



Noise - feedback from occupants of new homes

Clive Turner

Research Manager, NHBC Foundation



Housing research & guidance

Content

- Introduction to the NHBC Foundation
- Noise in homes: feedback from homeowners
 - Attached homes
 - Detached homes
- Concluding thoughts

NHBC Foundation - Background

- Set up in 2006
- Carries out research related to house building
- Shares guidance & good practice with the industry
- Independent research arm of NHBC
- Feeds into policy and debate
- Industry Expert Panel informs research priorities

Projects recently published

Assessment of MVHR systems and air quality in zero carbon homes



Primary research

NHBC FOUNDATION
Housing research in partnership with BRE Trust



Designing homes for the 21st century

Lessons for low energy design



Guide

NHBC FOUNDATION



Review of co-heating test methodologies



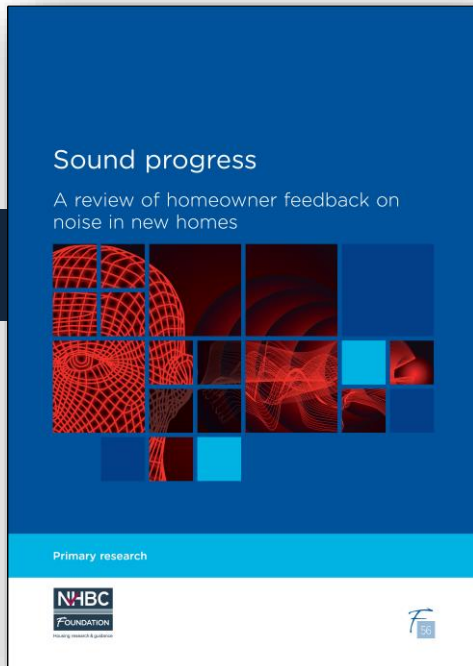
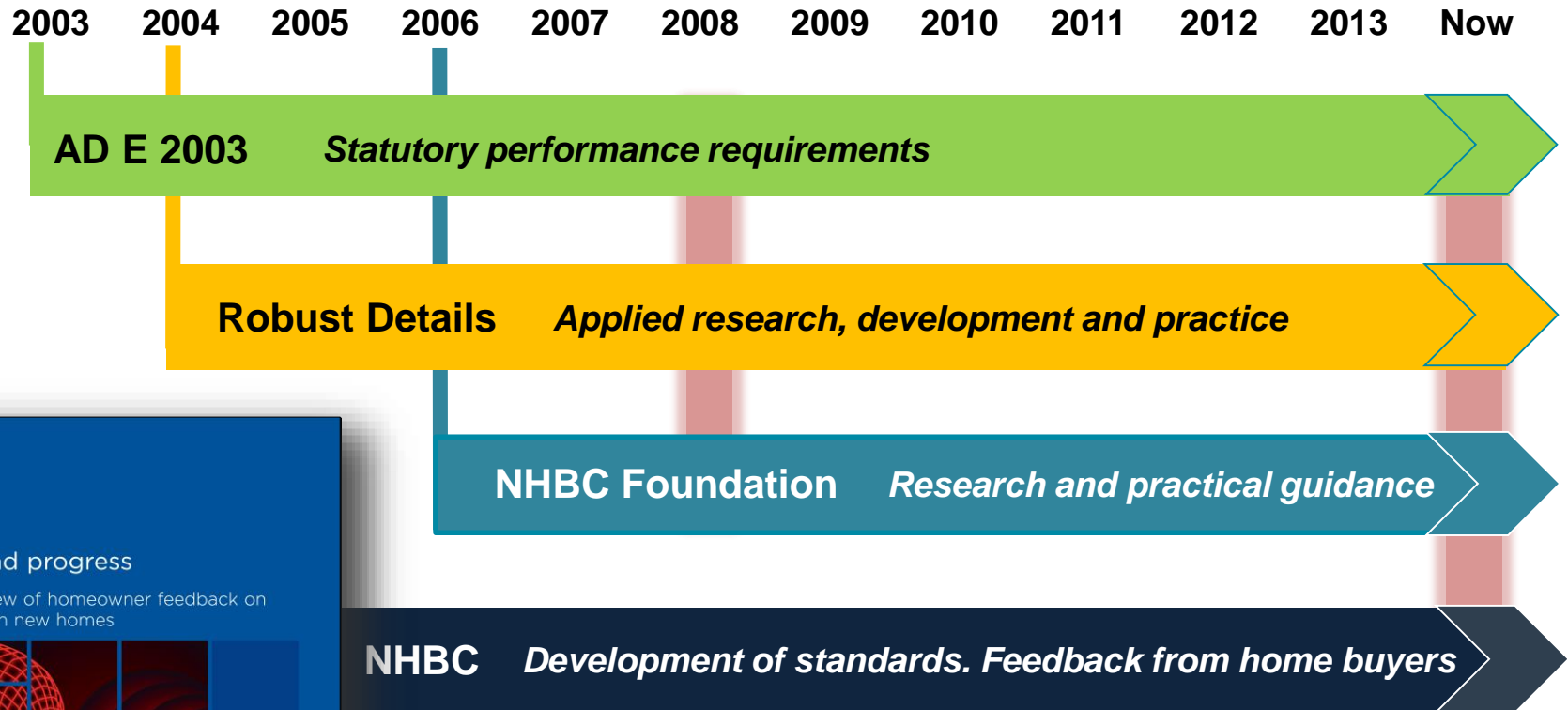
Primary research

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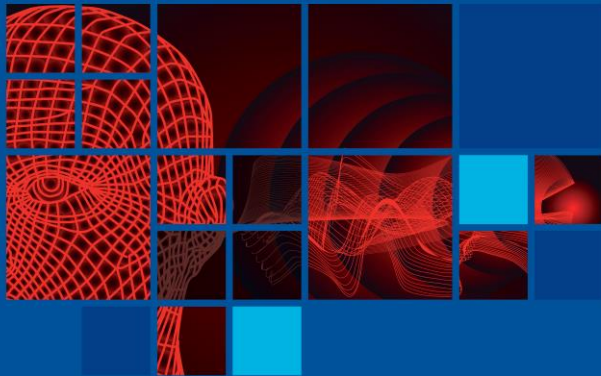
Context and organisational relationships



Sound progress report – positive message from research

Sound progress

A review of homeowner feedback on noise in new homes



Primary research



Findings for attached homes

This study indicates that for new attached homes (terraced and semi-detached and apartments) first occupied between 2004 and 2010, there has been a progressive decline in the noise-related homeowner contacts to NHBC. The majority of these contacts (Figure 3) are in the 'E1' category: noise from adjoining homes.

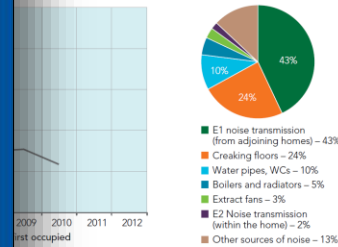


Figure 3 Attached homes. Distribution of main types of noise contacts to NHBC (for houses first occupied between 2005 and 2010)

The E1 category merits closer examination because minimising this noise to occupants was a priority for the revised guidance in AD E 2003 and for the details scheme introduced in 2004. From Figure 4 it can be seen that E1 noise has reduced significantly over the study period, and largely accounted for the reduction in noise contacts shown in Figure 2. Figure 5 shows the contacts related to other sources of noise. These were all at very low levels over the study period.

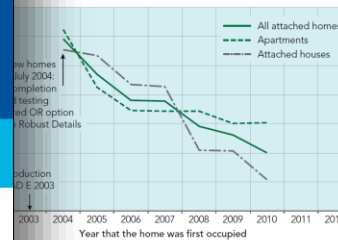
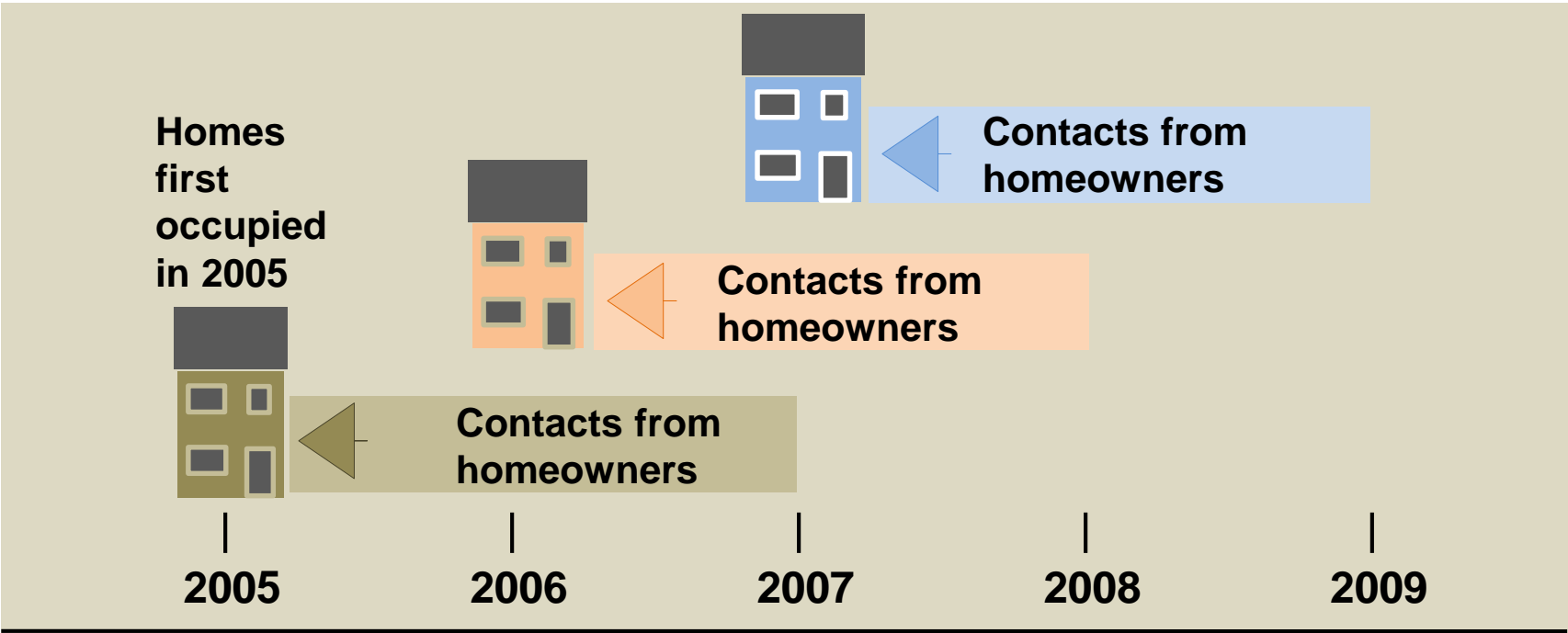


Figure 4 Attached homes. Homeowner contacts to NHBC on noise from adjoining homes (for homes first occupied between 2004 and 2010)



Data collection - for two years after first occupation

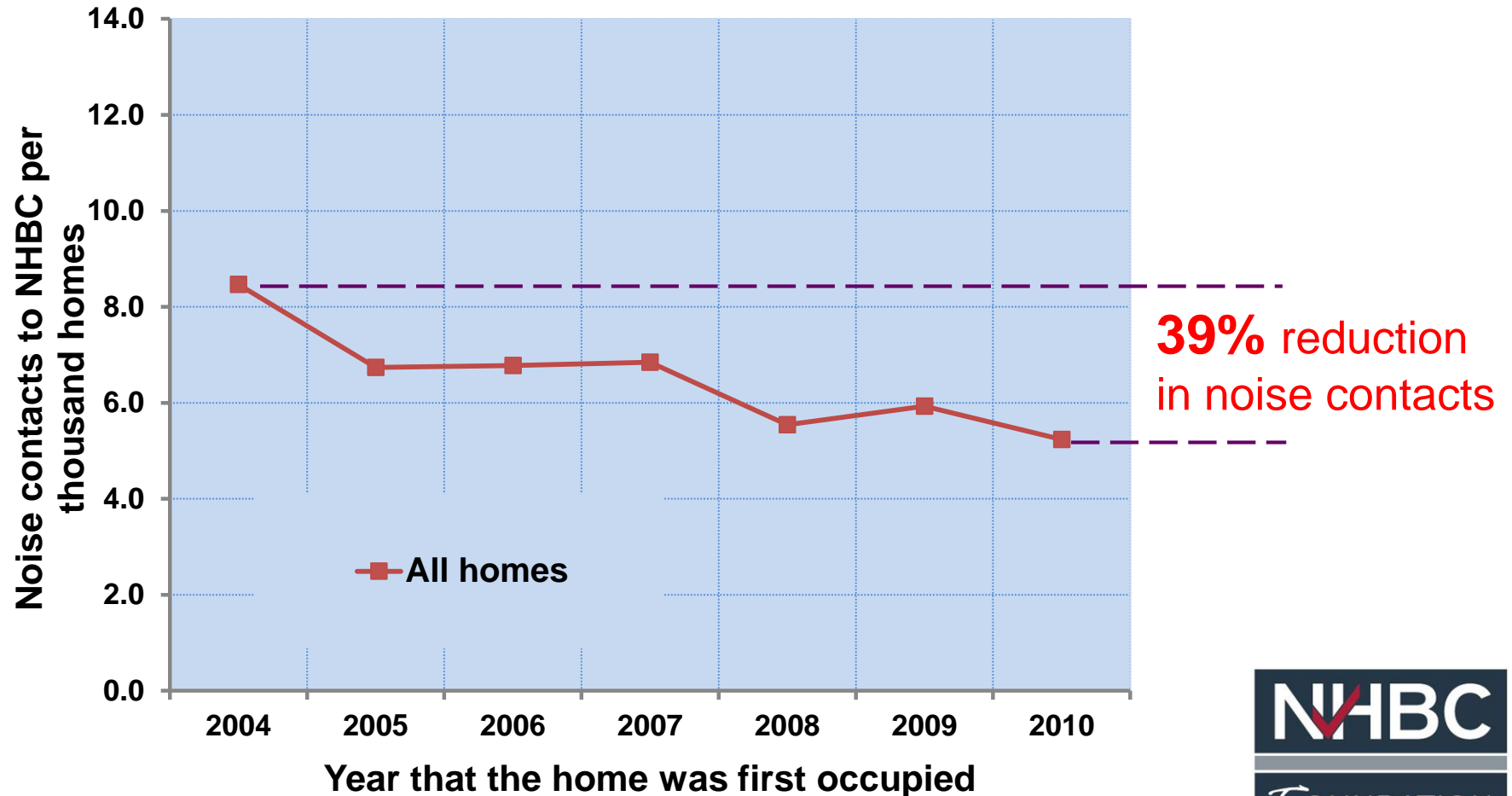


Contacts to NHBC on noise from owners of new homes

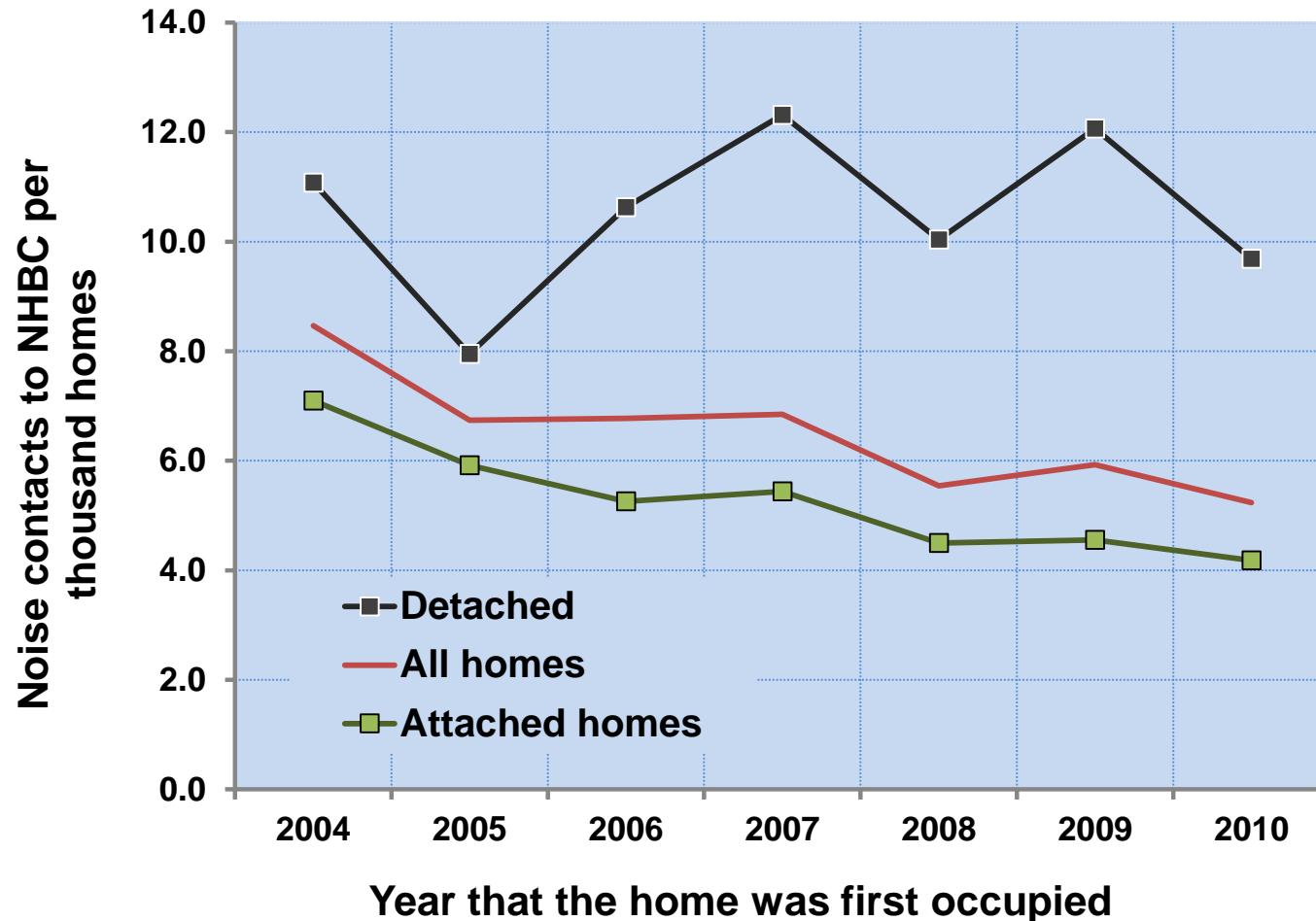


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All noise enquiries - all home types

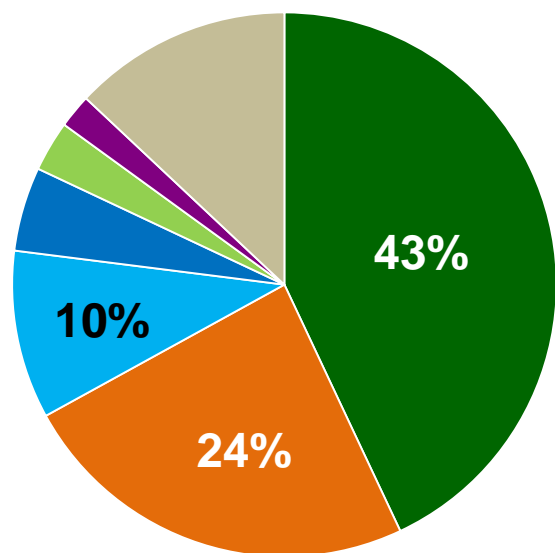


All noise enquiries - attached vs detached homes

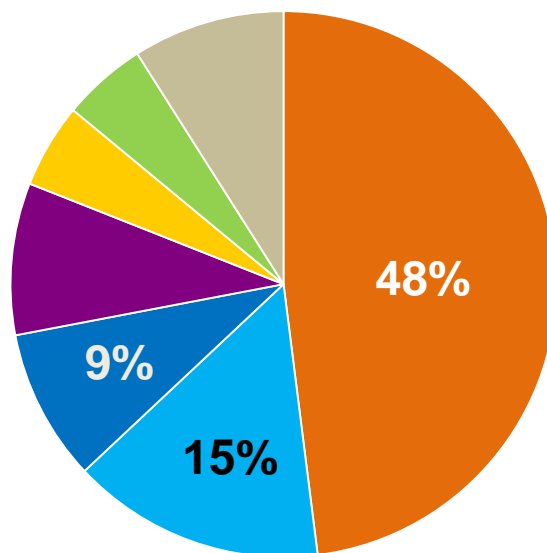


Categories of noise









Attached compared with detached



Attached homes



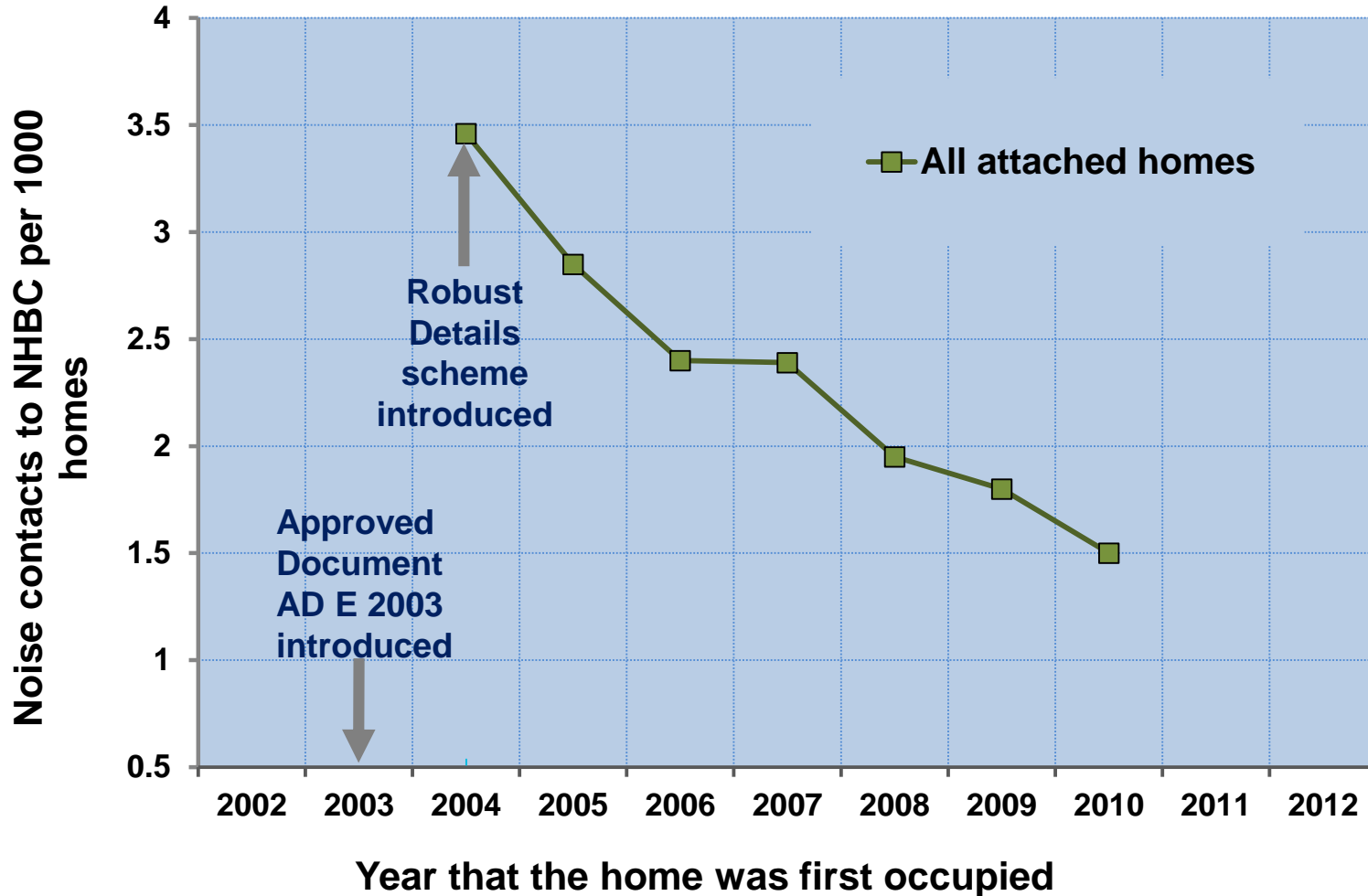
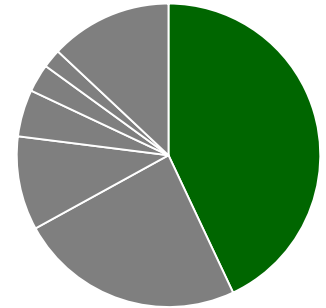
Detached homes

-  E1 Noise transmission
-  Creaking floors
-  Water pipes/WCs
-  Boilers and radiators
-  E2 noise transmission
-  Creaking stairs
-  Extract fans
-  Other sources of noise

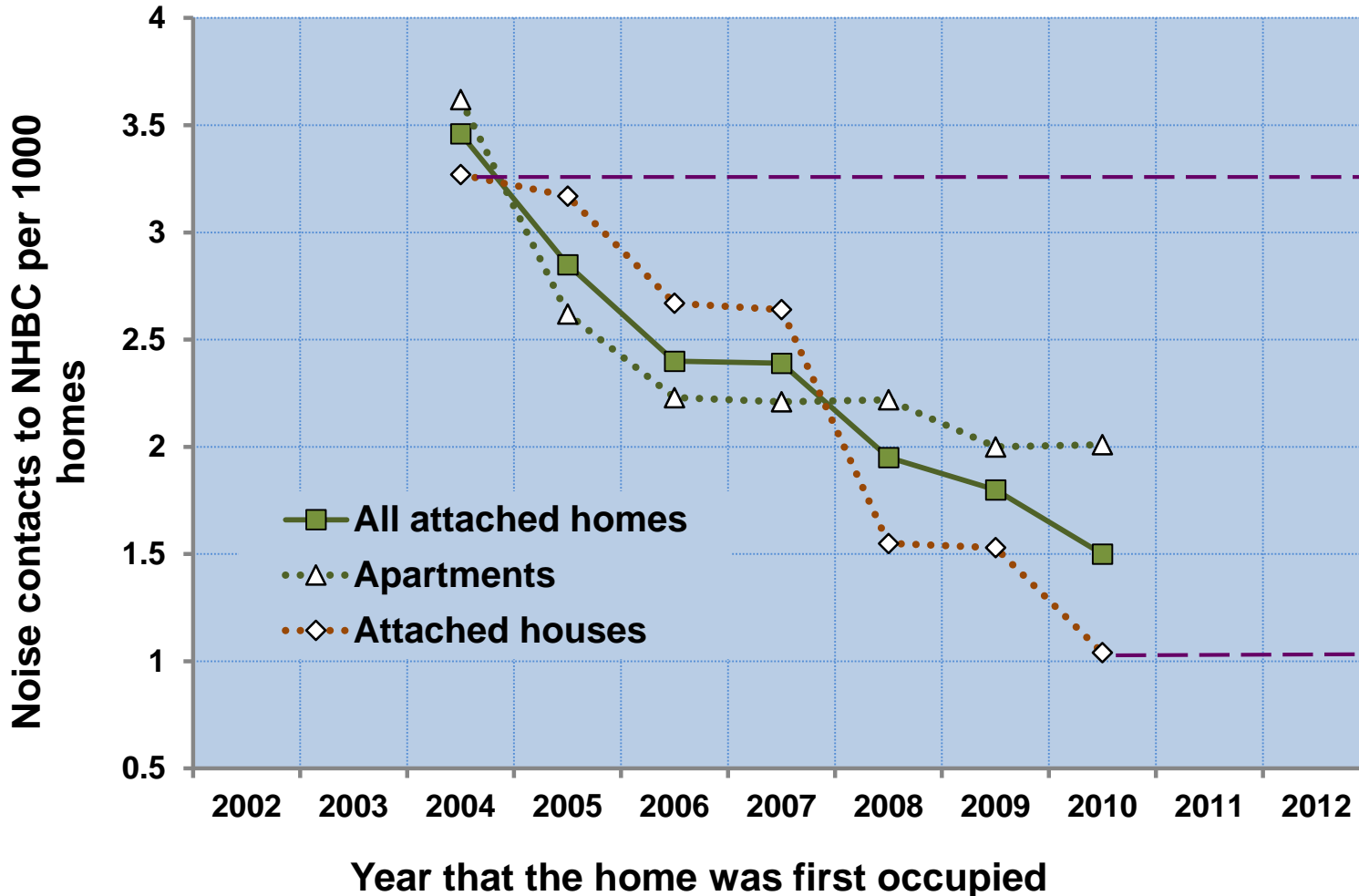
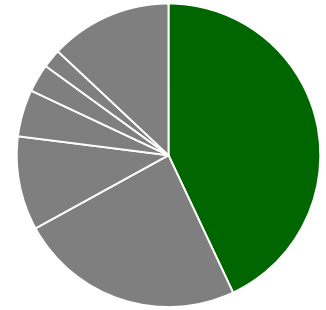
Attached homes



Attached homes – E1 Noise



Attached homes – E1 Noise Houses compared with apartments



69%
reduction
in noise
contacts



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Apartments - behaviours and expectations

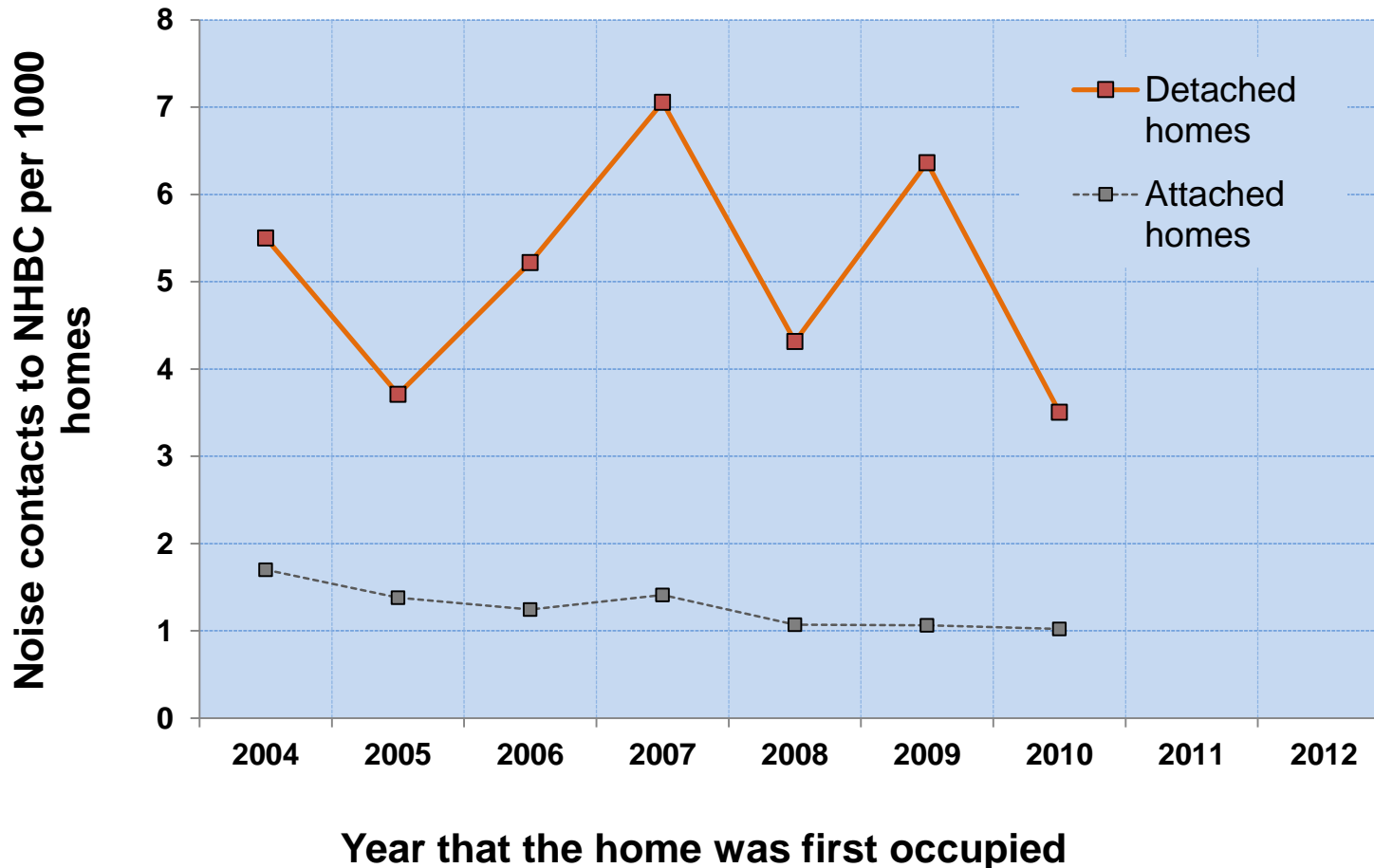
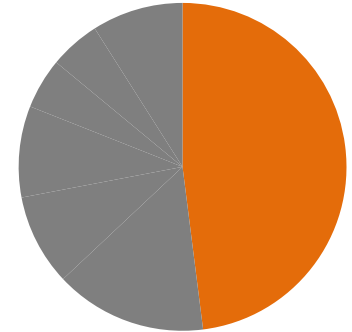


‘Hey, you in the upstairs apartment! How about using a silencer on that gun next time?’

Detached homes



Detached homes - creaking floors



Detached homeowner sensitivity to noise

Why are occupants of detached homes twice as likely to make a complaint about noise?

- Lower background noise?
- Higher expectations?
- Higher proportion of timber floors?
- Less tolerance of noise?

Likely to be multifactor and complex. Hence...

Can we easily fix the problems?



NHBC Standards

From 2007, nail or screw centres at 300mm around perimeter and on intermediate supports.

Nail length x2.5 the thickness of the chipboard.

Screw length x2 the thickness of the chipboard, and gauge 8 or more.



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Conclusions

Attached homes and AD E E1

- Fewer and fewer concerns over sound transmission between adjoining homes since introduction of AD E 2003 and launch of Robust Details
- Improvement trend most noticeable for houses

Other sources of noise (from the building fabric)

- 34% of all noise contacts relate to creaking floors
- Adopting good practice could avoid noise from creaking floors and most other sources of noise

Concluding consideration 1

What troubles people today?



Aircraft

Amorous activity

Cockerels and birds

Concerts and festivals

Construction sites

DIY

Dog barking

Fireworks

Intruder alarms

Licensed premises

Loud Parties



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Concluding consideration 2

Action on noise nuisance



Cut crime with the **Self Evident** app.

Report Crime Better Evidence Free Download Terms More

Noise Nuisance, Noise Pollution, Noise Complaints

***** Rated one of the [top 5 apps](#) to make life better. *****

The Self Evident app can provide the evidence to help get noise control to act, to stop the nuisance and, if necessary, to prove the case because

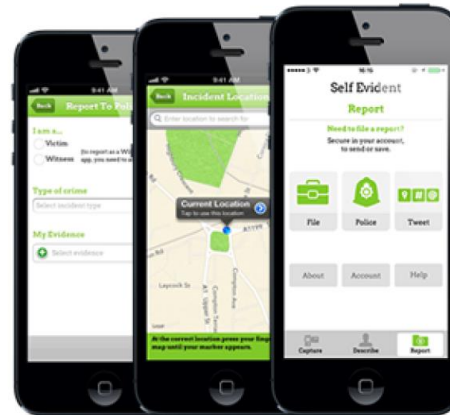
the time, date and location of audio, photo, and video recordings are stored and **corroborated independently**

the app's audio function records the **volume of the noise pollution in decibels**

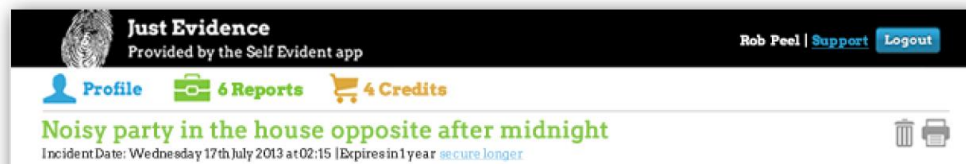
you can record a **witness statement** or account of what happened and the misery it caused when the events are fresh in your mind, and

it's **not anonymous**.

The app allows you to build up a dossier, to secure and save your report and evidence and to send a complaint to noise control or a local councillor. [Click here for details of the contacts for noise control.](#)



The image below shows what a noise report submitted via the app looks like:



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*Ideas for future research
are welcomed?*



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www.nhbcfoundation.org

info@nhbcfoundation.org