Notting Hill Genesis disrepair prediction model

IMPLEMENTED 2025 · CONSTRUCTION AND PROPERTY · UK · BAND C · CLAIMED ONLY
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A London housing association built a model that ranks its homes by risk of becoming a disrepair case, and its repairs team works from a monthly register. Results come from the landlord and an awards submission.

ABOUT THIS SYNOPSIS

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Facts and figures are as reported by the sources listed below, which may be incomplete, self-reported or out of date. Check the original source before relying on any figure.

The impact band, proof marker and SEAM view are MarLuc's opinion. The organisation is not a MarLuc client and has not reviewed or endorsed this synopsis. Names and trademarks belong to their owners.

NOTICE WORDING LAST UPDATED 16 NOVEMBER 2026

AT A GLANCE

AI used: Predictive machine learning model ranking homes by disrepair risk; a separate computer vision tool for inspection images.

Implemented: 2025. Grade: band C, Process change, Claimed only.

Headline result, as reported: About 18% of homes were behind over half of disrepair cases, by the landlord's own analysis; a monthly risk register now guides the high risk repairs team

1 · The case

The facts, as reported by the 3 sources listed at the end. Where a source is silent, the field says "Not reported".

Organisation

Notting Hill Genesis. London housing association and charitable community benefit society, registered with the Regulator of Social Housing, per its website. Size: Not reported in the sources used. Canvas block: 4. Operations and process. Also 6. Data and technology, 3. Customers and proposition.

Business challenge

The challenge. By NHG's account, a high number of disrepair cases were being managed reactively, at significant cost (millions of pounds) and with unhappy residents.

How it was addressed. NHG's data and AI team worked with its repairs colleagues to build a

Who implemented it

In-house (In-house): Built the model with the repairs team.
No external vendor is named in the sources.

Technology (SEAM pillar E)

SEAM types: T8 Predictive / ML models. Deployment: Not reported. Vendors and products: Disrepair prediction model.

Where it was built in: Built by NHG's data and AI team on data from its housing management and asset management systems plus open source data; output is a monthly register for the high risk repairs team.

What changed

Before: disrepair cases were mostly dealt with after they arose. After: a monthly risk register tells the high risk repairs team where to start. NHG says it is still improving accuracy and how teams act on the register. The sources do not give before and after case numbers. [1] [2] [3]

What it cost

Not reported

What it saved

No measured saving is reported. DataIQ's awards page says the tool helps reduce the £3.3 million a year previously spent on legal claims and disrepair cases, and NHG's head of repairs operations is quoted there saying it is significantly reducing legal disrepair claims and associated costs. Neither source gives a before and after figure. [1] [2] [3]

Governance and control

Accountable owner, safety controls, vendor and standards points are not reported. The register is used by a named repairs team, and NHG says it is still working to improve accuracy against a target.

S2 · Accountable owner · Claimed
NHG's director of data and AI describes the work; a named high-risk repairs project lead uses the register. [1]

A1 · Safe use · Not reported
Not reported.

A2 · Human in the loop · Not reported
Not reported.

A3 · Monitoring and assurance · Claimed
NHG says it is working to improve accuracy against a 70% target. [1]

A4 · Vendor AI · Not reported
Not reported.

A5 · Agent controls · Not reported
Not reported.

A6 · Standards and regulation · Not reported
Not reported.

What worked, what did not, what is unproven

WORKED

– Concentrating effort: NHG's analysis found around 18% of homes accounted for over 50% of disrepair cases, by its own account.

– A live register that updates monthly gives the high risk repairs team a place to start.

– Data and repairs teams built the model together, by NHG's account.

DID NOT

– No published accuracy result. NHG's target is to predict 70% of cases and to say which will occur in the next three months; the blog does not say whether it has been met.

UNPROVEN

– Whether disrepair claims and legal costs have fallen because of the model.

– Whether staff action on the register changes outcomes for residents.

Timeline

2025 Housing Technology Awards 2025 name NHG winner in the Artificial Intelligence category [3]

Mar 2025 NHG's director of data and AI describes the disrepair prediction model after it wins the Artificial Intelligence award at the Housing Technology Awards [1]

2025 DataIQ names NHG winner of Most Innovative Use of AI (Europe) for the disrepair tool and an image-based damage tool [2]

2 · Grade and SEAM assessment

MarLuc's opinion, made on the evidence above. How cases are graded: marluc.co.uk/case-studies/how-we-rate

Level of change and impact

Claimed: Not applicable. Grade: C, Process change. Proof: Claimed only. Level of change: Process change.

Process change (Level 2, band C): repairs work is directed by a monthly risk register. The sources report no change to roles or structure.

The SEAM view and lessons learnt

The model gives the repairs team a ranked starting point, but the sources show no result that separates the model's effect from other repairs and legal-claims work. The cost figure that appears in awards material is a past spend, not a measured saving. Before copying the approach, a leadership team should ask how predictions are checked against actual cases, and who is accountable for acting on the register.

1. Set an accuracy target and publish whether it is met.
2. Measure claims and cost before and after the register goes live.
3. Name who acts on each risk list.

Evidence

Score 1 of 4. Self-reported by the landlord and an awards entry; no independent evaluation.

Evaluation method. Self-reported: the landlord's blog and an awards submission. Awards judges' comments are not an evaluation of results.

Sources disagree. NHG's March 2025 blog describes using AI to grade conditions from pictures as an exploration; DataIQ's awards write-up says an image-based damage tool has cut inspection and assessment time by 50% and projects a 25% rise in satisfaction scores. Both describe the prediction model in the same terms.

Status. Ongoing: NHG's March 2025 blog says the team continues to improve accuracy and use of the register. No later results were found.

3 · Original sources

Read these in full. To challenge a fact or a grade, use the contact form at marluc.co.uk or the link on https://marluc.co.uk/case-studies/notting-hill-genesis-disrepair-prediction

[1] Notting Hill Genesis: Using AI to predict disrepair (March 2025)
https://group.nhg.org.uk/news/using-ai-to-predict-disrepair/

[2] DataIQ: Most Innovative Use of AI (Europe), Notting Hill Genesis
https://www.dataiq.global/award-winner/most-innovative-use-of-ai-europe-notting-hill-genesis/

[3] Housing Technology: Housing Technology Awards 2025
https://conference.housing-technology.com/awards-archive/awards-2025

Notting Hill Genesis website: https://group.nhg.org.uk

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