





**Let's create ways  
to expand mobility  
together?**



That's our purpose. Transdata aims to create new paths for urban mobility through creative and innovative ideas and solutions.

Wherever there are people talking about connectivity and smart cities in search of technological innovations that optimize transportation and automated fare collection, Transdata will be there. We employ our knowledge, structure, and widespread experience to expand mobility and take convenience, security, and quality of life to everyone.

Not only have passengers' necessities have changed but also the way in which they interact with modes of transport. We must evolve and keep up with these transformations. For 25 years, Transdata operates in a precise and collaborative manner with transit operators and authorities through modern and integrated solutions that streamline passengers' day to day lives and greatly improve the efficiency of transport system management.



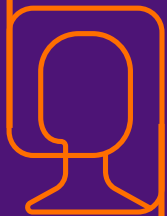




**25 years**  
of experience



**+600**  
projects



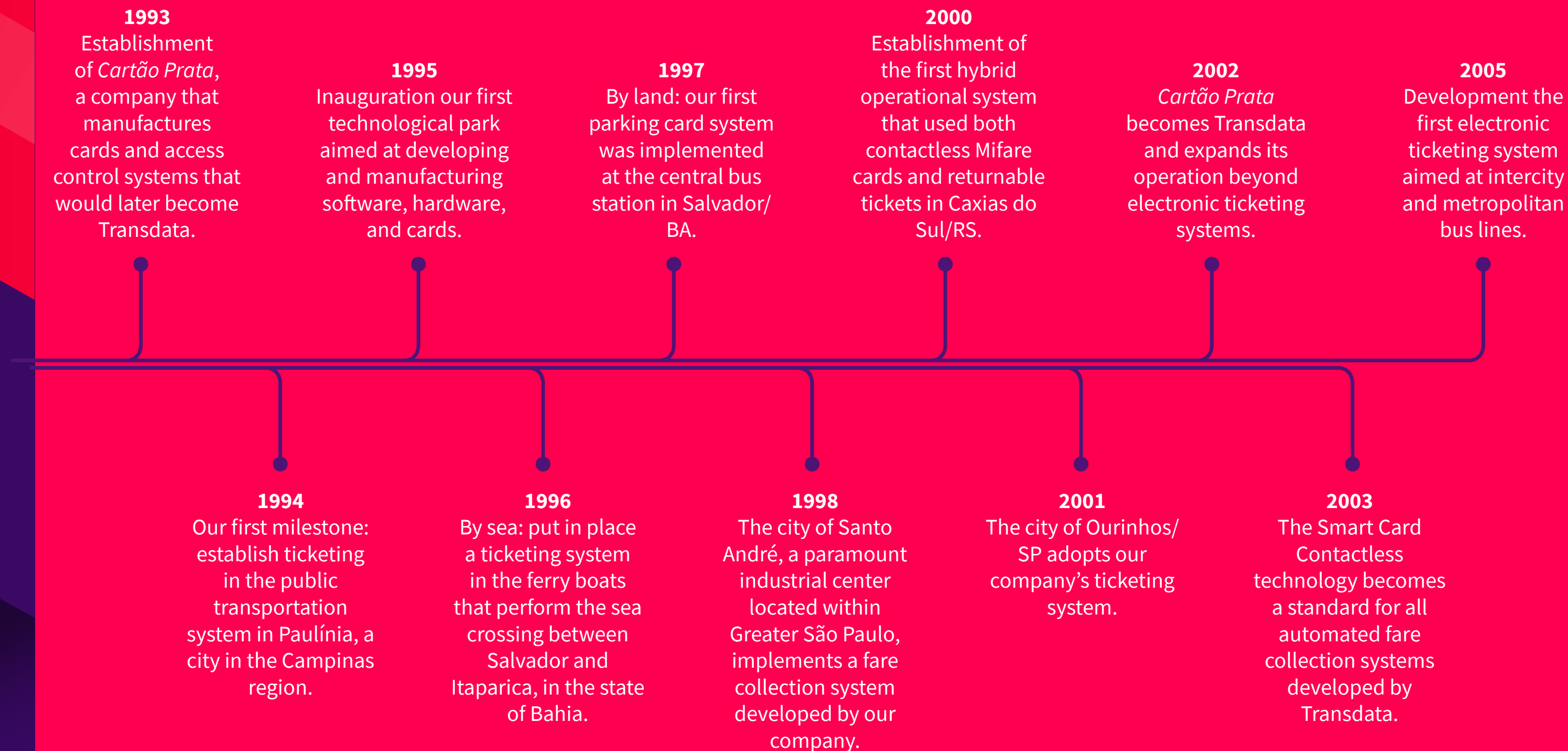
**+360**  
cities

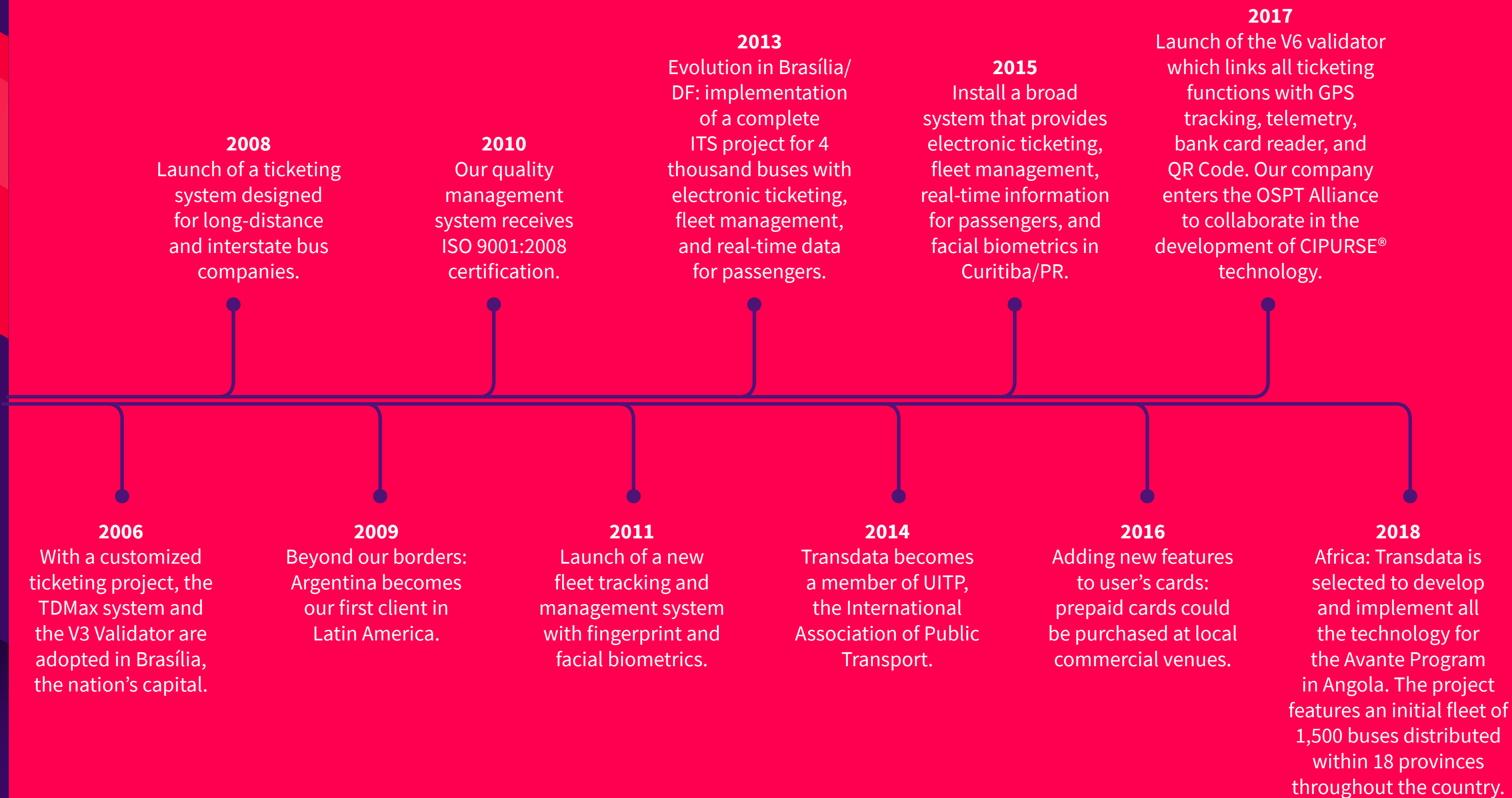
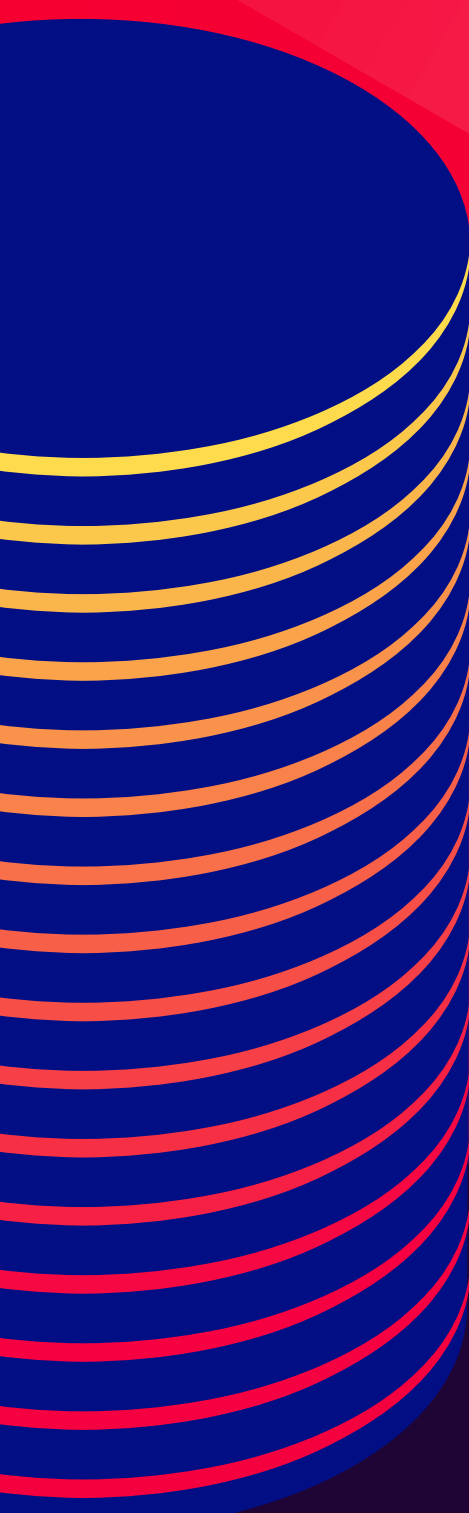


**30 million**  
of users/day



**A history connected  
with the future.**









**Our proposal allows transit operators to focus on what they do best: transporting people.**





Transdata has always worked very close with our clients. We understand demand and anticipate your needs. This is a collaborative process that aims at sharing ideas to multiply solutions. That's why our company stands out as an ideal partner for complete and integrated solutions in ITS.

We've united the best ideas in order to create technologies in which automated fare collection, operational control, antifraud control, and telemetry work together. Or separately. Whatever they may be, we meet the needs of Public Transport Authorities and Public Transport Operators.

With smart management and technology that serves mobility, we make public transportation much more attractive.





# Tap in – Tap out

Segmented fare control.



Public transport clients wish to only pay for the service that they use. For that to happen, each boarding and departure must be logged.

The Transdata Automatic Fare Collection System permits each user to quickly and safely validate boarding (tap in) and departure (tap out).

After the tap in, the passenger validator charges the user's card the corresponding value of that line's greatest fare and opens the turnstile for boarding. If the user only travels a portion of the journey, the difference is reimbursed at the tap out performed at the passenger validator located at the exit.



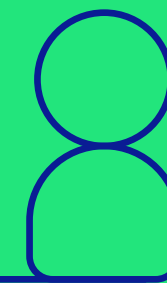
# Fare Collection System

Automatic fare collection.



The combination of passenger validators and turnstile provides a greater protection against evasion. The passenger validator V6 can execute an entire transaction for a card in 350 milliseconds, ensuring that tap in/tap out operations won't negatively impact boarding and departure times or the general quality of the service.

Users benefit from quick rides with fares that fit their needs while public transport operators improve their fare collection security.



# Face Recognition System

Control at each access.





A public transportation system has the ability to implement a fare policy that provides discount or unique prices to different types of passengers.

However, when each user has an exclusive transportation card or pass that is personal and non-transferable, the system has to ensure that no one else can use that pass. Facial recognition technology, in integration with the passenger validator V6, checks automatically and efficiently every access made to a transport system. During the Tap in or Tap out, the system captures the user's image as soon as they access the validator. These images, after the end of daily operations, are automatically transferred to a server and are then compared to the images of users stored in the Face Collection System. A biometric analysis is made based on the bone structure of the face. The system generates a list that displays when there's been a mismatch between the owner and the actual user of the card effectively blocking whatever card that has been used irregularly.



# Real Time Passenger Information

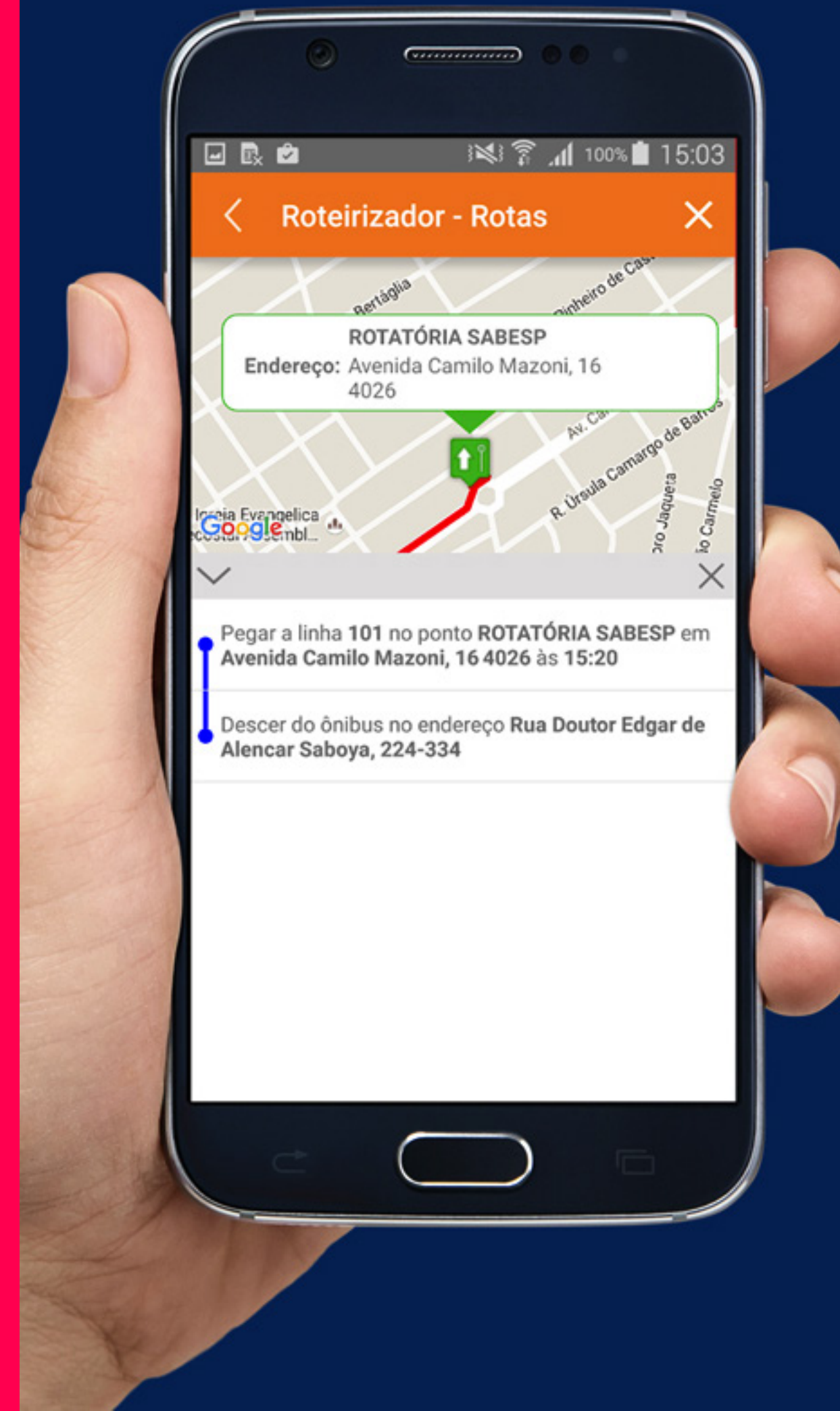
Convenience in everyone's path.





Any user must have some knowledge to use a public transport network. What line to take? Where to board? What's the waiting time? When will it reach its destination? That's why an appealing transport service must provide easy access to information. Transdata offers integrated tools to the Fleet Management TDIts and Dispatch Center programs that display real-time data to passengers.

This data can be accessed through a private app, a Google interface, Moovit, or any software one may choose.



# Onboard Computer

V6. Mobility inspires us.

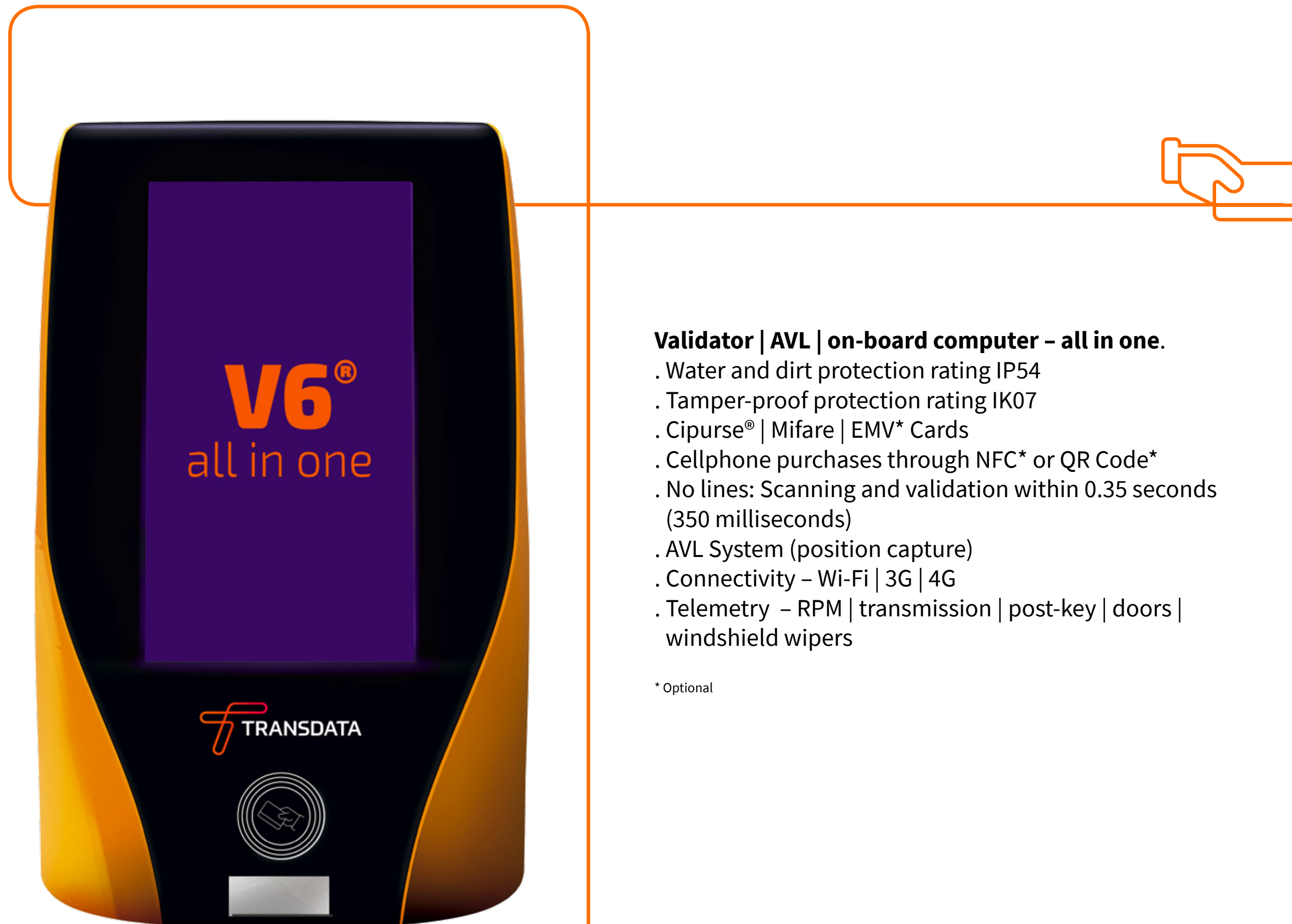


Our first challenge: create a modular system that has everything in it. That's the V6. It ensures total mobility to manage operation and select which services performed by a fleet.

The V6 is all in one:  
the functionality of a  
validator added with the  
operational benefits of an  
onboard computer.



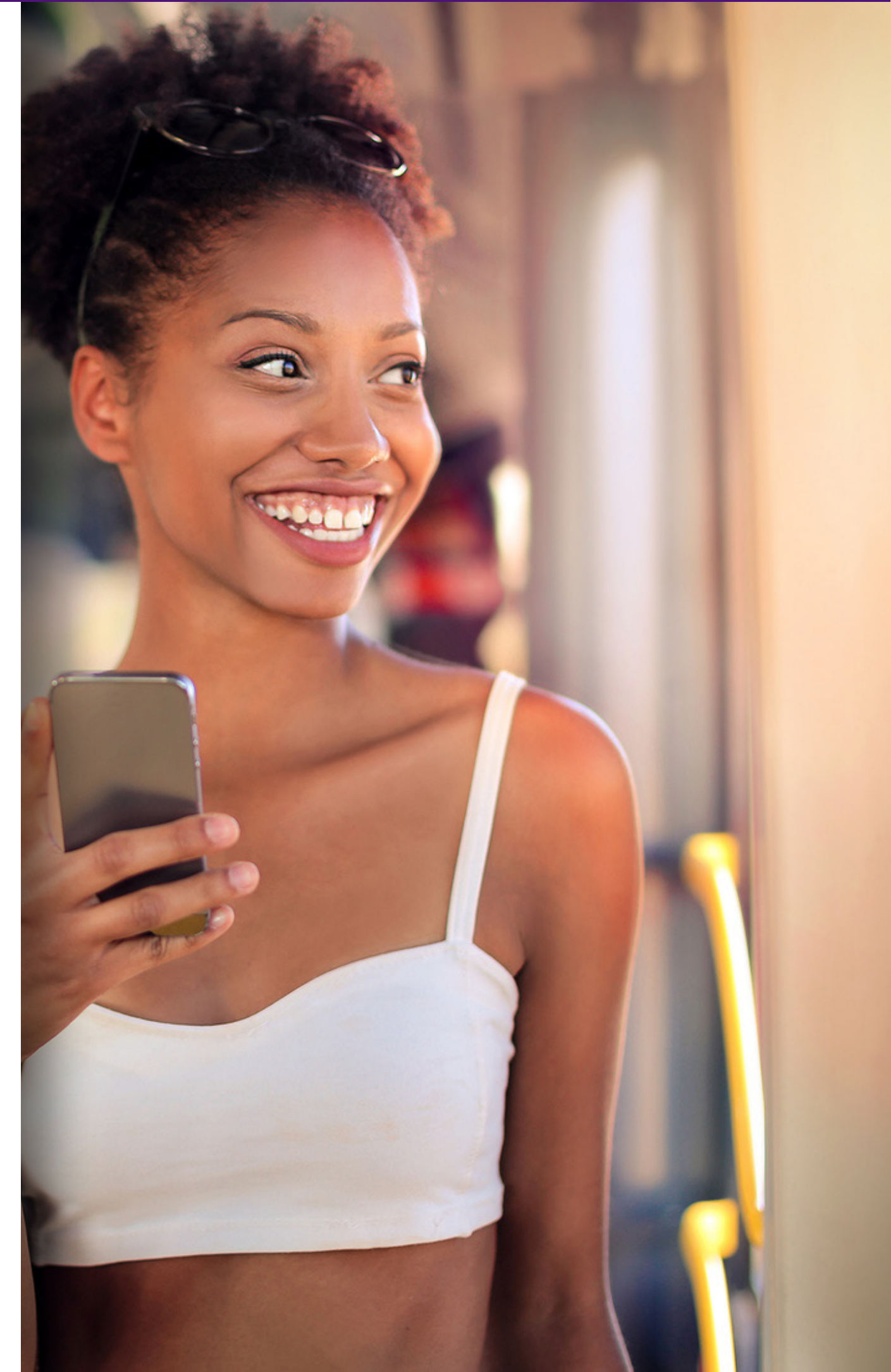




**Validator | AVL | on-board computer – all in one.**

- . Water and dirt protection rating IP54
- . Tamper-proof protection rating IK07
- . Cipurse® | Mifare | EMV\* Cards
- . Cellphone purchases through NFC\* or QR Code\*
- . No lines: Scanning and validation within 0.35 seconds (350 milliseconds)
- . AVL System (position capture)
- . Connectivity – Wi-Fi | 3G | 4G
- . Telemetry – RPM | transmission | post-key | doors | windshield wipers

\* Optional







# Data Analytics

Full support for data management.



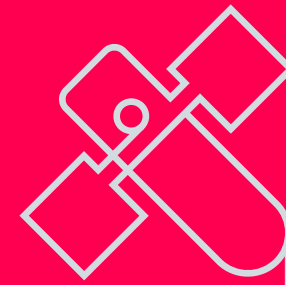
To be connected with current information allows for precise and dynamic operation management.

Access to online reports for data analysis is immensely valuable for any decision-making process. Transdata delivers close to 350 types of reports that can be exported in a variety of different formats, including for Business Intelligence tools.

The TDMax Reports system offers an ample menu for managers to visualize data such as access entries, embarked equipment, financial data, and much more. And to ensure that fleet management is always up-to-date, TD ITS Reports provide analytics on fuel, operational data, telemetry, and other data.







## Connecting data and solutions.

These and many other reports are provided by Transdata:

- Sales report
- Transported passengers report
- Credit report
- Registration report
- Auditing report
- Facial biometrics report
- Equipment report
- Telemetry
- Operational performance





# Cases

Our work generates great results.





# Curitiba

Innovation promotes appeal.



To win Curitiba was a huge achievement. After all, it was Curitiba that invented the concept of Bus Rapid Transit (BRT), in 1974, and expanded that system which is now adopted in more than 180 cities worldwide. The city's network transports 7.8 million people every month, charges 23 different types of fares, and serves 29 cities within the metropolitan area.

By employing technology in favor of urban mobility, Curitiba experienced the positive effects that attract people to public transportation. The new validation system saw bus station robberies decrease by 42%. In addition, the adoption of facial biometrics integrated with electronic fare collection provided an annual gain of US\$ 1.2 million as it prevented fraud.

Expanding on the concept of a smart city, a new electronic fare model was established in partnership with MasterCard which added new features to user's cards: the ability to purchase pre-paid credit in physical and online stores. Passengers can also access the urban transportation system by means of their bank cards through EMV technology or smartphones with NFC technology.

With creativity and innovation, people become interested and are attracted to public transport.





# 7.8 million

people transported/month

# 18 companies

operators

# 218

lines

# 23 fares

different

# 1,288 cards

cancelado due to fraud





# Brasília

Mass transport.





Everything in Brasilia is large-scale. Including its public transport network. Brazil's capital has a fleet of 3,460 buses that transport 33.3 million passengers each month. Transdata has been operating in the city since 2006 with widespread presence in its bus fleet, BRT services, and even in the subway. We're intelligently connected to the capital to expand mobility in a variety of different ways.

That's how much we value people and strive to improve everyone's quality of life.





**33.3 million**

people transported/month

**3,460**

buses

**Since 2006**

as a Transdata client





# Angola

Our story in Africa began here.



Angola welcomed us with the same enthusiasm as we developed one Transdata's most gratifying and challenging projects. Avante is inspiring. It's the first project in the African continent that focuses on education and countrywide reconstruction. We couldn't just provide equipment and software. We had to get ourselves involved with the operation to reach the user. At Avante, our equipment controls from turnstiles to the buses' electronic itineraries, and the entire system runs in a cloud. Transdata has high-level partners in this enterprise, and as we dedicate ourselves and see the evolution of Avante, we feel great pride.

Transdata is the exclusive provider of all ITS solutions for the Avante Program, from electronic fare systems to the fleet's telemetry and operational monitoring through GPS. The project is also based on our cloud platform that is hosted at Transdata's private datacenter.

This is how Transdata connects paths  
and transforms the future.





# 98,866

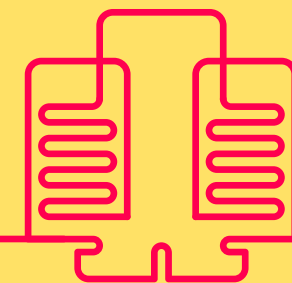
students

# 799

schools

# 4,487

teachers



# 757

employees / system operators

# 18

provinces

# 164

cities





