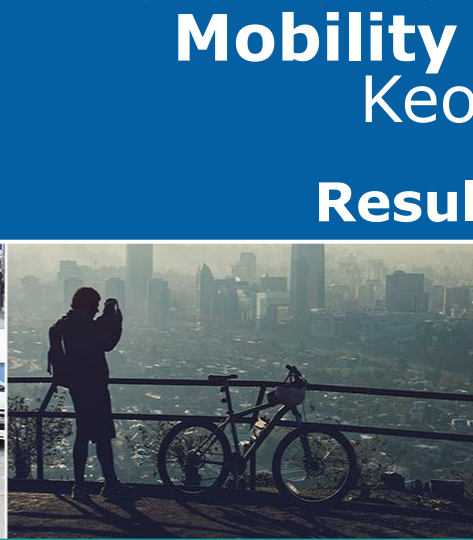
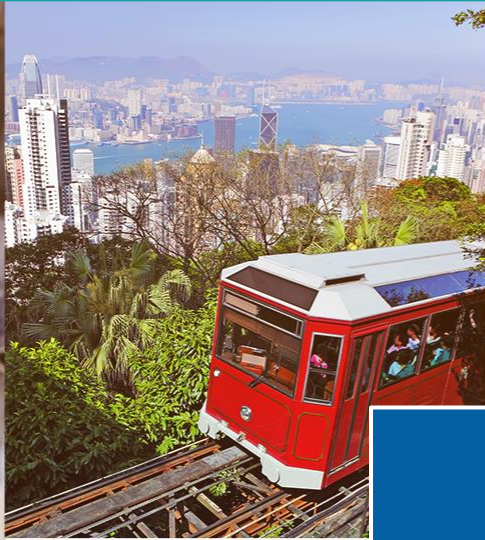


WORLD
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REPORT

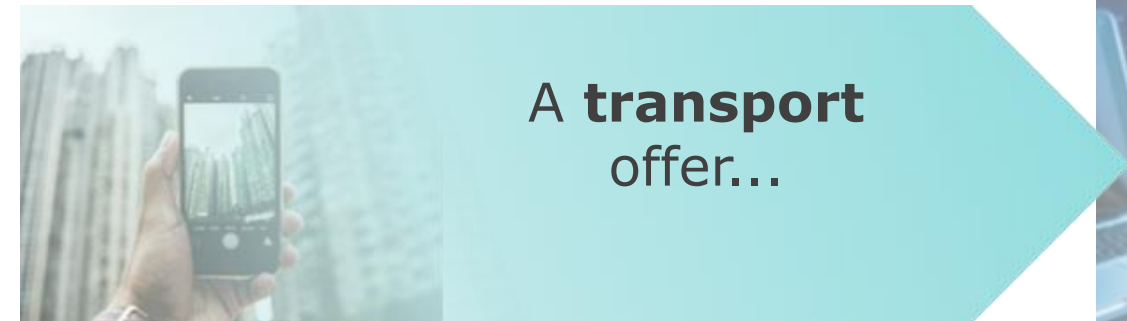
Keolis



The International Digital Mobility Observatory Keolis & Netexplo

Results – April 2017

In this digital age, mobility has become **Passenger Focused**



- To better support major cities in their transformation, **Keolis and Netexplo have launched an International Digital Mobility Observatory in 13 smart cities across 5 continents.**
- The goal is to **understand the impact of the digital revolution on mobility uses and practices around the world**, in order to envisage the future of mobility tailored to the needs of Smart Cities.
- Bolstered by this understanding of the expectations in matters of digital mobility, **Keolis has defined 10 fundamentals for tomorrow's travel experience, which are indispensable for designing a smart mobility model suited to the actual requirements of the travellers.**

WHAT ARE THE PROSPECTS FOR EVERYDAY INDIVIDUAL MOBILITY?

Global overview: 13 smart cities explored

13
EXPLORATORY
STUDIES

+ 400
INNOVATIONS
IDENTIFIED

Keolis & netexplo
observatory



- Carried out in the cities of Abidjan, Boston, Dubai, Hong Kong, Hyderabad, London, Lyon, Melbourne, Montreal, São Paulo, Shanghai, Stockholm and Tokyo, this unprecedented study has helped Keolis establish a **global panorama of the universal expectations in matters of digital mobility.**
- The analysis of behaviours and life-styles is a part of Keolis' DNA and this survey has helped the Group, in keeping with its Keoscopie, **to identify the digital mobility practices which will go on to become the best practices of tomorrow.**

Global overview
3 COMMON EXPECTATIONS



REAL-TIME UPDATES



PERSONALISED



**STEP-BY STEP
DIRECTIONS**

There are three universal expectations, irrespective of the region:

- **Real-time updates.**
- **A personalisation travel experience.**
- **“Step-by-step directions”** providing passengers with the option to receive instructions from the start to the end of their mobility experience.

Global overview

THE FUTURE PASSENGER EXPERIENCE

10 fundamentals of tomorrow's smart mobility experience

Planning your journey

Guidance

Information

Multimodal transport

Ticketing

Safety

Stress-free
travel (eCare)

Assistance

Productive travel time

Comm. channels

A more human
travel experience

Personalisation

Collaboration

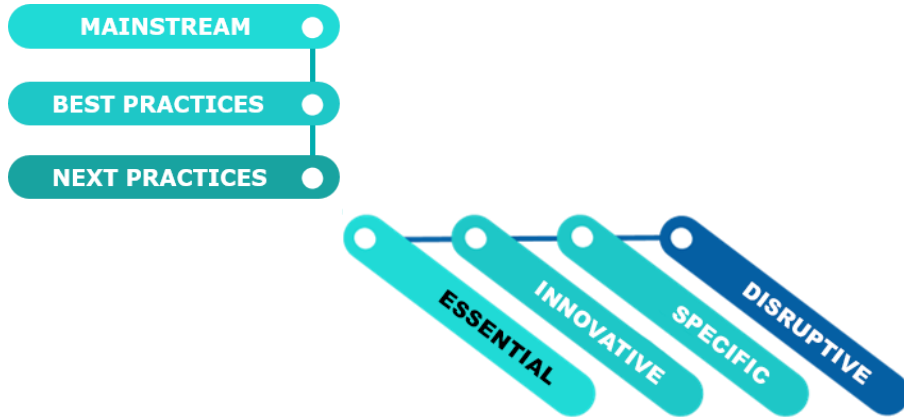
From three common expectations, **Keolis has consolidated and defined 10 fundamentals necessary to providing a successful daily mobility experience in smart cities.**

These 10 fundamentals form the 3 pillars of the passenger experience:

- **Plan your journey:** navigation, trip planning, information, multimodal integration and digital travel pass.
- **Stress-free travel:** travellers desire a pleasant mobility experience, safety and assistance in order to make the trip fruitful and pleasant.
- **A more human travel experience** thanks to collaborative and participatory travel modes.

THE 10 FUNDAMENTALS OF THE PASSENGER EXPERIENCE

DIVIDED INTO 2 AXES



Information

Plan your journey

Stress-free travel
(e-Care)

A more human
travel experience



Key issues

MAINSTREAM

- Suggested itineraries based on availability
- Detailed real-time updates (traffic, weather, etc.)
- Customised information

BEST PRACTICES

- Travel information with clearer, more practical references
- Integration of ticket purchasing with travel information (Plan Book Ticket)
- Directions available on smartphone and other connected devices (SMS, connected terminals, etc.)

NEXT PRACTICES

- Diversified information sources (photos, traffic videos, 3D map)
- Move from e-information to co-information (P2P and crowd-sourcing)
- Share information with personal networks (manager, family, school in case of a delay)

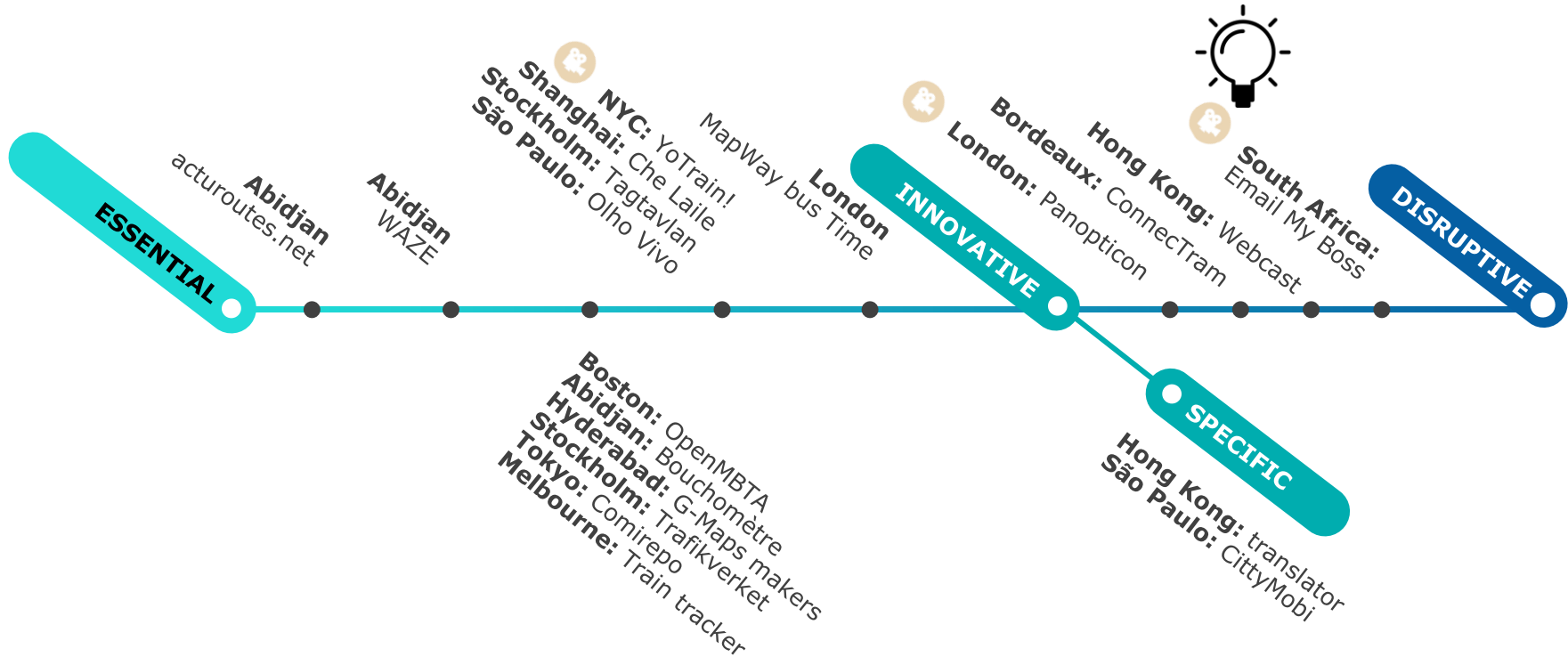
Information

67 solutions studied

Plan your journey

Stress-free travel
(e-Care)

A more human
travel experience



Link to the video: https://www.youtube.com/watch?v=DYYzE_OKlvE

#5 Safety

Plan your journey

Stress-free travel
(e-Care)

A more human
travel experience

Key issues

MAINSTREAM

- Mapping of higher-risk areas and times
- Services dedicated to women and children

BEST PRACTICES

- GPS tracking service for passengers (individuals can share their journey with friends, family, etc.)
- Allow direct communication between relatives or peers
- Support via preventative e-services (e.g. medical and suicide risks)
- E-help with customer service representatives (videocall, phone, chat)

NEXT PRACTICES

- Emergency buttons

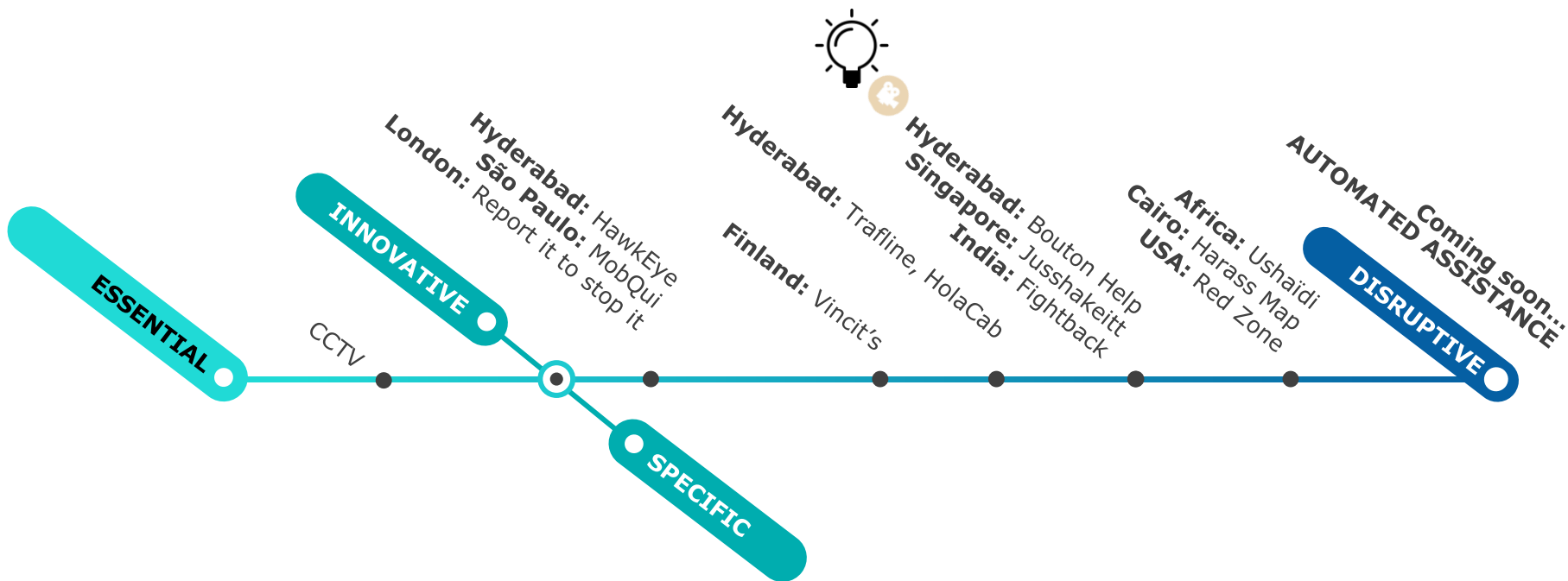
#5 Safety

32 solutions studied

Plan your journey

Stress-free travel
(e-Care)

A more human
travel experience



Link to the video: <https://www.youtube.com/watch?v=-wDqj4fqORU>

Collaboration

Plan your journey

Stress-free travel
(e-Care)

A more human
travel experience

Key issues

MAINSTREAM

Offset automation of data with increased collaboration and transparency

BEST PRACTICES

Move from customer relations to P2P collaboration or crowd-sourcing

- Arrange necessary authorisation for profiling and even collaborative co-profiling

- Create passenger community ambassadors to improve the passenger experience

NEXT PRACTICES

- Employ digital solutions to provide assistance to those that need it most
- Better combine multimodal transport with shared mobility solutions

#10

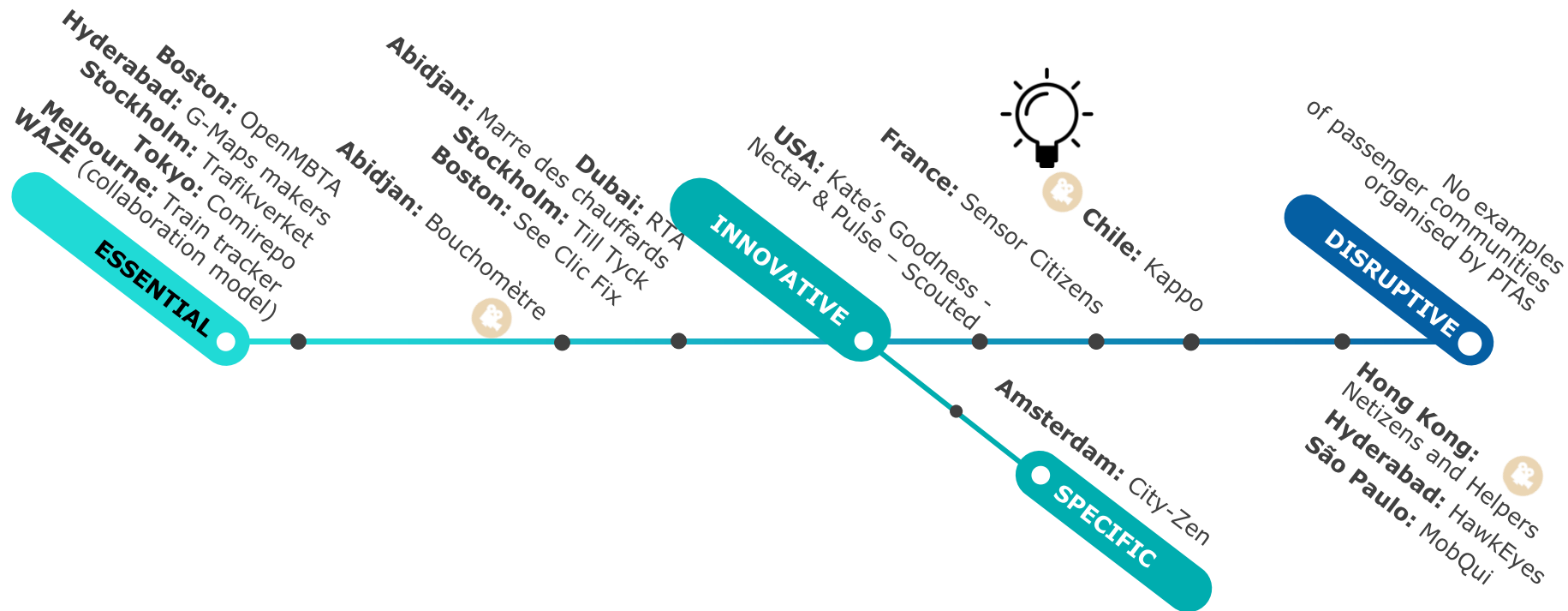
Collaboration

Plan your journey

Stress-free travel
(e-Care)

A more human
travel experience

59 solutions studied



Link to the video : <https://www.youtube.com/watch?v=TiPwLUTgtz8>

A young man with dark, wavy hair is looking down at a smartphone in his hands. He is wearing a denim jacket over a light blue shirt. The background is a blurred city street with many people and colorful lights, suggesting a busy urban environment. A teal semi-transparent banner is overlaid across the middle of the image.

GLOBAL OVERVIEW

SUMMARY OF THE **KEY** **LEARNINGS**

A background image of a man with a beard looking down at a smartphone. The image is partially obscured by a dark grey header bar and two teal horizontal bars containing text.

Questioning the role of technology

Balancing rapid change and access to digital technology

- A high-tech race,
BUT a return to the simplicity of low-tech solutions
- A proliferation of devices:
from personal to public, free and open access digital solutions

The return of the car in mobility plans for the future

THE CHALLENGE OF INTEGRATING CARS INTO PUBLIC TRANSPORT AND SHARED MOBILITY

- Traditionally an individual mobility solution, tomorrow a part of multimodal transport
- New forms of shared car use (private driver services, car-sharing, car-pooling etc.)
- A new model of driverless, automated electric vehicles - the autonomous cars

Re-assessment of the roles and responsibilities of **traditional public transport players**

**City, PTA
& Operators**



**'Pure players', GAFA,
developers and open data
start-ups**

1

**Digitisation:
corporate apps**

2

**'Pure players'
given full control**

3

**Co-existence
between mobility apps
and "pure players"**

A new form of mapping is emerging from mobility players, with the traditional players (the cities, PTAs, and operators) on the one hand, and the “pure players in mobility”, such as the GAFA, or start-ups and developers of open data (Google Map, Moovit, CityMapper ...) on the other: This new environment results in a redefinition of the roles and responsibilities of traditional players in public transport.

The surveys carried out in the 13 smart cities reveal the existence of **3 governance models**:

- **A model where the traditional players, AOMs and operators, have decided to go digital** by acquiring or developing their own mobility apps like in Dubai, Lyon or Boston.
- **A model where the cities, like London, Montreal, Melbourne or São Paulo, have delegated the task of digital mobility to the “pure players”**, particularly through open data. Travellers do not have one standard city appl, but can use the appls of the global “pure players” (Google transit, Moovit, CityMapper) and a host of local applications of more or less decent quality, which do not always follow best practice.
- **A combined model where both types of players co-exist**: the cities, PTAs and/or operators which have created a standard application dedicated to local mobility and the “pure players” who have access to open data.

In this situation, **Keolis role as a pioneer in all forms of mobility, will evolve towards providing guidance and support to the PTAs to help them successfully transition towards becoming a smart city.**

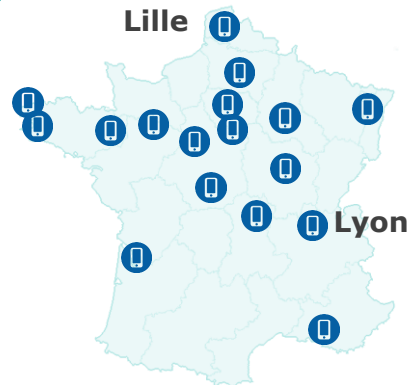
- These results confirm the relevance of Keolis' strategy in which, beyond its traditional role of an operator, Keolis is gradually becoming **an integrator of all daily mobility solutions, by prioritising the well-being of each traveller through developing more pleasant transport solutions with a more human approach.**
- At the heart of this transformation, **Keolis' role is to support regions in creating, in partnership with all its stakeholders, the smart mobility of tomorrow.**

Digital solutions deployed by Keolis

Digital Solutions Keolis



ZOOM FRANCE



Las Vegas
California

Montreal

Sherbrooke

Boston

Washington DC

London

France

Netherlands

Melbourne

WORLD
MOBILITY
REPORT

Keolis