

# Thai tuk tuks spice up Dutch mobility

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Motorised tricycles, or tuk tuks, are a common sight in Thailand, ferrying tourists and locals alike around bustling cities and resorts. Now a battery-powered tuk tuk is promising to revolutionise mobility in the Netherlands. *MindsinMotion.net* spoke to one of the brains behind the project, Roland Vos.

[N169 Image 1](#)

Roland is the director of Tuk Tuk Factory, the research and development arm of Amsterdam-based Tuk Tuk Company, which imports tuk tuks into the Netherlands. A relative newcomer to the mobility industry, he joined Tuk Tuk Factory in May 2008 after a chance meeting with company founders Martijn Beversluis and Geert Kloppenburg prompted him to quit his job with drinks giant Inbev and tackle the challenge of the tuk tuk.

“Martijn and Geert are very entrepreneurial and enthusiastic people. I was immediately gripped by the idea that city transport should be electric, and that the tuk tuk could help achieve that. Everyone talks about the potential of electric transport: rather than talk about it, we want to do it.”

## Gap

Roland explains the company’s rationale: “We identified that in city transport, there’s a link missing: the ‘shuttle’ between the train station and the office. This gap is traditionally filled by taxis. We want to replace these with electric tuk tuks.”

## Converted tuk tuks

The company’s initial three-strong fleet of converted, three-passenger electric tuk tuks is due to be launched in April in Rotterdam, Amsterdam and The Hague. They will be powered by a modular battery pack. The battery pack allows them to use either lithium ion batteries, which can be charged at a compatible charging station (or at the Tuk Tuk Factory) in around thirty minutes, or removable lead acid batteries. The latter can only be charged at the Tuk Tuk Factory itself and take longer to charge.

Lead acid is currently the cheaper option. However, Roland says the cost of lithium ion batteries is falling rapidly, and charging station infrastructure is a hot topic amongst local authorities and energy suppliers. Fully charged, both batteries have a range of around seventy kilometres.

### **Trialled**

The Tuk Tuk Company has already trialled traditional four-stroke engine tuk tuks at The Hague and Amsterdam central stations. There, it worked out a price-per-journey, within a certain zone, of Euro 3.50 – about half-way between the fare for a tram and a taxi. As Roland explains, the trials were also necessary to refine the tuk tuk's design and make it suitable for European roads.

[N169 Image 3](#)

### **Building their own**

“The Thai tuk tuk has a number of problems. The quality is not very good: it's designed for Thai streets, and Thai drivers, who don't seem to mind spending an hour after each shift on repair and maintenance,” says Roland.

To overcome this and the difficulties of converting the petrol tuk tuks to battery, the Tuk Tuk Factory is developing its own tuk tuk design.

“It's much more effective to build in zero emission technology from the start than to convert,” explains Roland. “So as well as converting tuk tuks, we're working on our own tuk tuk. We're researching battery technology, investigating drive train technologies, and looking at charging station infrastructure.”

[N169 Image 2](#)

### **Double-edged sword**

Looking ahead to the launch of the first electric tuk tuks in April, when Jacqueline Cramer, the Dutch Minister for transport, is due to be present, Roland is confident of the project's success. The tuk tuk has, he explains, a habit of 'making people happy' with its fun image.

However, its playful image can also be a double-edged sword, he explains: the tuk tuk is often overlooked as a realistic transport option. This is another difficulty that the Tuk Tuk Factory hopes to overcome with its own, more ergonomic design.

“The traditional tuk tuk is great for a night out, but the busy commuter on their way to a business meeting might not find it so attractive. This is a key challenge that our own tuk tuk will address.”