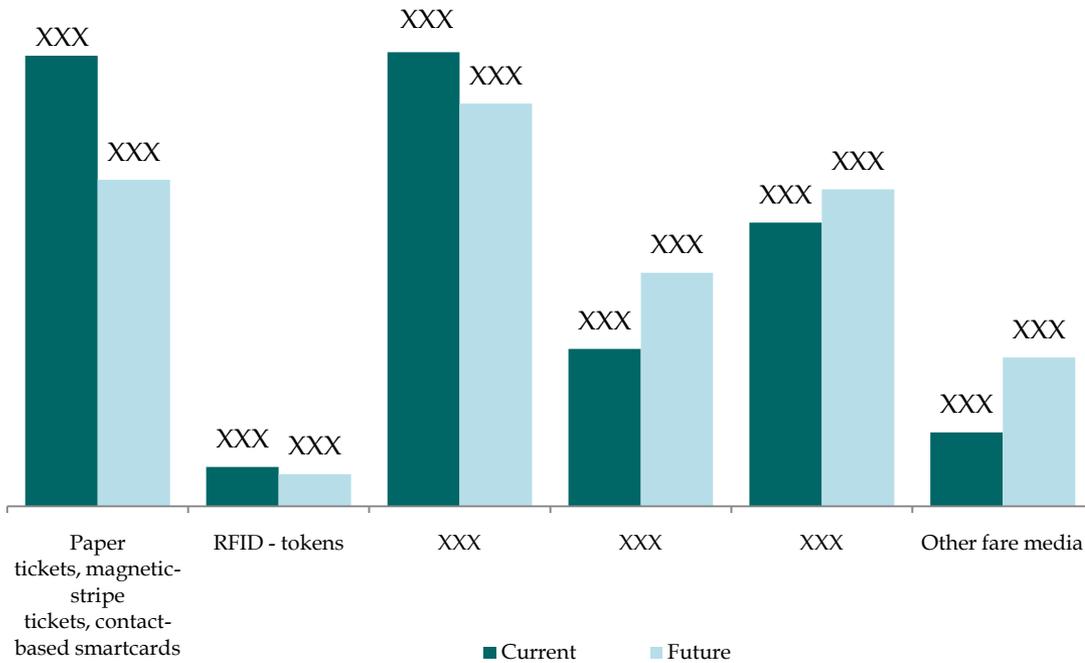


# 1.1.1 Overview of AFC Systems in 500 Cities in 112 Countries

*Global Mass Transit Research* has analysed existing and upcoming fare collection systems in 500 cities in XXX countries across the world. Of these, XXX cities are in North America, XXX in Latin America, XXX in Asia Pacific, XXX in Europe and XXX in the Middle East and Africa.

**Fare media trend across 500 cities (no. of cities)**



- Globally, XXX are the **most widely deployed fare media** on transit systems across the world. In the last few years, XXX have **started gaining prominence**, eliminating the need to purchase and XXX and XXX to pay fares for transit. XXX
- XXX
- *Global Mass Transit Research* estimates that the **AFC market size will increase from USDXXX billion in 2018 to nearly USDXXX billion in 2025.**
- **In the next decade, the spotlight will be on XXX and XXX** with cities transitioning directly from paper tickets to such advanced contactless payments.
- XXX

Note: Future only includes cities with new fare media plans or/and expansion of existing public transport network

## 1.1.2 Key Emerging Trends and Outlook for the Next Decade

### Emphasis on integration & interoperability to drive growth

Emphasis on integration and interoperability will lead to increased focus on deployment of contactless payments. The benefits of integration and interoperability are well known. **Of the 500 cities** analysed by *Global Mass Transit Research*, over a **XXX cities** have firm **plans** to introduce **city-level integration**, **XXX** have **plans** to **launch region-wide integration** and nearly **XXX countries** will **initiate nation-wide integration**.

### Spotlight on XXX &XXX

XXX

### Discussion on XXX to continue

XXX

Key areas of  
focus in the  
next decade:  
2020-30

### XXX will become more relevant

XXX

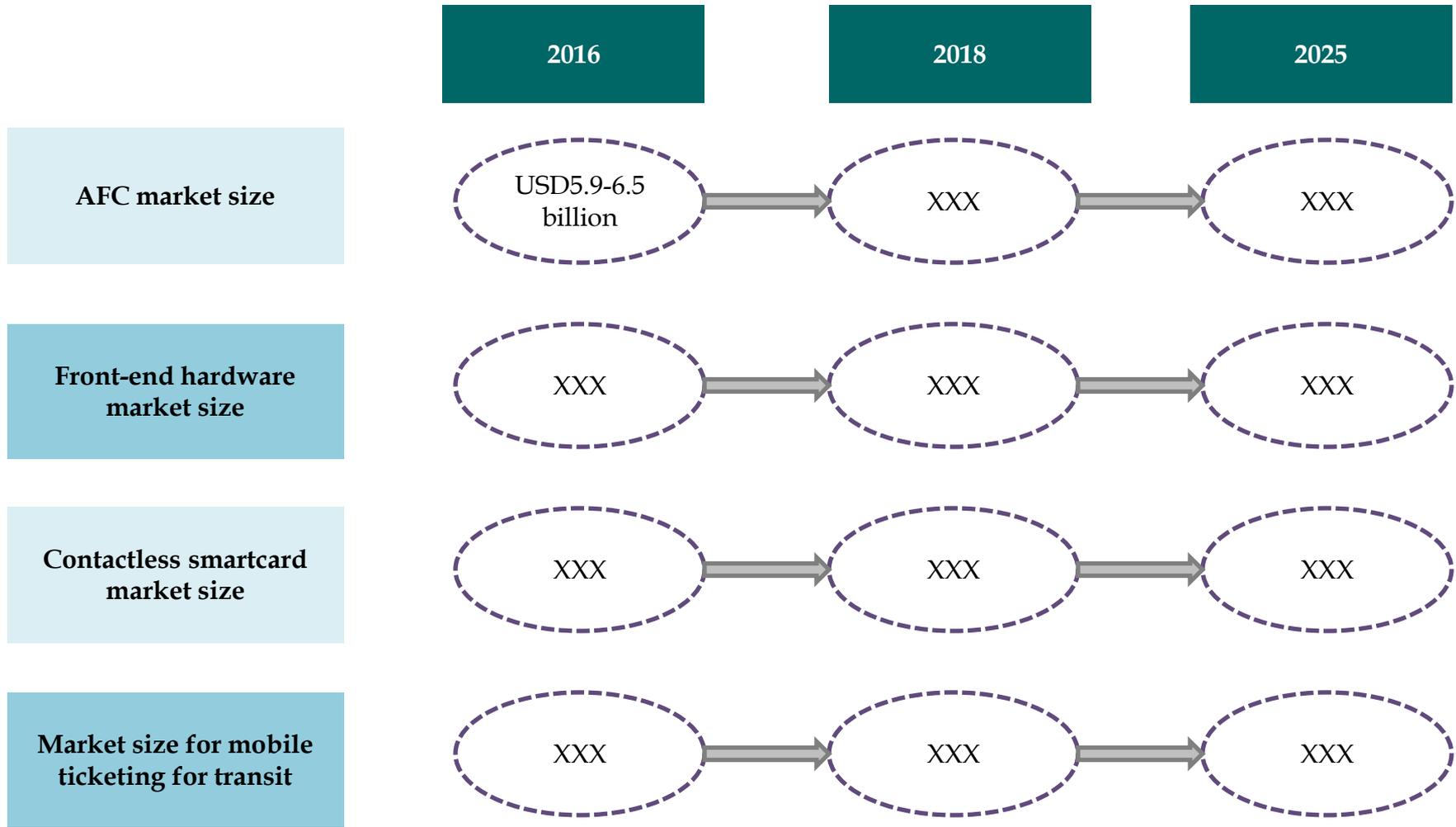
### Challenge for transit agencies

XXX

### XXX to become a game changer

XXX

## 1.1.4 Market Size of AFC Segment (by sub-segments) (1/2)



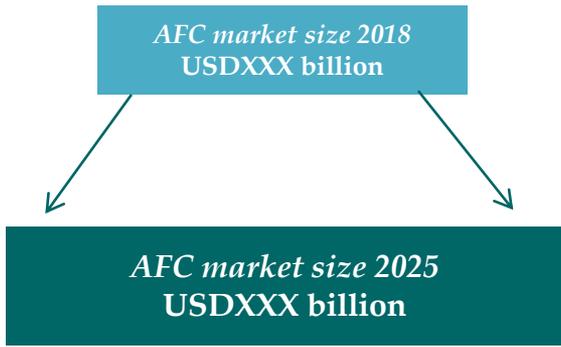
## 1.2.2 Recent Contracts Awarded (1/2)

With the implementation of an AFC system, not only can passengers commute conveniently and access discounted fares easily, but also the public transport authorities can analyse passenger mobility patterns and offer secure, integrated transport through cashless fare payments. During 2019, over XXX fare system contracts, worth over USDXXX million, were awarded across the world, of which at least XXX contracts were awarded for the supply of AFC systems.

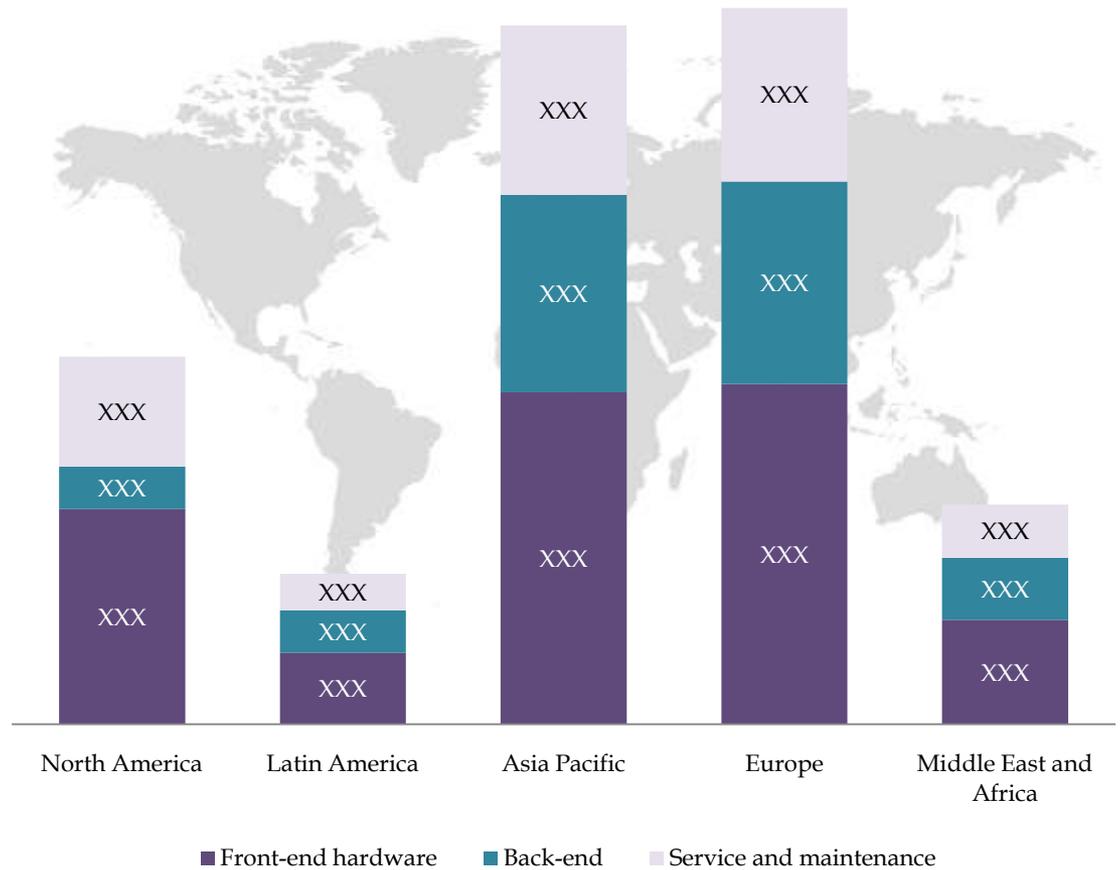
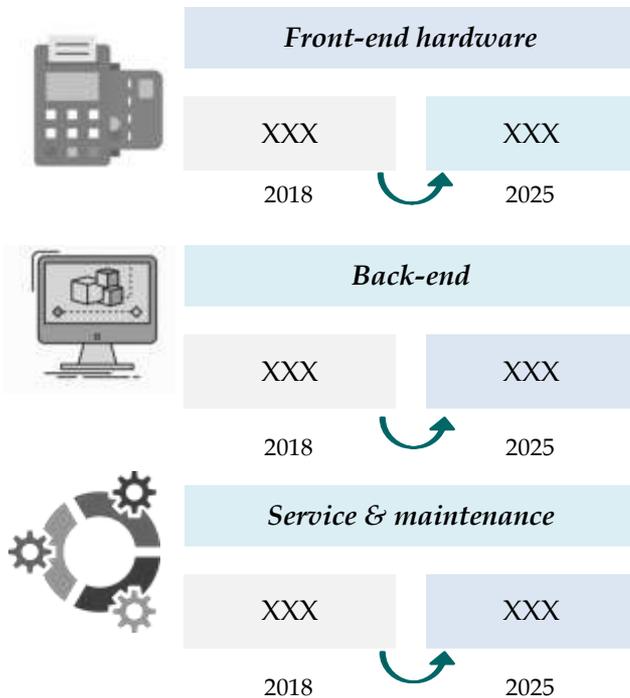
### Recent contracts awarded

	Country	City	Contractor	Award date	Value (USD million)	Scope
North America	United States	XXX	XXX	January 2019	XXX	XXX XXX
		XXX	XXX	January 2019	4.5	XXX
Latin America	Brazil	XXX	XXXX	XXX	XXX	XXX XXX

# 1.3.2 Growth in AFC Market Size (by sub-segment) 2018-25



Market size for the year 2025 by sub-segment (USD million)



# 1.3.3 Future Outlook and Market Opportunities (1/3)

## Outlook of fare media for each region

	North America	Latin America	Asia Pacific	Europe	Middle East and Africa
Paper tickets/ magnetic stripe tickets/ metal tokens/ contact-based smartcards					
RFID tokens					
Contactless smartcards					
Bank cards					
Mobile ticketing					
NFC-based digital wallets					
NFC-enabled devices as fare media					



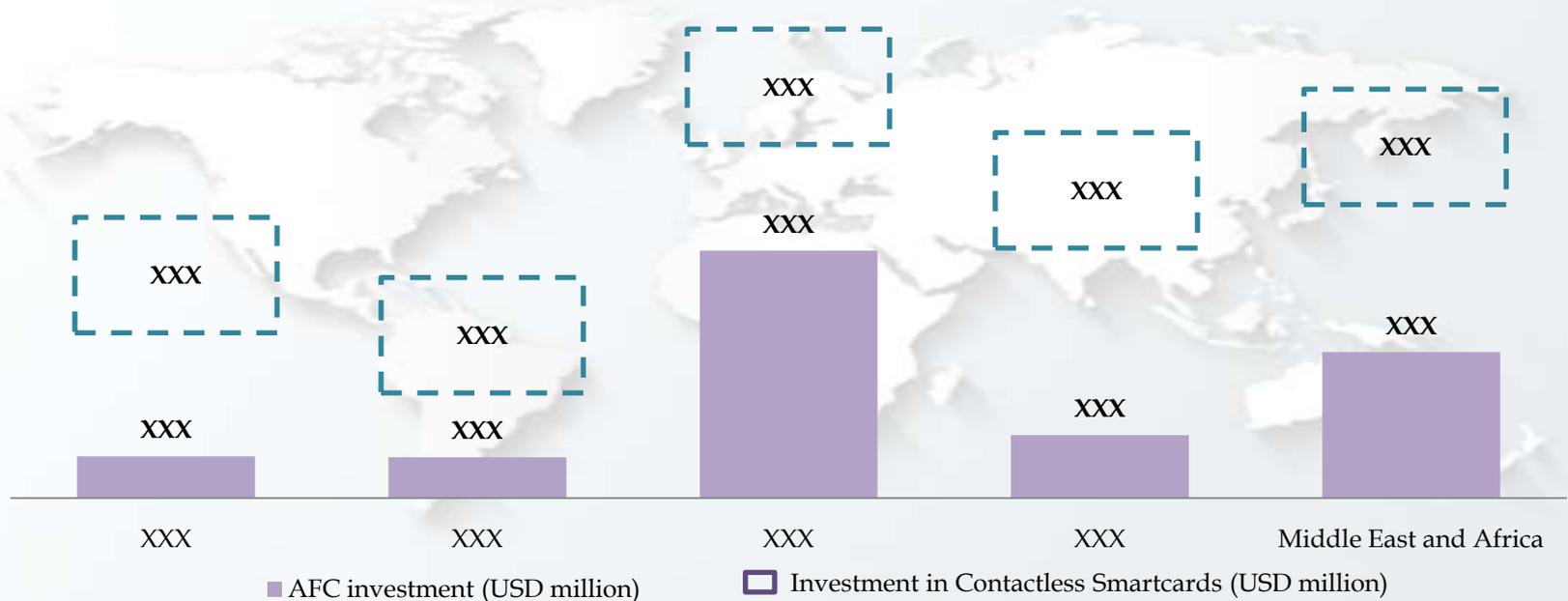
XXX will continue to remain the most preferred fare media across all regions despite introduction of advanced fare media such as XXX and XXX. XXX will be one of the most preferred fare media in XXX and Europe (relative to other regions). XXX

## 1.3.3 Future Outlook and Market Opportunities (2/3)

The market for deployment of advanced fare media is driven by upcoming urban rail projects. Cities developing new urban rail systems typically deploy off-the-shelf advanced fare media directly instead of first deploying traditional media and then transitioning towards advanced media.

*Global Mass Transit Research* estimates that the upcoming XXX urban rail projects across the world present an opportunity of nearly USDXXX billion for the fare systems industry by 2030 (as part of new systems/lines that are coming up).

### Region-wise AFC investment in upcoming rail projects (USD million)



### Key takeaways

- XXX
- XXX

## 2.1.6 Mobile Ticketing



Of the 500 cities covered in this report, XXX cities have deployed mobile ticketing for fare payment.

### Key takeaways

The main types of mobile ticketing are XXX (typically a branded transit agency-specific mobile app, QR code-based where e-tickets generate barcodes, and NFC-based through apps like Apple Pay, Google Pay and Samsung Pay)

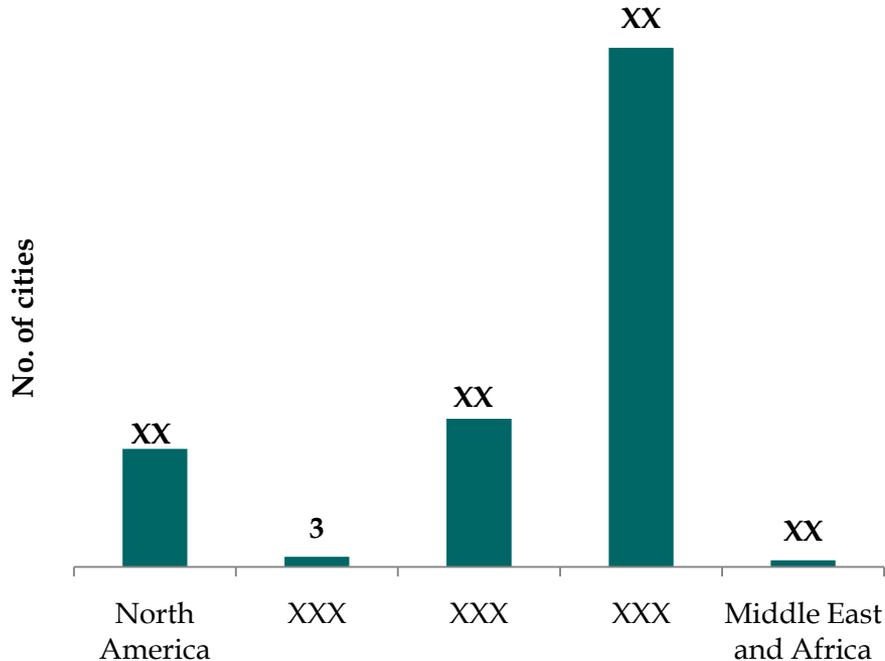
### XXX and XXX tickets being used

XXX and XXX e-tickets are the most commonly used forms of mobile ticketing. XXX mobile ticketing is yet to take off in a big way. Only XXX cities in XXX and XXX in XXX have deployed NFC-based mobile ticketing.

### Major deployments in XXX and XXX

XXX and XXX comprise the bulk of mobile ticketing deployments. Several XXX cities with smaller public transport networks have been shifting from traditional fare media to mobile ticketing as a way to lower costs.

### Region-wise no. of cities deploying mobile ticketing



## 2.2.2 Ticketing for Single Mode

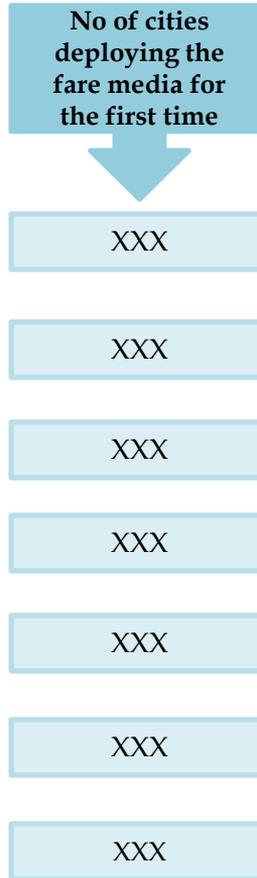
- Of the 500 cities covered in the report, XXX cities have a single mode of public transport. Of these, majority lie in XXX (45%), followed by XXX (26%).
- An analysis of the fare media deployed reveals that different regions have different fare media deployment trends for cities with single mode of transport.
- For instance, in the XXX, paper tickets and contactless smartcards are mostly used in cities with a single mode, while mobile ticketing and contactless smartcards are more dominant in XXX cities that operate single modes.
- In XXX, paper tickets, contactless smartcards and mobile tickets are most widely used.
- In XXX and XXX, contactless smartcards are used in most cities, with magnetic stripe tickets and tokens deployed in some cities.

### Region-wise cities with single and multiple modes of public transport



## 2.3.3 Asia Pacific: Opportunities (2/2)

Cities with plans for fare media procurement	
Opportunities	No. of cities
XXX	XXX
RFID tokens	XXX
XXX	12
NFC-enabled devices	XXX



**Asia Pacific to be a key market for XXX**

- Out of the XXX cities covered in the report, XXX cities have plans to deploy XXX.
- Of these, only XXX cities will be deploying XXX for the first time. The remaining XXX cities will be only expanding the current deployment onto new lines or extensions or new buses.

**Big focus on open payments**

- A total of XXX cities have plans to deploy XXX for fare payments in the region. In addition, XXX cities have plans to deploy mobile ticketing. Interestingly, XXX cities have unveiled plans to deploy XXX for the first time and XXX cities are looking to deploy mobile ticketing for the first time.
- Agencies are making efforts to improve the passenger experience using XXX. For instance, as taps from payment cards linked to smart phones increased, XXX revealed that it had extended weekly and daily fare caps to payments made by XXX, XXX, and XXX. This was a part of the agency's attempt to promote fare payments through XXX and to issue fewer XXX.

**Plans to integrate public transport ticketing**

XXX cities and XXX regions in XXX plan on integrating their public transport ticketing in the future