesses by type who responded to the survey.**

For the purposes of examining businesses' plastic consumption practices further, we sought to establish the size and management structure of businesses within the sample. The purpose of these questions was to gauge: (a) the extent to which individual businesses have decision-making control over their own plastic dispensing; and (b) the number of staff who may be effected by any change in business policy regarding plastic dispensing.

Each of the businesses surveyed was grouped into one of three categories indicating their self-identified ownership model; these categories were 'chain', 'franchise', and 'independent'. 83 percent of the businesses in the sample identified as 'independent' businesses – a finding largely consistent with the wider composition of the Roman Road business community – with 15 percent identified as 'chain' stores and 2 percent operating on a 'franchise' business model. The large percentage of independent businesses in the area

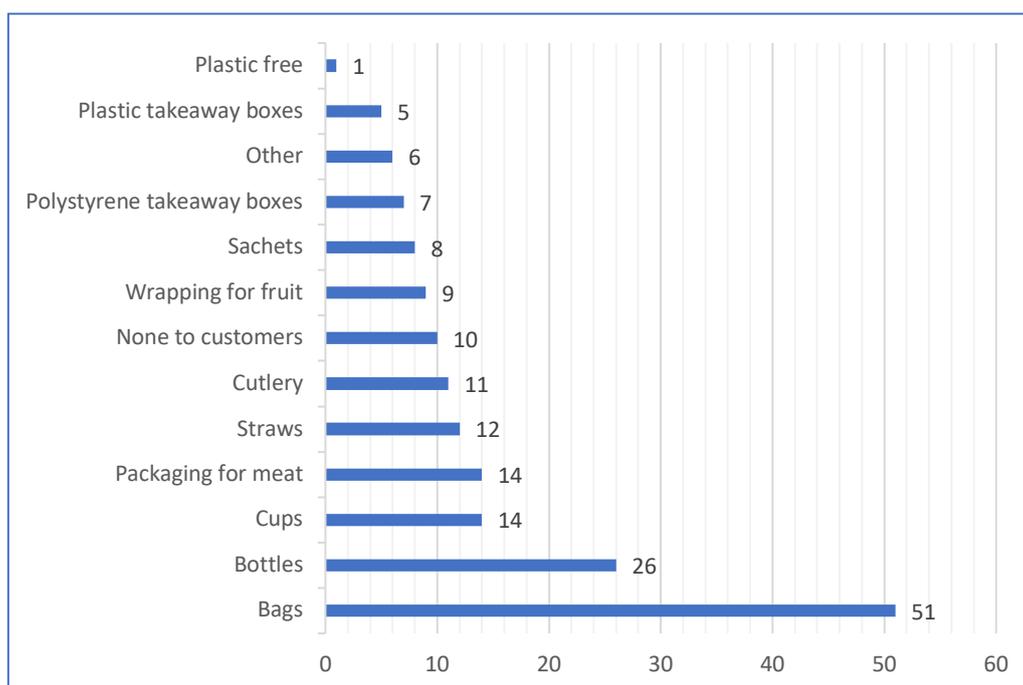
suggests relative autonomy over plastic usage decisions but also suggests less power to influence supplier plastic decisions further upstream in the supply chain.

Perhaps reflecting the largely ‘independent’ composition of the area, the majority of businesses were small in terms of employee number. 33 percent of businesses had 1-2 employees and a further 47 percent had 3-5 employees. Larger businesses were in the clear minority – and mainly clustered in the ‘chain’ and ‘franchise’ categories – with 14 percent having 6 to 10 staff and 6 percent have more than 11 employees. This data suggests that a significant number of business proprietors (in the small businesses, at least) have everyday contact with the dispensing of plastics to customers, and they represent a key constituency in efforts to minimise plastic usage.

### *Current plastic dispensing*

Anecdotal evidence from the community has suggested that single-use plastics are widely used along Roman Road and that these plastics – when not correctly disposed of or recycled – are a significant source of unsightly litter. Current dispensing of single-use plastics along Roman Road is highly variable, but several important findings emerged from the survey of businesses.

Figure 2 indicates the number of businesses offering a selection of common single-use plastics:

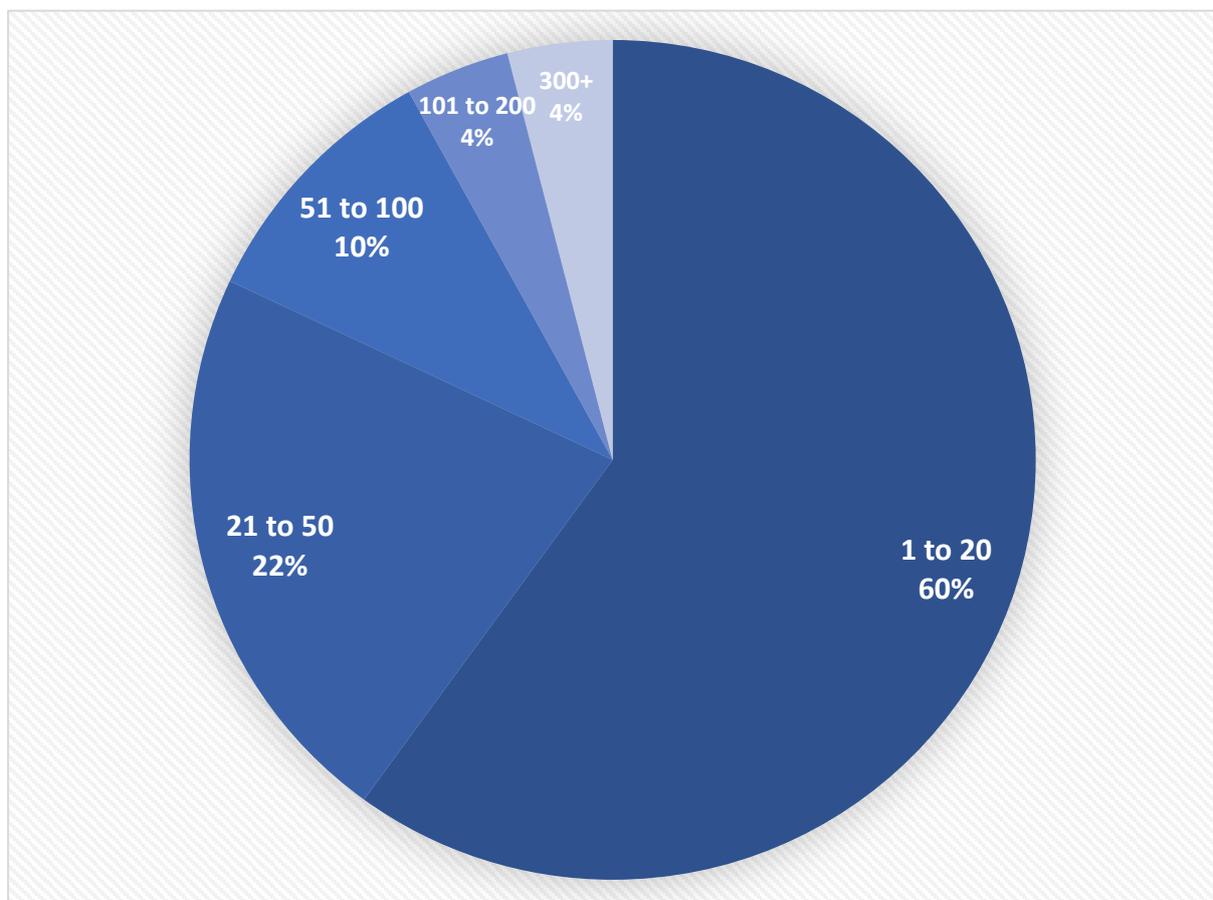


**Figure 2: A bar chart to show the number of businesses offering different types of plastic.**

51 of the 83 businesses included in the sample offer customers plastic bags as part of regular, daily transactions. This was by far the most common type of plastic distributed in the sampled businesses, closely followed by plastic bottles. A variety of other plastics are offered in business along Roman Road – mainly related to food packaging and takeaway consumption –

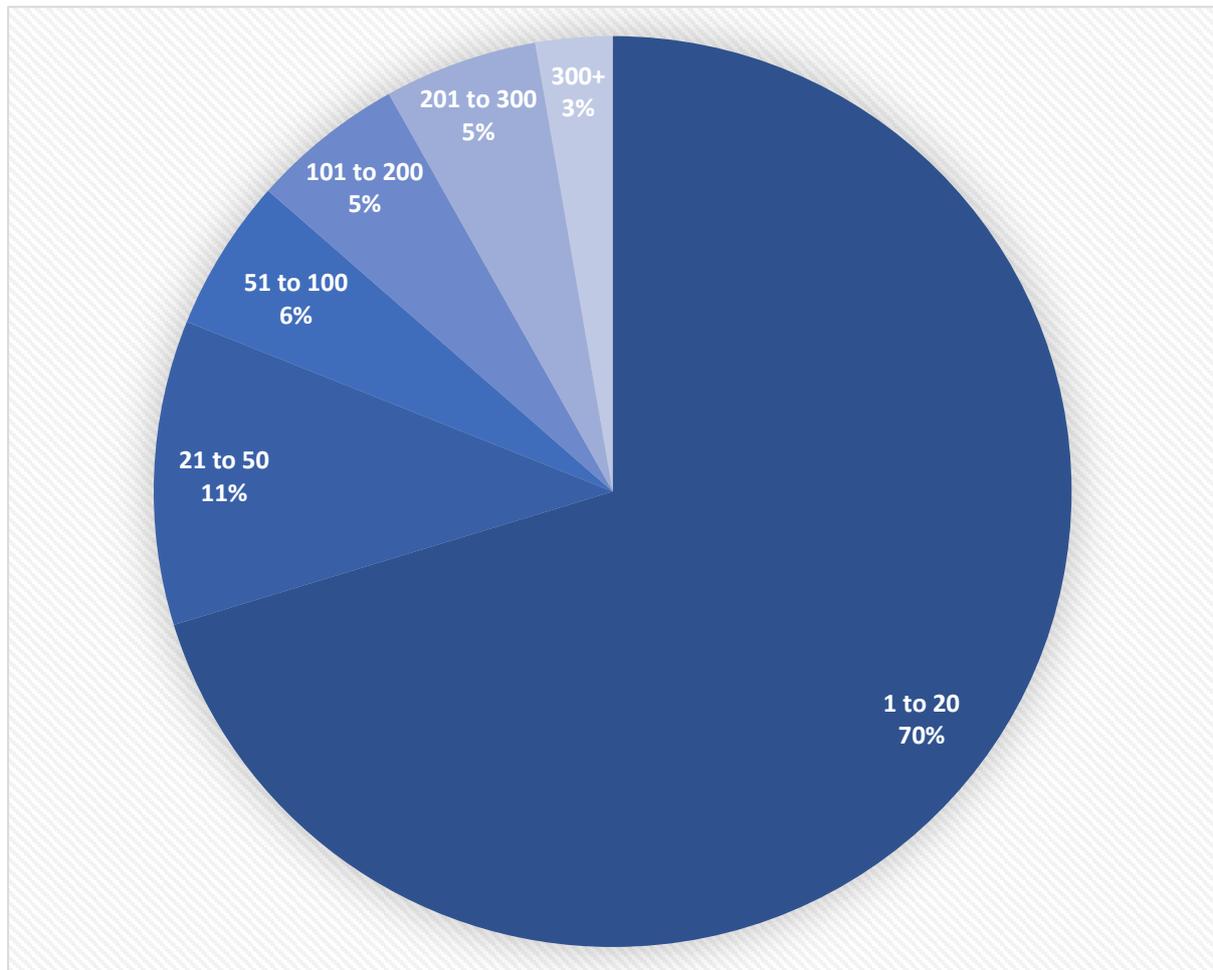
although the number of stores offering these types of plastics is limited. This information suggests that campaigns targeting particular types of stores – particularly those offering food and/or drink – might be able to eliminate the distribution of certain types of plastic entirely by finding non-plastic alternatives. Tackling plastic bags, however, would require a more wide-ranging campaign.

While Figure 2 offers an indication of the breadth of different types of packaging on offer in the local community, Figures 3, 4 and 5 show the *volume* of different single-use plastics being dispensed daily to customers along Roman Road. Plastic bottles, as seen in Figure 3, are commonly sold in small numbers by local businesses, largely alongside other products/services, although 18 percent of the businesses sell more than 50 bottles per day.



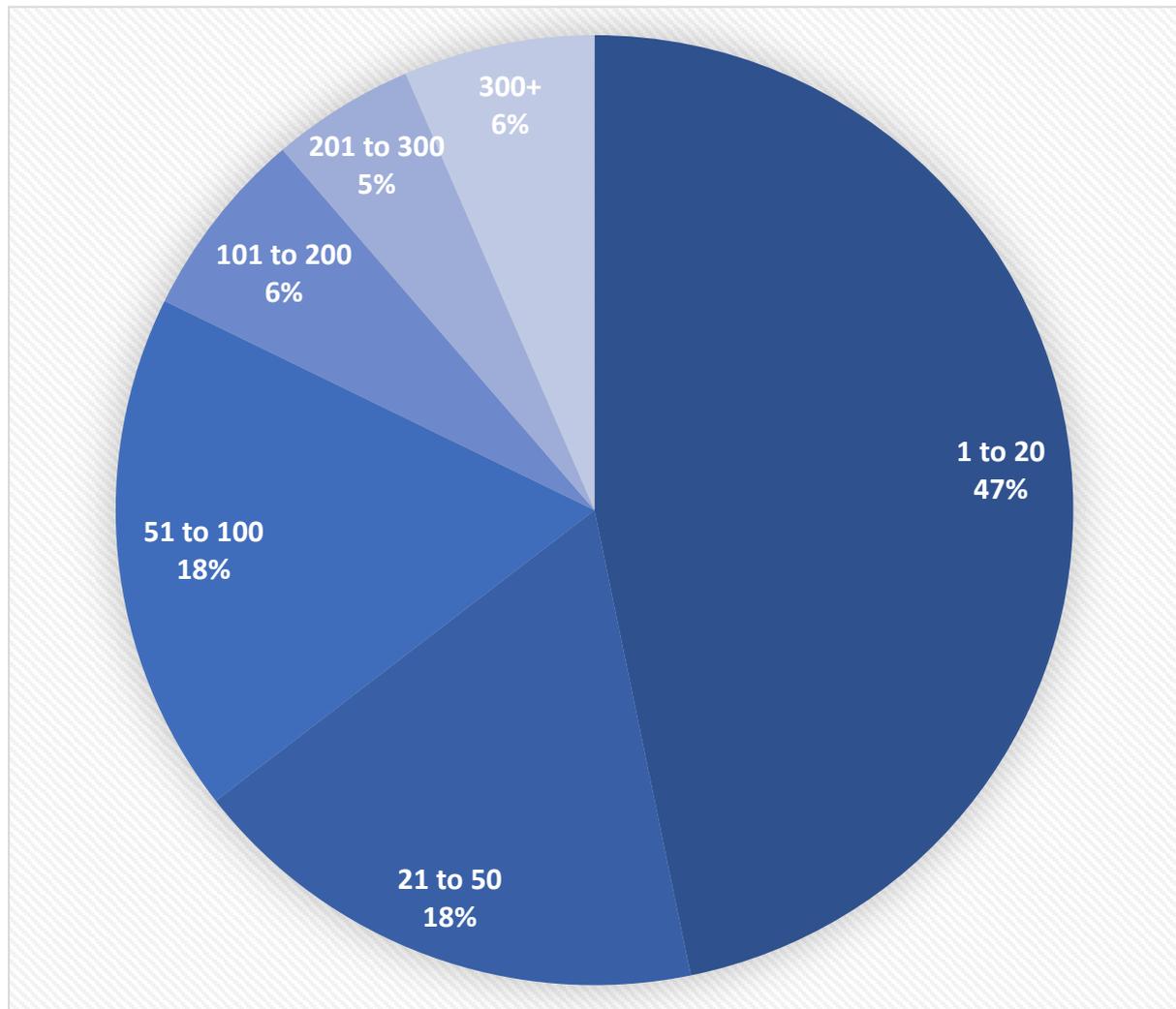
**Figure 3: A pie chart to show the percentage of businesses offering different daily volumes of plastic bottles.**

A similar picture was demonstrated in the sample with regards to plastic and polystyrene takeaway packaging (see Figure 4) with 70 percent of the businesses dispensing less than 20 containers per day, with a smaller number of high-dispensing businesses also included in the sample (13 percent dispense more than 100 containers per day). It is important here to acknowledge again that the survey was conducted during the day when many takeaway and restaurant businesses were yet to open for custom; the number of high-volume suppliers of takeaway packaging is likely to be under-represented in the survey sample.



**Figure 4: A pie chart to show the percentage of businesses offering different daily volumes of plastic and polystyrene takeaway food packaging.**

Figure 5 presents the daily volumes of arguably the most widely-distributed form of plastic along Roman Road: plastic bags. Unlike plastic bottles and takeaway food packaging, the majority of businesses in the sample distribute high volumes of this form of plastic. 18 percent of businesses distribute more than 100 plastic bags per day, with 6 percent distributing more than 300 per day. Plastic bags, we can conclude, are used by many businesses on a daily basis *and* are distributed to customers in high volumes. Efforts to reduce plastic dispensing on Roman Road must tackle the issue of plastic bags and, in particular, the frequency of their dispensing to customers.



**Figure 5: A pie chart to show the percentage of businesses offering different daily volumes of plastic bags.**

While the distribution and volume of plastic disbursement paint a picture of the different types of plastic most commonly found on Roman Road, Figure 6 identifies the types of businesses from the sample responsible for dispensing the largest volumes of different types of plastic. Consistent with the data discussed above, most businesses dispense only small volumes of the different types of plastics. The largest dispensers of single-use plastic are food and fast-food businesses who – across the many different types of plastic – dispense the highest volumes of any of the business types. While plastic bags are commonly used in these food-linked businesses, it is important to acknowledge the high volume of *other* types of plastic (mainly convenience packaging for food) that are distributed in these businesses. The data suggest that any attempt to reduce single-use plastic consumption along Roman Road should prioritise plastic dispensing in local food businesses.

Type of Business	Bottles	Containers	Cups	Straws	Bags
Bar/Pub/Wine Bar	0-20	0-20	0-20	0-20	0-20
Cafe	0-20	0-20	0-20	0-20	0-20
Fashion & Accessories	N/A	N/A	N/A	N/A	0-20
Fast Food	21-50	51-100	51-100	0-20	51-100
Food Shop	51-100	101-200	N/A	N/A	201-300
Health & Beauty	0-20	0-20	21-50	N/A	0-20
Health services	0-20	0-20	0-20	0-20	51-100
Homeware	0-20	0-20	0-20	0-20	0-20
Leisure & hobbies	0-20	0-20	0-20	0-20	0-20
Other services (e.g dry cleaners)	0-20	0-20	0-20	0-20	21-50

**Figure 6: A table to show the mode (most common) volume of various single-use plastics sold daily by different business types.**

### *Attitudes to changing single-use plastic dispensing*

Having outlined the scale of plastic dispensing among businesses along Roman Road, the final set of survey questions focused on attitudes to changing single-use plastic dispensing among local businesses. In this section of the survey, responses were positive on the whole and suggest areas where targeted interventions could be made to support local businesses in reducing their plastic dispensing.

Figure 7 outlines responses from businesses to the question ‘Do you think reducing the use of single-use plastics is a good idea?’ The table highlights that there is widespread agreement among the sampled businesses that reducing plastic dispensing is a positive idea, and the level of agreement is high regardless of the type of business surveyed. This suggests that any efforts to reduce single-use plastic dispensing along Roman Road will start from a positive place; many businesses, to put it simply, are *already* convinced of the value of reducing plastic dispensing.

Type of Business	Yes	Not sure	No
Chain	11	1	0
Franchise	1	0	1
Independent	63	5	3

**Figure 7: A table to show the number of businesses by type on whether they considered reducing single-use plastics to be a good idea.**

While support for the *idea* of reducing plastic dispensing is high, the question of practically accomplishing this in day-to-day business *practice* remains an area of concern for local businesses. Figure 8 (overleaf) indicates the number of businesses who have considered the practical implications of switching to non-plastic alternatives. It is clear from this data that a large number of local businesses are willing to consider reducing their plastic dispensing. This suggests that messaging around single-use plastic reduction is beginning to have an impact on business planning, perhaps in relation to growing consumer awareness and demand for plastic alternatives. Food-related businesses, the data suggest, remain rather reluctant to consider switching from plastic and the largest number of ‘undecideds’ are in this group of businesses. This suggests that campaigns around reducing plastic consumption could be usefully targeted to this sub-group of businesses.

Type of Business	Number	Yes	No	Undecided
Bar/Pub/Wine Bar	5	4	0	1
Cafe	11	11	0	0
Fashion and Accessories	10	7	3	0
Fast Food and Takeaway	7	6	1	0
Food shop	14	6	4	4
Health and Beauty	9	6	0	3
Health Services	6	4	0	2
Homeware	7	2	0	5
Leisure and Hobbies	2	1	1	0
Other services (e.g dry cleaners)	12	5	4	3
<b>All</b>	<b>83</b>	<b>52</b>	<b>13</b>	<b>18</b>

**Figure 8: A table to show the number of businesses by type who have expressed an opinion regarding their willingness to reduce their plastic dispensing.**

Open questions in the final section of the survey focused on gauging the opinions of local businesses on the challenges of making changes to current plastic dispensing. 14 respondents identified cost of alternatives as a significant barrier to reducing plastic dispensing, and this was seen as a particularly important issue for small businesses (especially among those with less than 5 employees) where changes to business models have potentially significant implications for everyday practices and short-term profit margins. 12 respondents considered finding alternatives to be the main challenge, with a sub-group of 7 respondents raising concerns about finding viable alternatives to plastic bags given consumer expectations and regulations relating to the hygienic packaging of foodstuffs. 7 respondents raised concerns about finding alternative suppliers who minimised plastic consumption in their upstream packaging. Not all respondents raised challenges, with 5 respondents indicating that they saw no particular challenge in making the switch to non-plastic alternatives.

Finally, all of the sampled businesses were asked for their suggestions on how a business like theirs might start to reduce plastic dispensing. The most common responses were 'none' and 'not sure'. This would suggest that despite the overall willingness in the community to consider switching to alternatives to plastic, there remain substantial gaps in business

knowledge regarding how this can practically be accomplished. Additional answers focused on changing demand and supply factors. On the demand side, there were calls for the local business community to seek new ways to encourage shoppers to bring their own (non-plastic) bags and/or to use paper bags to satisfy shoppers' needs. On the supply side, businesses suggested voicing their *collective* concerns to suppliers about excessive use of plastic and perhaps even organising boycotts of suppliers who refused to respond to these demands. There were also calls for financial and business support to be made available to help local businesses implement changes around their plastic dispensing in the short- and long-term. Interestingly, only one respondent mentioned the need to increase awareness of the environmental impact of plastics. This, perhaps, suggests that the message about single-use plastics has hit home and that more campaigning effort on Roman Road could be productively focused on facilitating changes to local behaviours and attitudes regarding 'throwaway' forms of consumption.



**QMUL Geography students ask Francesco Ragazzi of Quarantacinque for his suggestions on how local businesses might best reduce plastic dispensing. Photograph credit: Alessandro Volpino.**

## Recommendations

Based upon the findings of the survey described in this report, five key recommendations warrant consideration for those seeking to facilitate a reduction in single-use plastic dispensing among businesses on Roman Road. Some of these recommendations, we are pleased to acknowledge, were already under consideration in the community and we look forward to seeing how the local campaign incorporate them into future organising efforts.

- 1. We recommend that a reduction in the volume of single-use plastic bags being dispensed on Roman Road be a key target for plastic-reduction efforts in the local community.** Plastic bags are widely available from businesses in the local area, and daily volumes of bags dispensed are significant. Alternatives to these bags may include paper bags, 'borrow-a-bag' schemes, or Roman Road-branded tote bags that customers are encouraged to re-use.
- 2. We recommend that efforts to promote plastic reduction should prioritise food shops and fast-food restaurants on Roman Road.** This sub-type of business is responsible to the largest amount of single-use plastic dispensing according to the survey, and this would likely be higher if a follow-up survey were to be conducted at night along Roman Road. A large number of different types of plastic and high volumes of plastic are produced by these businesses. Despite this, willingness to consider plastic reduction is lowest in these businesses. Effort should be focused on promoting the advantages of plastic reduction and support prioritised to independent businesses in order to make the practical reduction of plastic dispensing in these businesses achievable.
- 3. We recommend that any efforts to reduce plastic dispensing on Roman Road seek to be as inclusive as possible in acknowledgement of the social, cultural and business diversity of the area.** The survey highlighted the significant contribution that small, independent retailers make to the Roman Road community and, coupled with the local area's vibrant socio-economic diversity, there is a need to avoid having any one group (businesses, residents, campaigners) seen to be the sole driving force of plastic reduction. The most impactful change comes from broad alliances of stakeholders invested in transforming their community for the better. Opportunities to educate, challenge, and inspire individuals across the community should be encouraged. Possible options include: campaign presence at key cultural events/hubs, production of multi-lingual messaging and resources, plastic-free shared community meals, and collaborative cross-community plastic-pick events along Roman Road.
- 4. We recommend that sharing best practice concerning plastic reduction should be encouraged locally to capture local experience and strengthen inter-business collaborations.** The survey suggests that the community is already sold on the benefits of reducing single-use plastic consumption, however concerns remain regarding how to practically implement this within businesses. There are notable examples along Roman Road of businesses that have gone plastic-free and others who have made significant steps to reduce plastic consumption along their supply chains. Encouraging these business leaders to share their experiences of this 'journey' may help to answer

common concerns. A plastic-free business 'champion', prominently displayed plastic reduction pledges in businesses, or a Roman Road-wide plastic reduction competition could act to highlight best practice and further generate local interest in plastic and waste reduction.

5. **We recommend that stakeholder efforts to reduce plastic consumption on Roman Road seek to complement and in turn shape waste management strategies at a borough and city level.** Promotion and encouragement of pride in the local community and environment are at the heart of existing borough- and city-wide waste management strategies. The results from the survey indicate a desire on the part of businesses to contribute to shaping the economic, social and environmental future of the area in a sustainable manner. Re-appraising local supply chains, business strategy, and community environmental stewardship is a significant ambition and there will likely be opportunities to shape new borough- and city-wide responses to plastic consumption through the sharing of best practice.



**Kerry Mounsey (Verry Kerry/Bamboo & Bee) and Mehmet Guzel (Simply Fresh) share their thoughts with students on the preliminary survey results and are interviewed by Lizzy Mace (Cranbrook Community Food Garden) about their experiences of reducing plastic usage in their businesses. Photograph credit: Massimo lanette.**

