

January 2020

Version 1.0

**ACOUSTICS VENTILATION
AND OVERHEATING**
Residential Design Guide

AVO Guide launch

Thursday 30th January 2020

15 Hatfields, London

How did we get here?

Technical

Contributions

Technical

Contributions

ANC – NOISE, THERMAL COMFORT & VENTILATION – MEETING 1



AVO - Meeting 21 docs > AVO GPC x

A.Chilton@maxfordham.com

14 Oct 2019, 10:14 ☆

P to Adrian.Passmore, AndrewL, BarryJobling, DTrew, IMacArthur, Info, me, james.healey, J.Paris, mark.scaife, m.hyden, nick.conlan, stephen.turner, TimminsG, Elena, john ▾

— Hello all,

1

— Reminder that the AVO meeting is this thursday at Cundall (Mat, I'm assuming that the fact that you have accepted means we are ok with a room?).

AVO Group

Adrian Passmore

ARUP

Jack Harvie-Clark



Anthony Chilton

MAX FORDHAM

James Healey



Andrew Long



Mark Scaife



David Trew



Mat Hyden



Barry Jobling



Juliette Paris-Newton



Gary Timmins



Stephen Turner

Stephen Turner
Acoustics Ltd

Ian MacArthur



Nick Conlan



John McCullough



The current situation in the industry

- 85% of planning applications assumed:

Windows are **open**
for the overheating assessment

but

Windows are **closed**
for the noise assessment

Good practice in the
design of homes

TM60: 2018

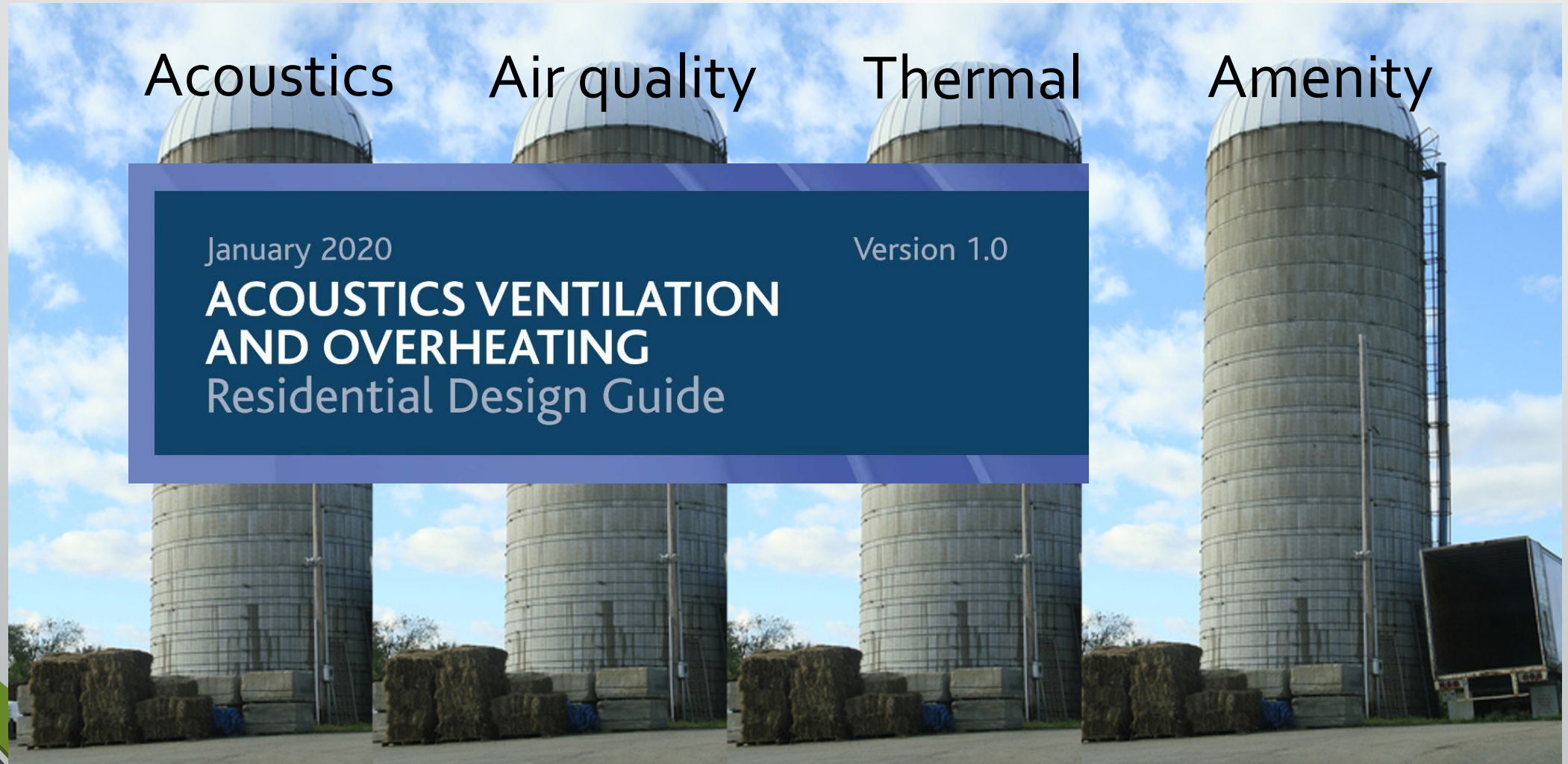


- Integrated design
- Greater collaboration
- Multi-disciplinary approach

Using planning conditions to improve indoor environmental quality (IEQ) of new residential developments

N Conlan, J Harvie-Clark, Apex Acoustics Ltd. Proc. IOA Vol. 40. Pt. 1. 2018

Breaking out of the silo



Acoustics

Air quality

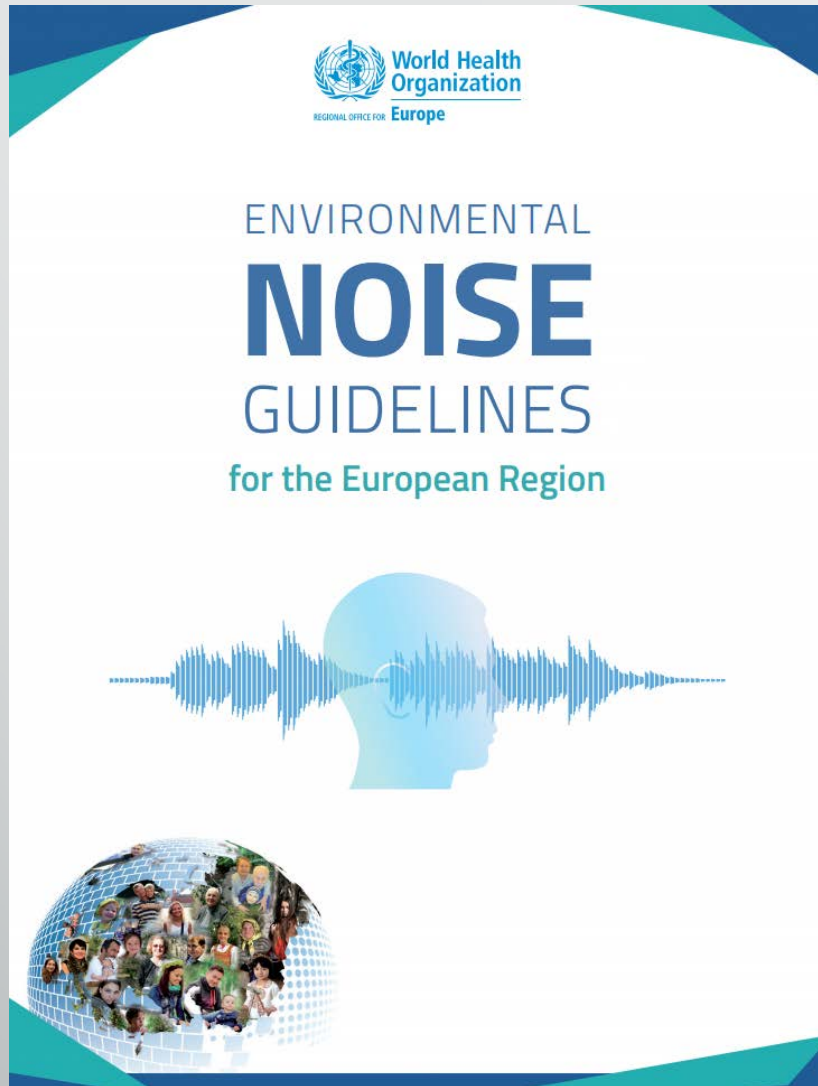
Thermal

Amenity

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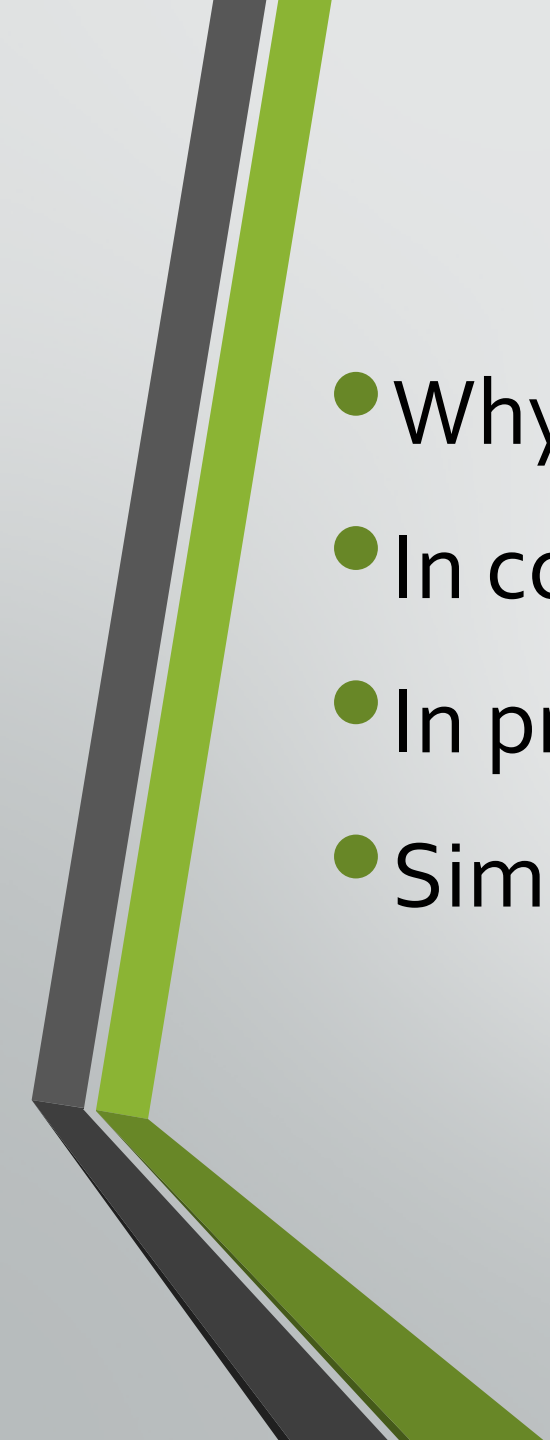


Road traffic noise

Recommendation

For average noise exposure, the GDG strongly recommends reducing noise levels produced by road traffic below **53 decibels (dB) L_{den}** , as road traffic noise above this level is associated with adverse health effects.

For night noise exposure, the GDG strongly recommends reducing noise levels produced by road traffic during night time below **45 dB L_{night}** , as night-time road traffic noise above this level is associated with adverse effects on sleep.

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- Why has it taken 4 years?
 - In concept: Higher short-term noise levels in summer
 - In practice: Multi-disciplinary, dynamic, subjective
 - Simple in concept, harder in practice.

2016

2020



*Peace,
Quiet
and
Thermal Comfort
at all
times*

30 January 2020



- Flexible




- Ambiguous





- FAQ

- Future revisions

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- Session 1 – Guidance & Criteria
 - Session 2 – Process & Implementation
 - Workshops (x2)