CROSS RIVER
PARTNERSHIP

Impact of Autonomous Freight Vehicles in central London

Lo-City Vans working group

— Vicky Keeble – Deliver London Programme Manager
— 11/04/18

CROSS RIVER
PARTNERSHIP

Who is Cross River Partnership?

CROSS RIVER
PARTNERSHIP

Operating across central London

CLSRTP: Purpose of Study

- To analyse what the impact autonomous vehicles (AVs) for deliveries and servicing will have on wider transport and public space in central London

- To uncover the **physical**, **technical** and **governance** based interventions boroughs should consider in the lead to AV Freight

AV Freight:

- Fully autonomous vehicles have the capacity to perform all driving functions without human supervision

AV Freight Vehicles

Driverless vans

- Van-like vehicles with multiple storage compartments
- Travel on the road
- 60 mile electric range
- Cloud based technology shared between vehicle, customers and merchants

Ground Drones

- Pavement mounted robots for small deliveries
- Suitable for last-mile deliveries
- Shares pedestrian and cycle space

Current infrastructure requirements

- **AV use may free up space currently used for parking, loading and garages allowing more efficient use of land space.**
- **This space efficiency will not be yielded until there is significant uptake of AV technologies**
- **There will be a transitional period where spaces of shared use may become more contested**

Benefits of AV Freight

Benefits for businesses

- Optimised delivery services
- Finds the quickest route in real-time
- Drives for long periods without rest
- Ease congestion in built up areas
- No need to pay a driver
- Safer without human occupant
- Fuel cost saving

Benefits for consumers

- Meet the demands of rising online consumerism
- Same-day responsive deliveries
- Decreased operational costs passed to the customer
- Road safety improvement

Barriers and Enablers of implementing AV Freight

BARRIERS

- Technology must be proven
- Technology must be affordable
- Accountability must be clear
- Cybersecurity is a risk

ENABLERS

- Robust safety features
- Positive media coverage
- Government provisions
- Test beds

Recommendations

1. Government investment is required in the development and testing of new technologies, specifically freight and logistics

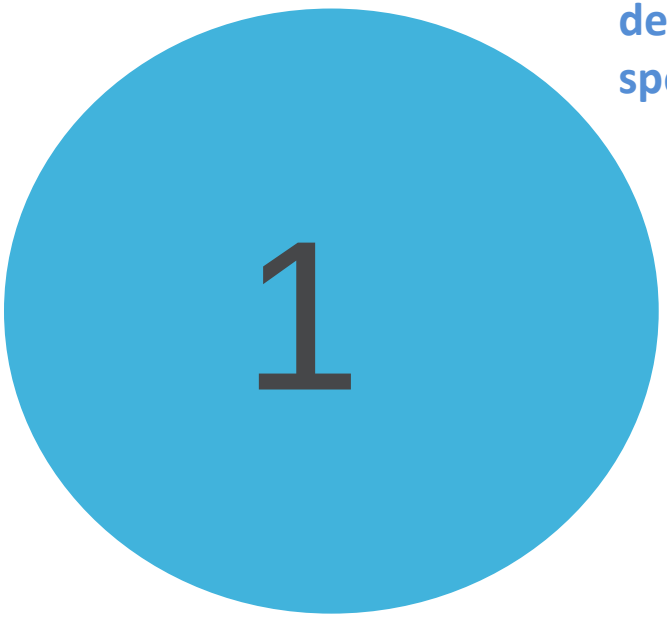
2. TfL funding needs to support logistics operators with the uptake of AV freight

3. AV freight trials must focus on determining what infrastructure is necessary ahead of deployment

4. Public perceptions of AV freight should be influenced by positive media coverage

5. Policy and regulation must be in place before AV technology is deployed

Recommendations



- **Government investment is required in the development and testing of new technologies, specifically freight and logistics**

- Government funding and initiatives such as Innovate UK
- Use funding to develop test beds
- Exploit existing test beds
- Ensure the technology is robust

Recommendations

- **TfL funding needs to support logistics operators with the uptake of AV freight**

- Customer demand for AV freight would spur development
- Logistics operators wary of investing in uncertain technologies
- Financial incentive for operators to invest would increase uptake and reduce risk
- OEMs must lobby central government for funding

Recommendations

- **AV freight trials must focus on determining what infrastructure is necessary ahead of deployment**

- We do not yet know what infrastructure is necessary
- Communications infrastructure may need to be expanded beyond 4G networks
- Localised trials will help establish what infrastructure is required in each area
- Infrastructure requirements should be focused on while trials are being undertaken

Recommendations

- **Public perceptions of AV freight should be influenced by positive media coverage**

- Negative media coverage could seriously impede uptake of AV freight
- It is the responsibility of developers, insurers and government to manage public perceptions and overcome misconceptions
- Public visibility in to trials, forums and workshops could help to shape public perception
- Successful trials should be given media coverage

Recommendations

- **Policy and regulation must be in place before AV technology is deployed**

- OEMs need to use policy as a guideline for what functionality AV freight must have
- There is apprehension to develop policy before the full extent of the technology is known- this could result in a standstill
- Policy makers must take the lead by outlining principles they wish to achieve
- Policy and regulation must be developed with input from all stakeholder groups

CROSS RIVER
PARTNERSHIP

Thank you.

QUESTIONS?

Vicky Keeble
Deliver London Programme Manager

T: 020 7641 2036
E: vickykeeble@crossriverpartnership.org