

# Enjoy the silence

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The Dutch city of Apeldoorn proposes an extraordinary solution to an extraordinary problem. Now that the Whisper bus will finally come into service, how to break the silence?

It was early 2004 when the Whisper, an environmentally friendly and silent city coach was supposed to make an entrance in the Dutch city of Apeldoorn, according to a municipal [press release](#).

## **Delay**

The plan met with delay after delay, although mr Piet Stoop, head Environment, Mobility and Public Space for the municipality, refuses to think in such terms. "The development has been going on for some years now (since 2002). Developing something like this takes time, so it is not a question of delay, really. A first prototype has already been built and is available; it just hasn't been thoroughly tested in the city transport service yet."

So why does the project take so long? Mr Stoop explains: "Amongst other reasons, the prototype couldn't be insured and e-Traction (the producer – AD) needed the bus themselves for promotional purposes."

## **Ready for use**

Remains the fact that the municipality itself announced introduction of the silent city coach into the city transport service several times. As recent as 29th September of this year, the city announced that December 2008 would see the Whisper functioning. But already this news seems outdated.

Mr Stoop declares: "[F]ive buses will be built and tested. These are the follow-ups of the prototype. The first bus is currently being built. It is expected to be ready for use early 2009; after that, four more will follow. These will all be tested for a period of almost two years (until 2010) in the city transport service."

## **Dangerous**

One would think the introduction of the Whisper would please Apeldoorn's inhabitants – if they live to see it – but that is not the whole truth. Bus drivers have expressed their concern that the Whisper may be dangerous: other traffic may not hear the bus coming.

## [E026 Image 1](#)

And here's the astonishing part of this news story: a regional television station [announced](#) that there are plans to equip the Whisper with speakers producing the sound of an engine! Have you ever?

We asked Mr Stoop for a comment. He knows of no such plans, but takes the concern seriously. "It can be dangerous; we will have that researched. If so, we will make sure the buses produce more sound."

Wouldn't a horn and a careful bus driver suffice? The drivers will be especially trained for the Whisper coaches, so making sure other traffic notices them could be part of their training.

### **Technicalities**

What makes the Whisper buses so silent? A so-called e-Traction system propels them: a diesel-electric power train comparable to the systems locomotives use. The Whisper is actually a regular city coach of which the engine was replaced by a 45 kilowatt diesel generator and a series of 28 rechargeable lithium batteries with a hundred ampere-hour capacity. This combination propels two electric engines – one for each rear wheel. When the bus breaks, the electric engines generate power to recharge the batteries. Green current will be used to further recharge the batteries at night.

The system leads to serious fuel savings compared to that of buses currently in use: estimated at fifty per cent. Tailpipe emissions are also expected to diminish by a half. So from an environmental point of view, this project is worth the trouble.