# Connected Technologies approach to Recycling and Rubbish

Vaughan Johnson – Colchester Borough Council Business Services Manager

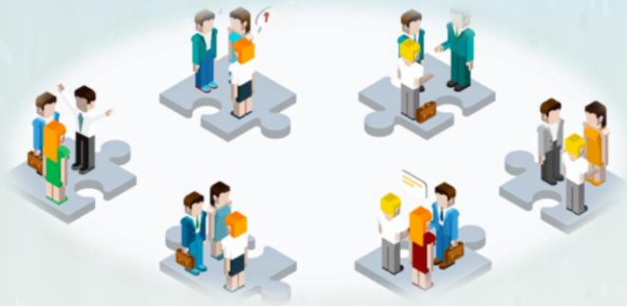
# Making INTERNAL connections

**Our initial mantra …..DATA, DATA, DATA**

**Where does it reside?**

**Recognising & removing SILOs**

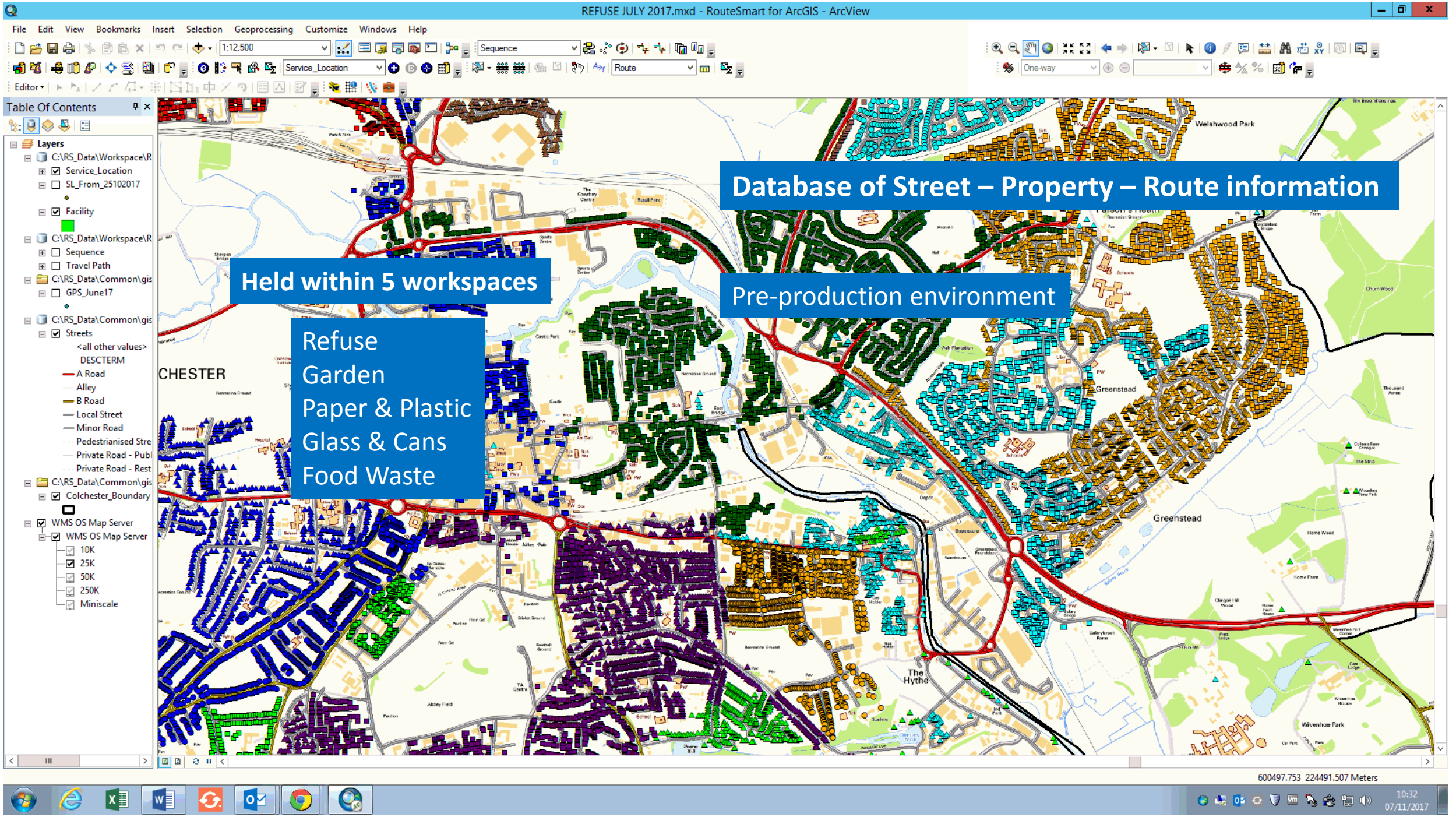
**What is our JOINT vision?**

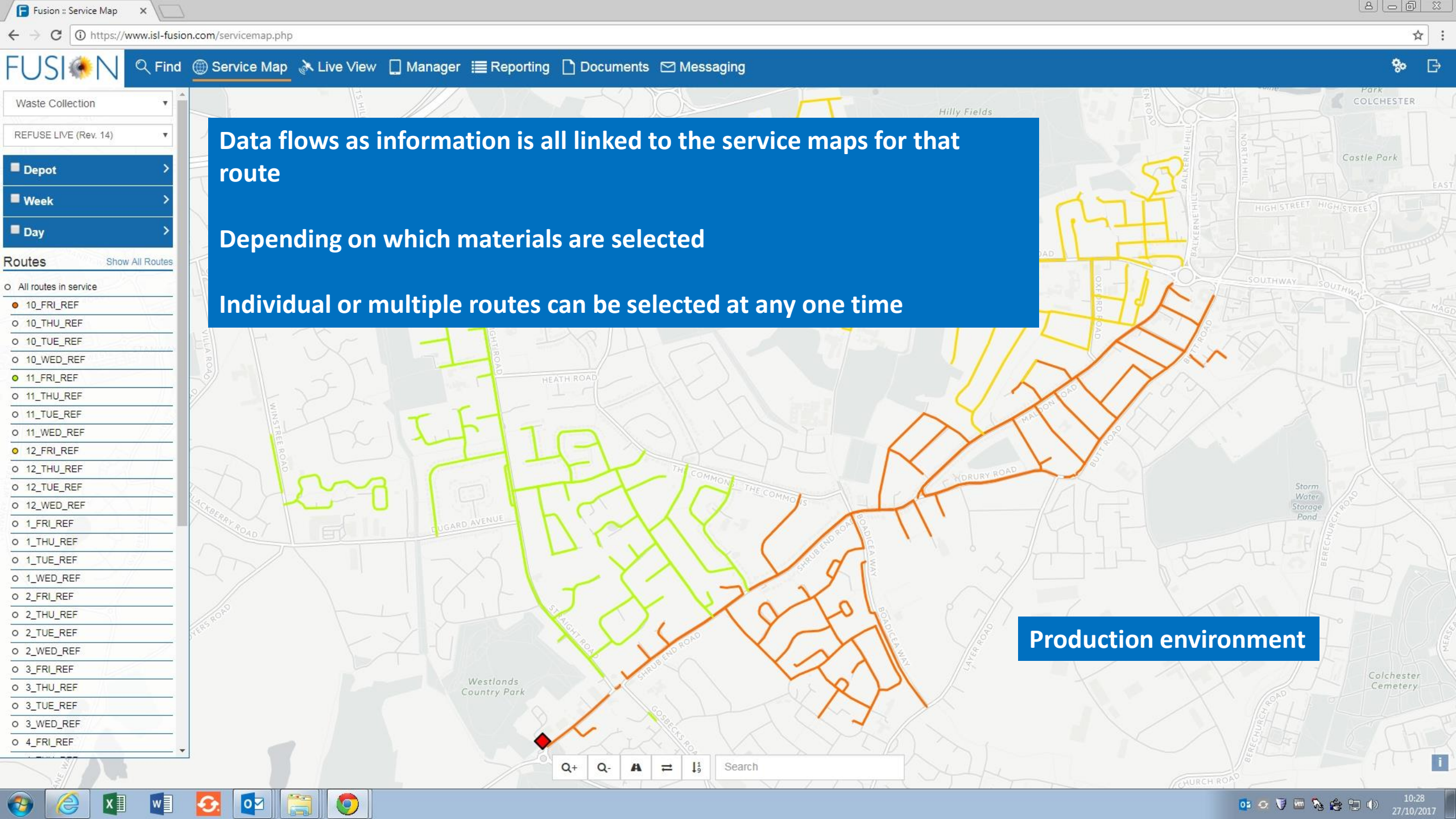


**Joined up thinking & working with Zones, Professional Service Unit, Customer Services, Recycling, Waste & Fleet, Information Technology, Web Design, Demand & Research, Communications**

# Route Smart and Fusion “SVOT”

Single version of the truth. In computerized business management, single version of the truth **(SVOT)**, is a technical concept describing the data warehousing ideal of having either a single centralised database, or at least a distributed synchronised database, which stores all of an organisation's data in a consistent and non-redundant form.


REFUSE JULY 2017.mxd - RouteSmart for ArcGIS - ArcView
File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help
Table Of Contents
Layers
C:\RS_Data\Workspace\R
Service_Location
SL_From_25102017
Facility
C:\RS_Data\Workspace\R
Sequence
Travel Path
C:\RS_Data\Common\gis
GPS_June17
C:\RS_Data\Common\gis
Streets
<all other values>
DESCTERM
A Road
Alley
B Road
Local Street
Minor Road
Pedestrianised Stre
Private Road - Publ
Private Road - Rest
C:\RS_Data\Common\gis
Colchester_Boundary
WMS OS Map Server
WMS OS Map Server
10K
25K
50K
250K
Miniscale
Database of Street – Property – Route information
Held within 5 workspaces
Pre-production environment
Refuse
Garden
Paper & Plastic
Glass & Cans
Food Waste
CHESTER
Welshwood Park
Greenstead
Greenstead
The Hythe
Wivenhoe Park
600497.753 224491.507 Meters
10:32
07/11/2017


Fusion :: Service Map
https://www.isl-fusion.com/servicemap.php
FUSION
Find
Service Map
Live View
Manager
Reporting
Documents
Messaging
Waste Collection
REFUSE LIVE (Rev. 14)
Depot
Week
Day
Routes
Show All Routes
All routes in service
10_FRI_REF
10_THU_REF
10_TUE_REF
10_WED_REF
11_FRI_REF
11_THU_REF
11_TUE_REF
11_WED_REF
12_FRI_REF
12_THU_REF
12_TUE_REF
12_WED_REF
1_FRI_REF
1_THU_REF
1_TUE_REF
1_WED_REF
2_FRI_REF
2_THU_REF
2_TUE_REF
2_WED_REF
3_FRI_REF
3_THU_REF
3_TUE_REF
3_WED_REF
4_FRI_REF
Data flows as information is all linked to the service maps for that route
Depending on which materials are selected
Individual or multiple routes can be selected at any one time
Production environment
Search

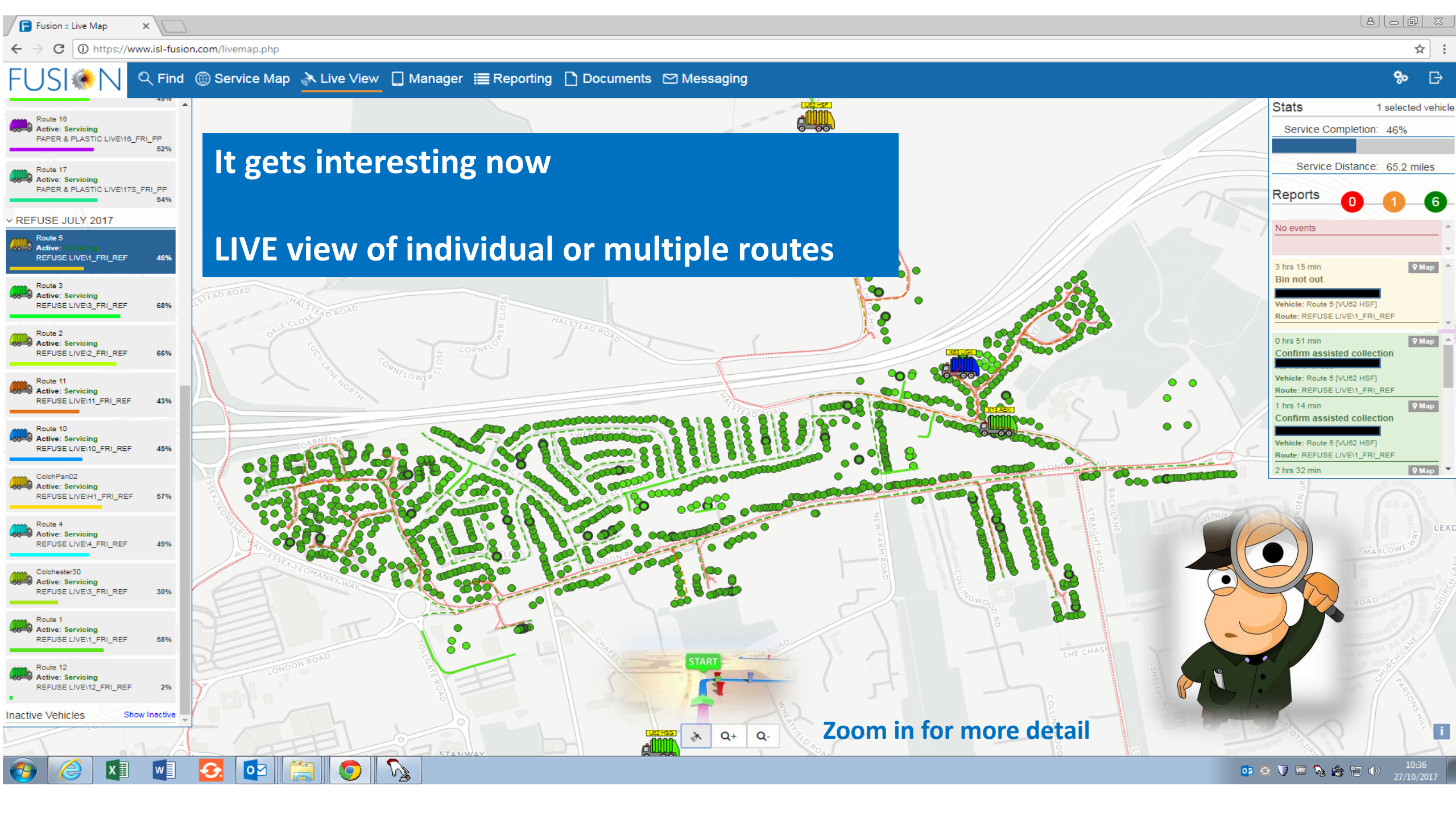
# Our LIVE view

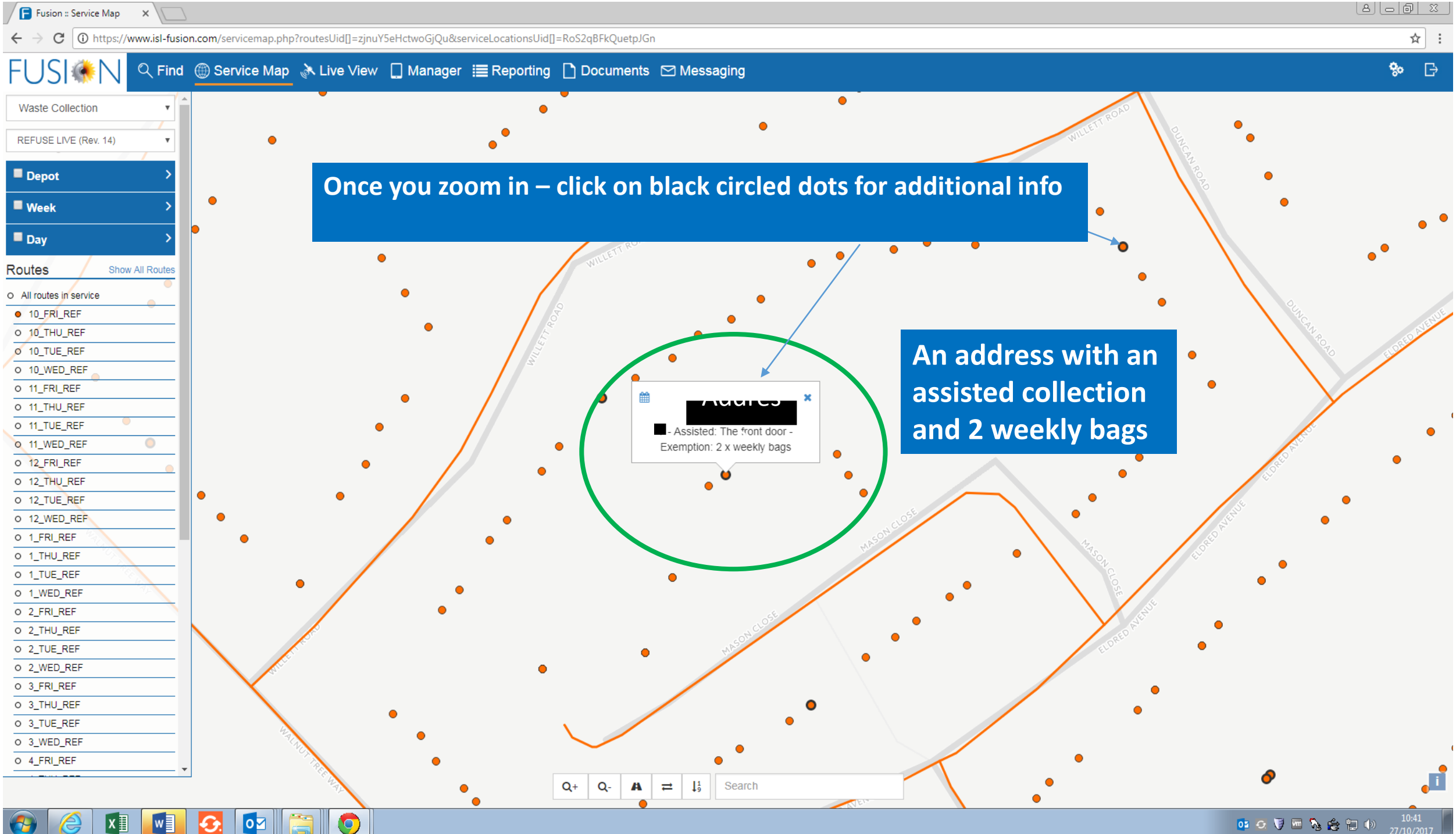
What is happening on the ground?

ALL routes + information is interactive

LIVE reporting on both
Individual
and overall service completion for that day

Zoom in for more detail


Fusion :: Live Map
https://www.isl-fusion.com/livemap.php
FUSION
Find
Service Map
Live View
Manager
Reporting
Documents
Messaging
Route 16
Active: Servicing
PAPER & PLASTIC LIVE\16_FRI_PP
52%
Route 17
Active: Servicing
PAPER & PLASTIC LIVE\17S_FRI_PP
54%
REFUSE JULY 2017
Route 5
Active: Servicing
REFUSE LIVE\1_FRI_REF
46%
Route 3
Active: Servicing
REFUSE LIVE\3_FRI_REF
68%
Route 2
Active: Servicing
REFUSE LIVE\2_FRI_REF
66%
Route 11
Active: Servicing
REFUSE LIVE\11_FRI_REF
43%
Route 10
Active: Servicing
REFUSE LIVE\10_FRI_REF
45%
ColchPan02
Active: Servicing
REFUSE LIVE\H1_FRI_REF
57%
Route 4
Active: Servicing
REFUSE LIVE\4_FRI_REF
49%
Colchester30
Active: Servicing
REFUSE LIVE\3_FRI_REF
30%
Route 1
Active: Servicing
REFUSE LIVE\1_FRI_REF
58%
Route 12
Active: Servicing
REFUSE LIVE\12_FRI_REF
2%
Inactive Vehicles
Show Inactive
It gets interesting now
LIVE view of individual or multiple routes
Stats
1 selected vehicle
Service Completion: 46%
Service Distance: 65.2 miles
Reports
0
1
6
No events
3 hrs 15 min
Map
Bin not out
Vehicle: Route 5 [VU62 HSF]
Route: REFUSE LIVE\1_FRI_REF
0 hrs 51 min
Map
Confirm assisted collection
Vehicle: Route 5 [VU62 HSF]
Route: REFUSE LIVE\1_FRI_REF
1 hrs 14 min
Map
Confirm assisted collection
Vehicle: Route 5 [VU62 HSF]
Route: REFUSE LIVE\1_FRI_REF
2 hrs 32 min
Map
START
Zoom in for more detail
10:36
27/10/2017


Fusion :: Service Map
https://www.isl-fusion.com/servicemap.php?routesUid[]=zjnuY5eHctwoGjQu&serviceLocationsUid[]=RoS2qBFkQuetpJGn
FUSION
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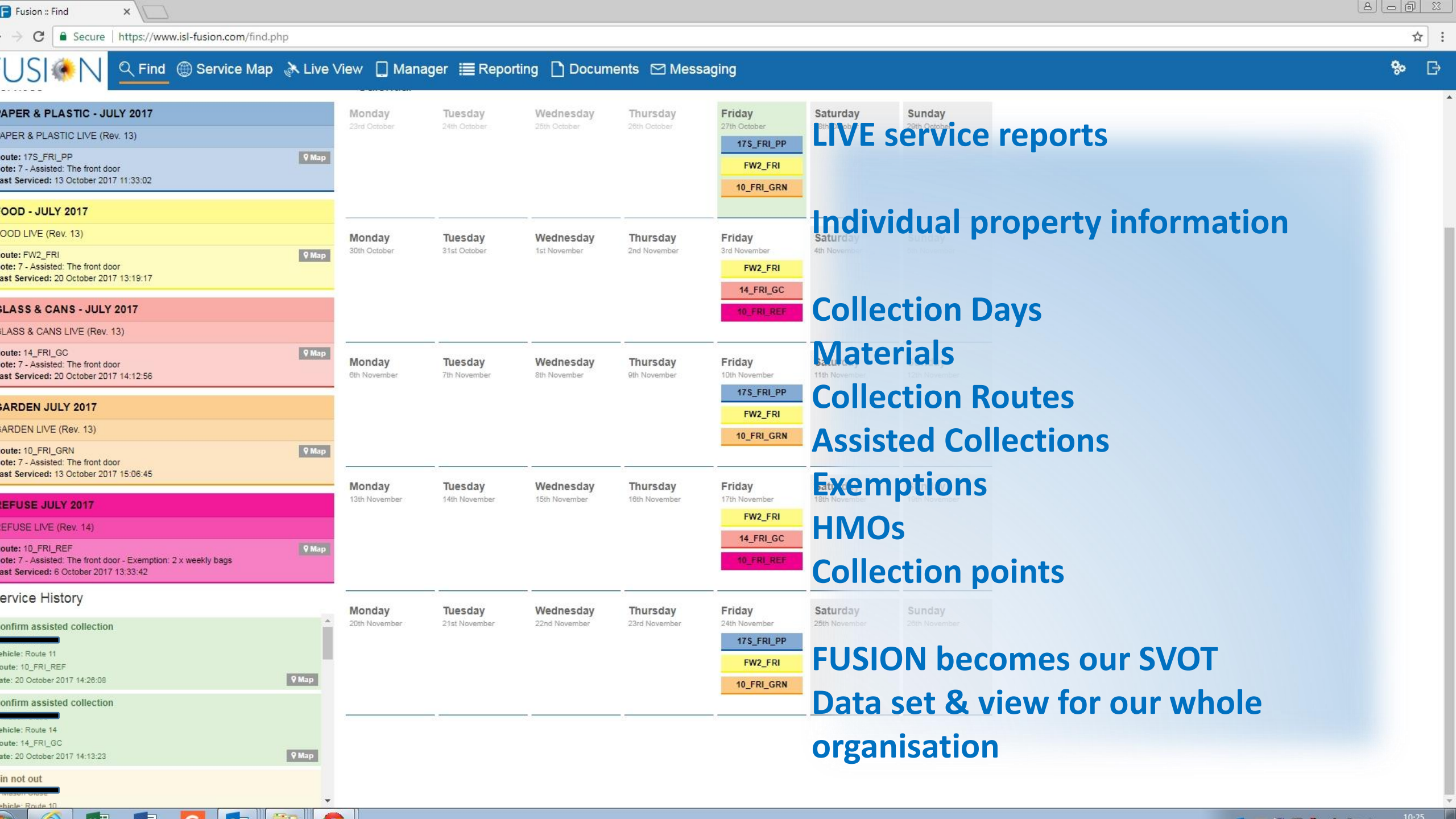
12_TUE_REF
12_WED_REF
1_FRI_REF
1_THU_REF
1_TUE_REF
1_WED_REF
2_FRI_REF
2_THU_REF
2_TUE_REF
2_WED_REF
3_FRI_REF
3_THU_REF
3_TUE_REF
3_WED_REF
4_FRI_REF
Once you zoom in – click on black circled dots for additional info
[redacted]
- Assisted: The front door -
Exemption: 2 x weekly bags
An address with an assisted collection and 2 weekly bags
WILLETT ROAD
DUNCAN ROAD
ELDRED AVENUE
MASON CLOSE
WALNUT TREE WAY
Search




LIVE service reports

Individual property information

Collection Days

Materials

Collection Routes

Assisted Collections

Exemptions

HMOs

Collection points

FUSION becomes our SVOT

Data set & view for our whole organisation

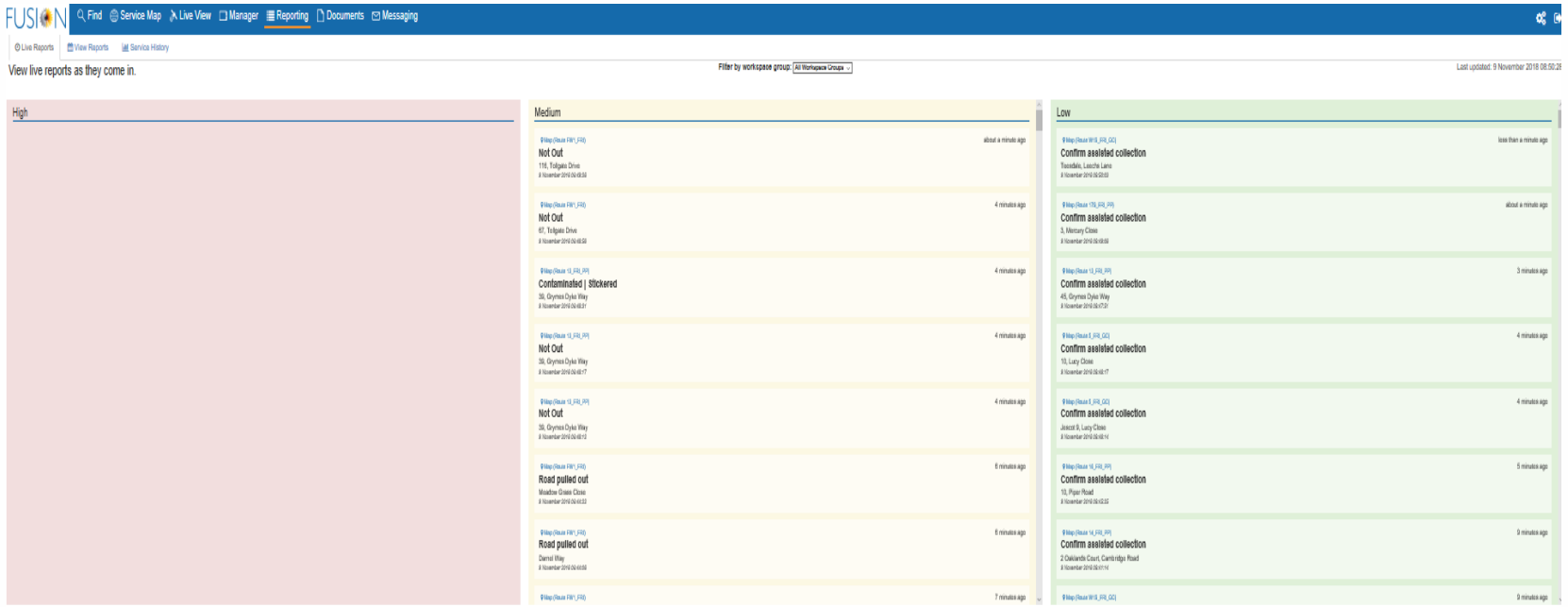
Fusion :: Messaging

Secure | https://www.isl-fusion.com/messaging.php

FUSION | Find | Service Map | Live View | Manager | Reporting | Documents | Messaging

Refresh | Send Message

| | |
|---|---|
| **Route 10**<br>Garden wouldnt load so runIngon refuse | 27 October 2017 07:07:54<br>Message |
| **Route 2**<br>3 5 7 9 vortex not out | 27 October 2017 06:46:46<br>Message |
| **Wheeled Bin 1 Splitter**<br>Breakdown | 25 October 2017 12:54:45<br>Message |
| **Route 8 (VU62 HSA)**<br>Route 7 Breakdown | 25 October 2017 09:50:22<br>Received |
| **Wheeled Bin 1 Splitter (VU62 HSE)**<br>Route 7 Breakdown | 25 October 2017 09:50:22<br>Received |
| **Route 6 (VU62 HSO)**<br>Route 7 Breakdown | 25 October 2017 09:50:22<br>Received |
| **Route 5 (VU62 HSF)**<br>Route 7 Breakdown | 25 October 2017 09:50:21<br>Received |
| **Wheeled Bin 1 Splitter (VU62 HSE)**<br>Breakdown | 24 October 2017 12:18:27<br>Received |
| **Route 7 (VU62 HSD)**<br>Breakdown | 24 October 2017 12:18:27<br>Sent |
| **Route 6 (VU62 HSO)**<br>Breakdown | 24 October 2017 12:18:27<br>Received |
| **Route 5 (VU62 HSF)**<br>Breakdown | 24 October 2017 12:18:26<br>Received |




**LIVE interaction with crews**

**Messaging BOTH ways**

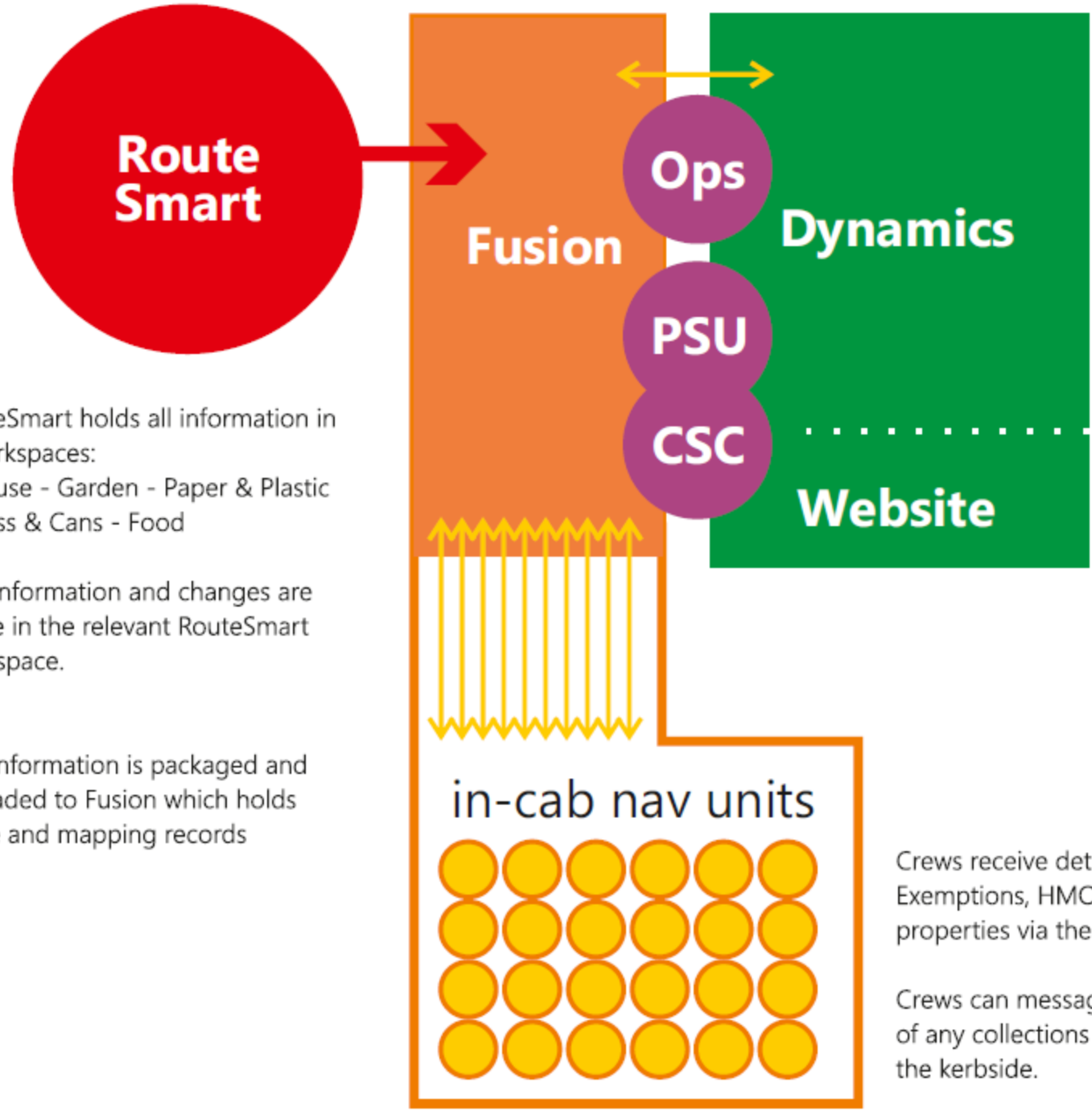
**To & From in-cab unit**

View live reports as they come in

Prioritise
High
Medium
Low

10:59
07/11/2017

# Technology has driven customer expectations




RouteSmart holds all information in 5 workspaces:
- Refuse - Garden - Paper & Plastic
- Glass & Cans - Food

Any information and changes are made in the relevant RouteSmart workspace.

The information is packaged and uploaded to Fusion which holds route and mapping records

CSC Operators can view the Fusion system to check routes and collection progress.

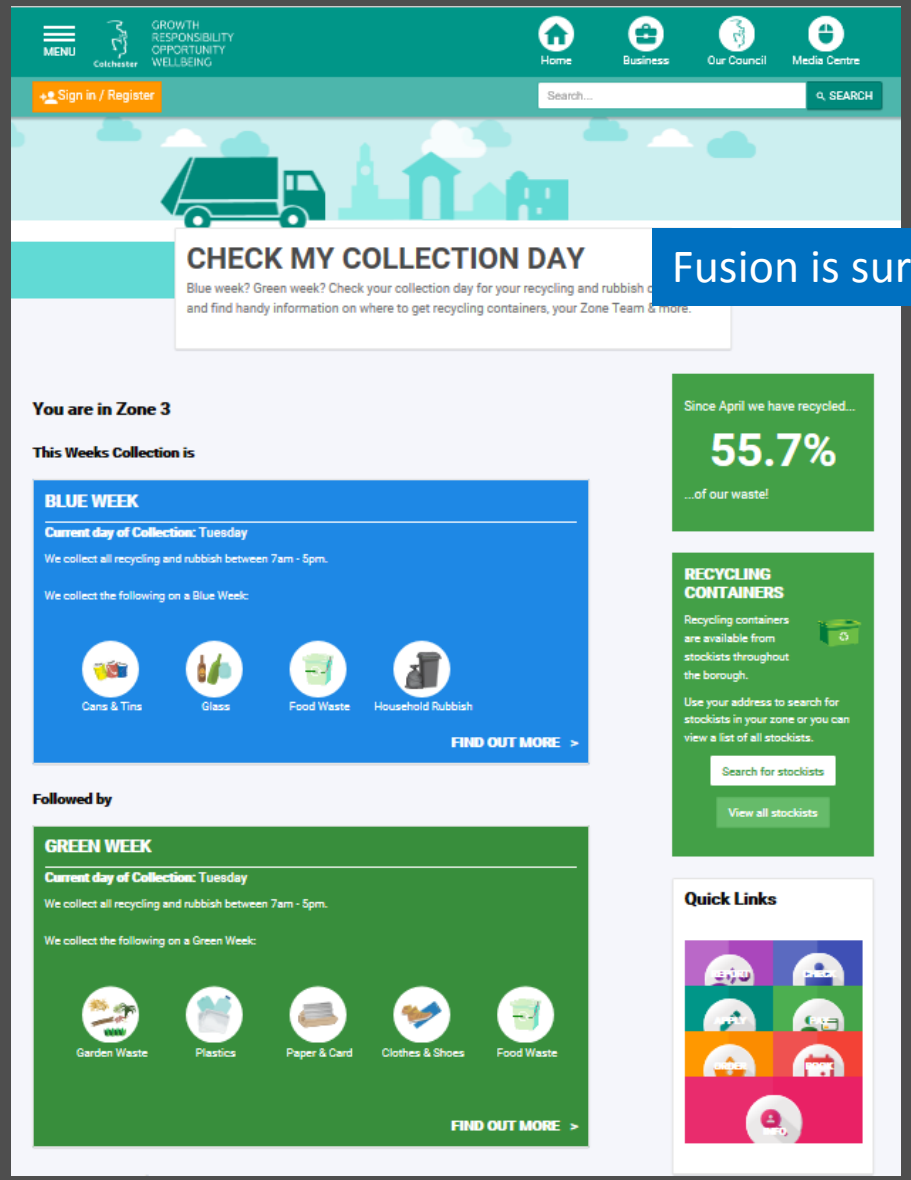
An interface to feed back the in-cab responses is being completed.

Missed collections are logged in Dynamics

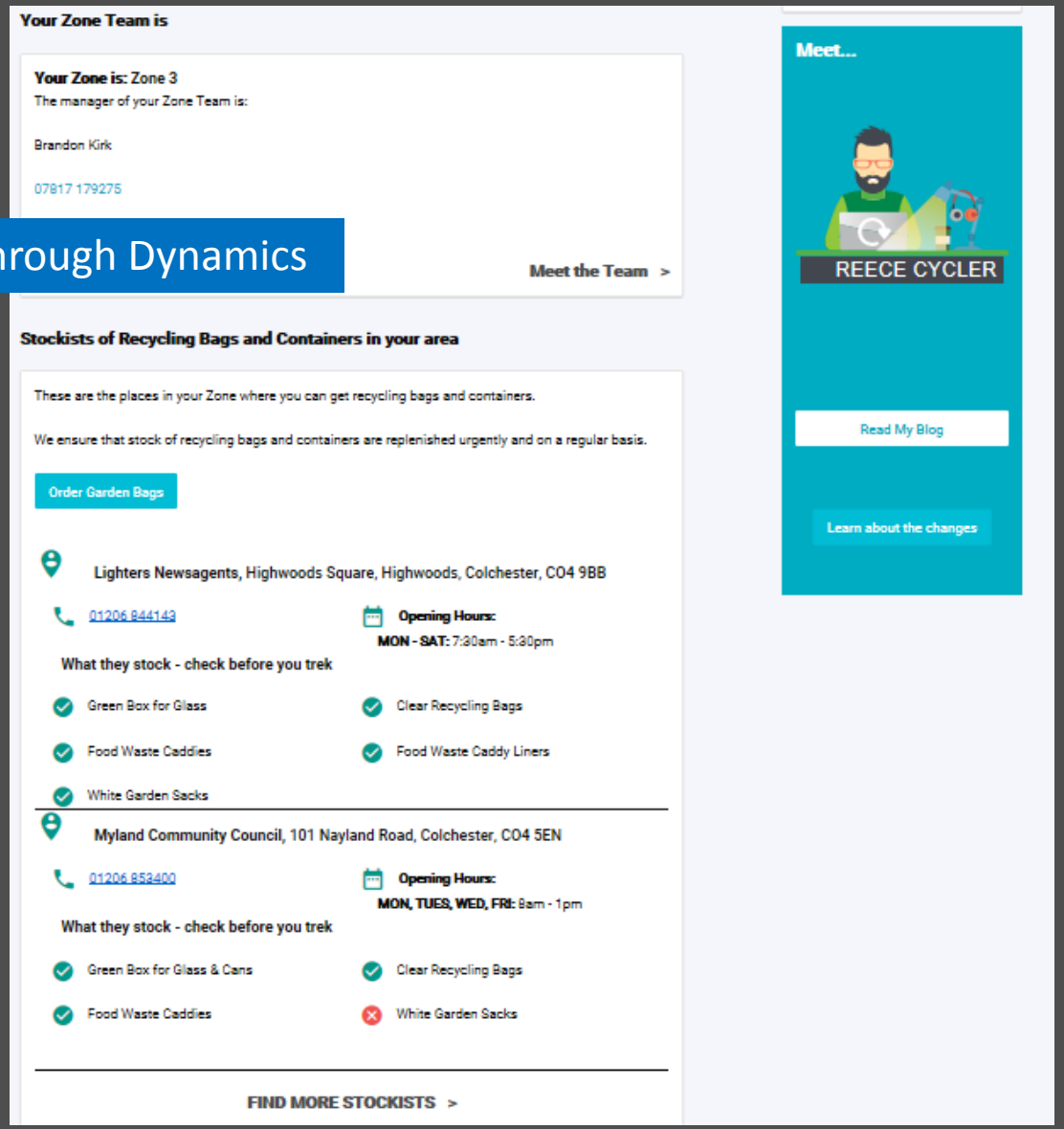
Dynamics links to the website for customer and property records.

Crews receive details of Assisted, Exemptions, HMO and new properties via the in cab unit.

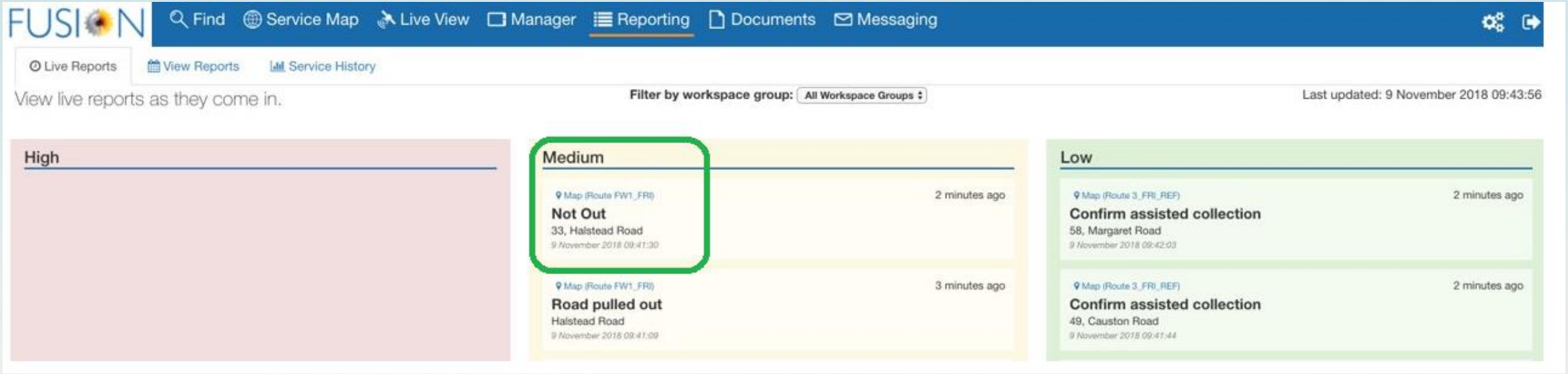
Crews can message back the status of any collections and materials at the kerbside.

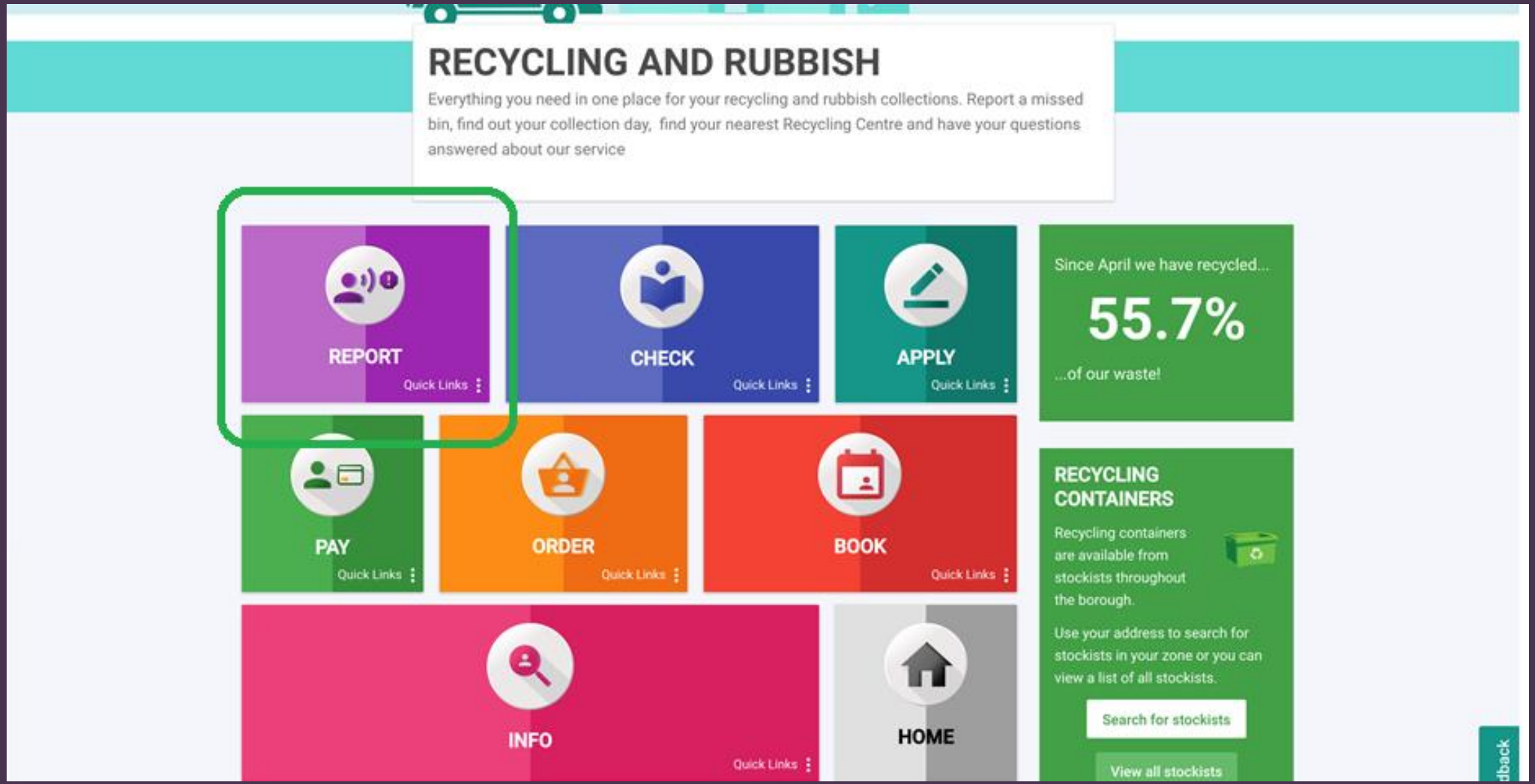


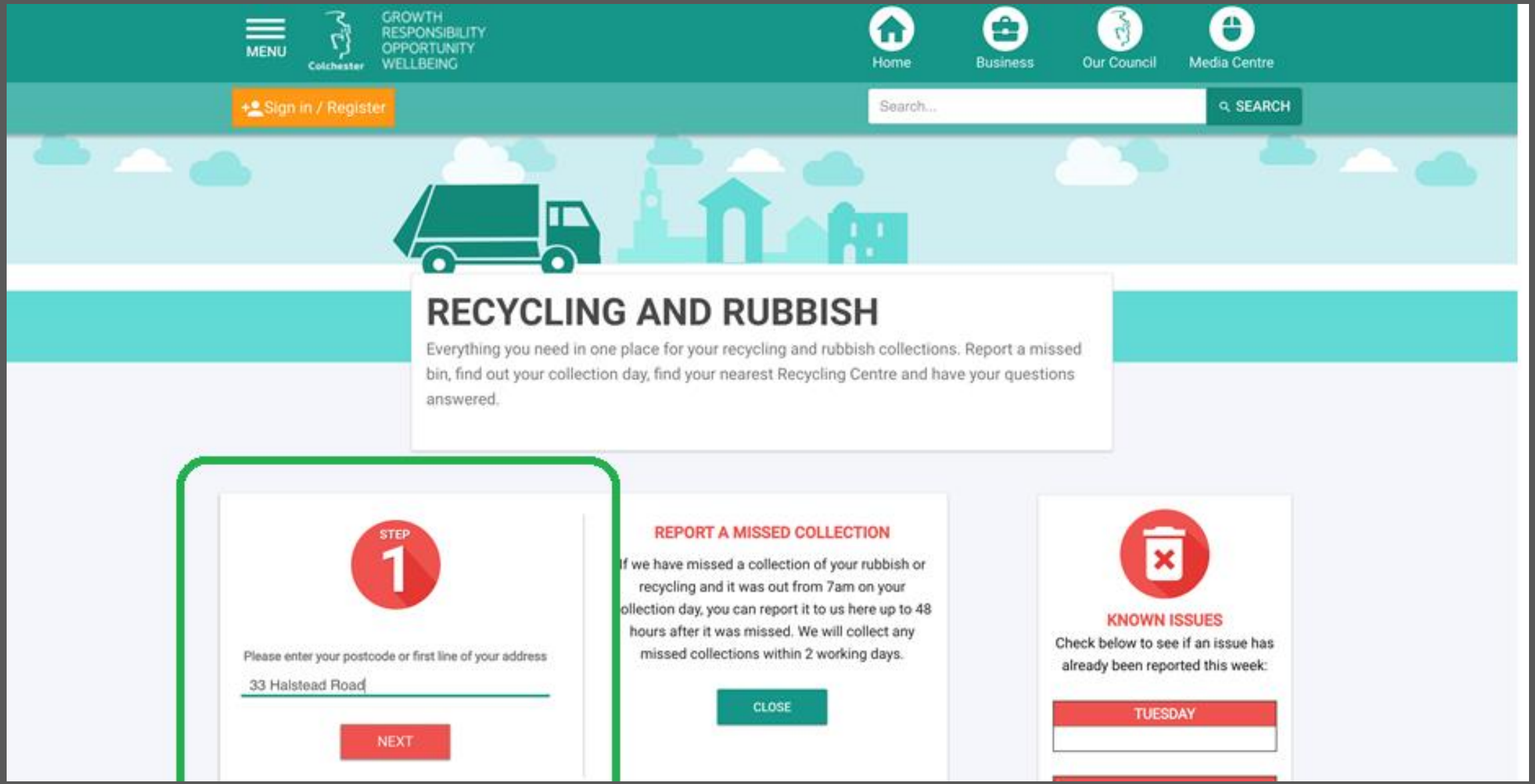

Fusion is surfaced through Dynamics



# Remember the LIVE reports?




RECYCLING AND RUBBISH
Everything you need in one place for your recycling and rubbish collections. Report a missed bin, find out your collection day, find your nearest Recycling Centre and have your questions answered about our service
REPORT
Quick Links
CHECK
Quick Links
APPLY
Quick Links
PAY
Quick Links
ORDER
Quick Links
BOOK
Quick Links
INFO
Quick Links
HOME
Since April we have recycled...
55.7%
...of our waste!
RECYCLING CONTAINERS
Recycling containers are available from stockists throughout the borough.
Use your address to search for stockists in your zone or you can view a list of all stockists.
Search for stockists
View all stockists


MENU
Colchester
GROWTH
RESPONSIBILITY
OPPORTUNITY
WELLBEING
Home
Business
Our Council
Media Centre
Sign in / Register
Search...
SEARCH
RECYCLING AND RUBBISH
Everything you need in one place for your recycling and rubbish collections. Report a missed bin, find out your collection day, find your nearest Recycling Centre and have your questions answered.
STEP 1
Please enter your postcode or first line of your address
33 Halstead Road
NEXT
REPORT A MISSED COLLECTION
If we have missed a collection of your rubbish or recycling and it was out from 7am on your collection day, you can report it to us here up to 48 hours after it was missed. We will collect any missed collections within 2 working days.
CLOSE
KNOWN ISSUES
Check below to see if an issue has already been reported this week:
TUESDAY

Back

# MISSED BINS

**We could not collect all of your recycling and rubbish this week and this cannot be reported as a missed collection because:**

It was not out when our rubbish and recycling team attempted to collect it

This information was provided by our recycling and rubbish team on...

09/11/2018 | 09:41:30 am

Please take your containers/bags back on to your property and represent your recycling or rubbish on the next correct Blue/Green Week. You can also take recycling, rubbish and unwanted household items to your local recycling centre. Find details of your nearest one here www.colchester.gov.uk/recycling along with their opening times and what not to bring.

## Things you will need

- What rubbish was missed

## Important Information

**This form will take approximately 2 minutes to complete**

If we have missed a collection of your rubbish or recycling and it was out from 7am on your collection day, you can report it to us here.

You can report it up to 48 hours after it was missed.

We will be back to collect within 2 working days.

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# Simplicity is the key

Online process automatically checks address provided for:

Right week? - Is reported missed collection the right type?

Right day? - Is report within 48 hrs of collection day?

Exception reports – Is there a reason why we didn't collect?

If all ok allows report

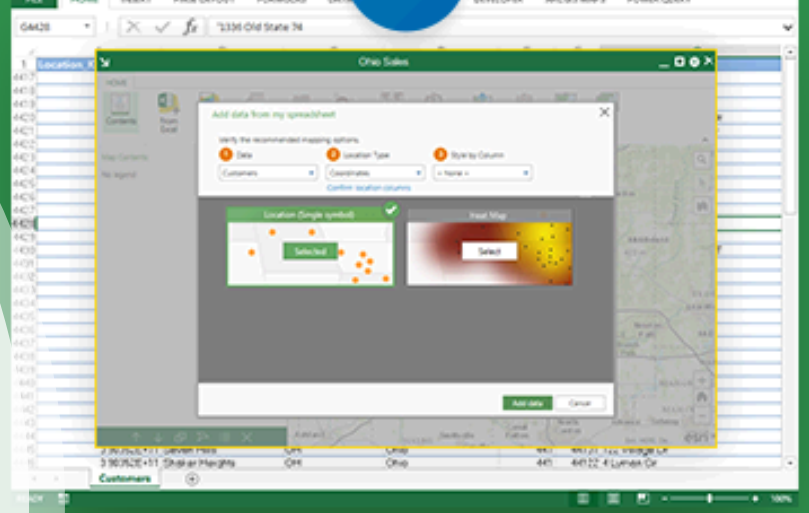
Dynamics pushes a collection job directly to collection team via mobile device

# What’s next?

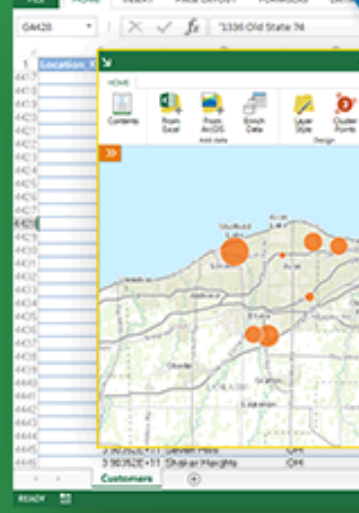
**Automating LLPG (DTF) import of both streets and properties into RouteSmart**

**Making Reporting visually interesting – Heat Mapping**

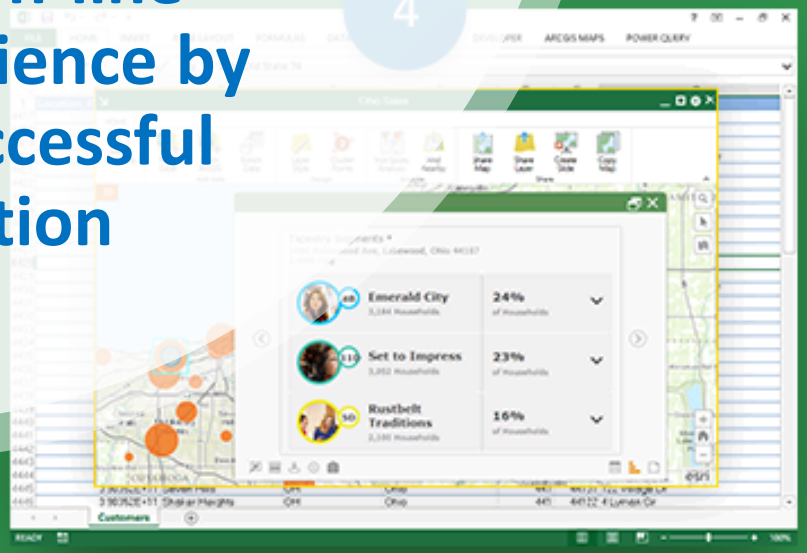
**Improving our on-line customer experience by adding LAST successful service information**



Choose a Map Style



See Ne




Gain Better Understanding

Tell Your Story

There is only one thing more painful than learning from experience, and that is not learning from experience.

**Laurence J. Peter**

Only two days ago we picked up on a development area  - x3 vehicles on each route

Food / Waste / Recycling

Currently if a vehicle logs an issue with say food it currently stops Dynamics from reporting against further issues within FUSION reporting

We are now using the FUSION API to surface information against a UPRN

What type of missed bin are you raising an issue for?

Food / Garden / Paper & Plastic

Food / Refuse / Glass & Cans

# ANY QUESTIONS