Next-Gen Ticketing in Venice:
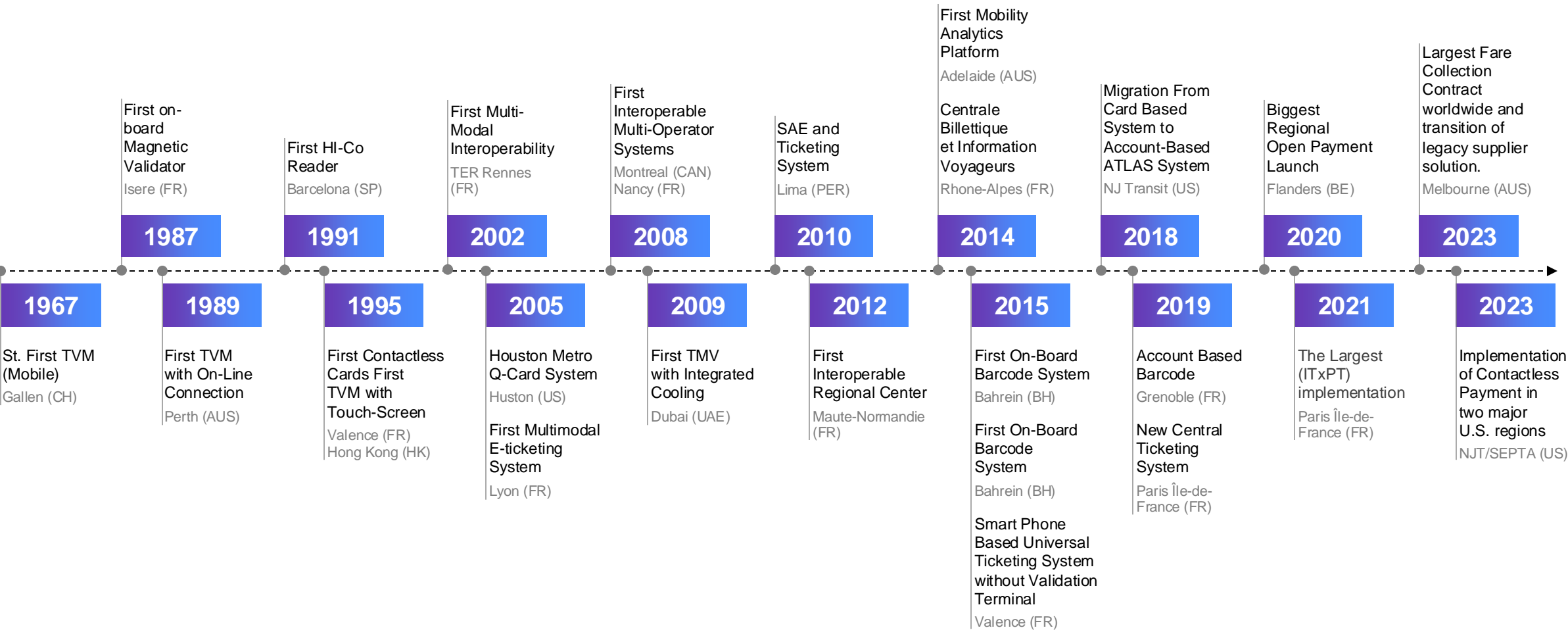Transforming Customer Experience Through Digital Innovation

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History of Successful Implementations
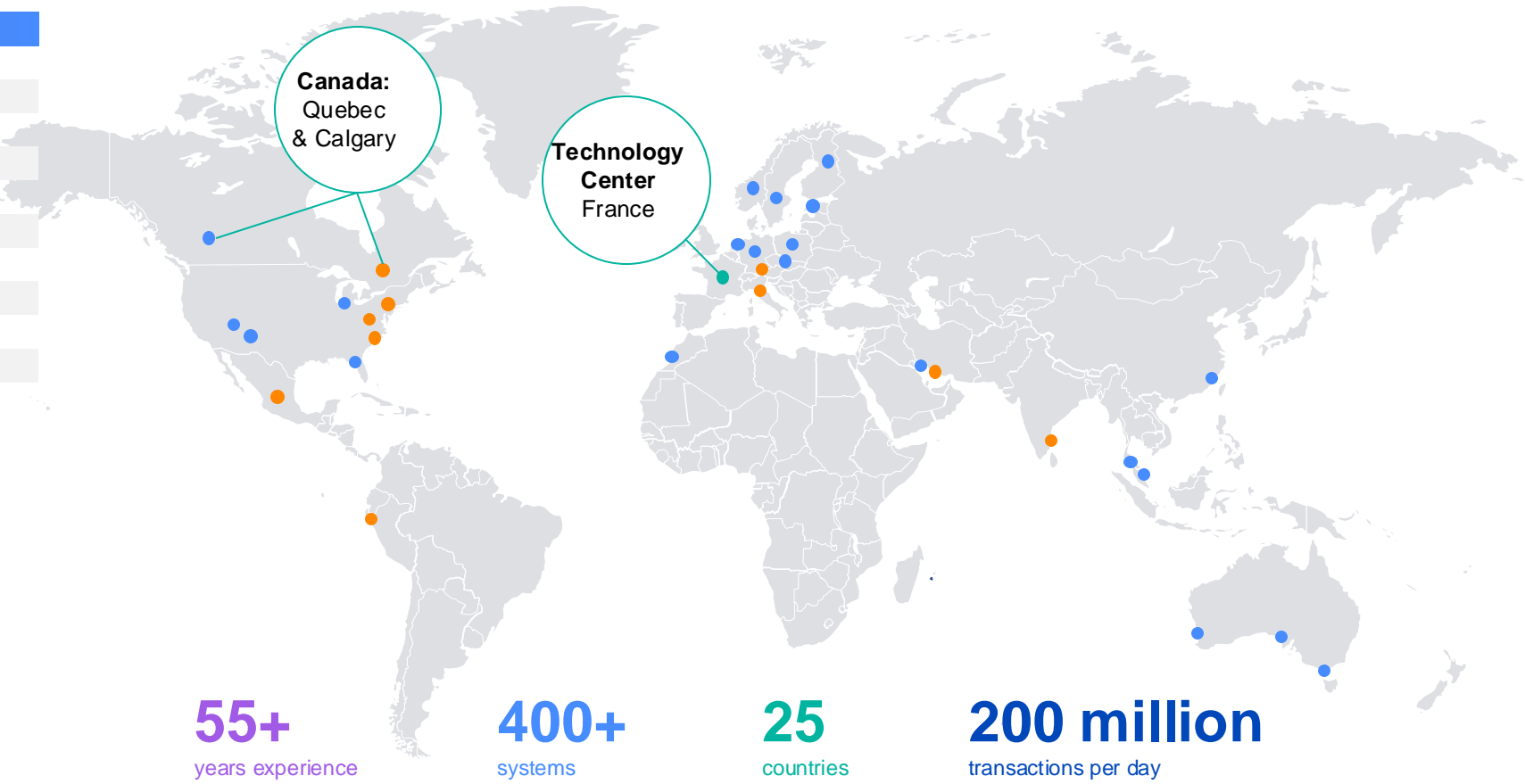
First Mobility Analytics Platform
Adelaide (AUS)

Largest Fare Collection Contract worldwide and transition of legacy supplier solution.
Melbourne (AUS)

First on-board Magnetic Validator
Isere (FR)

First HI-Co Reader
Barcelona (SP)

First Multi-Modal Interoperability
TER Rennes (FR)

First Interoperable Multi-Operator Systems
Montreal (CAN)
Nancy (FR)

SAE and Ticketing System
Lima (PER)

Centrale Billettique et Information Voyageurs
Rhone-Alpes (FR)

Migration From Card Based System to Account-Based ATLAS System
NJ Transit (US)

Biggest Regional Open Payment Launch
Flanders (BE)

| **1987** | **1991** | **2002** | **2008** | **2010** | **2014** | **2018** | **2020** | **2023** |

| **1967** | **1989** | **1995** | **2005** | **2009** | **2012** | **2015** | **2019** | **2021** | **2023** |

St. First TVM (Mobile)
Gallen (CH)

First TVM with On-Line Connection
Perth (AUS)

First Contactless Cards First TVM with Touch-Screen
Valence (FR)
Hong Kong (HK)

Houston Metro Q-Card System
Huston (US)

First Multimodal E-ticketing System
Lyon (FR)

First TMV with Integrated Cooling
Dubai (UAE)

First Interoperable Regional Center
Maute-Normandie (FR)

First On-Board Barcode System
Bahrein (BH)

First On-Board Barcode System
Bahrein (BH)

Smart Phone Based Universal Ticketing System without Validation Terminal
Valence (FR)

Account Based Barcode
Grenoble (FR)

New Central Ticketing System
Paris Île-de-France (FR)

The Largest (ITxPT) implementation
Paris Île-de-France (FR)

Implementation of Contactless Payment in two major U.S. regions
NJT/SEPTA (US)

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Worldwide Transit Presence

● **Fare Collection Systems**

Americas	Europe	Asia Pacific & Oceania
Calgary	Norway	Qatar
Cleveland	Finland	Hong Kong
Denver	Sweden	Singapore
Houston	Latvia	Latvia
Mexico City & Puebla	Netherlands	Netherlands
Montreal	France	UAE Dubai
Germantown	Austria	UAE Abu Dhabi
Philadelphia	Switzerland	Malaysia
Lima	Casablanca	Australia Perth
	Israel	Australia Adelaide
	Italy	Australia Melbourne

Canada:
Quebec & Calgary

Technology Center
France

● **Project Management & Service Hubs**

Montreal
New Jersey
Germantown
Philadelphia
Mexico City & Puebla
Lima
UAE (Dubai, Abu Dhabi)
Italy

55+
years experience

400+
systems

25
countries

200 million
transactions per day

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Core Values and Commitment

Innovation and Technology:

- Commitment to Innovation
- Advanced Solutions

Passenger Experience:

- Enhancing Accessibility
- User Convenience

Operational Efficiency:

- Cost Reduction and Efficiency
- Scalability and Integration

Security and Compliance:

- Security Standards
- Data Privacy

Sustainability and Community Impact:

- Environmental Responsibility
- Community Engagement

At Conduent, our commitment to innovation means delivering scalable, passenger-friendly ticketing solutions that meet the needs of both transit agencies and travelers.

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Understanding Your Concerns

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Understanding Your Concerns
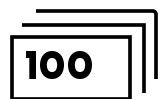
Financial Management

Lower cost of fare collection and reduced fare evasion

System scalability & integration

Ability to expand the system to meet changes in transit coverage and include new transit providers

Customer Experience

Designing user-friendly systems for all passengers, including tourists, elderly, and people with disabilities, and offering multiple payment options like contactless cards, mobile payments, and traditional cash

Issues	Conduent
Lower Cost of Fare Collection	☑
Reduced Fare Evasion	☑
System Scalability	☑
Integration	☑
User-friendly Design	☑
Multiple Payment Options	☑

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How Conduent Can Help

1. Financial Management

Lower Cost of Fare Collection: Conduent leverages advanced technologies and streamlined processes to significantly reduce the operational costs associated with fare collection. By implementing efficient, automated systems, Conduent minimizes the need for manual intervention and reduces overall expenditure.

Reduced Fare Evasion: Conduent employs robust security measures, including the implementation of 3D gates, which provide an additional layer of protection against fare evasion. These gates, combined with real-time monitoring and advanced analytics, ensure that fare evasion is detected and addressed promptly, safeguarding revenue for transit agencies.

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How Conduent Can Help

2. System Scalability & Integration

System Scalability: Conduent's fare collection solutions are designed with scalability in mind, allowing for seamless expansion to accommodate changes in transit coverage. Whether integrating new transit providers or extending services to new regions, Conduent ensures that the system adapts smoothly to evolving needs.

Integration Capabilities: Conduent offers versatile integration capabilities, ensuring compatibility with existing transit infrastructure and facilitating interoperability across different modes of transportation. This ensures a cohesive and unified fare collection system.

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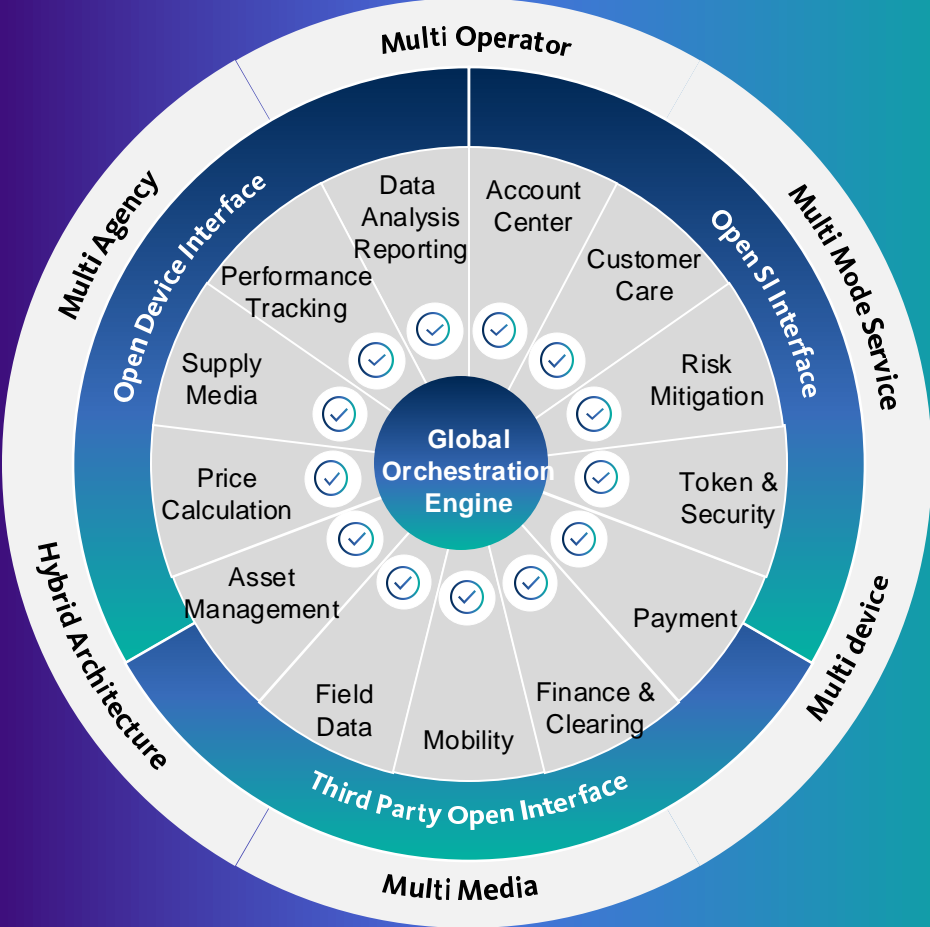
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How Conduent Can Help

3. Customer Experience

Wider Variety of Ticket Options:

- Access tickets through various methods, including barcodes, contactless payments, and other NFC-enabled cards.

Proactive Management of Disruptions:

- Automatically receive discounts or refunds for service disruptions, and fix errors like forgetting to tap out without customer intervention.

Integration with Last-Mile Services:

- Seamlessly integrate other transportation options like bike rentals, parking, and scooter rentals into one account for a more convenient travel experience.

Linked Customer Accounts:

- Link multiple cards (e.g., children's cards) to a single account, allowing a parent to manage and monitor all related travel activities.

Real-Time Updates and Notifications:

- Get instant updates on travel balance, trip history, and service changes, keeping passengers informed and in control.

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Comprehensive Fare Collection Solutions

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Atlas® Ops

Media-based

Some information is written on the travel media

- ✓ Quick reading at time of validation
- ✓ Restriction or authorization list stored on the validation device, enabling direct media updates
- ✓ Agency smart media (cards, tickets)
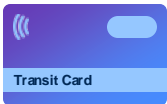
Account-based

Most of the information is centralized on the user account in the back-office

- ✓ Details and validity of fare products
- ✓ Account balance
- ✓ Approved fare media
- ✓ Contactless ID (Open payment media and mobile apps)
- ✓ Agency smart media (Cards, tickets, barcode tickets)
- ✓ Third-party smart media

Pay as you go

Enables any traveler to use its contactless EMV card as a travel media

- ✓ Without previous registration
- ✓ Aggregation of taps and application of transfer rules, travel billed accordingly
- ✓ Payment applications (Contactless EMV cards, Mobile payment applications – NFC mobile)

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Fare Equipment

State of the art design

Validators

- Both bus and platform validators share a common ergonomic design
- Users present all media using the same motion, at the same location:
  – Reducing confusion
  – Improving transaction speed
  – Accelerating new media adoption

Contactless card ISO/IEC 14443 (A,B,B+ type)

Contactless ticket

2d Barcode

Contactless bankcard VISA, Mastercard, Amex, Discover

Faregates: 3D Detection

- High glass panel (1.8 m)
- Overhead gantry with 3D image sensors and status lamps
- Flexible aisle widths
- Narrow cabinets
- Image sensors "see" beyond length of aisle
- Overhead gantry carries all cabling, simplifying installation

Ticket Vending Machines

- Three product lines form the foundation for project-specific designs
- We offer customized solutions meeting our customers' requirements while complying with applicable regulations and standards

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Supported Fare Media Types

Account Based Ticketing

- Transit Card as a Token

- NFC Identity Media as a Token (enhanced drivers license, etc.)

- cEMV Aggregated PAYG (with or without capping)

- Mobile/e-tickets

- Host Card Emulation (NFC on phone)

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Bringing EMV Success to Venice: AVM and Conduent Partnership

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AVM & Conduent:
A Strategic Partnership for Smarter Mobility

Venice: A Global Leader in Smart Mobility Innovation

- Leading mobility operator in the Venice metropolitan area, overseeing public transport and mobility services.

- As a 100% municipally owned entity, AVM is dedicated to enhancing urban mobility while preserving the city's unique infrastructure.

- Modernized Ticketing and improved passenger experience

- Next Gen Fare collection solutions

- Collaboration enabled seamless digital payments, reduced operational costs and increased accessibility

- **Public Transport**

- **Mobility Services**

- **Marketing & Tourism**

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Venice Case Study:
Evolving from Closed-Loop
to Open-Loop Ticketing

2008	Launch of the imob.venezia contactless closed-loop ticketing system
2024	Launch of EMV-based "Tap-to-Pay"

2027	Vision : Open-loop, and account-based ticketing (ABT) system
	
	• Transitioning to ABT for seamless travel
	• Integrating with
	   ✓ Rail operators
	   ✓ Shared mobility services
	   ✓ Car parking facilities

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The EMV Revolution: Breaking Barriers in Public Mobility

Seamless Connectivity Across Transit Operators

- EMV unifies fare systems, allowing passengers to travel effortlessly—regardless of the operator's ticketing system.

Overcoming 30 Years of Siloed Ticketing

- Traditional systems were rigid & fragmented, making integration difficult.

- EMV-based open-loop payments remove these barriers.

Tap & Ride: A New Era of Passenger Convenience

- No more ticket offices or travel card reloading

- Instant payment with bank cards, smartphones, and wearables

- Greater accessibility & frictionless travel for all

AVM

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The EMV paradigm and
a new mindset for the travellers

Transitioning to EMV is not just about technology – it is about behavioral change

TfL has operated its EMV system since 2012 and, even after nearly **13 years**, still reminds passengers: *"Always keep your contactless and Oyster cards separate when tapping in and out on a yellow card reader to ensure the correct fare is charged."*

Watch out for card clash when touching in and out

tfl.gov.uk/contactless

MAYOR OF LONDON

TRANSPORT FOR LONDON
EVERY JOURNEY MATTERS

Keep your Oyster and contactless payment cards seperate

Touching more than one card on the reader might lead to the gates not opening, or your journey being charged to the wrong card.

tfl.gov.uk/contactless

MAYOR OF LONDON

TRANSPORT FOR LONDON
EVERY JOURNEY MATTERS

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Venice Case Study

How to introduce innovation in the city of heritage and complexity?

Aging population with long term subscribers

Few repeat visitors

As it strives to modernize while preserving its past, Venice aims to become the oldest city of the future.

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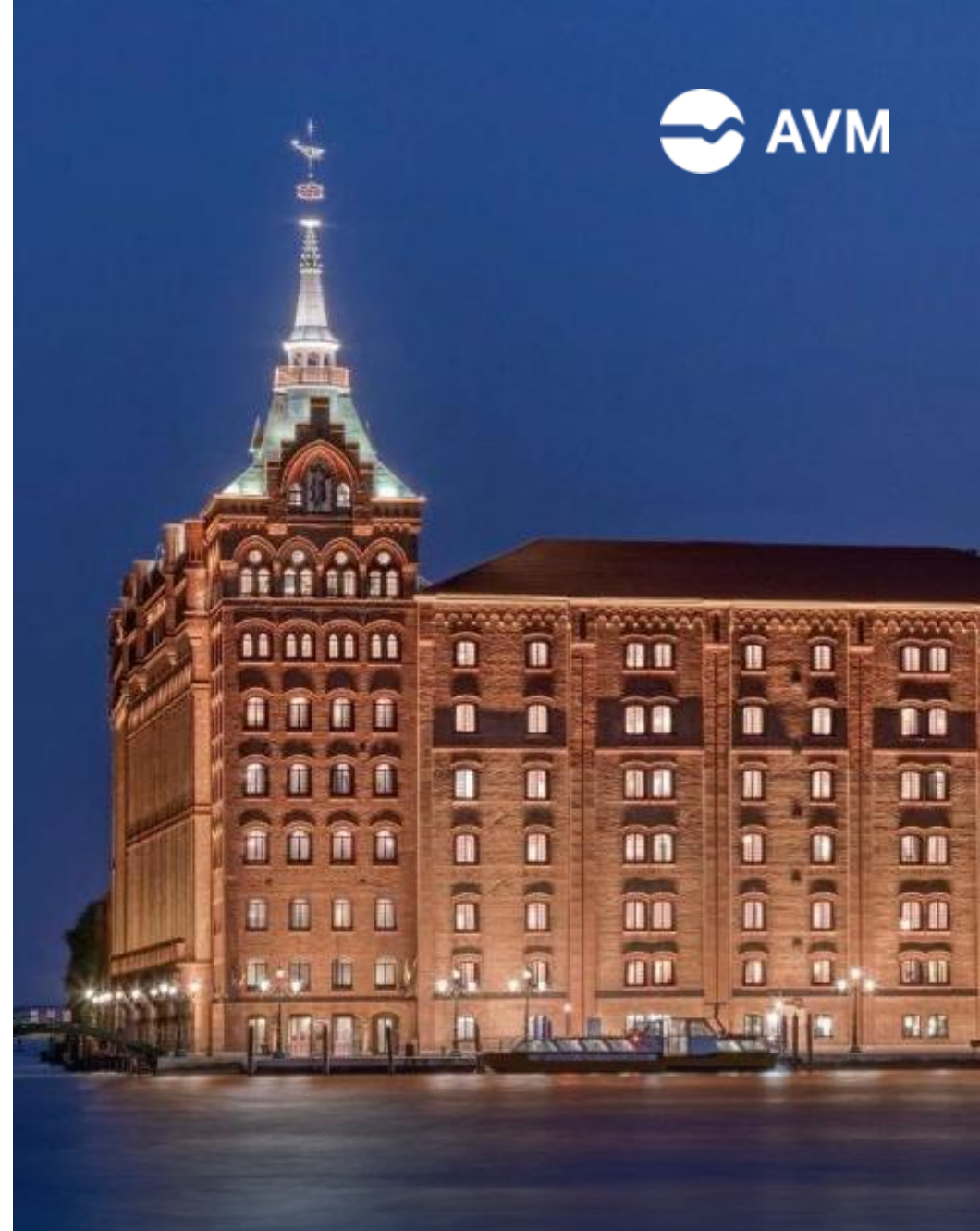
Customer Messaging:
A Key to Successful Adoption

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High Customer Satisfaction with Venice Tap-to-Pay

Reliability
99.8% of transactions are completed without issues

High Customer Satisfaction
minimal complaints: just 0.18% for non-local tickets and 0.33% for local tickets—showing strong user confidence. (Global average: 0.19%.)
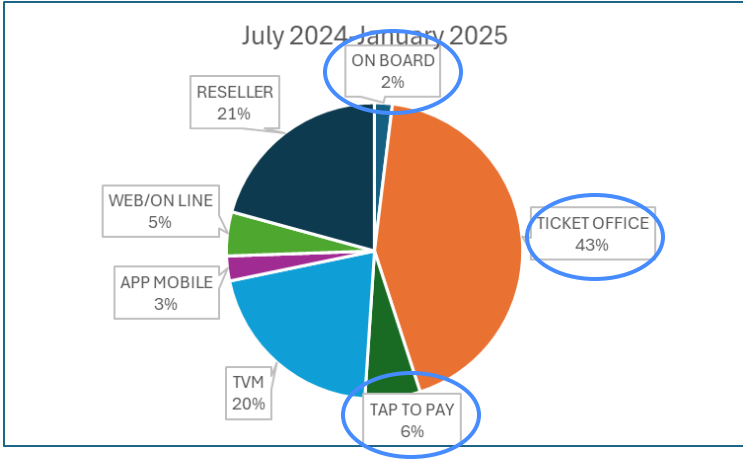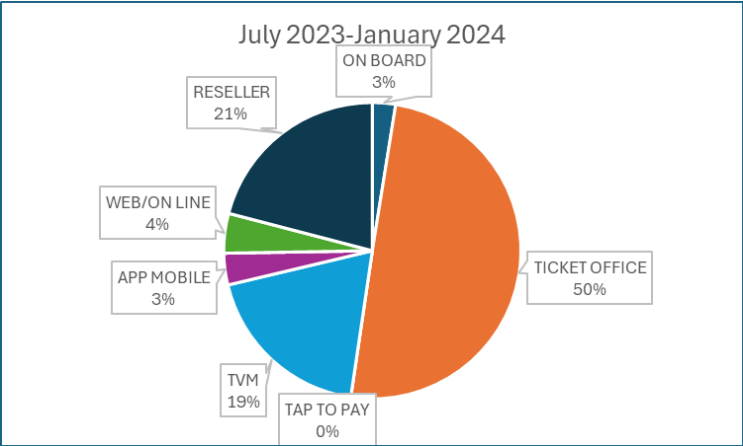
Enhanced travel experience
Passengers are embracing Tap-to-Pay, reducing friction and making transit easier for both commuters and tourists.

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Tap-to-Pay Reshapes Overall Ticket Sales

Tap-to-Pay has grown to 6% of all ticket sales,

Ticket office sales have declined by 7%, while on-board sales have also seen a slight drop.
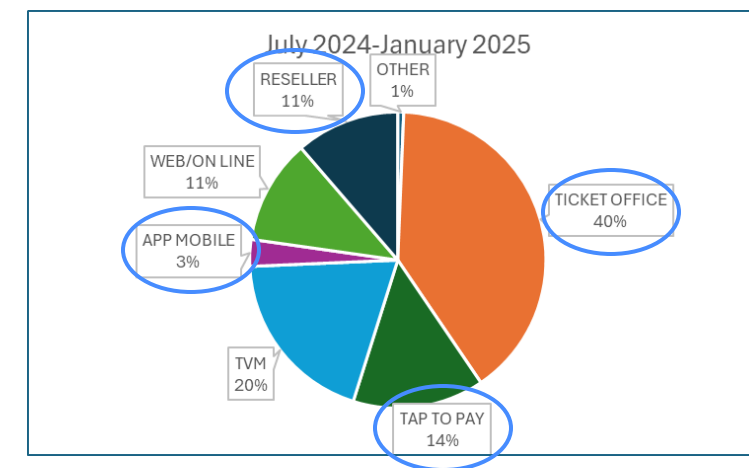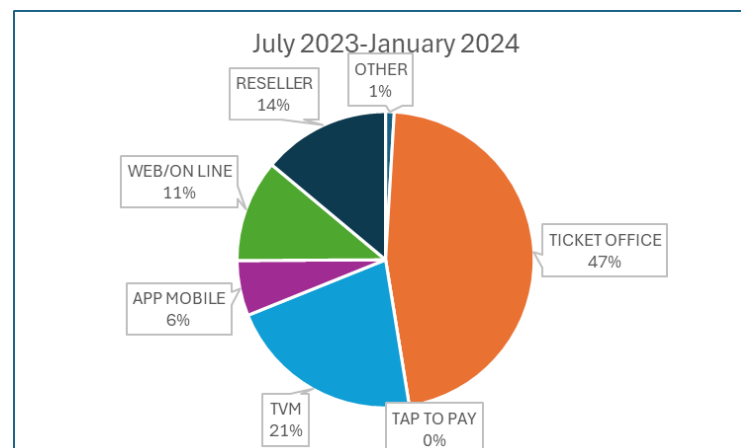
July 2023-January 2024

RESELLER 21%
ON BOARD 3%
WEB/ON LINE 4%
TICKET OFFICE 50%
APP MOBILE 3%
TVM 19%
TAP TO PAY 0%

July 2024-January 2025

RESELLER 21%
ON BOARD 2%
WEB/ON LINE 5%
TICKET OFFICE 43%
APP MOBILE 3%
TVM 20%
TAP TO PAY 6%

Channel	July 2023 – January 2024	July 2024 – January 2025	Change
Tap To Pay	0%	6%	▲ +6%
Ticket Office	50%	43%	▼ -7%
On-Board Sales	3%	2%	▼ -1%

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Tap-to-Pay Adoption Shifts Sales for Supported Ticket Types

AVM

Tap-to-Pay now accounts for 14% of these ticket sales, reducing reliance on traditional channels.

July 2023-January 2024

July 2024-January 2025

Channel	July 2023 – January 2024	July 2024 – January 2025	Change
Tap To Pay	0%	14%	▲ +14%
Reseller	14%	11%	▼ -3%
App Mobile	6%	3%	▼ -3%
Ticket Office	47%	40%	▼ -7%

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A Trusted and Reliable Partnership Delivering Success in Venice

While EMV ticketing is well-established worldwide, its implementation in Venice's unique transit environment required the right expertise and approach. Through our partnership with Conduent, AVM has successfully delivered:

- A seamless Tap-to-Pay experience, reducing friction for both locals and tourists

- A shift toward contactless payments, lowering dependence on in-person sales

- Improved customer convenience, making transit faster and more accessible

With Conduent's proven expertise in EMV solutions, AVM has brought the benefits of contactless payments to Venice, ensuring a modern, efficient, and customer-friendly ticketing experience.

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