

Autonomous Vehicles as part of diversified public transport system

Laurent KOCHER April 20th, 2018





Keolis, operator and integrator of daily modes of transport





63 000 employees

5,4 billion revenue



World leader in trams & automated metros

Multimodal
expert
Operating 10+

transport modes



N°1 in autonomous vehicles



The mobility market is facing a major transformation

Social and cultural changes

Disruptive technologies and new services

Changing passenger expectations

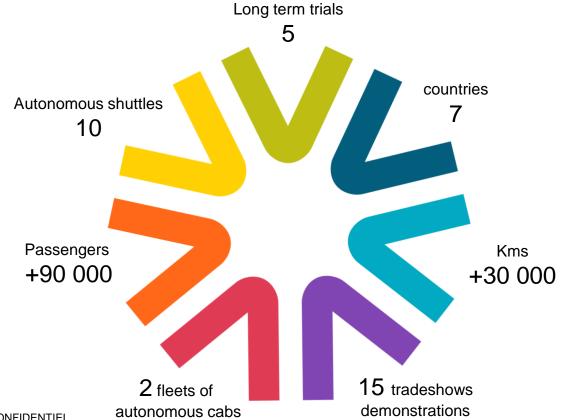
New public mobility governance



Connected Autonomous Shared Electric



Key figures on autonomous vehicles within Keolis





Keolis trials: increasing complexity with the shuttles...

France

Lyon Sept. 2016



- 1st regular service with autonomous shuttle worldwide
- Navly Mobile app (Sept. 2017) offering :
 - · Key service information
 - Real-time shuttle positioning

Path : 1,3 km

Paris-La Défense June to December 2017



 More than 6 000 km driven within the biggest business district in Europe

3 Paths: 2 km

Roissy-ADP from Feb. 15th, 2018



- 2 AV crossing each other automatically
- Connected to a traffic light in V2X, dynamic with priority to the shuttle
- On demand app available for off peak

Path: 0,6 km

International

UK - London Queen Elizabeth Olympic Park Sept. 2017 (3 weeks)



A large-scale partnership management

Keolis Amey Docklands & Navya, in partnership with Engie, LLDC (London Legacy Development Corporation), HereEast & Our ParkLife

Path: 1 km

USA - Las Vegas from Nov. 2017



- 1st AV service open to the public in open road
- The shuttle runs in traffic in downtown Las Vegas and is the only in the US so far
- V2X connexion with traffic lights

Path: 1 k



...and a new vehicle for 2018: the autonomous cab

- Launch in partnership with Navya in November 2017
- First trial during CES in Las Vegas (January 2018)
- This autonomous cab is 100% electric and the first fully autonomous robo-taxi on the market, addressing shared mobility needs by providing a new personalized form of passenger transport



