REPORT FOR: OVERVIEW AND SCRUTINY COMMITTEE

Date of Meeting:	9 April 2019
Subject:	Technology in waste collections
Responsible Officer:	Paul Walker – Corporate Director of Community
Scrutiny Lead Member area:	Councillor Ghazanfar Ali - Community, Health and Wellbeing Policy Scrutiny Lead
	Councillor Jean Lammiman – Community, Health and Wellbeing Performance Scrutiny Lead
Exempt:	No
Wards affected:	All
Enclosures:	None

Section 1 – Summary and Recommendations

This report sets out an overview of the waste technology currently utilised as part of the waste and recycling collection service operating within Harrow.

Recommendations:
To note the content of the report.

Harrow**COUNCIL**
LONDON

Section 2 – Report

Introduction
Utilising technology within the waste collection service allows for a more intelligent based service delivery and a clearer feedback loop for officers and residents.

Background
The waste collection service has been utilising technology to assist in delivery of its service via software called Bartec since 2009.

The system allows the service to record real time information on any issues with collections via in-cab devices within the vehicles. It is also a way of providing collection crews with information on specific elements of the service that assists them in undertaking their roles such as assisted collections and garden waste subscriptions.

To provide automated feedback to residents, the Bartec system is integrated to the Council website which allows residents to see information on their collections as soon as it is reported via the in-cab devices within the vehicles. It also allows residents to quickly report any missed bins up to 48 hours after the day of collection.

Bartec system
The system consists of 6 main elements and benefits to the service;

Bartec's Waste Collector System
A back office system that allowed Coordinators and Managers to manage daily work schedules, manage bin deliveries and manage Service Requests such as missed bins and bin orders from the customer via the contact centre.

Bartec's 'In Cab' devices
These are simple to operate, touchscreen devices, which use 3G to communicate between the crews and the back office in real-time. The 'in cab' devices are designed so that users had minimal intervention and are only required to report exception events such as bin not out, bin contaminated etc. and confirmation that streets are completed.

Integration between Bartec Waste Collector and the Customer Contact Centre using SAP CRM and CCPH

This integration sends exception events and street completed records to the contact centre and residents via the website in real-time. Genuine missed bins are therefore easy to identify – if an exception event was not reported and the street had been completed, it is considered by the service to be a genuine missed bin - and a service request will be sent to the back office

Online forms

They provide real-time validation using information from Waste Collector to prevent erroneous service requests from being logged. It also allows residents to report genuine missed bins where applicable

Route optimisation

RouteSmart route planning software that takes an export of the work schedule information from Waste Collector, enters parameters such as working hours, type of bins and disposal points, and then uses algorithms to identify the most efficient route based on time and / or workload balance. The output of this is then entered into Bartec's Waste Collector system by Bartec service support, which links to the in-cab devices that the crews use.

Work schedule digitisation

Originally all work schedules existed as paper and Excel spreadsheets, the introduction of Bartec meant that these were digitised, cleansed and tested to be loaded in Bartec and utilised by the crews. This allowed for more up to date information on routes for the crews and sufficiently backed up data.

Further improvements

Bartec system upgrade

In 2017/18 the Bartec system was upgraded to the latest version of the software. The key reasons for the upgrade were;

- To be able to incorporate the improved operating system (similar to a system upgrade on your phone)
- Improved support from Bartec service support
- Introduction of an improved and integrated route optimisation software that would allow for avoidable costs in regards to route uploads and also automated routing for mid-year garden waste subscription sign-ups

Waste and recycling webpage redevelopment

In 2017/18 the waste and recycling webpages were redeveloped to create an improved user experience, which included improvements to the integrations between the website and Bartec system. This created a more reliable link between the two systems and also improved feedback messages which has created an improved customer experience.

Vehicle procurement

In January 2019 a new contract was awarded for vehicle procurement and maintenance for a number of service areas, including waste collection. This has led to the ordering and delivery of brand new waste collection vehicles.

As part of this the in-cab devices have been moved over to the new vehicles as they arrive with the amendment that they are no longer drilled into the vehicle dash boards. To create more flexibility for the fleet and improved ease of use for drivers, the in-cab devices are mounted on removable supports, which mean they can be removed and moved to best suit the individual.

Data cleansing
Since January 2019 the service has been undertaking a systematic review of the data held within the Bartec system, in particular around flats. The review of this data is to take into account any anomalies that the LLPG data gives us and therefore creating more reliable round information.

For flats in particular, this will lead to an improved customer experience as residents of those properties will be able to report information on their properties the same as households can currently. Work on this is set to complete in June 2019.

Environmental Impact
The use of technology within waste collections allows for a more efficient use of resources, in particular the collection crews themselves.

The routing software means that crews are using the most efficient routes which avoid additional vehicle emissions.

The use of routes and rounds being digitalised means that the historical paper copies are no longer required which is more environmentally friendly.

The use of service requests via the in-cab devices and systems means that elements such as missed bins etc. can be managed more efficiently and presents crews returning for bins that have been left for a genuine reason e.g. not presented or contaminated. This avoids additional vehicle emissions.

The recorded exceptions on the in-cab devices can be used to run reports on elements such as contaminated recycling bins which in turn can allow for targeted communication and engagement around recycling. This can lead to improved recycling quality and performance.

Risk Management Implications

Risk included on Directorate risk register? No

Separate risk register in place? No

Equalities implications

Was an Equality Impact Assessment carried out? No

Section 3 - Statutory Officer Clearance

Not required for this report

Ward Councillors notified: **NO**

Section 4 - Contact Details and Background Papers

Contact: Rebecca Johnson – Head of Environment and Waste Strategy.
020 8424 1279

Background Papers: None