An Autonomous Taxi Service for Sustainable Urban Transportation

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The System

- Utilisation of innovative road vehicles (Autonomous Pods) to establish a taxi service which meets the sustainable objectives of current and future cities
- Autonomous Pods are two-seater autonomous vehicles, capable of navigating a route in open space without any purpose-built infrastructure
- Perform journeys in pedestrianized spaces and interact with pedestrians and cyclists
- An attractive retrofit solution of any first/last mile travel requirements within an existing urban context

Sustainability Assessment

- Electric vehicles offer significant reduction of CO₂ emissions
- Autonomy and increased safety for pedestrians
- Greater mobility for aged and disabled people
- Connectivity

A Case study for the Addenbrooke’s Site

- A case study was developed for the Addenbrooke’s Site
- A medical and research campus at the University of Cambridge
- It combines an academic, industrial and urban environment – representing a self-sustaining city
- 15,000 working population by 2020
- 1,000 residents
- 3,000 visitors per day including outpatient appointments

Conclusions

- An autonomous taxi service as a sustainable urban transport system
- Environmental and Social Benefits
- Methodology to estimate Levels of demand
- System performance requirements
- Financially viable
- Technologies for current and future cities already exist