



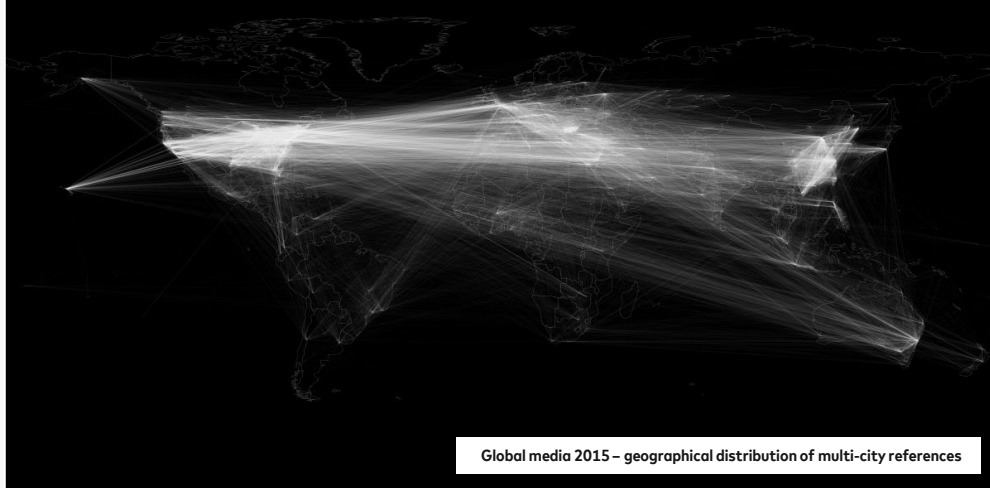
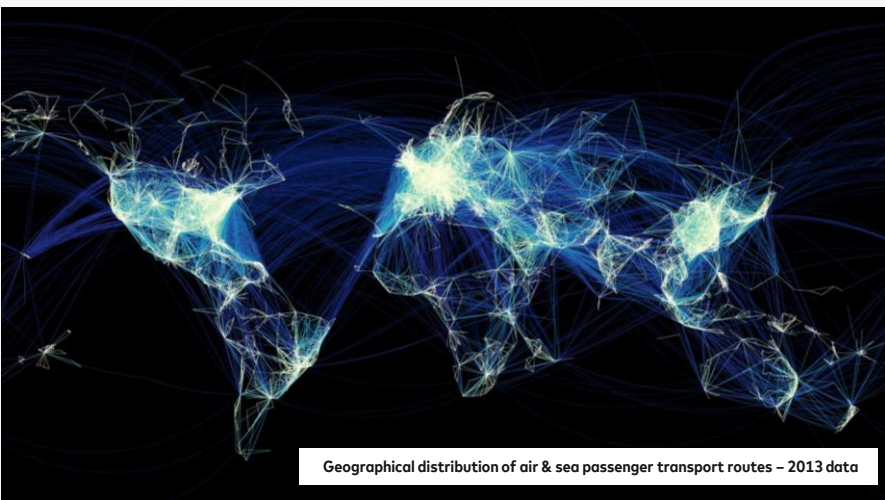
Towards better integration of transport system services

Opening cities for business and
connecting people with places

Johan Envall, Vice President, Mastercard

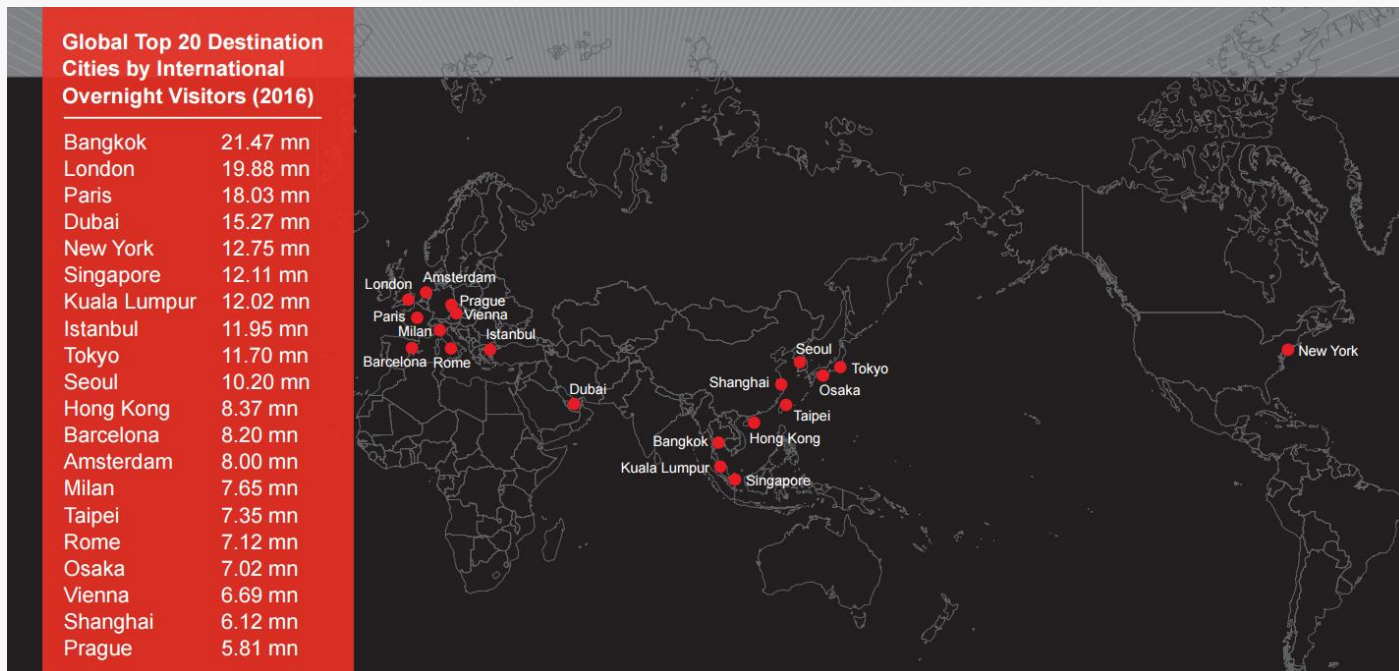


We don't stay in one place - we live in a connected web of cities.



Ten cities see more than 10 million cross-border business & leisure visitors annually.

And annual growth in visitor numbers – **5.2%** – is higher than GDP growth globally



How does public transport in the world's cities, better serve ever connected citizens & visitors?



Generally citizens & visitors are poorly served.

People want to get where they need to go as quickly as possible but cash, paper tickets and localized smartcards don't deliver the simplicity and convenience they now expect – whether an infrequent city resident or a visitor.



Closed

Funds for pre-defined travel locked on location-specific "smartcards"



Time-consuming

Time wasted waiting in line at ticket offices/top-up locations



Unfamiliar

Visitors must educate themselves, register/purchase local solutions

Overcoming barriers to making EMV contactless payment work in transport.

Fare model

Many urban operators use distance-based pricing under a check-in & check-out model

Tap aggregation prior to billing

Throughput

Busy urban stations and bus operations demand >30 passengers per minute

<400ms transaction time

No "product"

Customer doesn't pre-select a specific product ahead of travel....
....and likely doesn't want to

Default offer – no pre-registration or pre-purchase

Customer care

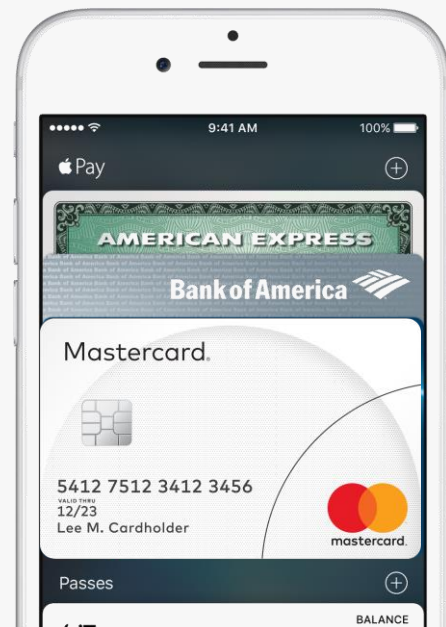
Customers require clarity about journeys made and fares levied by the transport operator

Individual web travel accounts

Global EMV standards for contactless payments suit global visitors.



- **Widely issued – more than 1 billion contactless payment cards issued by end 2016**
- **Standardised and interoperable worldwide – more than 100 countries**
- **Shared technical standard across four payment schemes**
- **Foundation standards for Apple & Android NFC payments**
- **Consistent branding guides consumers worldwide**



Contactless in London: The objectives.



Global interoperability
Supporting visitor
strategy



Fare aggregation
Daily/weekly
capping



Reduced
queues



Lower cost of ticket/
smartcard issuance



Fast offline data
authentication,
tap & go



Increased
customer
satisfaction



Contactless in London: The results.



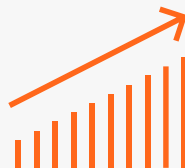
40%

of PAYG trips on the
tube, commuter rail,
tram & bus



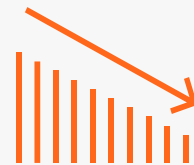
25,000

new users each day



>100

countries of origin for
cards used by visitors



>33%

Cost reduction in
fare collection

Solutions that deliver convenience for travelers while saving operators money AND helping to make cities more responsive to the needs of those within them



Saves Money

Cuts the cost of fare collection and frees funds for service improvements



Supports Tourism & Visitor Strategies

Removes barriers to public transit use and can deliver global interoperability



Real-time Data

Understands who visits your city and what they do within it to inform smarter urban planning

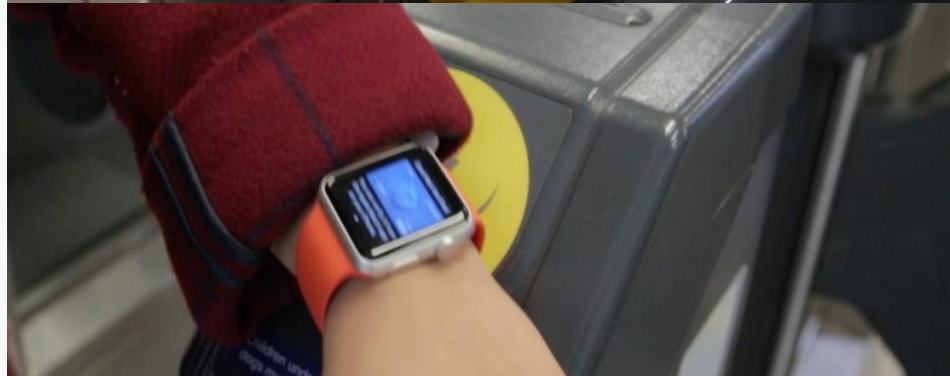


Digital Engagement

Directly communicates with people in your city on service availability, events, incidents and charges

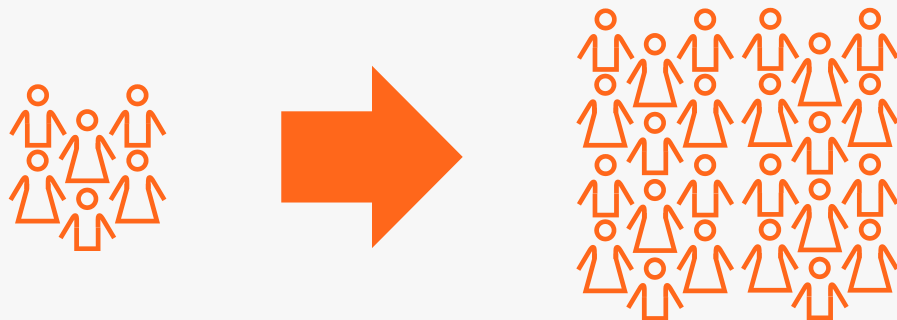
What's next?

How do transit
players better meet
the needs of
citizens and
visitors?



How do transit operators increase the existing customer base of riders?

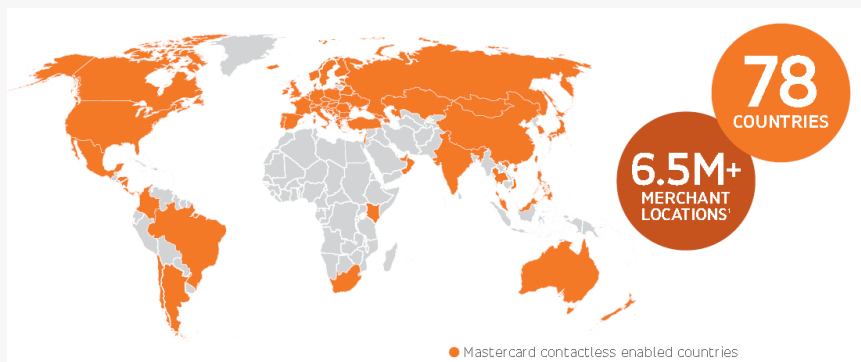
In order to meet the challenges of congestion and pollution, cities need to make people change behavior from using private cars or taxi into public transport.



It is not about improving services for the already existing user base who are using the established ticketing solutions. Attracting new customers needs elimination of the pre-trip preparation required by smart cards or app/MaaS solutions.

Open payments that deliver standards for interoperability & omni-channel functionality.

INTEROPERABILITY – Simplicity!



VITAL TO SERVE RESIDENTS & VISITORS

- Contactless = globally interoperable standard
- Adopted by >50 cities for public transport already
- Transport for London – accepted contactless payment devices from >90 countries so far

OMNI-CHANNEL – Convenience + Choice!

INTEGRATED EXPERIENCE ACROSS DEVICES

- Design excellence is critical for uptake
- Single trusted payments provider for each consumer



Contactless



Occasional check-in/check-out



Online



Core subscriptions



In-app



Occasional car/bike share or e-hail

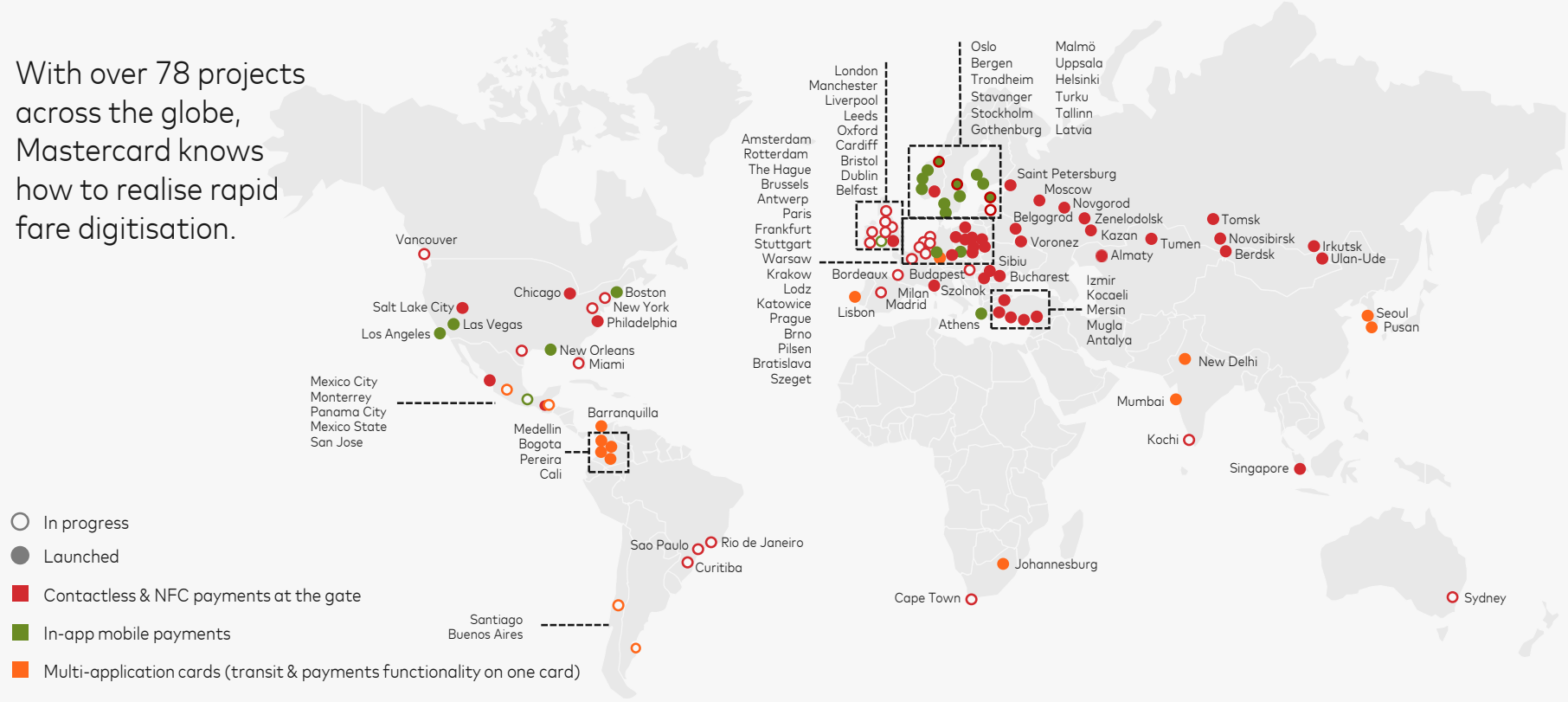


Enabling choices - Urban services that benefit all citizens at their fingertips



Global reference overview

With over 78 projects across the globe, Mastercard knows how to realise rapid fare digitisation.





Let's get started!

Johan.Envall@Mastercard.com

