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CAV projects in the Royal Borough of Greenwich

Ben Dodds - Project Officer & GATEway trials co-ordinator

Joint CoEXist, MAVEN & TransAID workshop, 10th October 2017

ROYAL borough of GREENWICH

DIGITAL GREENWICH

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DG Cities/RBG other CAV projects: ATLAS

ATLAS looked beyond the vehicle, its **aim** was to understand the technology and communications ecosystem that will be needed for the efficient operation of connected and autonomous vehicles.

- The project was led by **Ordnance Survey** and the other partners were RBG, Sony, Transport Research Laboratory, the Satellite Applications Catapult, Gobotix and Oxford Technical Laboratories.
- RBG is provided the local authority perspective and considered the impact that **the mapping and validation data requirements** will have on local communications infrastructure.

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ATLAS outputs

Requirement: The provision of digital infrastructure that will support both Smart City services and the mapping requirements of CAVs

Challenge :

- **The development of a city data model** (Greenwich as a case study and testbed) underpinned by the requirement above
- **The supply of digital infrastructure** will not be able to meet the demands placed on it.
- Cities increasingly rely on digital infrastructure to support their new e-business, hence the need for reliable standard of servicing potential heavy users of city **bandwidth**
- Currently, CAVs will only **use local infrastructure** for non-critical, situational awareness based updates that will be small in nature

ATLAS Conclusion

- The Atlas report validated the importance of the role played by local authorities such as:
- **Provision of Data to support the new tools and the new increased demand**
- How local authorities can control data need/usage by:
- **Dynamic road pricing and speed**
- **Capacity management**
- **Restrictions and Disincentives**
- **Maintenance Benefits**

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Our other CAV projects: MOVE UK

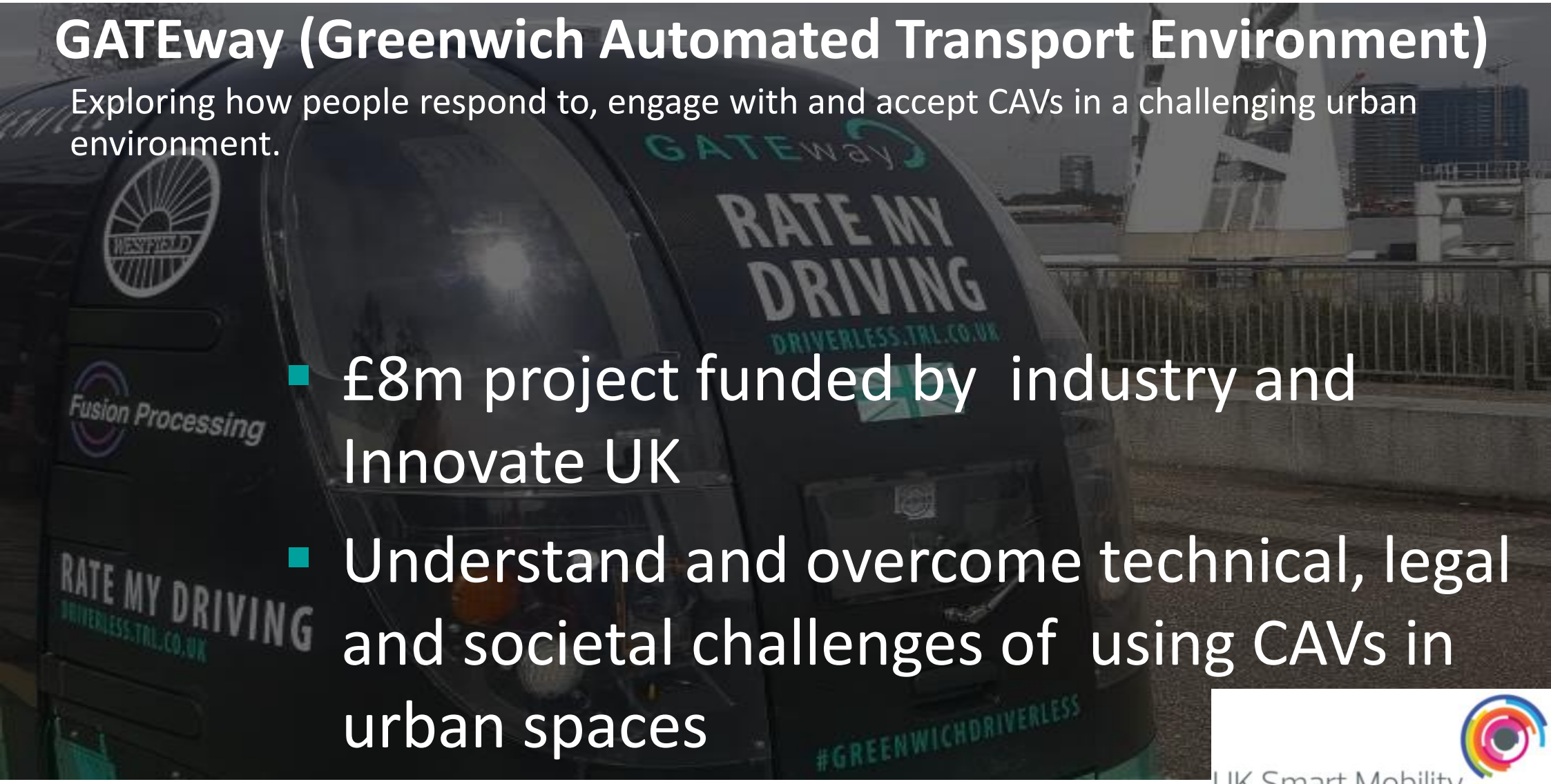
- **Aim**: is to develop an innovative **solution for validating** autonomous driving systems.
- **Challenges** : traditional methods for validating are **too slow** and **costly** given the increasing **complexity** of the driving situations.
- Solution: 2 distinct data-intensive & data selective field trials : **Phase I (camera), Phase II (radars)**
- **Project leader** :led by Bosch

Other partners are:

- Jaguar Land Rover.
- The Floow (telematics company)
- Direct Line Group
- RBG
- and the Transport Research Laboratory.
- **RBG/DG Cities role**: to act as the **test bed** for five vehicles that are collecting data on autonomous driving situations.

GATEway (Greenwich Automated Transport Environment)

Exploring how people respond to, engage with and accept CAVs in a challenging urban environment.



- £8m project funded by industry and Innovate UK
- Understand and overcome technical, legal and societal challenges of using CAVs in urban spaces

UK Smart Mobility Living Lab™ @ Greenwich

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GATEway Project summary

Trial 1: Micro-transit

Trial 2: Automated valet parking

Trial 3: Last mile delivery

- Legal and technical requirements to enable AVs to be used in the UK
- CAV perception/acceptance to pedestrians, passengers and other road users

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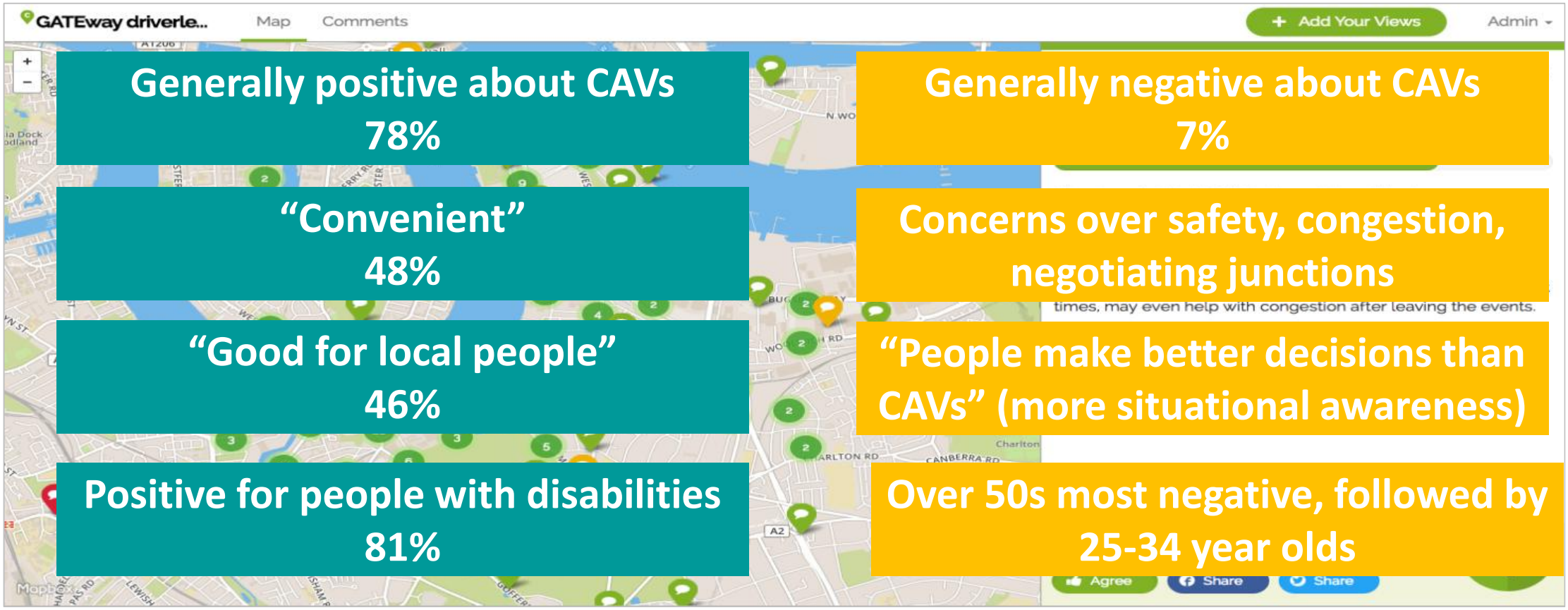
GATEway sentiment maps (Commonplace)



Commonplace

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CC Cars/MERGE: Another DG Project

A one year **feasibility study** led by **Addison Lee.**

a future **business and operating model** for the integration of autonomous vehicles (AV), ride-sharing and existing and future multi-modal transport

Other partners are:

- **DG Cities**
- **ImSIM**
- **Transport Systems Catapult**
- **TRL and Vauxhall.**

A full-scale trial will be rolled out in London to conduct **real-world testing** and **enhance** the new **mobility** and **quality of life** vision for London