

# GAINING OPERATIONAL EFFICIENCY AND INSIGHTS BY AUTOMATING SCALES

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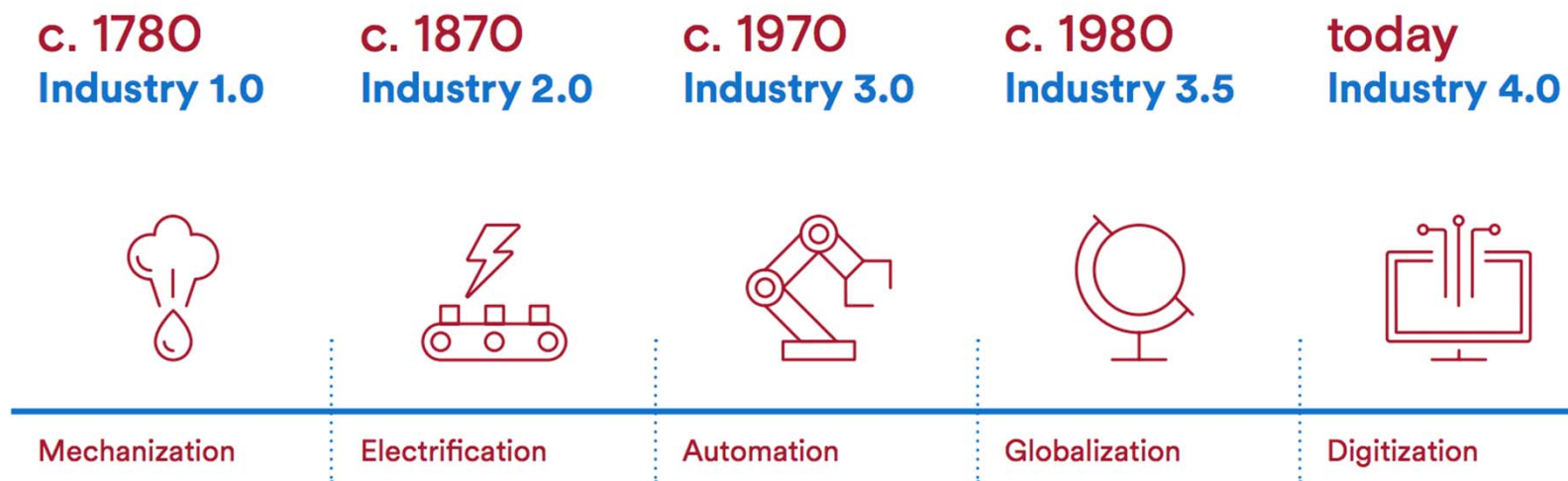




# AUTOMATION

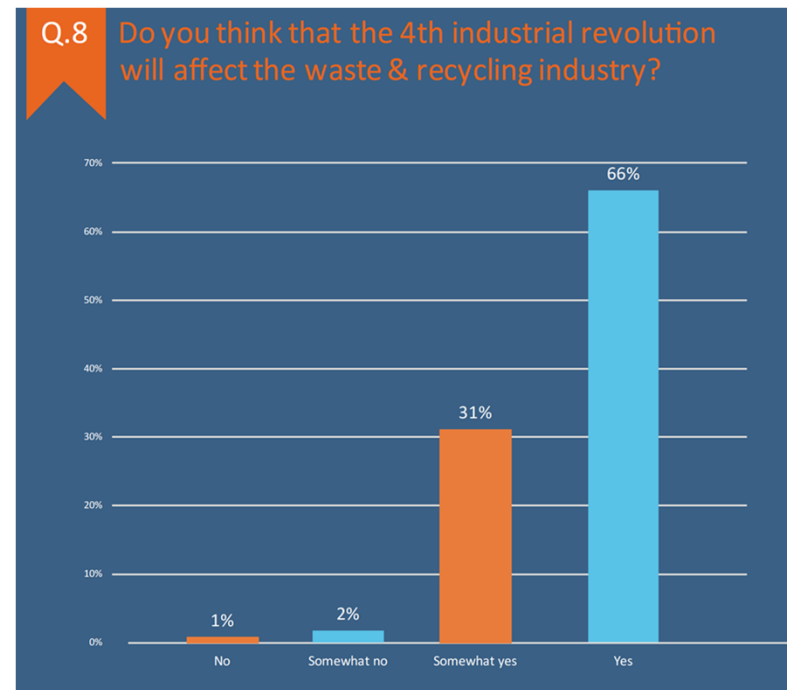


# Automation and the 4th industrial revolution.



# ISWA INDUSTRY 4.0 STUDY

The waste industry is expecting it. 97% think it will affect the industry.

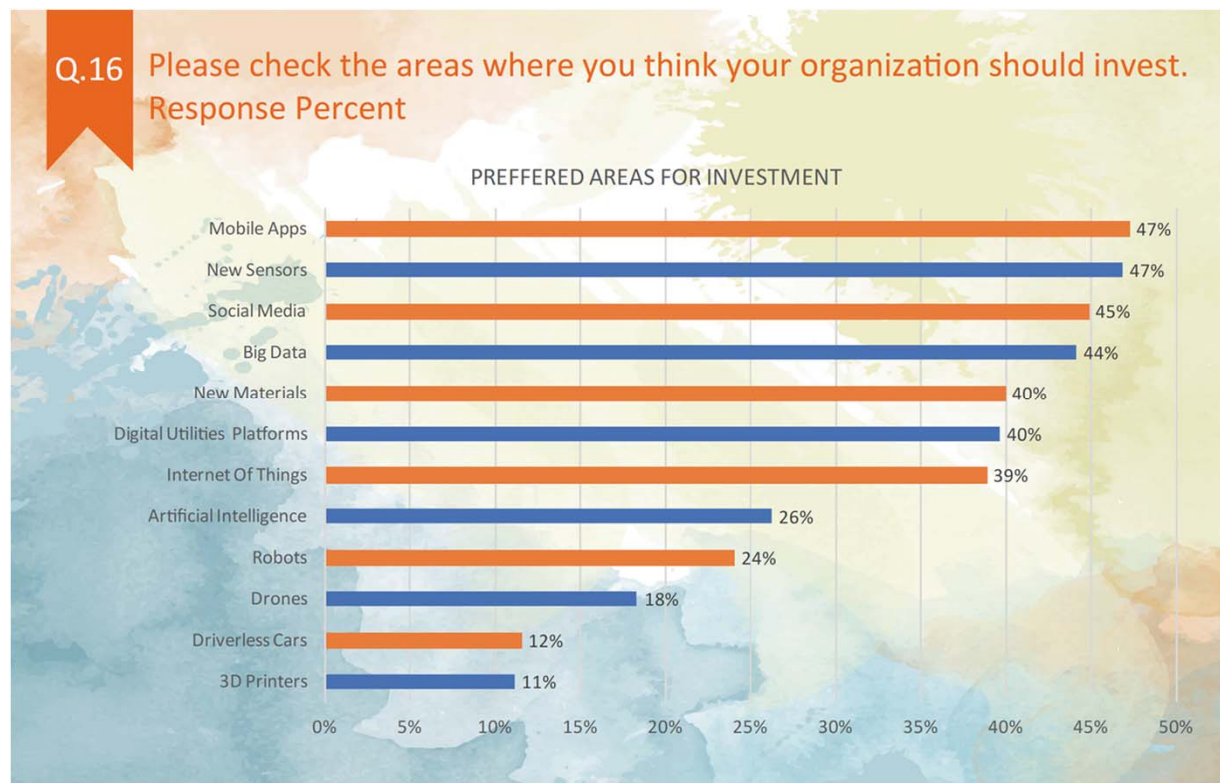


The impact of the 4th industrial revolution on the waste management sector. ISWA 2017



# ISWA INDUSTRY 4.0 STUDY

Q.16 Please check the areas where you think your organization should invest.  
Response Percent



The impact of the 4th industrial revolution on the waste management sector. ISWA 2017





# HOW TO WIN WITH AUTOMATION

“How can we use technology to extend the skills of humans in ways that aren’t immediately clear, but will seem obvious a decade from now?”



## What are the biggest challenges in implementing Industry 4.0 solutions?





# STRONG

DATA AUTOMATION

15 Years of Data Automation

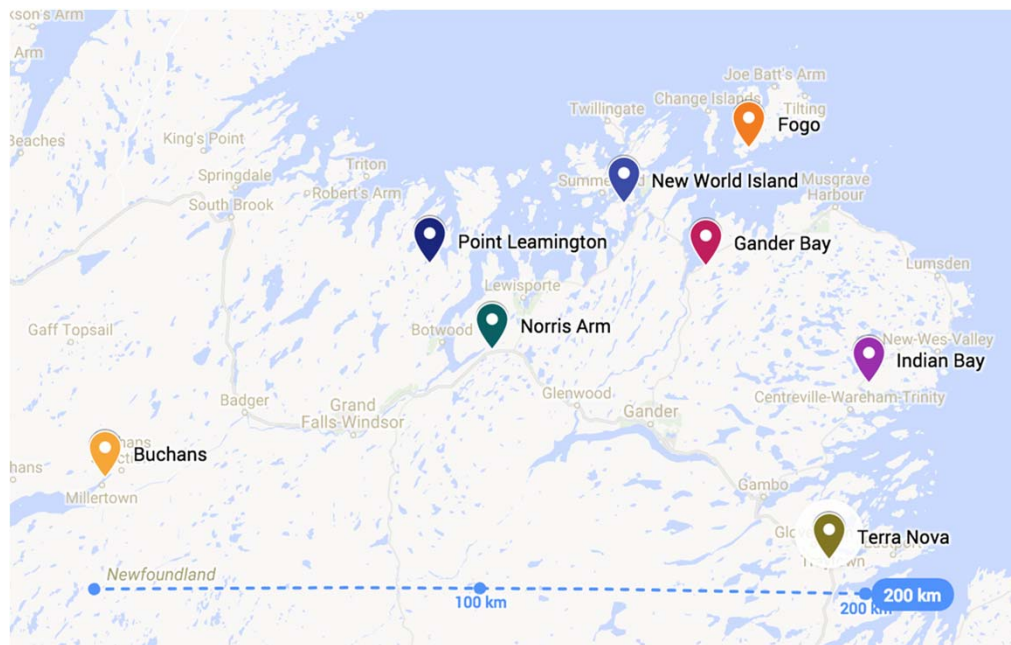
Began with forestry and now working in waste and construction.



# CENTRAL REGIONAL SERVICE BOARD



# CENTRAL REGIONAL WASTE MANAGEMENT



- 32,500 homes
- 45,000 tons
- 1 Landfill
- 7 Transfer Sites



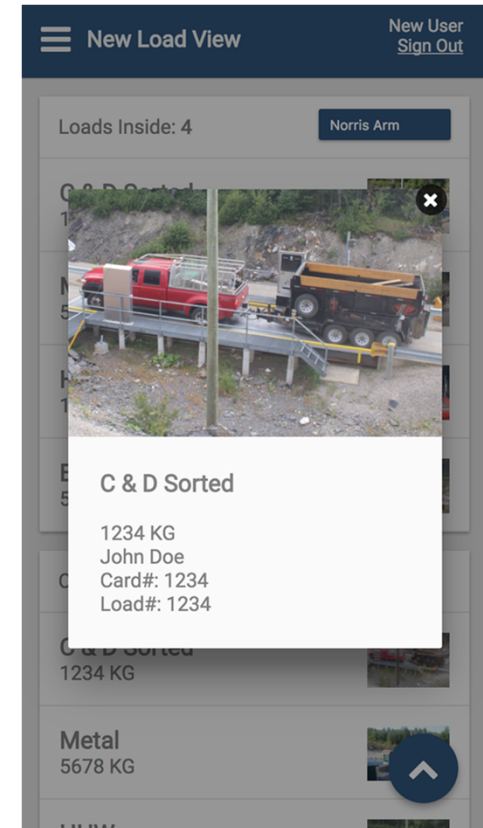
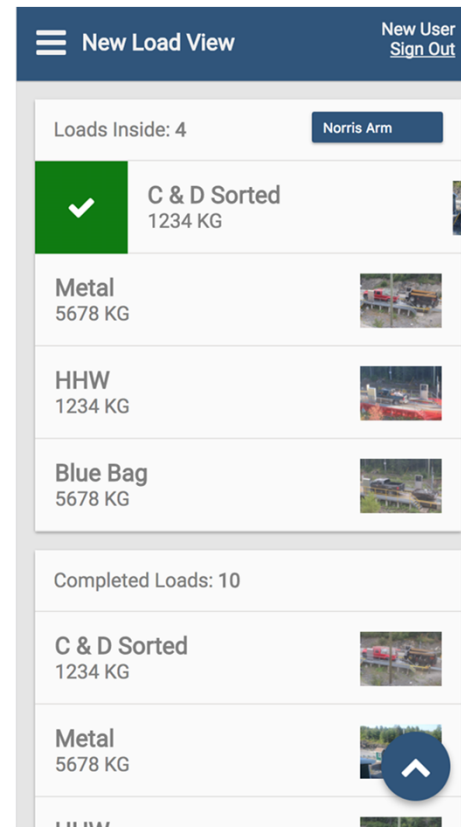


# TRANSFER SITES



# IN THE YARD

Load view helps the attendant in the yard verify the loads, and edit if needed.



# CUSTOMER PORTAL

Allows customers to pay their bills online and see their own data.



## Card Transaction History

### Navigation

- Log Out
- Card Balance
- Top-up Card
- Transaction History
- Edit Card Information
- Card FAQ

ABOUT SSL CERTIFICATES

Welcome Warren Strong

Start Date

End Date

Card #	Date & Time	Product	Location	Weight In (kg)	Weight Out (kg)	Net Weight (kg)	\$ / Tonne	Sub-Total	HST	Total
6641	7/27/2017	C & D SORTED	Terra Nova	2,040	1,990	50	30.00	\$1.50	\$0.00	\$1.50
6641	10/4/2017	CLEAR GARBAGE BAG	Terra Nova	1,840	1,820	20	136.00	\$2.72	\$0.00	\$2.72
6641	6/2/2017	CLEAR GARBAGE BAG	Terra Nova	2,730	2,550	180	136.00	\$24.48	\$0.00	\$24.48
6641	6/22/2017	C & D SORTED	Norris Arm	2,800	2,640	160	30.00	\$4.80	\$0.00	\$4.80
6641	11/23/2017	CLEAR GARBAGE BAG	Terra Nova	1,850	1,780	70	136.00	\$9.52	\$0.00	\$9.52

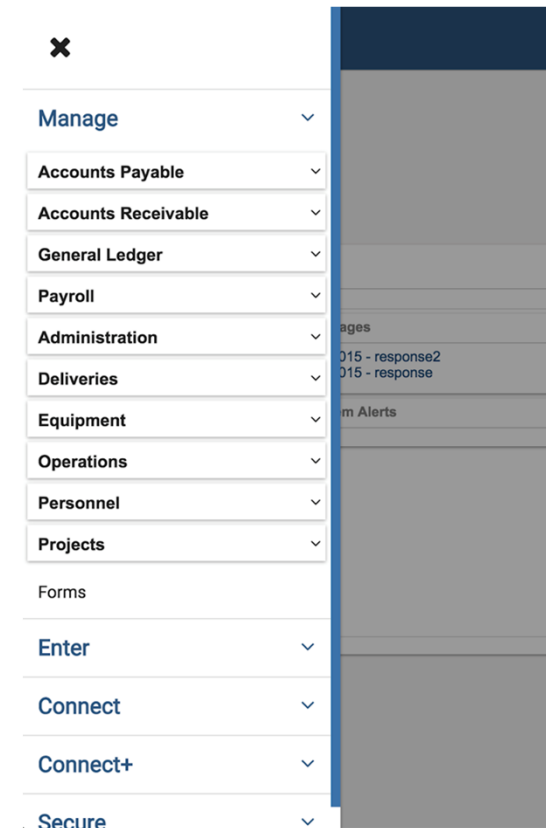




# IN THE OFFICE

The web portal is the main place where employees input, work with, and view data.

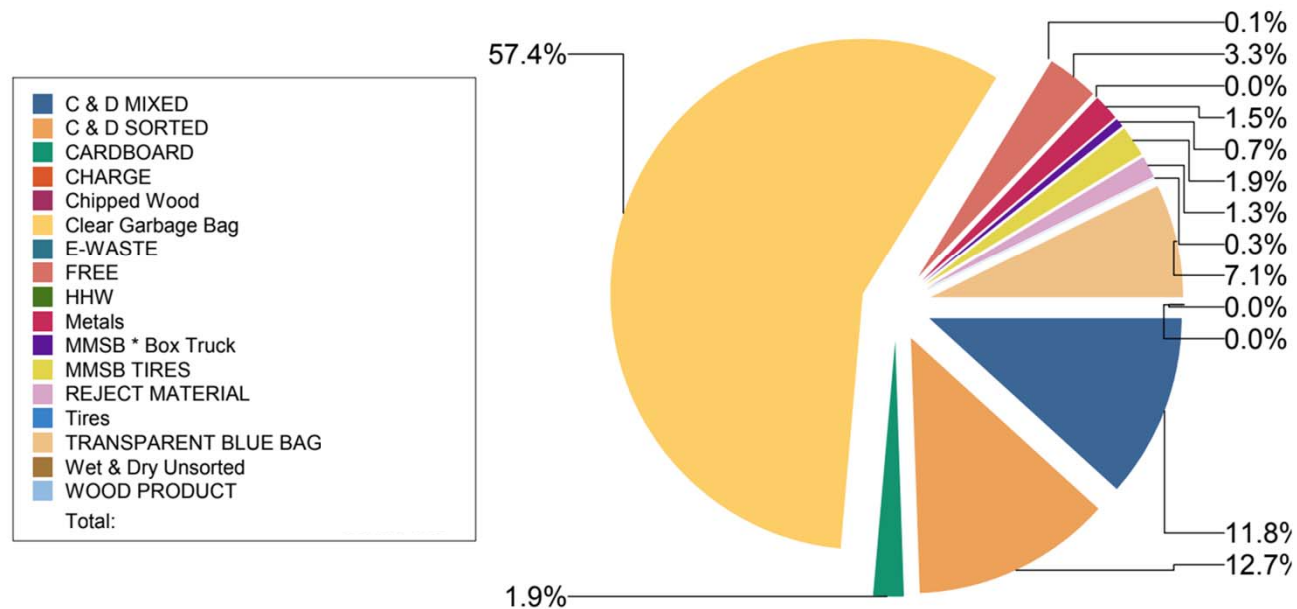
They access through a desktop or mobile device.





# LOOKING AT THE DATA

## Tare Weight / Product

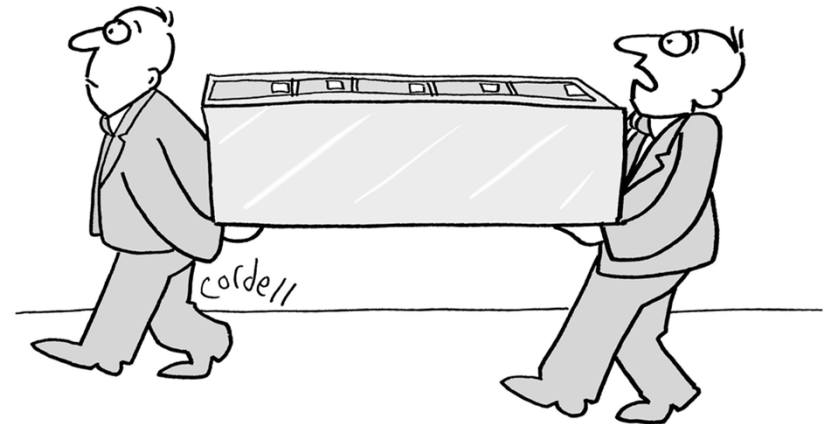


# MY LAST THOUGHTS



# EFFICIENCY

We have to be looking to connected technologies and automation to keep back the rising cost of operations.



**“Surely there’s an easier way of moving files?”**

CartoonStock.com





# YOUR CONTEXT

*What tasks can you automate to free up staff to perform other higher value tasks?*



# THANK YOU



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