## **TECHNOLOGY REVIEW**

# The birth of an idea



Norbert Schindler assesses Parkofon's satellte-based parking solution

inding a public parking spot can be a challenge in any major city. According to Donald Shoup, a distinguished research professor of urban planning at UCLA, the search for parking can make up to 30 per cent of all urban traffic<sup>1</sup>. INRIX estimates that the average American driver pays US\$97 ( $\in$ 84) a year for unused parking time and spends a total of 17 hours per year searching for parking, costing the equivalent of US\$345 ( $\in$ 300) in wasted time, fuel and emissions. The resulting damage to the US economy is estimated at US\$73 billion ( $\in$ 63 billion) every year.<sup>2</sup>

Evgeny Klochikhin got his inspiration to create Parkofon after his experience of paying for on-street parking while bringing his pregnant wife to a doctor's appointment. Once he found a parking spot, he had to leave his wife waiting in the car while walking down the street in search of a functioning parking meter.

After inserting whatever coins he had with him, the machine printed out a receipt with a time-stamp that he had to bring back to the car and place on the dashboard. Evgeny was convinced that there must be a better way. He was soon joined by his brother Vlad, a hardware engineer, to invent an automated parking payment and guidance system that can be placed inside every vehicle. With a low-cost telematic device in the car, the parking session is started automatically when the vehicle arrives at a parking spot.

With this approach, parking meters on the curb would eventually become obsolete.

There would also be no need to download a local smartphone application that prepays parking, based on a public parking zone number. More importantly, there is no more need to guess how long you might stay at a specific parking spot since Parkofon completes the payment the minute you vacate the parking spot.

### **FIT FOR PURPOSE**

A smartphone alone would be unfit for the task. Not only is the positioning of the GPS in the phone not enough accurate to locate a vehicle in a specific parking space – if you take your smartphone with you (as almost everybody does), there is no device in the car to track the entire parking session and terminate it when you drive away. Parko-

fon's device collects data about a vehicle's parking history - and its driving patterns – to to use anonymized, aggregated analytics for transportation planning and parking management for new Smart City initiatives. Furthermore, when a car drives away, the device reports the vacant spot in real-time, thus supporting other Parkofon users in their search for an available parking space.

Drivers can order a Parkofon device for free. After they receive it in mail, they simply need to place it on the dashboard or in the glove compartment, download the complementary smartphone application, and park in any legal spot where Parkofon is already available; the high-accuracy positioning provided by the Parkofon device will start the parking session automatically once the car is parked.

Parkofon does not charge any commission on the parking fees; all payments go directly to the city authorities responsible for parking management. Drivers pay a monthly subscription fee for the Parkofon service. When a subscriber decides to cancel the service, they simply return the Parkofon device.

Parkofon already received several industry awards. In 2018, the company won the PlanetM Mobility Services award at the Detroit Auto Show as well as the Global Automotive and Mobility Innovation Challenge award. Parkofon is among 64 start-ups selected

globally to compete for the Mondial Tech Startup Awards. The winner will be announced at the Paris Motor Show on October 5th, 2018<sup>3</sup>.



A Parkofon helps find open parking spaces on congested New York streets

#### **EVERYTHING IS FINE**

0:56

Today, Parkofon is collaborating with New York University researchers to help combat double parking and improve efficiency of the delivery companies in New York, where FedEx and UPS spend over US\$11 million every year on parking fines<sup>4</sup>. Delivery trucks that are double-parked cause increased congestion and hence more pollution. Parkofon

> guides trucks to designated

Drivers receive automated text alerts when their parking session is about to expire loading spaces and charges them for the exact time they spend there, thus eliminating the "need" for double parking. By tracking the parking sessions, Parkofon enables a virtual reservation system that helps commercial fleets improve their routing and predict parking availability for on-time deliveries.

Parkofon focuses on people's mobility needs, thus shifting the focus from infrastructure to the drivers of passenger cars and of commercial vehicles. The company's mission is to build a multi-functional service platform where parking is not the end of the journey, but just a stop on the way to something much more meaningful – such as preparing for the birth of your child.

#### NOTES

1 Shoup, D. (2005). The High Cost of Free Parking. Planners Press, American Planning Association. 2 "Searching for Parking Costs Americans \$73 Billion a Year" http://inrix.com/press-releases/parking-pain-us/ 3 https://mondial.tech/startup-awards/ 4 https://nypost.com/2013/05/27/fedex-ups-owe-2-8-million-in-parking-tickets-to-city-in-first-threemonths-of-2013/

Norbert Schindler is Technology Editor of *Thinking Highways* and *Thinking Cities* norbert@h3bm.com www.parkofon.com