

CASE STUDY

Tackling Damp and Mould

Innovative tech uncovers damp and mould causes, delivering tailored solutions for healthier homes



Healthy
Homes Hub



THE PROBLEM

Mid Devon District Council has known that it has had a problem with damp and mould in a small but significant proportion of its housing stock for the best part of a decade.

According to technical support and repairs manager Rosie Wills,

Somewhere between 10 and 20% of the council's 3,000 homes have some sort of damp and mould issue.

But what is less well known are the root causes behind the issue.

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Going back to 2015/16, we found that we were going back to the same properties over and over again and we realised how much resource we were using just trying to figure out what the problems were. We would do the physical works to rule out any main issues, but then it carried on happening. We'd give guidance, but you'd go back every single condensation season at least once to the same homes. So we changed a lot of the ways that we did things; we improved our ventilation programme for example, but there were still some homes that continued to have chronic issues that couldn't be explained by anything external.

Rosie Wills, Mid Devon District Council Technical Support and Repairs Manager

As many landlords have found, the most important obstacle when it comes to tackling damp and mould is to establish why it's occurring in the first place. And that was something that Mid Devon wanted to address.

THE SOLUTION

The answer to the problem of establishing the causes for damp and mould in so many of the council's homes arrived in the form of Aico's HomeLINK environmental sensor technology.

As with much innovation, the use case that has proved most transformational for many of HomeLINK's clients - including Mid Devon - was not the one that the technology was necessarily designed for, as HomeLINK founder and chief executive Chris Jones explains.

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Originally, we created a 'gateway' that allowed big social landlords to connect any smart home device to it and then take that information to the internet. We found over a number of pilots that actually people were most interested in connected fire alarms and environmental sensors to measure temperature, humidity and carbon dioxide.

Chris Jones, HomeLINK Co-Founder and Chief Executive



THE SOLUTION

These were popular with HomeLINK's clients because they were relatively low cost and they drove significant value when it came to help with issues such as fuel poverty and energy efficiency.

Chris even admits that some landlords were "put off" by the idea of using sensors to check for damp and mould. "They'd say 'if we roll this out and can see where the mould is, we'd be legally required to do something about it, and most of the time it's lifestyle issues."

For Mid Devon, however, it has been a very different story. By deploying the kit in a small number of homes, starting around a year ago, Rosie and her colleagues have specifically been looking to establish the environmental factors that may be causing damp and mould issues. By installing sensors both in homes with damp and mould and homes without any problems, patterns have begun to emerge that has given new insight when it comes to the search for causes.

It has also allowed the council to offer more bespoke, tailored advice to those tenants that had been experiencing problems.

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With a lot of the homes we were able to say the ventilation all looks fine because we've put in a lot of mechanical ventilation, but we can see that your temperature, for example, is on average 16 or 17 degrees, and that's not warm enough. And that then enables us to say maybe don't keep your windows open for quite so long - just open them for shorter periods and rely on the mechanical ventilation and focus on increasing the temperature by two degrees, and then you will reduce that mould risk.

Rosie Wills, Mid Devon District Council Technical Support and Repairs Manager



THE IMPACT

Besides the benefits that deciphering the damp and mould conundrum has had on the individual homes where the sensors have been installed, Rosie says that

One of the biggest impacts of using the HomeLINK system has been to grow a deeper trust between tenant and landlord.

She explains how having data that can be shared with tenants on what type of issues produce damp and mould, and what interventions have proved successful means that people become more accepting of whatever changes they need to make.



What we can do is use some of the data that we've got that's not got any personal information in it and we can share it with people that are having issues. So rather than just say to someone with no basis or evidence that they need to increase their temperatures by two degrees, we can say here's an example of someone who lives on your street who has their temperature set two degrees higher than you, and you can see that they don't have any issues.

And we can even go as far as to say here's a property where they have exactly the same type of building, built in the same decade and the same construction type. And here's a six-month period where there was a tenant who had damp and mould issues, but when another person moved in, they increased it by two or three degrees, and that resolved all of their issues. We have the data to prove that what we're saying actually works.



Many people are open to discussing fuel poverty, whilst others either don't recognise it, or are perhaps so used to being self-sufficient that they find it difficult to talk about. For some, a cooler home is a preference and there may be a lack of awareness of the impact this might have on the home and health. In many cases, the monitoring has allowed us to identify and sensitively address this, allowing us to signpost our tenants to some much needed financial support or advice.

Rosie Wills, Mid Devon District Council Technical Support and Repairs Manager

KEY LEARNINGS

One of the most important pieces of learning from Mid Devon's project is that

It takes some time before the technology will produce sufficient quality data to drive any real world change.

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It takes a lot of time looking through the data to learn what it means and which bits you can ignore and what is useful. So you can identify some patterns more quickly but you really need to be monitoring data for a 12-month period or longer to have something meaningful.

Rosie Wills, Mid Devon District Council Technical Support and Repairs Manager

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One of the things that I've been doing in the summer months, when there's not so much useful data to look at, is to look at the whole all of the data in the round and create some general rules that we can then apply.

As for a wider rollout, Rosie says that it will continue to be “slow and steady” in Mid Devon.



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There are some organisations that do it on a proactive basis and just deploy thousands of them with the view that the system can flag when a property is at risk of damp and mould. That's not our approach at the moment, mainly because we don't have the resources to do that without cutting something somewhere else. And also we're just doing it in a different way: ours is very much more on the basis of using it to resolve individual issues, but as a positive side effect we're starting to see patterns across the whole stock that we can apply.

Rosie Wills, Mid Devon District Council Technical Support and Repairs Manager

Making housing better

Healthy Homes Hub is the go-to organisation for anything related to healthy homes. As a ground breaking social purpose company, we identify and share best practice, advocate for and facilitate the changes needed to make every home across the UK healthy, bringing together policymakers, housing providers, academics, contractors, the supply chain, health and housing professionals.

We want to collaborate with others to transform the housing landscape by reducing the impact of unhealthy homes on homeowners, landlords and residents

We are urging government to take a far more holistic approach to health, by implementing a healthy homes policy integrated across all departments, so that living in healthy homes becomes the norm, whilst steering the sector to net-zero carbon emission.

Further information: info@healthyhomeshub.uk



Aico, an Ei Company, are the European market leader in home life safety, pioneering new technologies and offering high quality alarms, developed and manufactured in Ireland. All Aico alarms meet UK standards and offer a variety of sensor types to guarantee protection for every home, the cornerstone of which is delivering education, quality, service and innovation. Aico have expanded their Connected Home offering through HomeLINK.

With new innovations in Internet of Things (IoT) technologies, the notion of a connected home could prove a real asset in making our homes not only more sustainable, but also more efficient and ultimately safer.