#### TukTuk Factory

## TeamViewer assists worldwide support for electric taxis

In many major cities of the world they form part of the cityscape: Tuk-tuks – the three-wheeled, open-sided vehicles that transport tourists from one attraction to the next, or business people to their next appointment. <a href="TukTuk Factory">TukTuk Factory</a> has embraced and enhanced the idea of these agile tricycles: The company based in Diemen near Amsterdam produces electrically operated tuk- tuks. The environmentally friendly vehicles are already in use in more than 30 countries. With the help of TeamViewer Remote Access, the Dutch manufacturer provides its customers around the globe with top technical support.

Steven Halmer is in a rush. His flight landed one and a half hours late at Suvarnabhumi Airport in Bangkok. Now he needs to get to his conference hotel in the city centre as quickly as possible; he is expected there in 45 minutes. But it's hard to get there by taxi – the Thai metropolis is notorious for its ever-present traffic jams.

So it's a relief that there are other means of transport available. The businessman beckons a tuk-tuk, one of those vehicles that make a trip through Bangkok's streets an enjoyable adventure, not only for tourists.

## **Environmentally friendly: Tuk-tuks from the Netherlands**

To his astonishment, the tuk-tuk is snow-white, in contrast to the otherwise brightly coloured tuk-tuks in the city. "They are offered ex works in white," says his driver. "I deliberately left it that way, to attract attention."

What's special here: His vehicle comes from Amsterdam, where the TukTuk Factory is committed to "making our world a little more fun, friendly and colourful" with its electric vehicles. And more environmentally friendly, as Steven Halmer notes the next moment. Because his tuk-tuk doesn't rattle away, but accelerates without any engine noise. "It's electrical," the chauffeur explains, while he expertly threads through the flowing traffic.

#### **Cool trend: E-mobility in urban traffic**

It seems that the Dutch have found a gap in the market that is currently opening up in many cities around the world. More than 1,200 electric tuk-tuks are already driving through large European cities, as well as in the U.S., Asia, New Zealand and the Middle East. In Portugal alone, around 400 of these vehicles are currently on the move. And TukTuk Factory has no reason to complain about a lack of demand. Their cool e-mobility vehicles are trendy.

Even though the vehicles are technically much simpler than a car, there might be the occasional functional issue. The TukTuk Factory was therefore looking for a way to help its customers quickly and efficiently, no matter where they were in the world. It is the

manufacturer's declared goal to provide technical support within 24 hours of any request, and to solve the problem within this time span if possible.

Sending technicians off was not a reasonable option, due to the time and cost involved. Also, it would not have met the company's goal of keeping its CO2 footprint as small as possible.

### The solution: Remote maintenance with TeamViewer Remote Access

The solution is incredibly simple: TeamViewer Remote Access. TukTuk Factory has integrated an interface into each of its vehicles which technicians on site can use to connect to the mini PC in the tuk-tuk via a laptop, for example. Via TeamViewer Remote Access, a technical expert in the Netherlands connects to the system who reads the data from the vehicle and diagnoses the malfunction.

The TukTuk Factory technician then uses this connection to initiate all the necessary steps, including a software reset or installation of an update. Mechanical problems, such as a faulty brake switch, can also be detected using the diagnostic data. IoT technology from TeamViewer thus enables effective on-site support for the mechanic.

# Service improved – costs reduced – climate protected

TeamViewer Remote Access had been "an eye-opener" for them, said Ronald Montfoort, CEO of TukTuk Factory. The "Internet of Tuks", as the Dutchman calls the application with a wink, helps them save a lot of time and minimise travel costs.

And Mayank Bhardwaj, Marketing and Growth Manager at TukTuk Factory, adds: "TeamViewer has helped us optimise our sales and support processes – and accelerate the company's growth. The solution is a perfect match for the company's goals: People, Planet & Profit – serving people, protecting the planet and working profitably.

TukTuk Factory is currently working on expanding its services with the support of TeamViewer Remote Access. A "live diagnostics" scenario is being considered, which will allow monitoring of the tuk-tuks' function worldwide and in real time. This may include the vehicle automatically transmitting its remaining battery capacity, the condition of the brakes or other relevant diagnostic data. Even a theft alarm function with transmission of the location data would be conceivable with such an application.

#### Live diagnostics even for solar racing cars

Students at the University of Toronto, for example, demonstrated that this works smoothly as part of the "Blue Sky Solar Racing" project. They enter solar-powered cars in worldwide races every year and utilize the live diagnostics capabilities of TeamViewer Remote Access to

monitor them. One of the uses of TeamViewer Remote Access is to read and monitor the data from sensors and components of the high-tech vehicles. This enables technicians, engineers and product designers to identify and solve problems and optimize their systems at any time and from any location.