Sustainable Transport Futures: Mobility as a Service

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Mobility as a Service: A concept

“Bundled offerings that facilitate using multiple means for solving everyday travel needs”1

“A mobility distribution model in which a customer’s major transportation needs are met over one interface and are offered by a service provider” 2

“the essential idea is to see transport mobility not as a physical asset to purchase (e.g. a car) but as a single service available on-demand and incorporating all transport services from cars to buses to rail and on-demand services” 3

“…a transport concept that combines services from different transport modes to provide customised mobility services via a single interface…MaaS can be offered to users based on a monthly payment package or based on a pay-as-you-go fee, similar to mobile phone services” 4

“…the widespread adoption of portable and/or wearable internet-connected devices such as smartphones has opened up new possibilities in the transport sector…these are referred to as ‘uberisation’ by some and the creation of Mobility as a Service by others” 5

“The Mobility as a Service (MaaS) model aims to provide seamless trips over one interface by combining different transport modes and services” 6

Mobility as a Service: interest in academia

Interest across a range of topics/genres:

- Transportation economics
- Transport business and management
- Parallel and distributed computing
- Travel behaviour and society
- Computers and security

Key interest areas:

- Willingness-to-pay studies
- Transport accessibility in low public transport provision areas
- Possibilities for implementation
- Reviews of trial implementations
- Literature reviews

Mobility as a Service: Key components

- Offer seamless mobility
- Competitively priced
- Offers convenience and reliability that replicates what's offered by privately owned vehicles
- Combine traditional modes with better operational circumstances i.e. higher service levels or more affordable
- A "mobility provider" or "MaaS operator" would know the real-time network information and would offer trips
- Integrated platform for purchasing tickets/packages

Mobility as a Service: Key challenges

- Data requirements and ownership within the MaaS system
- Role of public bodies and private operators
- Customer protection
- Policy implications
- Impact on transport planning and provision
- Operational models
- Impact on traditional modes and new innovations
- Responsibility of being the overall “service provider” or “MaaS operator”

Mobility as a Service: Key points

- Assumption of “it” being highly complex
- Policy implications which haven’t been fully considered
- Uncertainty due to disagreements between different stakeholders
- Commercial/business plan unclear
- The role of the private car is unclear in MaaS
- The “revolutionary driver” of MaaS is not yet clear
- Timescales for implementation and mass uptake
- Lessons to be learned from current operations in different locations
- How new modes will fit into the transport landscape

Mobility as a Service: New modes


Innovate UK
Lake District National Park

Westfield Autonomous PODs

4-6 seater electric, shared autonomous vehicle

Operated on-demand at Heathrow Airport for over 5 years

Designed to provide first-last mile transportation

Integration into wider transport network

Trials planned for 2019: Queen Elizabeth Olympic Park, Manchester Airport, Birmingham city centre, Beijing,


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Thank you

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