



# Breaking the Mould

Managing the manifestation  
of mould in UK social housing



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# Why must we tackle mould in the UK's social housing?

Condensation, damp and mould occurs for a multitude of reasons. The resident distress and disruption it causes is evident throughout the social housing industry. Coupled with the financial impact of repair and remediation. Mould is a primary contributor to the UK's housing condition crisis.

Social housing providers have recently shifted attention to building safety and net-zero. However, both programmes can accelerate the propagation of condensation, damp and mould if not managed strategically.





# The commercial impact of mould complaints in UK social housing.

SNAPSHOT OF KEY DATA April 2019 - March 2021



**Housing**  
Ombudsman Service

## SNAPSHOT OF KEY DATA



**1,595** complaints from residents about damp and mould were reported while within the landlord's complaint process and were assisted by our Dispute Support Team.



**410** damp and mould complaints were formally investigated because the resident was dissatisfied with the landlord's response.



**56%** of cases we investigated resulted in findings of maladministration.



**976** individual findings were made within those complaints.



**501** orders were made to put something right with 288 additional recommendations.





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# Who's responsible?

## The causes of mould in social housing



# Disrepair

A principal driver for mould propagation. Properties in disrepair account for the largest proportion of social housing mould.

Disrepair claims  
increased

**132%**

between  
2018 to 2021



A hand holds a wooden block with the letter 'H' in red. In the background, other wooden blocks spell out 'HEAT' in dark blue letters. A blue power cord is visible in the upper left corner.

# Fuel poverty

Energy price hikes are feeding fuel poverty amongst UK social housing residents. The cost of energy is forcing people to reduce the amount they heat their homes increasing cold and damp.



# Diagnostic

Diagnosing damp and mould issues can take time. During the diagnostic period mould is often propagating. Early warning signs are not widely adopted.







# Lifestyle

Heating, ventilation and atmospheric moisture is often dependent upon a resident's lifestyle.



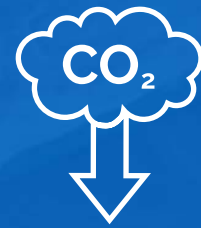
# De-carbonisation

Improving the energy efficiency of the UK social housing supply without educating the people living in the home is encouraging mould growth.





# Retrofit - Contributor or cure?



Whole House Retrofit is absolutely necessary to reduce household fuel consumption and lower house related carbon emissions.



Millions of homes would benefit from or urgently require retrofit measures.



Whole House retrofit is often spearheaded by fabric insulation measures.



One of the primary interplays in successful retrofit is between thermal insulation (floors, walls, glazing, doors and roofs) and the impact this can have on reduced air leakage and ventilation requirements.



Insulation without adequate ventilation can generate mould as moisture created by the resident cannot escape.



Resident education and ongoing monitoring of energy usage vs ambient moisture allows retrofit to drive efficiency and mitigate mould in the long-term.



# The damaging effects of mould





# The Dangers of Mould (mycotoxin) exposure.





“Mycotoxins are neurotoxic, immune toxic, gut toxic, liver and gene toxic.”

Alex Manos, 4th April 2020

## Physical symptoms of mould toxicity can be diverse.

### Common symptoms:



Fatigue

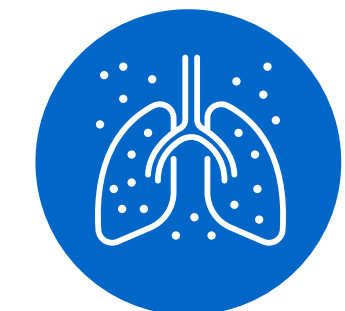


Chronic weakening of the immune system

### Other symptoms:



Loss of cognitive function and brain fog



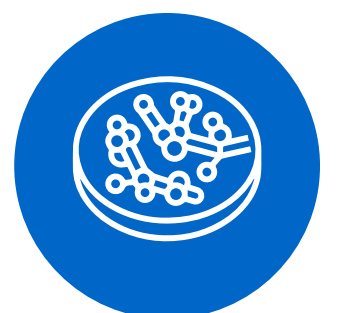
Upper respiratory tract infections



Headaches



Muscle aches and cramps



Recurring candida



# Mental Health: Moulding a link to depression.





The World Health Organisation estimates that residents living in visibly mouldy homes are

40%

more likely to suffer depression.



World Health  
Organization



Mould Toxicity  
can cause:



Anxiety



Depression



Insomnia



The effect on **mental wellbeing** is considered equally as damaging as the **physical effects** of mycotoxins on people.

**The Homes (Fitness for Human Habitation) Act 2018** adds that the mental and social health effects of damp and mould “*should not be under-estimated*” listing depression and anxiety as further symptoms.





There is a strong link  
between fuel poverty and  
damp and mould.

In a recent fuel poverty study,

**44%**  
of 10,000 homes

surveyed were experiencing  
fuel poverty, and **over 25%**  
experiencing mould issues.



**Housing**  
Ombudsman Service



There are obvious holes and cracks in the walls. I keep the property heated properly and let out condensation... I spend hours cleaning off mould and I can smell it when I sleep at night.



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Resident





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**Tackling Mould Growth**  
**Insulate and Ventilate**



**Fabric insulation is a positive step towards providing warm, healthy and efficient homes.**

A property specific ventilation strategy must however support the insulation measure to **prevent damp, condensation and mould.**

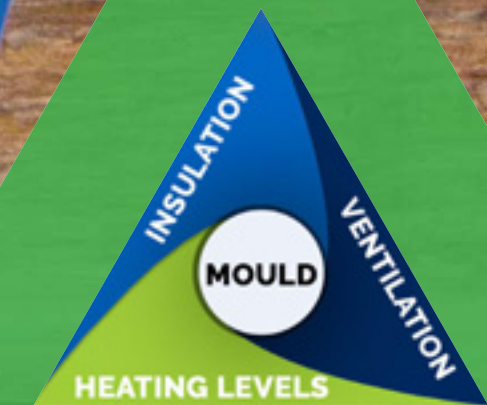




# In accordance with PAS 2035 Annex C.2.2;

Existing ventilation shall be assessed as inadequate for the improved dwelling if one or more of the following are apparent:

1. There is evidence of condensation and/or mould growth in the dwelling.
2. There is no ventilation system, or the ventilation system is incomplete or not functional.
3. There are not undercuts of at least 7.6 mm<sup>2</sup> beneath all internal doors, above the floor finish, to allow air to move through the dwelling
4. There is no provision for purge ventilation of each habitable room (e.g. by opening windows) as required by Approved Document F [N11].



Is it pivotal that every property is assessed and designed in accordance with **PAS 2035** if the manifestation of damp, mould and condensation is to be managed and mitigated.

['What is the triangle of mould?'](#)  
[Read blog](#)





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**Tackling Mould Growth**  
**The Smart Way**



A Switchee **replaces** a properties thermostat and programme controls.



Using Switchee data, landlords can independently **monitor** for condensation, damp and mould.



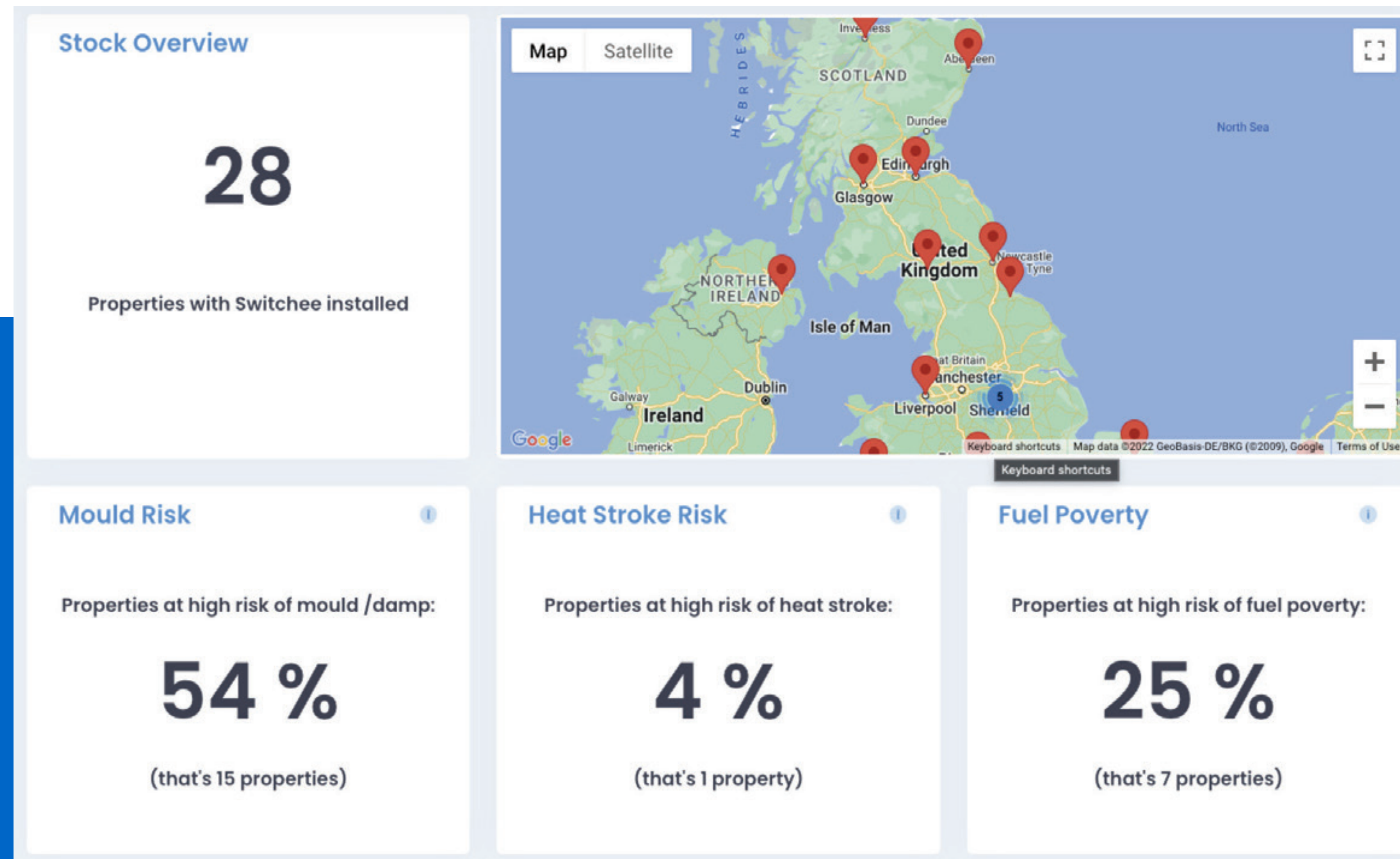
Smart heating controls allows residents to better understand and **manage** their heating use.



A Switchee **monitors** humidity, temperature and air pressure and **remotely highlights** conditions associated to condensation, damp and mould.



# Switchee's real-time data and insights demonstrate the propensity of mould risk in a property portfolio and individual dwelling level.





These data and insights enable landlords to prioritise their efforts depending on the mould risk of the individual property.





# Data insight vs disrepair

Switchee insights allows Social Housing providers to identify and intercept a potential mould problem.

We enable social landlords to hit challenging financial and environmental targets with real time, remote data analytics. A personalised platform identifies condensation, damp or mould risk and flags fuel poverty. We transform resident engagement and appointment scheduling via a two way in-house communication display.

With a Switchee Smart Thermostat installed, residents optimise energy use, lower heating bills by 17% and reduce energy consumption – future proofing homes and driving towards Net Zero.

“

The data that we receive from Switchee devices plays an important role in shaping and improving our services. Data sent from the Switchee device via the mobile phone network to our Cloud solution gives us real-time information that we can act on. The devices have helped us to identify which properties need attention, or tenants who may need support, for a range of matters including fuel unaffordability, CDM and boiler failure. **Customer feedback has been great too.** Tenants find that Switchee is a **simple and intuitive** control for their heating systems.

”

Charlie Conley, Head of Asset Management  
[Flagship Homes](#)





## Case Study

A real-time example of a housing provider using the Switchchee smart thermostat to communicate with their residents and ascertain the presence of mould within the individual property.



30%

of homes identified  
as high risk of mould  
(so far)

84%

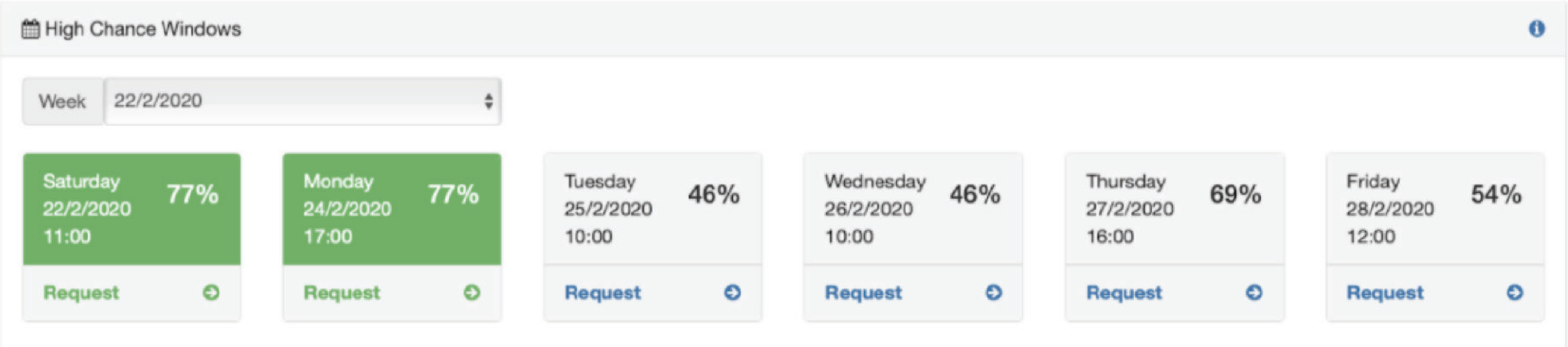
response rate  
to the triaging  
survey

55%

reported visible  
signs of mould  
and damp



# Case Study



86%

first time  
access rate



# Case Study

Example findings

# £10k

Average cost of  
a disrepair case

## Address

- Black spot mould within the kitchen
- Walls tested dry with a protimeter
- Envirovent extractor fan fitted but turned off at isolator switch
- Customer had trickle vents on UPVC windows closed
- Accessed loft-space and found missing isolation

## Address

- Black spot mould within the living room, bathroom and kitchen
- Walls tested dry with protimeter and returned high readings to low-level
- Extractor fans in kitchen and bathroom defective and not in working order
- Airbrick and vent in bedroom 2 blocked up and high humidity levels
- Rear gutter leaking and clogged with vegetation



# Don't just take our word for it...



“

We are delighted to be working in partnership with Switchchee as part of a significant retrofit programme to improve the energy efficiency of our homes. With access to Switchchee's real-time analytics via the Housing Provider Dashboard, we look forward to **proactively** maintaining and managing our properties. Plus, there's no better time than now to transform the support we provide for our residents. Through insights into properties at risk of CDM or fuel poverty, installing Switchchee's will help us to **better support** those residents most likely to be in fuel poverty by helping them to reduce their fuel bills.

”

Barry Jenkinson, Net Zero Carbon Programme Manager  
Raven Housing Trust



Ian Gregg  
Executive Director of Asset Services  
Riverside Group



Darren Turner  
Transformation Programme Manager  
Futures Housing Group









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