



**Barnet
Homes**

Case Study - Barnet Homes

IoT & Compliance 4.0

Full IoT roll-out of 15,000 connected homes by 2025

As of November 2021, Barnet Homes has over 3,000 homes connected to the Aico-HomeLINK IoT platform accounting for 20% of their total stock. The technology has demonstrably saved people's lives and generated net savings. Following a smooth roll-out, Barnet Homes have confirmed they will complete a full roll-out of 15,000 homes by 2025.



For every £1 invested, at least £2.70 will be saved

A comprehensive business case identified cashable savings of £8.9m. There were also further safety, compliance, and reputation-related savings of £16.9m but this was not included in the business case to take a conservative approach.

Example savings areas include:

1. Increased asset lifetime

The industry average time an alarm spends on the ceiling is estimated to be 6-8years (8 years was used in the business case to be conservative). This is short of the 10-year recommendations given by most reputable manufacturers because contractors, installers, and asset managers err on the side of caution when replacing devices to decrease the risk that alarms go out of date on the ceiling. The main examples given are for EICR tests, as these are

5-year cyclical programs, alarms found to be over 5 years old are automatically replaced to prevent them from falling out of date prior to subsequent visits. While this approach improves compliance, it can be more financially and environmentally costly. The Aico-HomeLINK platform provides transparency about average alarm replacement age and provides asset managers absolute transparency of alarms that are out of date; greatly reducing non-compliance risk whilst enabling a data-led, strategic, and targeted approach to replacements.

2. Reducing visits

Physical annual smoke and CO alarm tests are often no longer required. While most of these checks were completed concurrently as part of gas servicing, there is still a cost associated with them.

3. Improving safety and compliance

Savings areas include improved and more efficient compliance reporting, reduced risk of fines, reduced legal expenses, less and more efficient repairs/callouts, and lower probability of reputational costs associated with accidents resulting in near misses, injury, or death.

“We suspected that this product could improve our services from an early stage, and, after a small pilot, we committed to a sizeable initial deployment to truly test the system. There are now many people within Barnet Homes using this system and as we roll out across the entire stock it has become business as usual.” - **Gavin Bass, Senior Compliance Manager, Barnet Homes**

Lifesaving impact

“We received a CO alarm event notification followed by an alert that the alarm had been removed. We dispatched an engineer who immediately disconnected the cooker and reported the worst recorded level of CO he had seen in his career. It is extremely lucky no one died as a result. Surprisingly the resident didn’t realise it was a CO alarm and had been doing this for some time”

- Peter Chapman, Project manager (Fire Safety), Barnet Homes.

The business case is both conservative and strong, but the primary motivator for Barnet Homes is the potential to improve the safety and healthiness of their resident’s homes. For example, by the time 1,000 homes had been connected, Barnet had already identified three homes that had low levels of Carbon Monoxide and one home that had high levels. In all cases, Barnet Homes sent an engineer immediately to rectify the problems ranging from a faulty cooker to an unclean cooker. From a compliance point of view, these are very different scenarios, but the net result is the same for the resident: at best rapidly deteriorating physical and mental health; at worst, death.



(Barnet Homes resident using Ei450 test switch)

“Knowing that my home safety systems are connected to Barnet Homes gives me peace of mind”

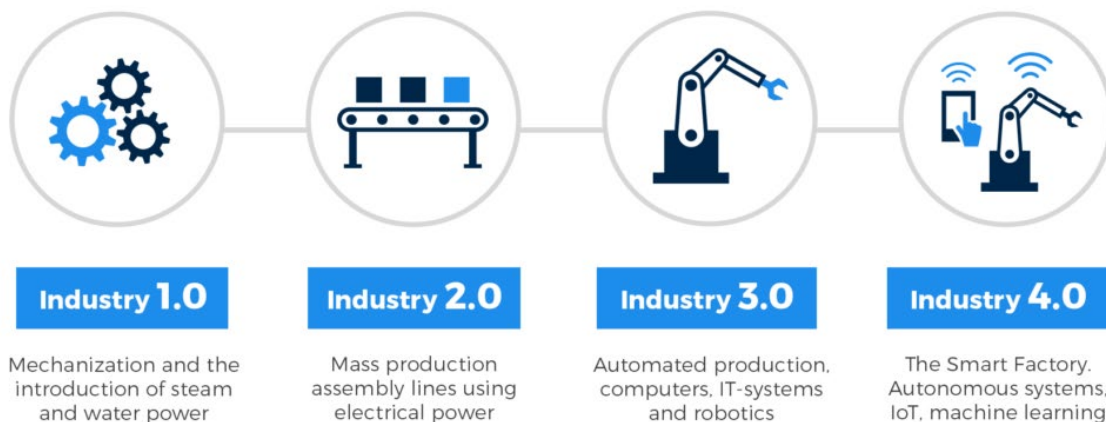
- Florida, Barnet Homes Resident

“Carbon Monoxide was already required as part of the Homes (Fitness for Human Habitation) Act 2018. We now have a legal and moral responsibility to ensure our homes are free from CO. CO alarms will be a legal requirement soon. We can also see IoT solutions such as this becoming a legal requirement further out into the future because it is the difference between ticking boxes and assuming you know, and actually knowing 100% - in reality, this means saving money and lives and we have seen the reality of this already” - **Gavin Bass, Senior Compliance Manager, Barnet Homes**

Compliance 4.0

Industry 4.0 refers to a new phase in the Industrial Revolution that focuses on interconnectivity, automation, machine learning, and real-time data. It has already transformed many other industries, from manufacturing to automobiles and aviation. Cars or jet engines without data analytics and sensors are now rare and homes are rapidly following suit.

The Four Industrial Revolutions



While Barnet Homes leads the way, many other social landlords are on the same IoT adoption trajectory as them. This is more evidence that industry 4.0 has arrived for social landlords in the form of compliance. To date, Aico-HomeLINK have already brought online IoT solutions for nearly 14,000 socially rented homes in the UK and this number is increasing exponentially. Based on feedback from customers who are currently scaling this technology, Aico-HomeLINK will have at least 50,000 live homes by the end of 2022 and 750,000 by the end of 2025. There are currently 20+ large social landlords that have either reached full scale or are on the path to a full IoT roll-out.

Given the dramatic improvement in compliance that IoT sensors provide this is clearly a 'horse to car' moment for the industry. IoT enables landlords to know that they are compliant, not simply hope. This is an evolution from a cascade of ticked boxes and reports to simply getting alerts when things go wrong and being assured of compliance in real-time at all other times.

Questions that can be answered much more effectively with IoT, analytics, and software:

- Are homes fitted to the right specification?
- Have the alarms been tested?
- Are the alarms in date?
- Are alarms being replaced close to the 10-year mark?
- Have any alarms been removed?
- Are your homes free from CO?

The road ahead

The plan for Barnet Homes is to cost-effectively install the gateway in all homes by 2025 as part of ongoing LD2 upgrades. Beyond this, their plan is to roll out the new HomeLINK Environmental sensors to at least 100 homes in the near future. These sensors will be essential in tackling several emerging compliance challenges covered in legislations like the Homes Act 2018 (e.g., such as damp & mould, ventilation, thermal rating, and energy efficiency). An additional benefit of having the Aico-HomeLINK gateway installed across their stock is that it would be very low cost and low effort to deploy these sensors across their 15,000 homes.

“We can see a huge amount of value in the environmental sensors. From improving resident health and wellbeing to ensuring we are compliant with things that are very difficult and expensive to measure such as damp & mould locations and causes. It is clear from the Ombudsman’s report that Landlords are expected to take a proactive approach to solve these problems, non-compliance will no longer be tolerated, and disrepair legal claims are likely to increase. The sector needs to get on its front foot and there aren’t many options.” - **Gavin Bass, Senior Compliance Manager, Barnet Homes**



(The Environmental Sensor and Multi-Sensor alarm in situ)