Housing Leeds

What Areas Should be Monitored?

About Aico

Monitoring and Evaluation

Compliance

About Aico

About Aico

Education | Quality | Service | Innovation

> “The leader in home life safety, promoting best practice, engaging with our communities and delivering safer homes.”

670k
live devices connected

110k
live Gateway systems

400
RSL’s installing our systems

10
Readings
billion

24
Readings each day
million

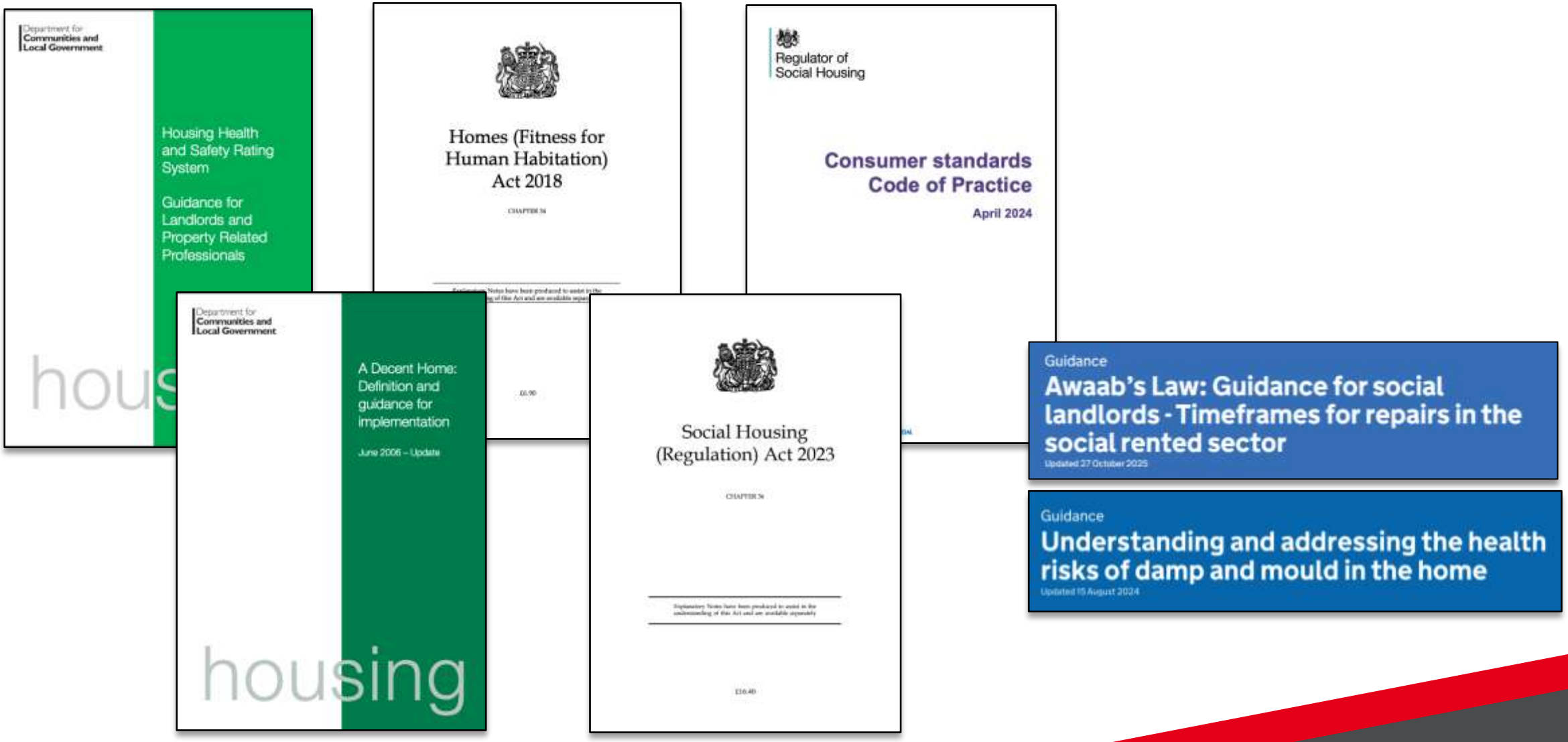
110
Events received
million

180
Insights calculated
million

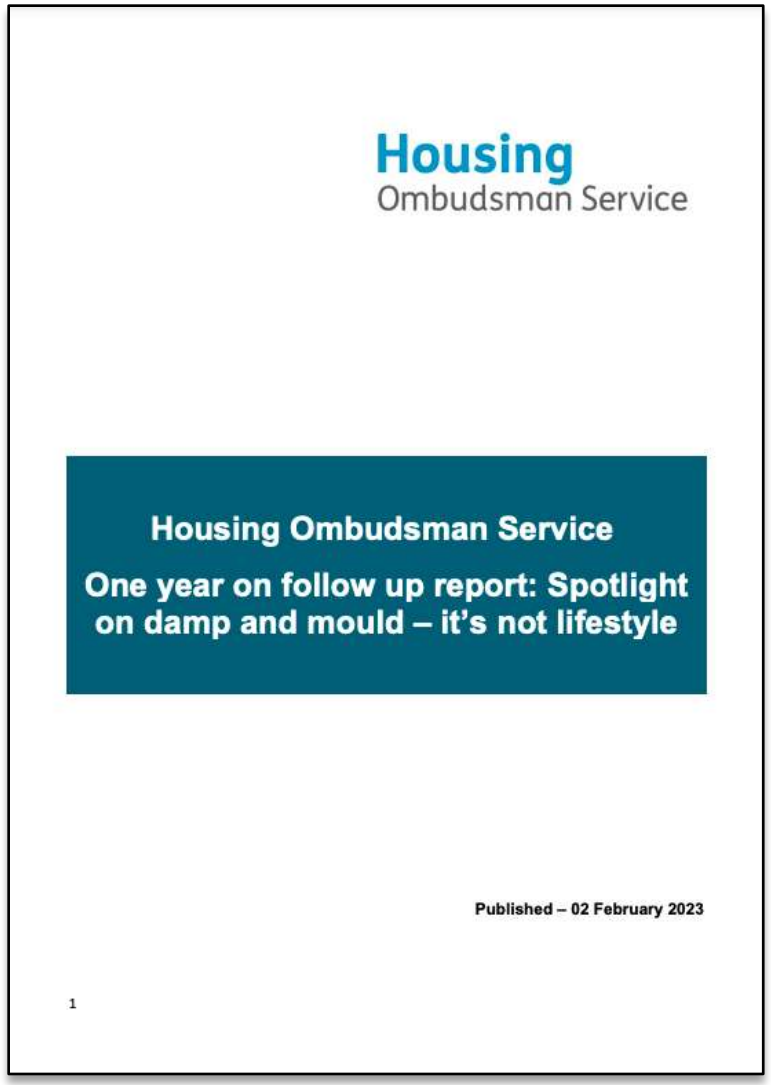
5.5
Alerts raised
million

Compliance

Key Documents -



Best Practice - Damp & Mould



FINDINGS:

35%

of landlords have a damp and mould policy

12% in the process of implanting one

19%

Have self-assessed against the recommendations in Spotlight Report

BEST PRACTICE FOR PREVENTION AND MANAGEMENT:

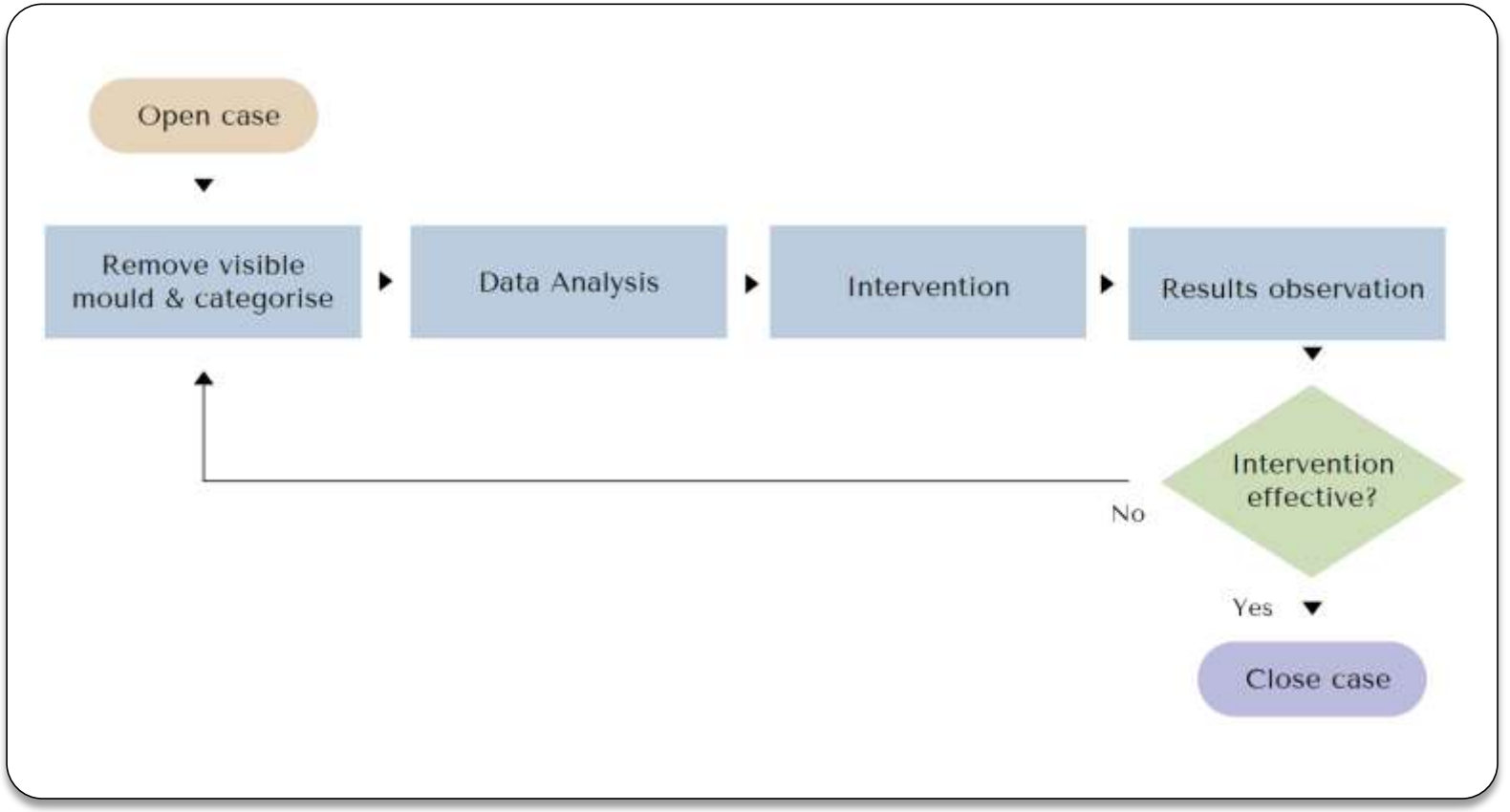
- Risk algorithm
- Predictive artificial intelligence
- Equipping surveyors with appropriate equipment
- Using humidity and temperature sensor data

- Retrospective risk assessments
- Dedicated apps for reporting issues
- Specialist damp and mould teams or 'task forces'
- Property MOTs
- Root cause analysis modelling
- Dedicated damp and mould dashboard
- Staff training

Best Practice - Case Management

TIPS AND BEST PRACTICE:

1. Switch mindset from first time fix
2. At least one full season before closed
3. Speak to the resident *(e.g. surveys)*
4. Installation of Environmental Sensors
5. Close case down with resident sign off



Monitoring and Evaluation

Monitoring and Evaluation

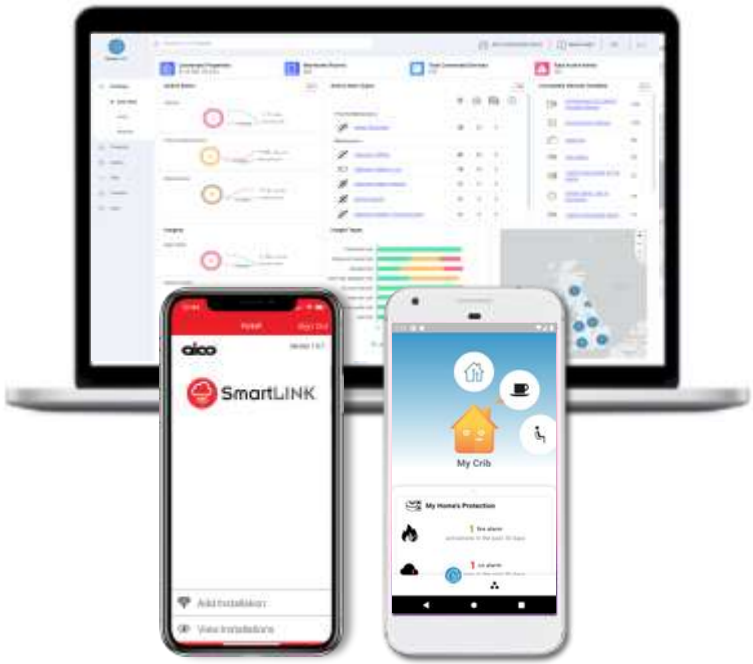
System Overview

Environmental Sensors

Fire & CO Sensors

Hardware Gateway

Software Platform



Environmental Sensor Overview

- Gather data on indoor environmental conditions
- Actionable insights presented via desktop dashboard
- Battery powered - 10-year life
- Covering multiple rooms recommended
- More sensors, more granular data
- Structural versus Environmental insight

Environmental Sensor Insights

Ei1020
Temperature & Humidity

- ✓ Condensation, Damp, Mould
- ✓ Cold Home Risk
- ✓ Excess Heat Risk
- ✓ Heat Loss Risk

Ei1025
Temperature, Humidity & CO_2

- ✓ Condensation, Damp, Mould
- ✓ Cold Home Risk
- ✓ Excess Heat Risk
- ✓ Heat Loss Risk
- ✓ **Draught Risk**
- ✓ **Indoor Air Quality Risk**
- ✓ **Void Risk**
- ✓ **Dust Mite Allergy Risk**

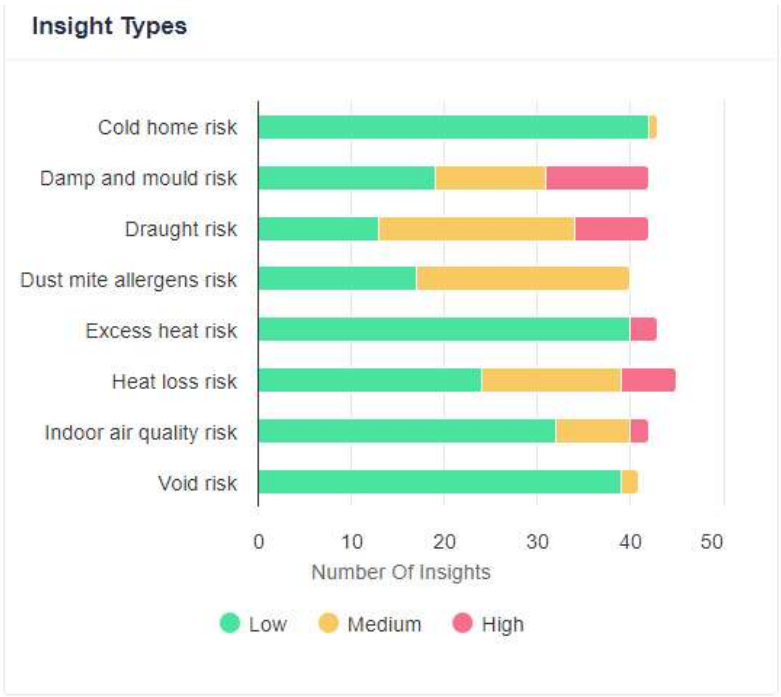
Data Analysis

Avg. Humidity	Avg. Temperature	Avg. Carbon Dioxide	Max Carbon Dioxide
Value >= 0	Value <= 50	Value >= 0	Value >= 0
58.97%	20.60C	540PPM	4,683PPM
55.50%	21.29C	608PPM	2,903PPM
69.43%	17.93C	363PPM	1,946PPM
75.77%	17.94C	384PPM	2,396PPM

Data…

Data Sorted

Data Analysis



HomeLINK®

Data Presented Visually

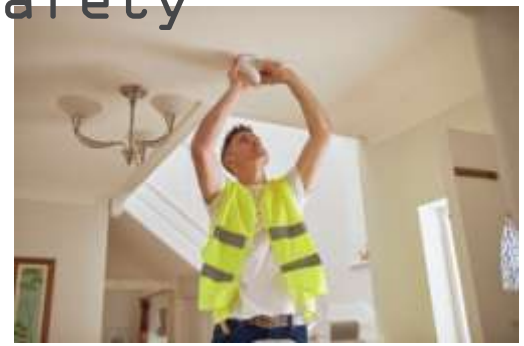
Helps in Key Areas

Disrepair

✓ Healthy homes

- Damp and Mould
- Indoor air quality
- Fuel poverty
- VOCs
- Tenant Engagement

Resident Safety



✓ Safe homes

- Fire protection
- CO protection
- Alarm Testing
- Alarm Maintenance
- Alarm Replacement

Compliance

✓ Compliant homes

- Real time evidence
- Legislation
- British Standards
- Building Regs
- Sector guidance

Net Zero

✓ Sustainable homes

- Target spending
- Validate EEMs
- PAS2035 compliance
- SHDF applications
- Monitor & Evaluate

What Areas Should be Monitored?

High Risk Areas

Bathroom – Ei1020

- High risk areas for condensation, damp and mould
  - High humidity
  - Ventilation/extraction may be inadequate or disabled

What Areas Should Be Monitored

High Risk Areas

Kitchen - Ei1020

- Risk area for condensation, damp and mould
  - Potentially limited ventilation, cooking raising humidity levels
- Risk area for excess heat

What Areas Should Be Monitored

Habitable Rooms

Living Room - Ei1025

- Occupants likely to spend significant time
  - Influence on environmental factors (e.g. CO_2 levels from high occupancy, smoking)
- Key insight area for data
  - Air Quality
  - Condensation, Damp, Mould
  - Excess Cold/Heat

What Areas Should Be Monitored

Habitable Rooms

Bedroom - Ei1025

- Occupants spend significant time - sleeping
- Risk area for allergens - e.g. dust mites

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