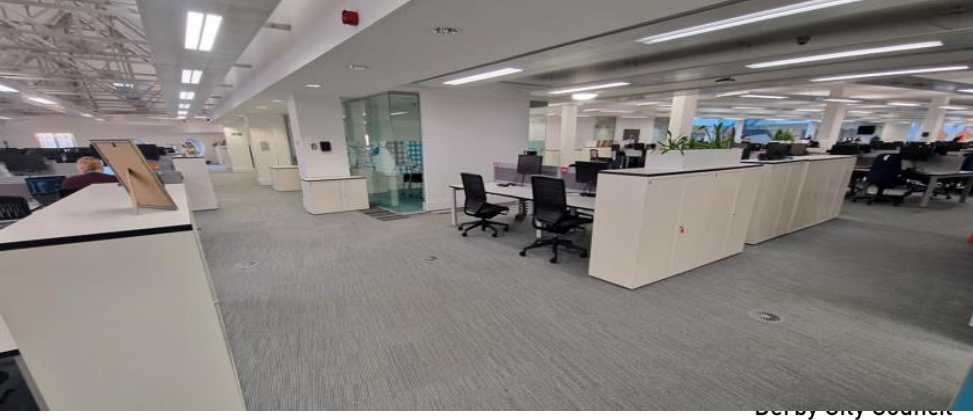
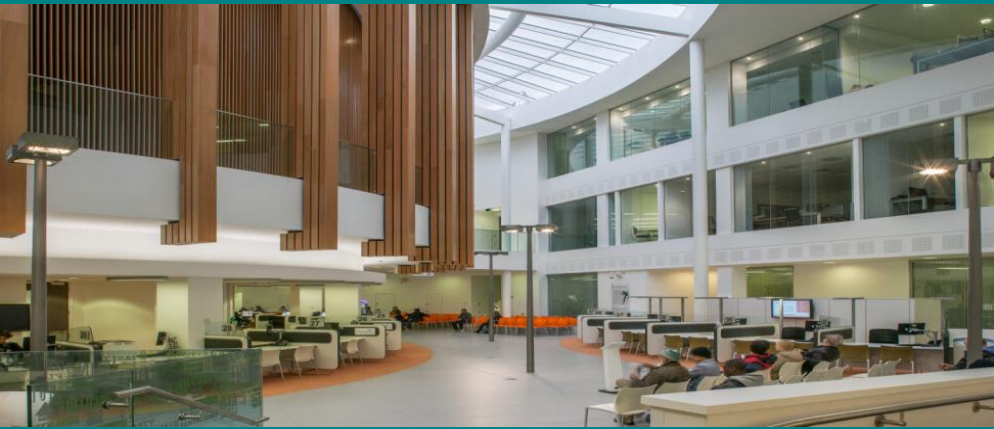




# Derby City Council Utilising A.I Technology



# Agenda

**Our Challenges**

**Tried & tested Technology**

**Looking for Automation**

**Running Trials**

**Building the Business Case**

**Implementation**

**Lessons Learned**

**What Next?**

# Our Challenges

**Post Covid – Higher Cleaning Expectations**

**Shrinking Budgets**

**Ageing Workforce**

**Increased Salary Costs**



# Tried & Tested Technology



# Looking for Automation

**Our search began in 2019 @ Excel London**

**Delays due to cost**

**Lack of adaptable tech**



# LIONSBOT R3 Vac



[R3 Vac: The Complete Vacuum Solution](#)

# Running Trials

## What do we need to consider?

**Trial duration**

**Operating times**

**Managing technical glitches**

**Ongoing maintenance**

**Understanding productivity**

**Potential disruption to staff & customers**

**Robot supervision**





# Software & App access



## Robots

ROBOTS ONLINE <b>2</b>		DEPLOYED <b>2</b>		WORKING <b>0</b>		READY TO WORK <b>2</b>		CRITICAL <b>0</b>	
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[DETAILS](#) [MORE](#)

Status	Robot ID	Robot Type	Battery	Water	Worksite	Location	Last Online	Activation Status
<span>• Docked</span>	R3VAC-B00384	(R3) Vac	100%	-	Derby City Council	floor2	28 Jan 2025, 21:53	<span>Activated</span> ⓘ
<span>• Docked</span>	R3VAC-B00483	(R3) Vac	100%	-	Derby City Council	G1_DWP	28 Jan 2025, 21:53	<span>Activated</span>

# Software & App access

**R3VAC-B00384**

Activated ⓘ



**100%**  
BATTERY  
- Docked

Type  
**Vac**

Family  
**R3**

Software  
**1.9.4**

Operator  
**Derby City Council**

Worksite  
**Derby City Council**

Manufactured  
**20 Dec 2023**

Total Working Hours  
**334**



### Sensor Status

2D Lidar	✓	Clustered Objects Raw	✓
Costmap	✓	Front Camera	✓
Front Negative Obstacles	✓	Fused Objects	✓
IMU	✓	Left Camera	✓
Low Height Clustered Objects Raw	✓	Motor Feedback	✓
Odometry	✓	Right Camera	✓
Robot Pose	✓	Safety Sensors	✓
Sonars	✓	Transform Library	✓
Tilted Camera	✓		

### Reports

Cleaning | Monthly

Cleaning Method	Start Time	End Time	Cleaning Duration	Map
Autonomous	24 Jan 2025, 14:00:11	24 Jan 2025, 14:58:01	00h 57min 04sec	L2   floor2
Autonomous	24 Jan 2025, 06:45:11	24 Jan 2025, 07:42:30	00h 56min 34sec	L2   floor2
Autonomous	23 Jan 2025, 17:13:19	23 Jan 2025, 18:09:06	00h 54min 23sec	G1   DWP
Autonomous	23 Jan 2025, 14:40:05	23 Jan 2025, 15:37:50	00h 57min 01sec	L2   floor2
Autonomous	23 Jan 2025, 14:00:11	23 Jan 2025, 14:35:15	00h 34min 39sec	L2   floor2

### Robot Configuration

Navigation | Cleaning | Perception | Mingle | Advanced

Auto Home Wait Duration (s) ⓘ  
30

Dock Pose Y Offset (m) ⓘ  
-0.05

Moving Speed (m/s) ⓘ  
0.4

Bumper Hall Bypass ⓘ

Close To Wall ⓘ

Low Battery Auto Home ⓘ

Cleaning Reverse Recovery Allowed ⓘ

Handlebar Bypass ⓘ

# Building the Business Case

## What do we need to consider?

### Cost of Machines Vs Payback

Inc Service Contracts

### Number of cleaning Hrs saved

1hr A.I Machine Cleaning = 2hrs Manual Vacuuming

**Draw up a cost model showing your break-even point**



# Implementation

**Allocate sufficient time**

**Factor in ongoing monitoring, supervision and planned maintenance**

**Staff Training**

**From day 1 the A.I Machine is Learning and you will need to learn with it!**



# Lessons Learned

# What's Next



## THE R3 SCRUB PRO. PRO CLEANING, MADE EASY.



### PATENT PENDING SINGLE PASS SQUEEGEE

With an improved airflow design, the squeegee leaves floors super dry, after the toughest of scrubs. Magnet driven design ensures complete safety and serviceability.

### GREAT BRUSH PRESSURE

With a 7 kg downward pressure, and brush options for a wide range of floor types, the R3 Scrub Pro delivers professional grade cleaning in the tightest spaces.

### ELIMINATE PRE- SWEEPING

With the addition of two-side brushes, the R3 Scrub Pro effectively pushes in debris from even the edges - eliminating the need for pre-sweeping.



# Thank you