

December 2012



GSMA MOBILE NFC PROGRAMME

- Stimulate the global commercial deployment of Universal Integrated Circuit Card (UICC, also known as SIM) based NFC services
- The Programme has pre-qualified 26 markets and prioritised the following 9 markets for ecosystem development to assist in launching NFC services:



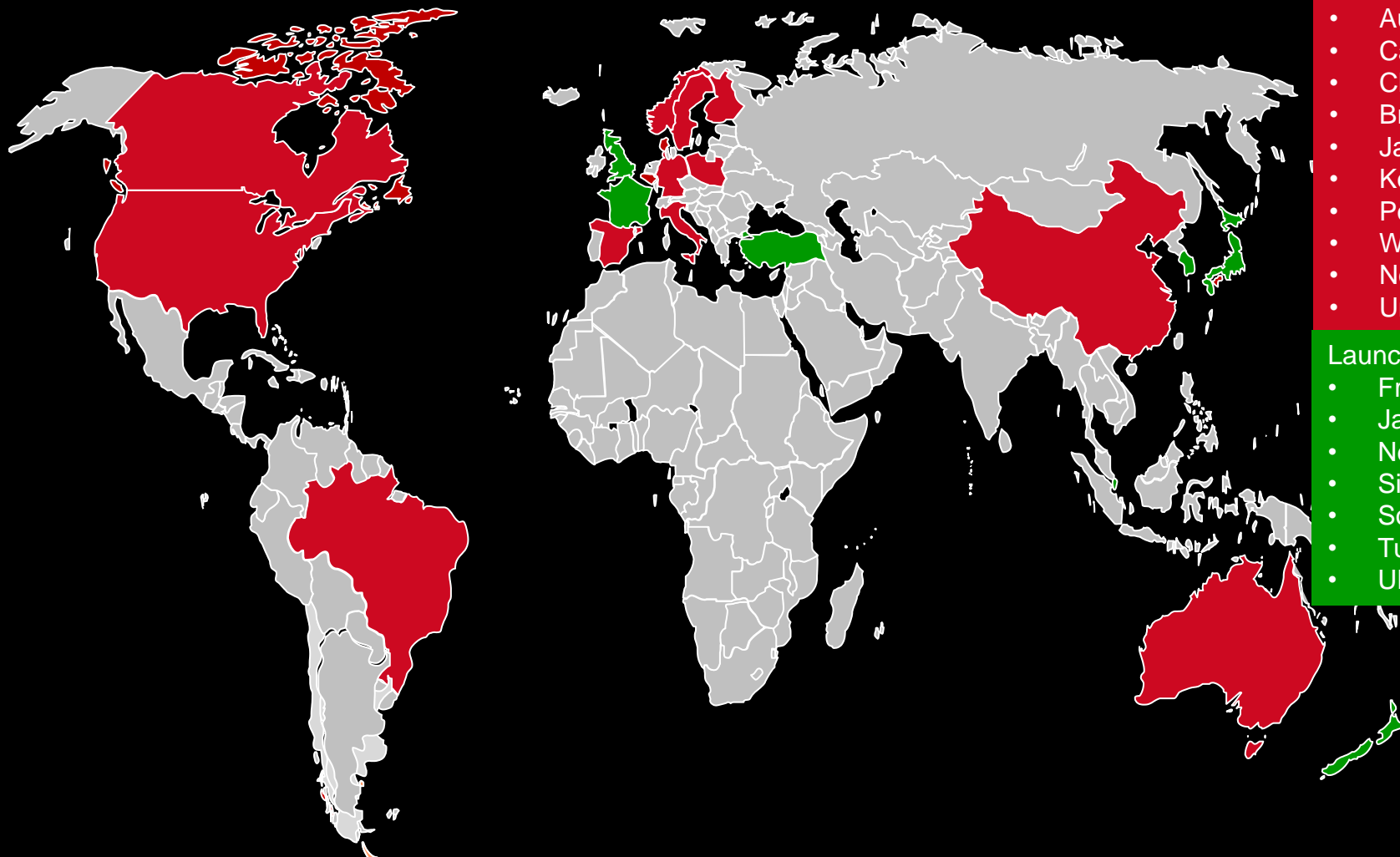
- W. Europe (France, Germany, Italy, Spain and UK)
- Poland
- Belgium
- Nordics (Denmark, Finland, Norway and Sweden)
- Brazil
- Canada
- Australia
- China
- Japan/Korea

New Markets

- Czech Rep.
- Romania
- Russia
- Hong Kong
- Chile

STIMULATING AND PROMOTING UICC BASED NFC ECOSYSTEMS

GSMA NFC Market Engagement



Committed Markets

- Australia
- Canada
- China
- Brazil
- Japan
- Korea
- Poland
- W. Europe
- Nordics
- United States

Launched Markets:

- France
- Japan
- New Zealand
- Singapore
- South Korea
- Turkey
- UK

- NFC Project scoped, resourced and implemented in Brazil.
- Developing an SIM-based NFC trial on the Rio de Janeiro transportation system, working across the multiple industry verticals with partners; TIM, Claro, Oi, Vivo, Gemalto, NXP and RioCard
- Once project is completed and the trial is underway there will be 250 users utilising an NFC Phone with a RioCard transportation contactless ticket loaded on the SIM



- Currently scoping pilot project on the Santiago Metro with the Chilean Government, Pais Digital, Transantiago and the local MNOs.

NFC Mobile Verticals

Payments



Ticketing



Transportation



Loyalty/Coupons



Access Control



The Secure Element

- A 'secure element' is required to safely store a user's identity information, for services demanding high levels of security



■ Sticker

- Easy to produce & attach
- No interaction with phone
- Supports 1 service provider
- Not standardised



■ MicroSD

- Easy to attach
- Existing mobile devices
- Supports 1 service provider
- Customer care unclear
- Not standardised/certified



■ Embedded

- Supports multiple services
- OTA updates
- No service portability
- Customer care unclear
- Not standardised/certified



■ SIM-based

- SIM is certified & standardised
- Global standards (SWP)
- Supports multiple services
- OTA updates
- Portable SIMs
- Operator customer care

SIM-based NFC Ecosystem



Global Mobile NFC Deployments



Canada

EnStream  Bell 

ROGERS™  TELUS® 



USA

ISIS™  at&t 

T-Mobile  verizon 



France

cityzi  Bouygues Telecom 

rai mobile  orange™  SFR 



Korea

LG U+ 

SK telecom  kt 



Singapore

citi  DBSBANK  ezlink 

mi  SingTel  StarHub 



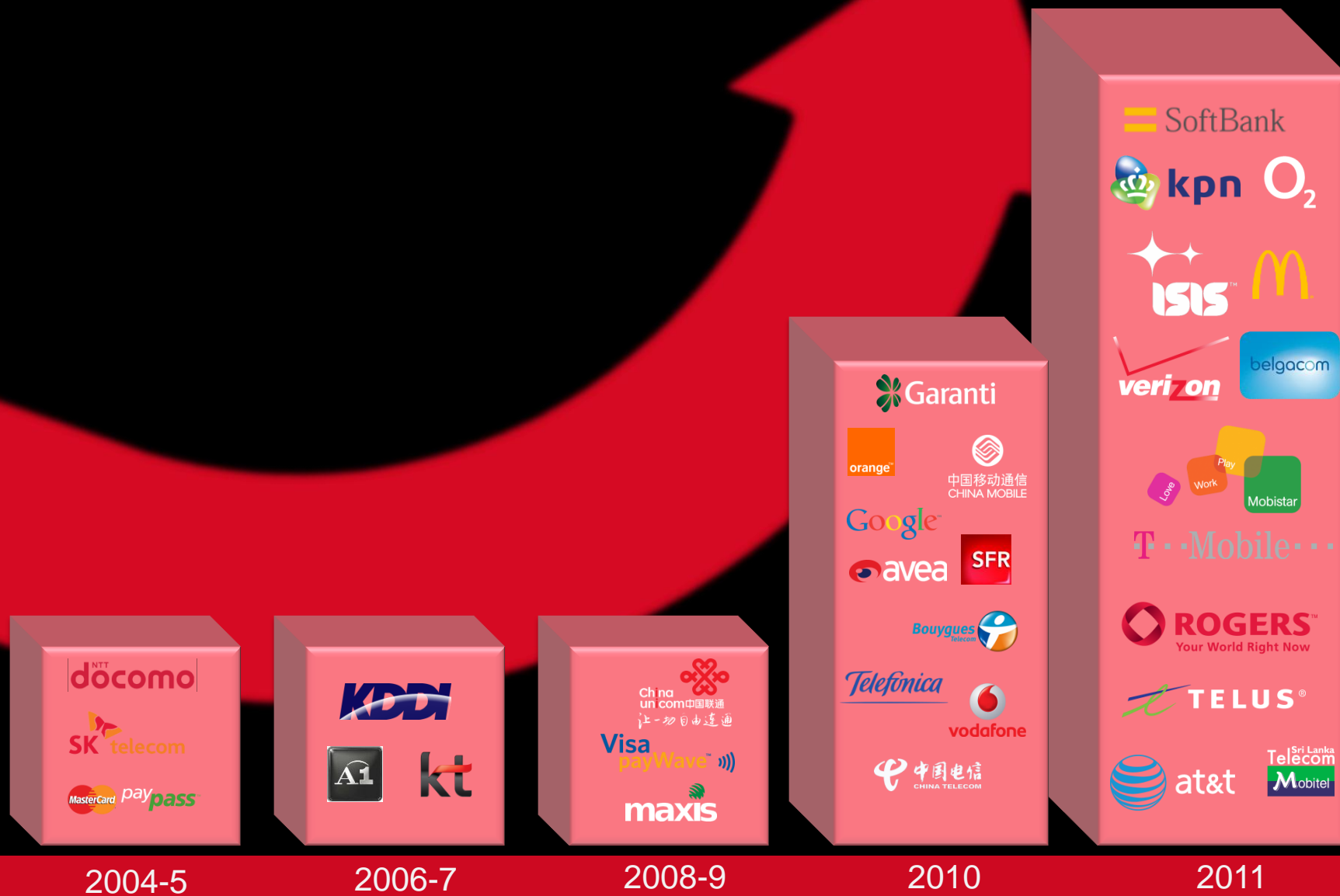
UK

everything everywhere™ 

O₂ 

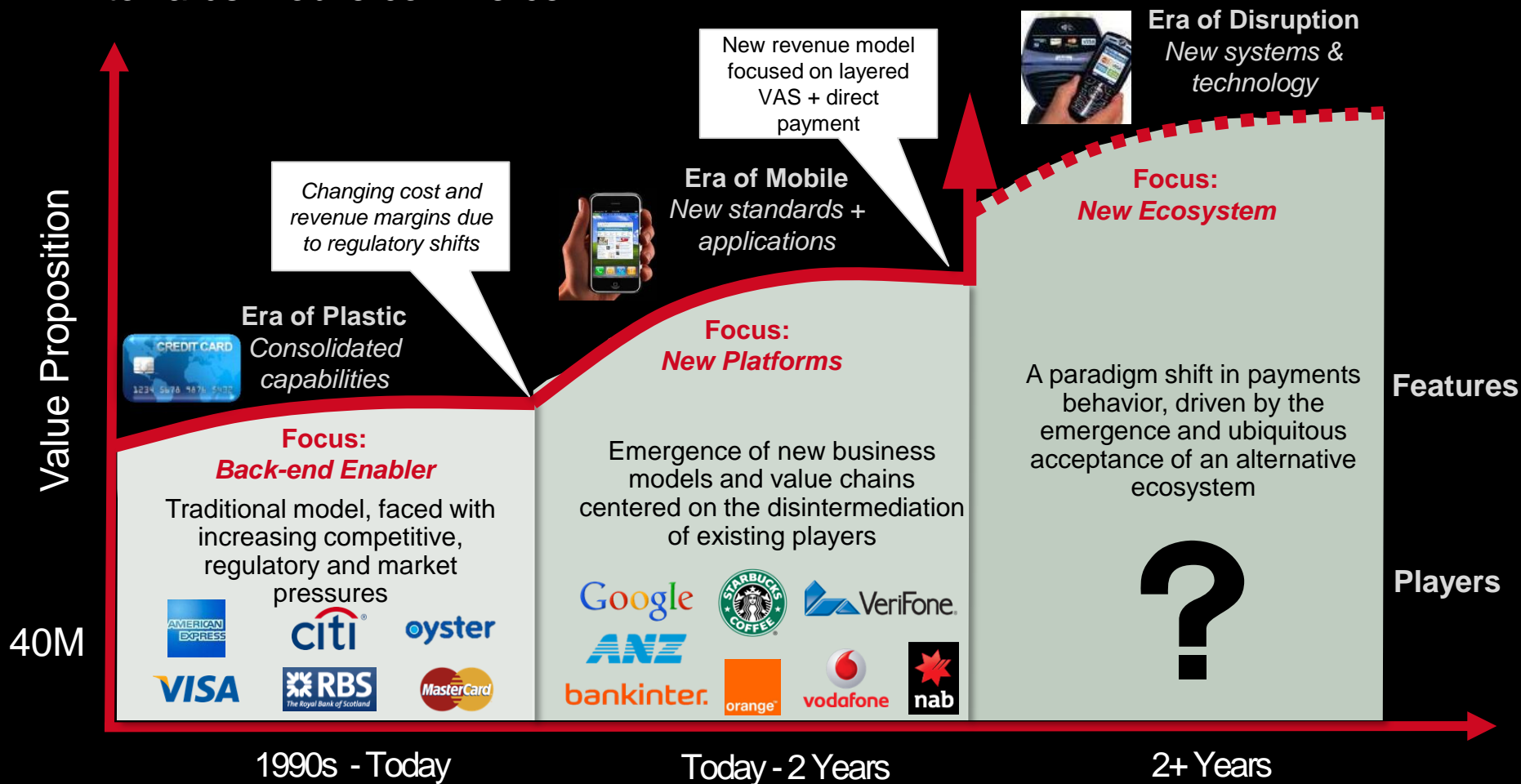
vodafone  Telefonica 

NFC Momentum Is Growing



Shifting Models and Behaviour

- NFC is part of a larger shift in market models and consumer behaviour towards mobile commerce



SIM-based NFC Macro Benefits Quantified



Benefits	KPI	Model Conclusions (for W. Europe, '16)			Comments
		Fragmented	Standardised	% Difference	
More rapid & sustainable customer adoption, resulting in: <ul style="list-style-type: none"> - increased competition - increased consumer choice 	- Active NFC as % of smartphones	79%	89%	+27%	✓ Greater baseline number of NFC-enabled smartphones
	- # of NFC transactions	11.8b (13%)	19.1b (20%)	+62%	✓ Higher percentage of activated NFC mWallet;
	- Service value per wallet	\$114	\$128	+12%	✓ Increased usage across different verticals due to infrastructure penetration and consumer-oriented benefits
Increased Financial Transparency	Fraud (\$b)	\$2.6b	\$2.3b	-13%	✓ Multi-factor authentication ✓ More rapid (and OTA) de-activation
Reduced Carbon Footprint	Carbon emissions (b gms)	800b	600b	-20%	✓ Reduction in paper coupons ✓ Reduction in paper ticketing ✓ Reduction in plastic cards

Benefits Reflected in Relative Profit Pools

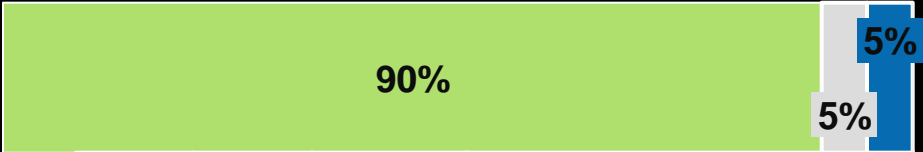
2010 US Retail Financial Services Profits

Total Profits: \$216B ¹

Commerce

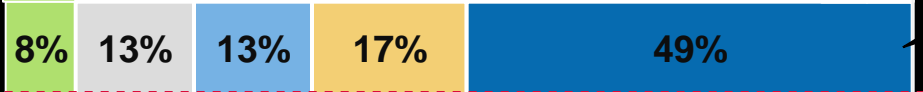
Marketing and Loyalty

\$ 48B



Transacting

\$ 29B



Lending

\$ 91B



Safekeeping

\$ 24B

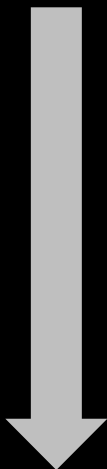


Wealth

\$ 23B



Profit margins on transactions are volume driven and small



Core FS capabilities

Over The Top Players Recognise This

mCommerce - OTT Plays



Enables payment, coupon use and loyalty recognition
Builds on location targeting and search dominance

Focus

Leverage channel partnerships and collaboration



Leverages existing iTunes billing relationship
Patents imply NFC capability will be built into devices

Focus

Leverage +250M cards on-file for proximity retail



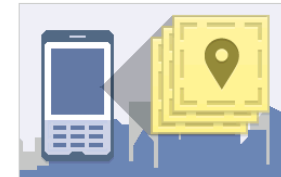
PayPal payment capability including NFC functionality
Incorporates promotions, coupons, local retail features

Focus

Leverage third party acquisitions and product integration



Find deals on the go.



Deals updates are coming soon.
You can also get Check-in Deals on your mobile today. [Learn more.](#)

Created proprietary currency for platform-based transactions, particularly for social gaming
Created payments subsidiary

Focus

Leverage self-contained virtual ecosystem

Others Also Looking to Exploit the Opportunity

mCommerce - OTT Plays



Key drivers of Success

- Quick time-to-market
- Encourage mass consumer adoption
- Drive widespread merchant uptake
- Create mutually-beneficial partnerships
- Scale - either organically, partnerships or through acquisitions

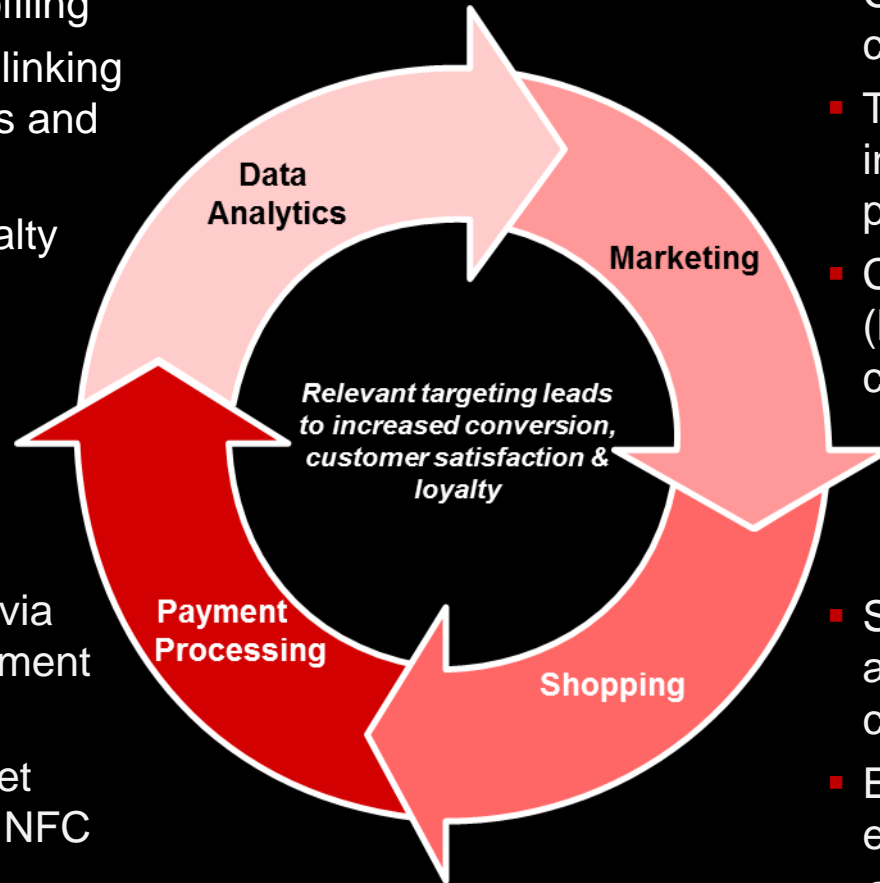
Players Face Varying Costs and Benefits

Transport/ Ticketing/ Retail	MNO	Financial Services	Consumer
<ul style="list-style-type: none"> - POS upgrade costs - SIM/mWallet rental - Transaction fees + Reduced cash processing + Reduced fraud + Improved loyalty and customer retention 	<ul style="list-style-type: none"> - SIM costs - mWallet and messaging costs - TSM/ VTP costs + SIM/mWallet rental + Digital marketing and advertising + Customer analytics and insights 	<ul style="list-style-type: none"> - POS upgrade costs - SIM/mWallet rental + Increased transaction revenue + Reduced fraud + Reduced cost of cash processing + Customer analytics/ insights 	<ul style="list-style-type: none"> - Consumer learning curve + Ease of use + Reduced queuing + Improved transparency + Reduced fraud + Improved loyalty and couponing + No transaction fees

Interdependencies

Key NFC Value Drivers




- Better customer profiling
- Deeper information linking multiple transactions and location data
- Improved CRM/ loyalty management
- Increased flexibility via securely stored payment tokens
- Enhanced high-street experience through NFC payments
- Increased account control capabilities



- Cost-effective, direct response channel
- Tailored advertising based on individual customer preferences
- Contextual advertising (location-based and “real-time” coupons and vouchers)
- Superior browsing, research and product/ price comparison experience
- Enhanced in-store experience
- Ongoing direct relationship

Business Case Centred on Improved UX

Business Case Drivers Per Player

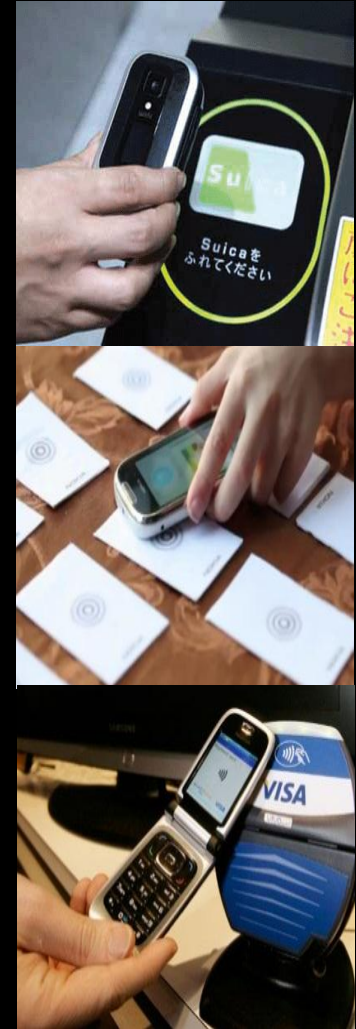
	Consumer Retail 	Ticketing 	Transport 
Value Drivers	Intelligent Marketing	Increased Throughput Rates	Increased Throughput Rates
	Improved Operational Efficiency	Improved Operational Efficiency	Improved Operational Efficiency
	Reduced Cash Processing Reduced Fraud	Enhanced User Experience Third Party Marketing	Improved Revenue Capture Third Party Marketing
Cost Drivers	POS upgrade	Venue terminal upgrades	Turnstiles upgrade
Direct Rev	Medium	Low	Low
	High	Medium	Medium



- A NFC facilitates a richer transaction experience for the end user across different market sectors and services
- Specific end-user features enabled through NFC include:
 - Guide consumer to store/ channel
 - Enable discovery of products/ solutions
 - Facilitate comparison & recommend additional items
 - Simple & quick payment processing
 - Timely delivery of ready-to-use solutions
 - Enable reaction/ customer queries
 - Provide ongoing customer support
- Linking these features together, service providers can offer a holistic user experience that provides individual consumers with a richer, more rewarding transaction environment

Why Mobile Operators?

- Substantial distribution channels to provide and promote NFC enabled services, and have sufficient economies of scale to provide mobile contactless to **all**
- Customer care infrastructure providing **consumers** with a trusted transaction partner issues relating to their mobile services
- Technical infrastructure for the provisioning and management of SIM cards and ensuring adequate **security**
- Substantial experience in standards-based and interoperable services, enabling strong ecosystem development based on the mobile **platform**



Key Messages

- **Collaboration**
 - Reduces fragmentation
 - Improves interoperability
 - Government backing (e.g. France, Singapore) was extremely important to help ecosystem building and triggering collaboration
- **Interoperability**
 - Open standards are essential
 - Increases competition by lowering barriers to entry
 - Increases diversification thus allowing new players to offer services
 - Increases consumer choice
- **Security**
 - Consumer Security and Privacy comes first
 - No compromise on the bank grade security via SIM-based NFC



Thank You