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IT department in the media: New EU focus on wind turbine noise – Swedish research reveals the reach of infrasound

The issue of wind turbine noise is now being addressed at EU level.
Photo: Pixabay

The European Parliament has received a petition highlighting health risks linked to noise from wind turbines. At the centre of the debate is Swedish research and a new simulation tool showing that infrasound from large turbines travels farther than previously believed.

Ken Mattsson and Gustav Eriksson have developed Soundsim 360 – a simulation tool that calculates both infrasound and high-frequency noise across large areas. Photo: Mikael Wallerstedt.

The issue of noise from wind turbines has gained renewed attention at EU level, where a petition addressing both general noise and infrasound is now being reviewed by the European Parliament. Several European organisations are behind the initiative, and at the heart of the debate is Swedish research that has led to new insights into how sound spreads.

Measurement methodology has improved significantly in recent years – largely thanks to the work of **Professor Ken Mattsson at Uppsala University**. Since the 1990s, he has developed computational methods to simulate how sound, including infrasound, propagates through landscapes. **Together with colleagues, he has created the advanced simulation tool *Soundsim 360***, which reveals that infrasound levels from modern wind turbines are considerably higher and travel much farther than previously assumed.

Mattsson's research highlights how outdated measurement techniques and modelling may have underestimated both the reach of the sound and its potential health risks. These findings have helped bring the issue to the political forefront within the EU.

The European Parliament's Environment Committee has now begun gathering knowledge on wind turbine noise and its consequences. The European Commission has also committed to submitting a written response within three months, which could pave the way for future changes to EU noise and industrial emissions directives.

Fact: Noise and Infrasound from Wind Turbines

What is sound?
Sound arises from changes in air pressure that travel as waves. Its intensity is measured in decibels (dB), and its frequency – the number of vibrations per second – is measured in hertz (Hz). Human hearing typically detects

sounds between 20 Hz and 20,000 Hz. Low frequencies produce deeper tones, while high frequencies result in brighter ones.

Infrasound – sound we cannot hear
Infrasound refers to sound waves below 20 Hz, which are inaudible to the human ear. Despite this, they can travel long distances with minimal loss of energy. Common sources include wind turbines, hydropower, explosions, jet engines, high-speed trains, fans, and ventilation systems.

How is sound measured?
The decibel scale is logarithmic, meaning a 10 dB increase represents a tenfold rise in sound intensity. The EU defines noise as outdoor sound with unwanted or harmful effects on human health or the environment. Noise levels above 50 dB during daytime are often considered disturbing.

New technology from Uppsala University
Soundsim 360 is an advanced simulation tool developed by researchers at Uppsala University. It accurately models how sound – including low-frequency noise and infrasound – spreads across large areas. The tool has led to new insights into how infrasound from wind turbines affects surrounding environments.

Linkas

- Unik studie om infraljud från vindkraftverk redo för publicering (https://www.epochtimes.se/unik-studie-av-vindkraftsbuller-redo-for-publicering)
  Publiced 2025-10-13, Epoch Times

- EU tar tag i frågan om vindkraftsbuller (https://www.epochtimes.se/problem-med-vindkraftsbuller-hanteras-av-eu)
  Publiced 2025-10-13, Epoch Times