

A woman in a red jacket is using a smartphone to pay for a bus fare at a farebox. The phone screen displays a virtual Mastercard from 'ANY BANK' with the number 6412 7512 3412 5678. The background shows the interior of a bus with other passengers.

Mastercard Contactless Payments and Public Transport

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mastercard.

What is Mastercard Contactless?

It's like having exact change wherever you go. A simple tap of your contactless enabled smartphone is all it takes to pay at checkout*

- Contactless provides a **fast, secure and convenient** way for consumers to shop.
- **Displaces Cash!**
- **Faster** check outs
- Increased **brand loyalty** and **less cardholder attrition**
- **Increases card usage** for lower value transactions



* Differences in consumer experience might prevail. Some solutions require PIN or fingerprint or other authentication methods.

Video
Just Tap & Go™ with MasterCard
Contactless

[https://www.youtube.com/watch?v=ZwibH9Vke9A
&index=5&list=FLDSepJ5ITGF6GW64zY0UPiA](https://www.youtube.com/watch?v=ZwibH9Vke9A&index=5&list=FLDSepJ5ITGF6GW64zY0UPiA)



Card-based Contactless Consumer Experience

IF < CVM LIMIT

Cashier activates the reader



Tap card on the reader



GO

IF > CVM LIMIT

Cashier activates the reader



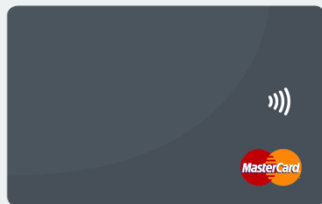
Tap card on the reader



Enter 4-digit PIN code on the terminal or apply signature



GO



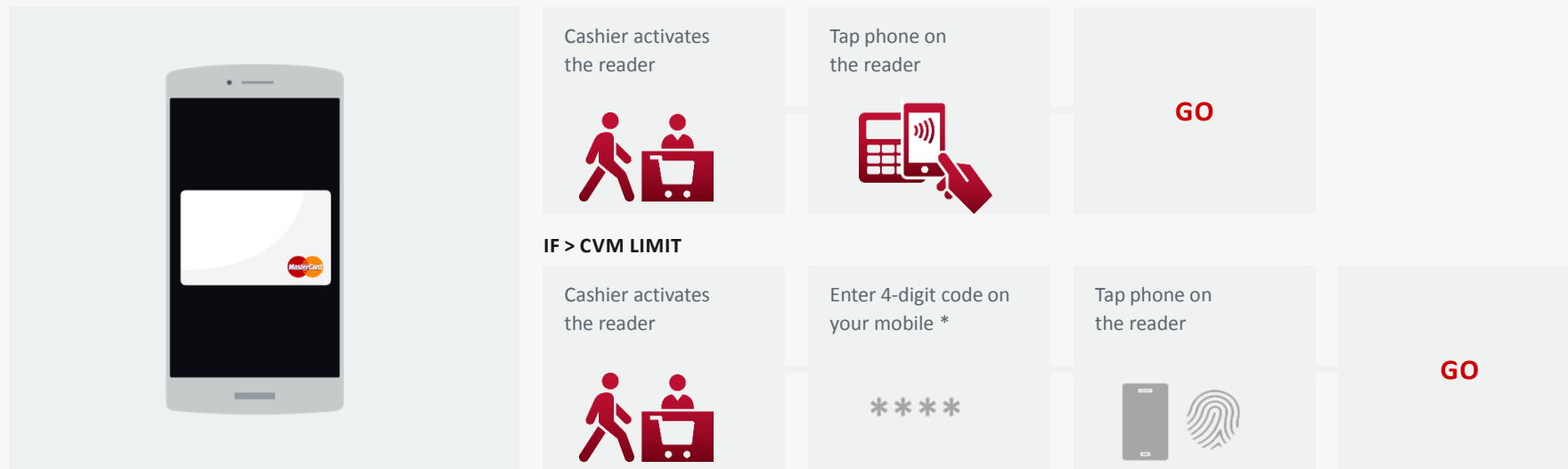
Some countries do not support high value contactless payments.
 Low value transaction doesn't require cardholder verification on transaction amounts up to the defined country limit.
 High value transaction requires cardholder verification on transaction amounts higher than defined country limit
 For MasterCard Cardholder Verification Limits refer to the *Chargeback Guide* www.masterCardconnect.com

Contactless Consumer Experience



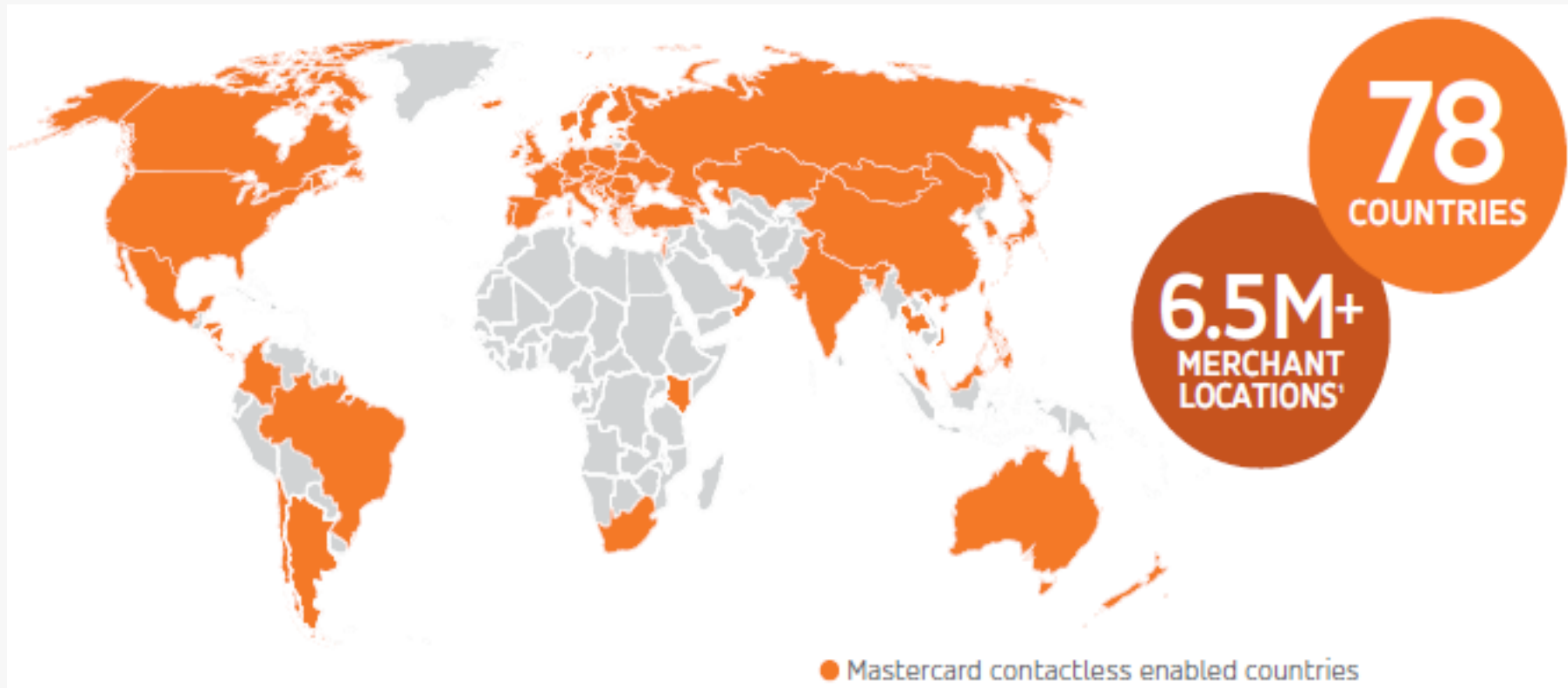
Device-based Transactions

IF < CVM LIMIT



User experience for cloud-based payment might slightly differ based on issuer's implementation and handset requirements
User experience is based on contactless terminals specifications v3.0

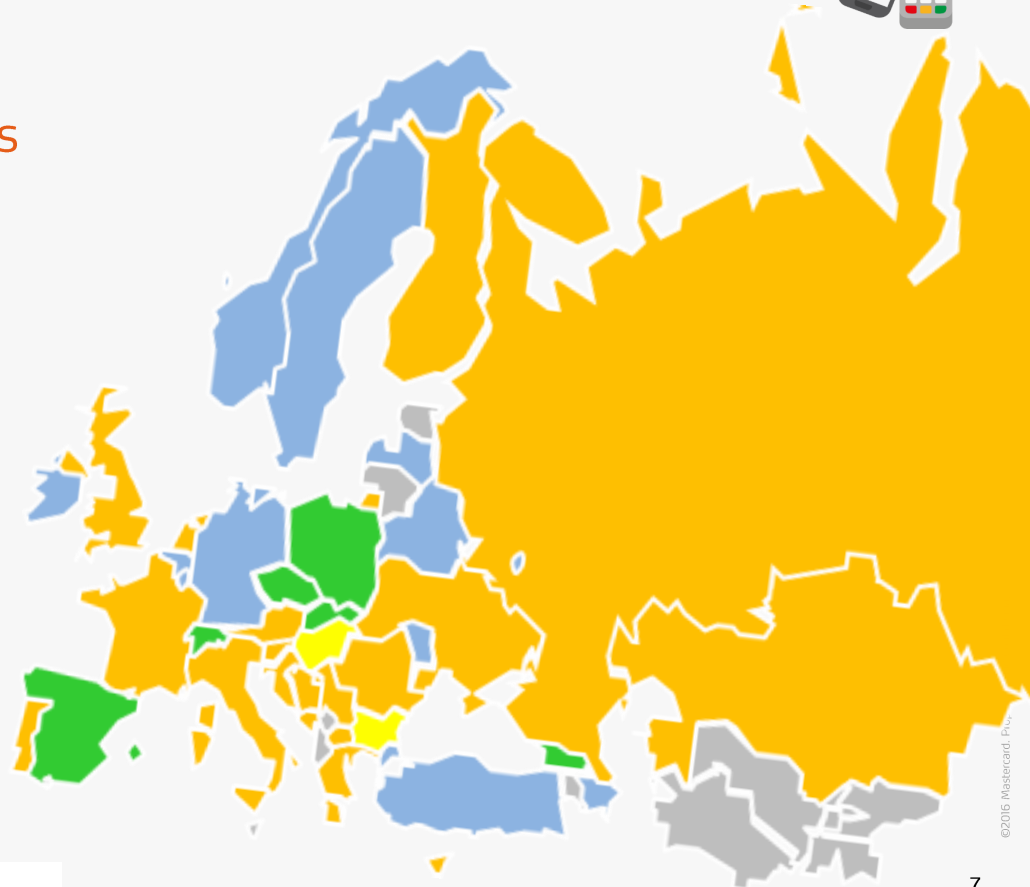
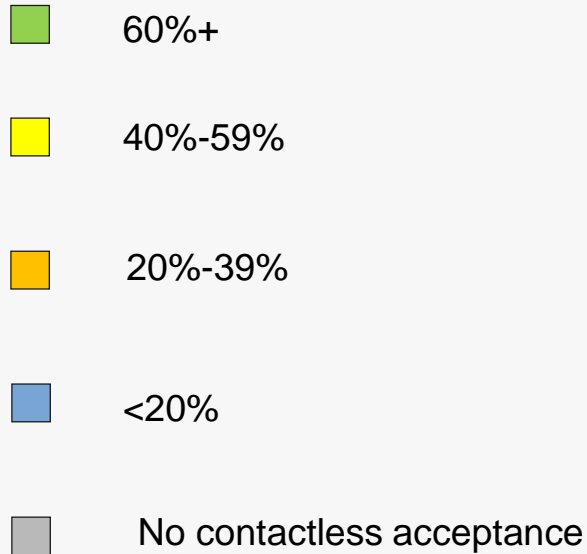
Mastercard contactless is accepted at 78 countries



In 45 countries, almost 30% of merchant locations have a contactless terminal

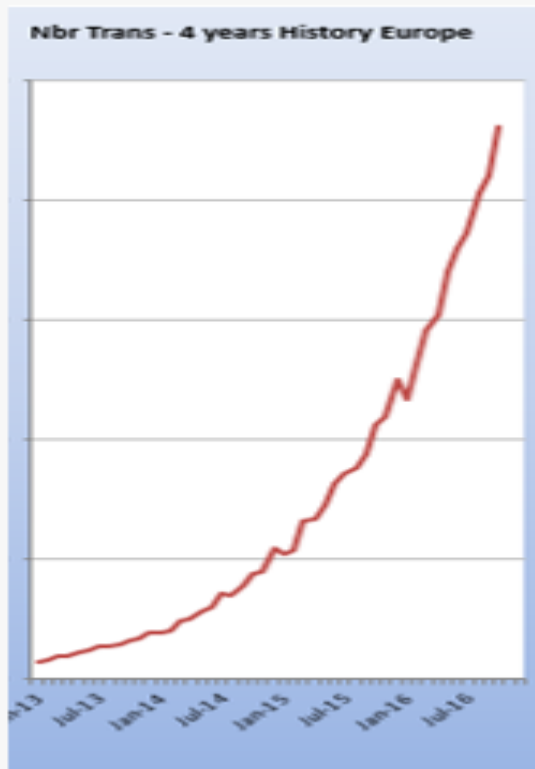


Contactless/total merchant locations





Contactless Transaction Growth is Exponential



European performance:

+109% increase in unique tappers*

+124% contactless transaction growth**

+155% contactless spend growth**



Region/Country	Contactless transactions/total in-store transactions
Europe	19%
Czech Republic	83%
Poland	66%
Hungary	57%
Slovakia	52%
Spain	15%
Netherlands	20%
UK	15%



Contactless acceptance status and progress Nordics & Baltics

	<i>End 2016</i>	<i>End 2017</i>
Sweden	10 %	60 %
Finland	55 %	70 %
Norway	5 %	30 %
Denmark	20 %	50%
Iceland	15 %	35 %
Estonia	5 %	30 %
Latvia	15 %	40 %
Lithuania	5 %	30 %

Evolution of Payments accelerate...



Traditional

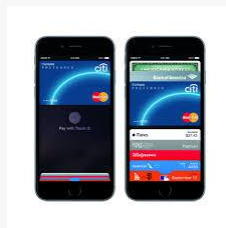
Plastic Cards



- 1.9 billion Mastercard cards in circulation worldwide
- Accepted at 35.9 million acceptance locations globally

New

Mobile Payments



- Ubiquity of mobile phones
- Enhanced forms of safety and security
- Better consumer experience

Emerging

Wearables / Cars / Homes



- New emerging form factors (Apple Watch, Jawbone)
- Greater consumer convenience
- Every connected device becoming a secure commerce device



...and new entrants join the table



Banks and Networks have a role to play

Who will be the interface to the consumer and own the relationship?

Avoid the Mobile Operator destiny and become “dumb pipes” ...

Mastercard and Public Transport



oyster
Contactless payments accepted:  

Please touch your card flat on the reader

For fare information and terms and conditions go to tfl.gov.uk/fares

Contactless Enable Mastercard to Join the Evolution of Mass Transit Fare Payment



Coins



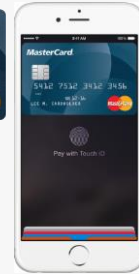
Tokens



Magnetic Stripe



Smart Cards



Contactless Cards & Devices (open)



Tap to Ride



Why We're Interested in Transit



Grow acceptance footprint

Grow volume - \$400bn GDV, lots in cash

True every-day spend

Touches all consumers

Global Interoperable Solutions

Inefficiencies & Frustration

Smart City core solution

Most day-to-day expenses accept open loop



But Transit service providers still operate 100s of individual currencies

Requirements specific to transit payments



High frequency and time critical

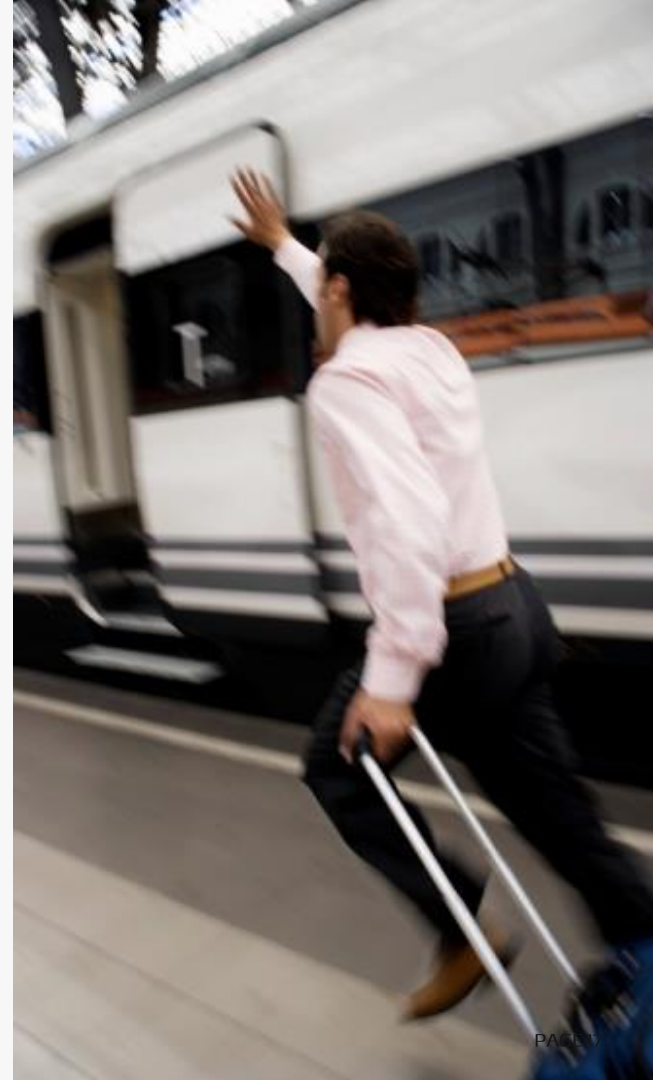
- Performance requirements <0.5secs => Mandate speeds and risk models
- Non traditional authorizations => Transit risk assessment
- No PIN entry => Offline and transit transactions
- Unknown ticket value => Aggregated transaction model



Benefits Open Loop – Cardholder

- Reduces barrier to travel
- Globally interoperable
- Decreases journey time
- Money is no longer 'locked away'
- Fewer cards in wallet

=> Simple Proposition



Benefits Open Loop – Acquirer and Issuer

- Cash to Card Cannibalisation
- Rapidly Teaches Behaviour
- Increases Top- of-Wallet effect
- Deeper Relationship with Merchant



Benefits Open Loop – Transit Operator



- Reduces Cost of Revenue Collection
- Reduces congestion
- Open Standards
- Tourist friendly
- Increases Ridership

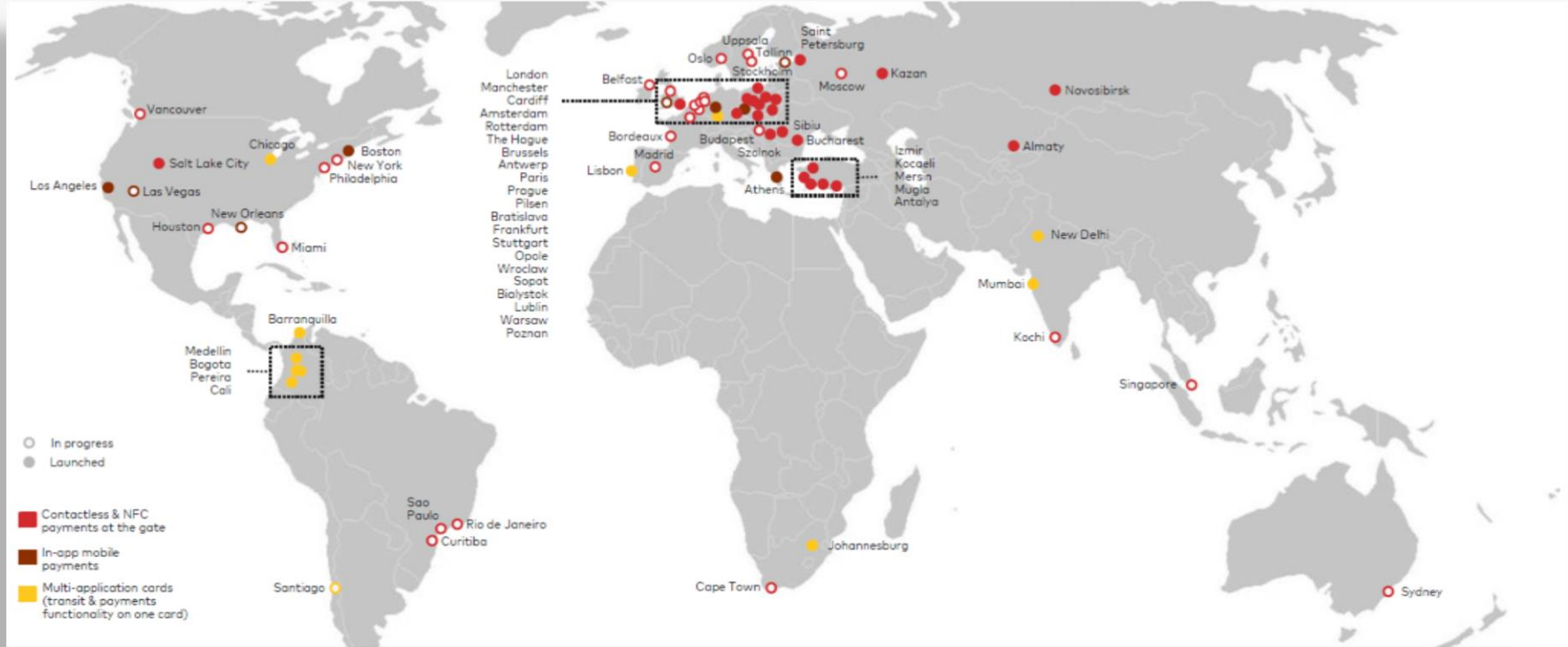
“The MTA spends 15 cents out of each fare dollar just to sell or collect that fare... customers see nothing in return for their 15 cents. We must determine how to significantly reduce this expense”¹



“As more people use their bank-issued cards to pay for their travel directly, TfL's costs will reduce, delivering better value for money for London's fare and taxpayers”²



Transit projects – 73 projects launched and in-progress as at Q4 2016



Urban mobility fare collection projects – 42 further active prospects as at Q4 2016

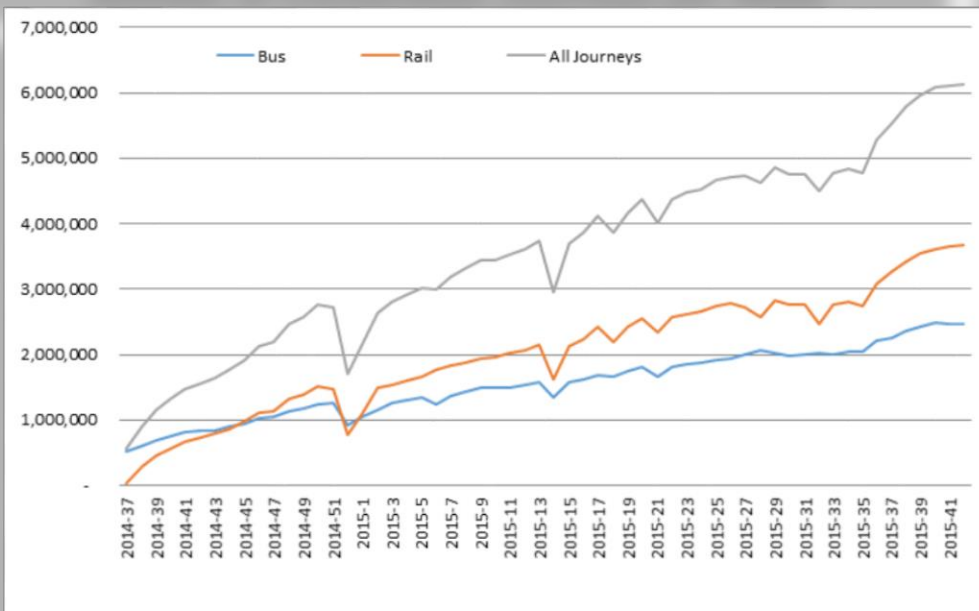


Reference case: London

2 years from launch - results have surpassed expectations



Number of Contactless Journeys per Week



+30% of all transactions

Original target 6%

25 000 new contactless users every day
- Sep 2016

7.7 million journeys a week
- Sep 2016

Reducing overall transaction cost by 35%
- allowing for investment in service improvements

Thank you!

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