

# Sound idea! The window that silences noisy neighbours...

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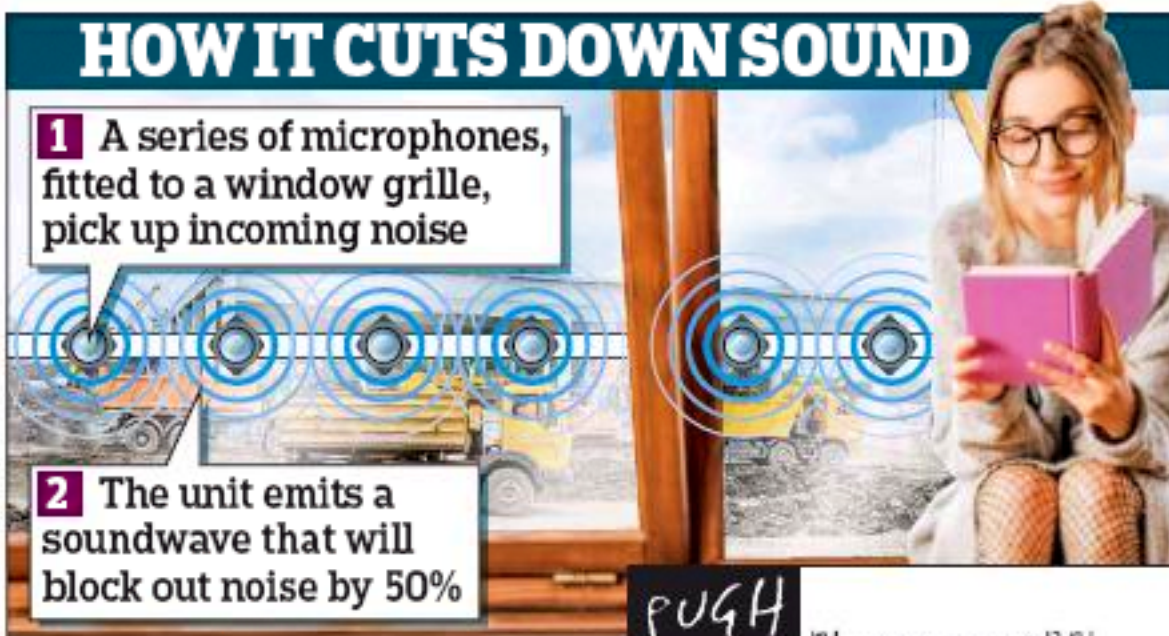
A WINDOW that can reduce noise pollution by 50%, even when open, has been unveiled by scientists. The prototype is likely to benefit anyone living under a flight path or by a busy road - or even just those with noisy neighbours.

Researchers at the University of Southampton and Nanyang Technological University in Singapore said the gadget works on the same principle as 'noise-cancelling' headphones, but is adapted for a larger area.

Designed to be mounted on window grilles, the gadget uses 'active noise control' technology. The researchers say that windows can be left open for fresh air without disturbance from external noise pollution, reducing the need for air conditioning.

Several units are placed together on the grille, each

## HOW IT CUTS DOWN SOUND



**1** A series of microphones, fitted to a window grille, pick up incoming noise

**2** The unit emits a soundwave that will block out noise by 50%

equipped with a microphone which can detect noise before it reaches the window - and generate a soundwave that is out of phase with an incoming wave - cancelling the noise.

Professor Gan Woon Seng, of NTU, said: 'Our innovation not only computes the right amount and type of "anti-noise" to emit, but also does it faster than the detected noise can reach inside the building.'

