QUIPUX

Self-sustaining private public partnership projects

Quipux creates innovative solutions and accompanies governments in their operation under self-sustaining private public partnership models that help to solve real problems of transit, transportation and mobility, to improve the quality of life of citizens.

# Transforming cities towards sustainability

We are constantly working on:

- Improving the citizens' perceptions about the government services.
- Increasing the respect of the traffic regulations and the pedestrian protection.
- Increasing collections.
- Reducing users' service time from weeks to minutes.
- Creating multiple service channels for the citizens.
- Integrating and simplify processes.
- Strengthening the authority of traffic and transportation.
- On-line mobility control.
- Reducing accidents and traffic fatalities.

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Self-sustaining private public partnership model

The revenue growth allows to expand the services and the investments in new technologies, letting the model to be self-sustainable

Behavior of total Incomes in Medellin (USD)

Learning curve for traffic infraction

	2011	2012	2013	2014	2015
Curva de Aprendizaje	1,61%	0,78%	0,50%	0,34%	0,38%
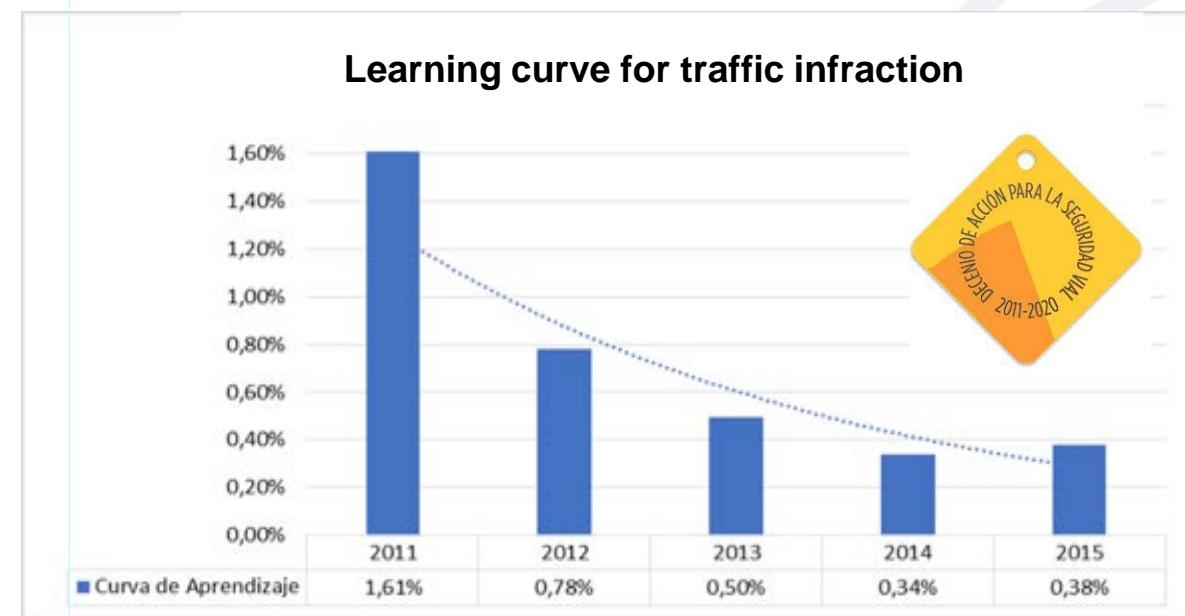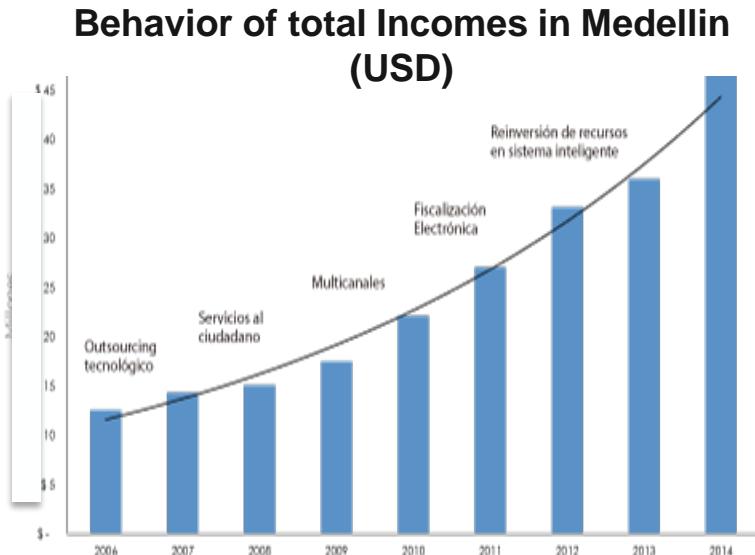
- ✓ **It is not just a matter of financing but a service model**
- ✓ **Contracts: Public-private alliances, concessions, services.**
- ✓ **Self-sustaining projects that generate income for public entities**

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Smart Mobility Systems

Successful case Medellin - Colombia

Context: Aburrá Valley and Medellín

Population: **Aburrá Valley**: 3.8 million   **Medellín:** 2.5 million

Antioquia

Aburrá Valley

+ 1 million of
Vehicles circulating daily.

Aburrá Valley Mobility distribution

Pie chart values:
- 1% Bicycle
- 26% By foot
- 2% School transport
- 0%
- 3%
- 25% Bus
- 2% Other motorized vehicles
- 11% Motorcycle
- 14% Car
- 7% Taxi

Legend:
- Bicycle
- By foot
- School transport
- Metro
- Metroplus
- Minibus
- Bus
- Other motorized vehicles
- Motorcycle
- Car
- Taxi
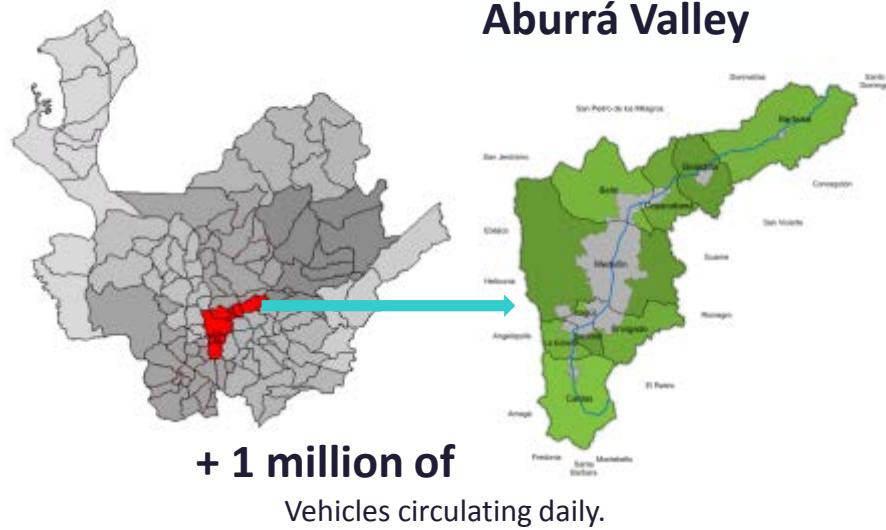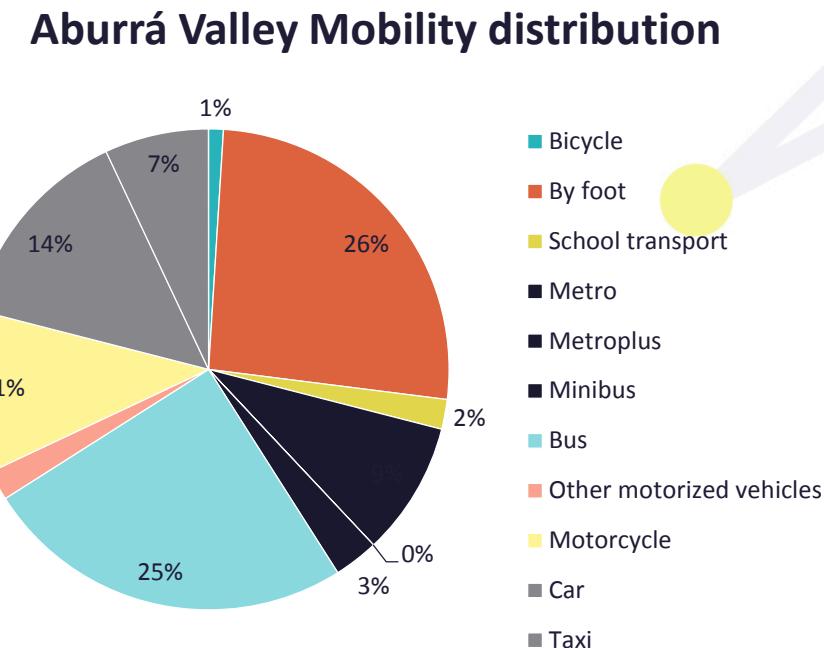
- 34% of the rides are made in individual vehicles.
- 5.6 million rides/day.
- Average for Aburrá Valley > 1.7 rides/ day/ inhabitant.
- Citizens take 2.4 rides/day on average.

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Rise of the vehicle fleet and road network

Circulating Vehicles Medellín

1 234 946
1 018 257
767 548
620 612
530 657
614 334
430 071
487 600
337 477

2008 2009 2010 2011 2012 2013 2014

— Total — Motorcycles — Other Vehicles
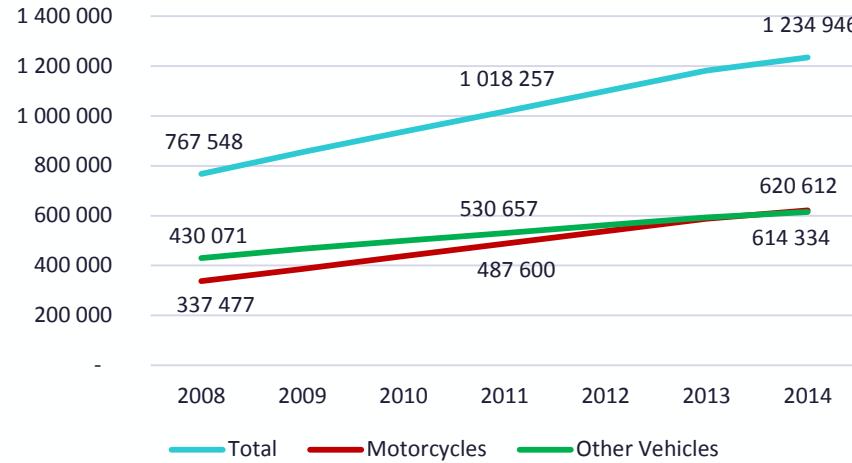
Increase in km of the road network (%)

1,42
0,98
0,5
0,43
0,14

2008 2009 2010 2011 2012-2015

The vehicle fleet has doubled in the last 8 years.

The road network has grown 1.42% in the last 4 years.

Medellin is affected by a large traffic congestion, it has a deficiency in terms of the road networks which makes it even more challenging.

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Respecting the rules

Dirección: Avenida las Vegas por Calle 60 Sur S-N   Carril: 1/3   Fecha: 21/04/2013   Hora: 11h06min06s
Vel.Permitida: 060 km/h   Vel.Medida: 104 km/h   No.Imagen: 155200
Tipo de Infracción: Conducir un vehículo a velocidad superior a la máxima permitida

Código del Equipo: 2012534003 Identificación del Equipo: VLS-S0173 Organismo de Tránsito: STT Sabaneta

Dirección: Carrera 48 por Calle 16 A   Carril: 2/2   Fecha: 29/07/2012   Hora: 11h22min29s
Tiempo desde cambio a Rojo: 5s   No.Imagen: 052186
Tipo de Infracción: No detenerse ante una luz roja o amarilla de semáforo, una señal de "PARE" o un

Equipo(Codigo: 2011164007 Identificación: VLS-S0173 Certificado Calibración: 0123) Organismo de Tránsito: STT Medellin

Dirección: Calle 12 Sur por Carrera 50FF   Carril: 1/2   Fecha: 05/05/2012   Hora: 10h31min27s
Tiempo desde cambio a Rojo: 2s   No.Imagen: 183522
Tipo de Infracción: No detenerse ante una luz roja o amarilla de semáforo, una señal de "PARE" o un

Equipo(Codigo: 2010245001 Identificación: VLS-S0173 Certificado Calibración: 0123) Organismo de Tránsito: STT Medellin

Dirección: Avenida 80 por Carrera 76   Carril: 2/3   Fecha: 21/06/2012   Hora: 16h06min10s
Tiempo desde cambio a Rojo: 11s   No.Imagen: 172847
Tipo de Infracción: No detenerse ante una luz roja o amarilla de semáforo, una señal de "PARE" o un

Equipo(Codigo: 2011116001 Identificación: VLS-S0173 Certificado Calibración: 0123) Organismo de Tránsito: STT Medellin

Smart Mobility Systems
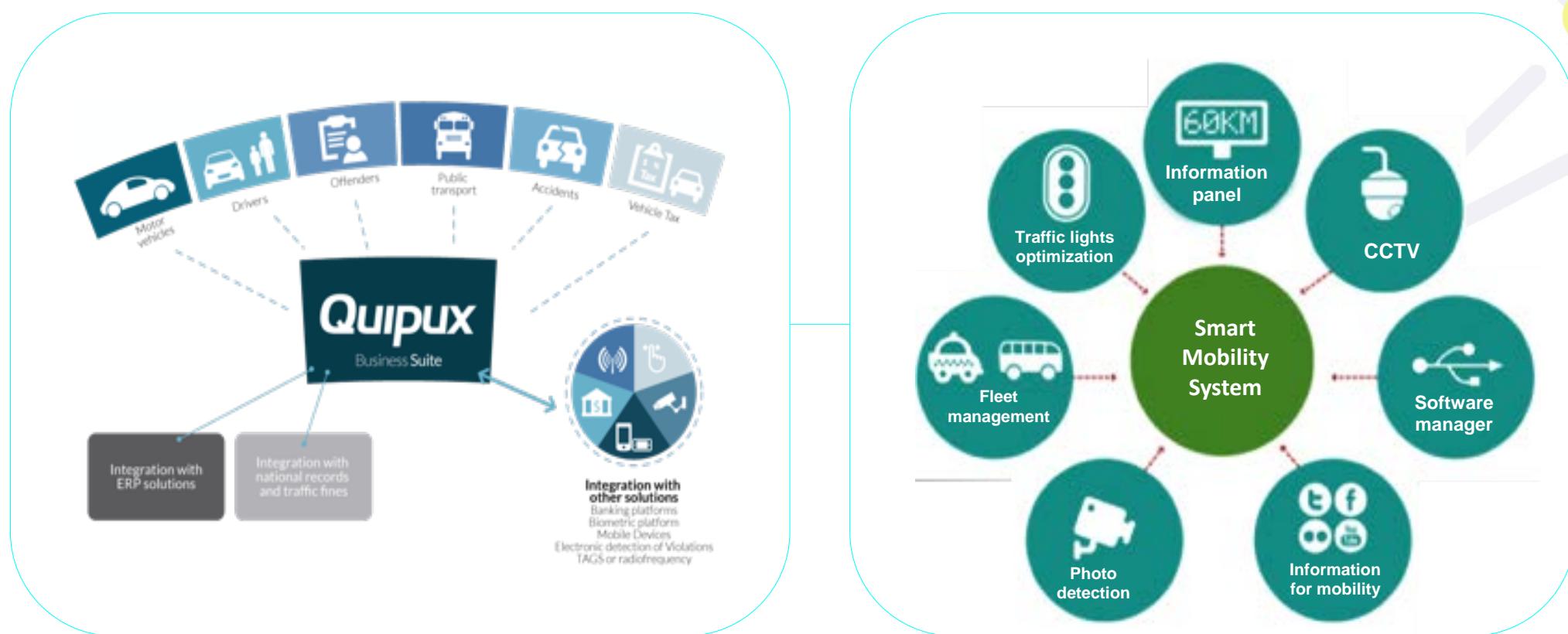
Achievements
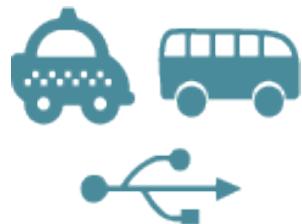
341
Avoided injured people (23%)

Enforcement
Saved lives

65.000 million
The money the city has saved in socio-economic costs due to traffic accidents
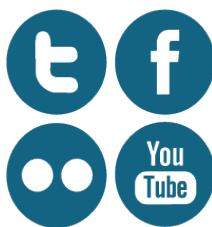
276.900
People save time, due to timely and verified information on the SIMM's social networks (Twitter, Facebook, Youtube y Flickr)

65%
Decrease in photo-detection due to red light crossing and

69% in pedestrian walkway invasion

51.741
Less photo-detections due to speed exceeding between 2013 y 2014
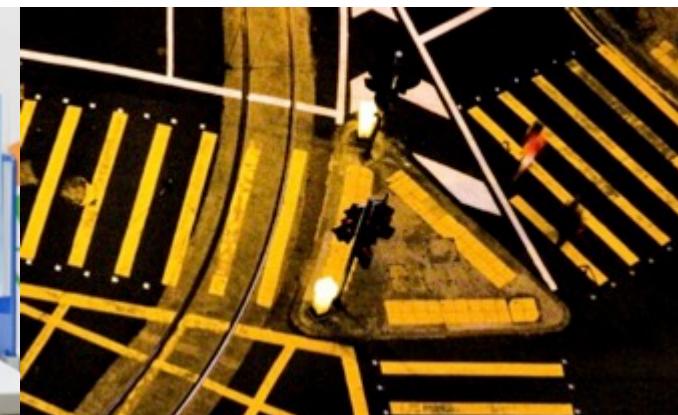
Technologies et Savoir faire

Conception, ingénierie, financement, mise en place et exploitation d'un système de gestion intégrée de l'ensemble des activités de transports en Côte d'Ivoire

■ / Opcional

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Integrated management of activities

- **New quality service scheme** for the customers.
- Building a secure DB (photo and fingerprints).
- Personal assistance for the customers
- **100%** customer reception.
- Documents available **the same day.**
- Secure transactions or registries modification.
- Respect of the rules by validating the system.
- **Guarantee and conciliation of 100%** of the payments.
- Use of end technology.
- Integration with the Ministry and the other actors.

Integrated management of activities

Customer service center

Before

After

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Etat des points d'accueil des usagers Actuel

ce sont au total 106 guichets ouverts à Abidjan et 84 à l'intérieur du pays 2,008,329 usagers reçus à Abidjan et
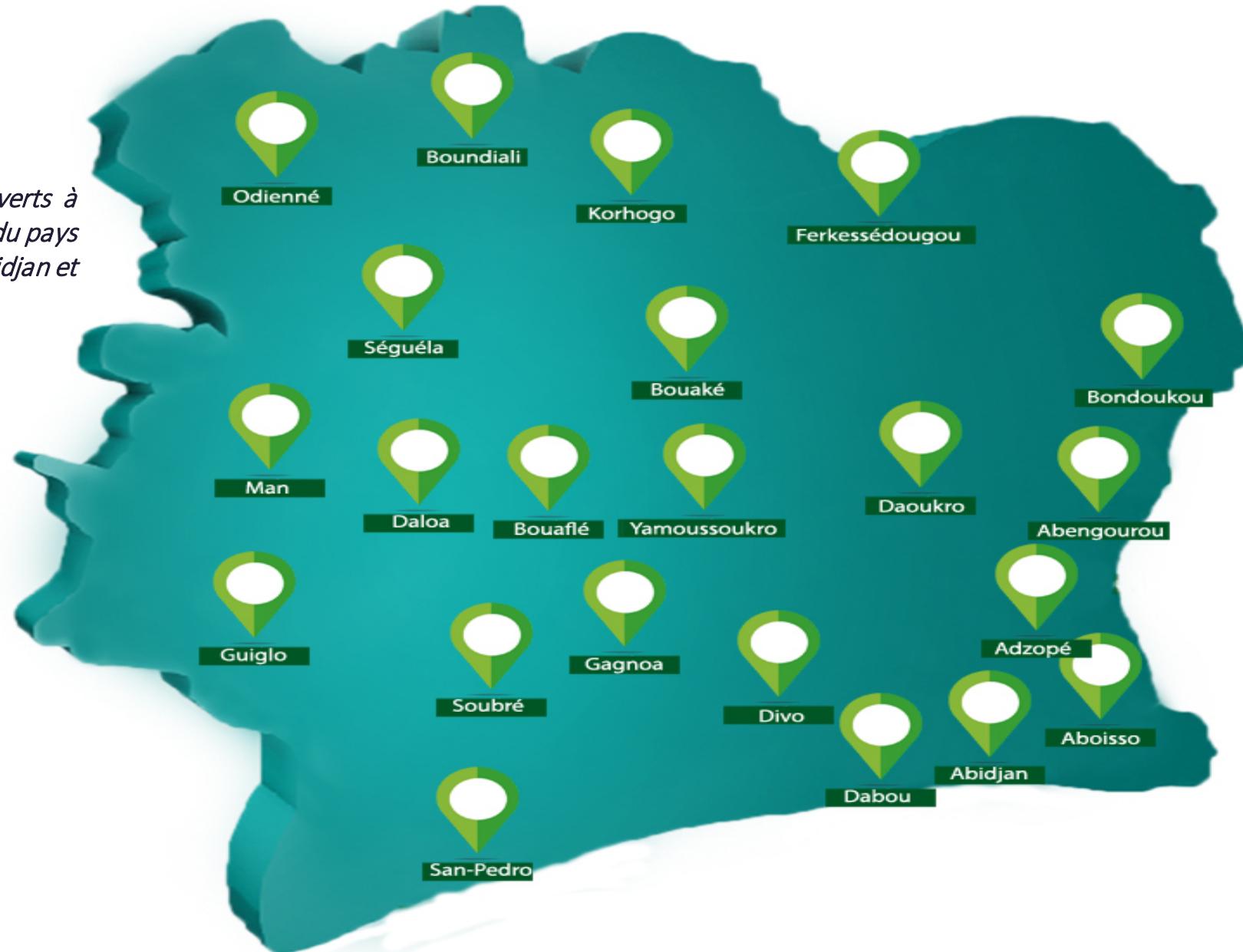
Drivers school control

Positionner la Côte d'Ivoire en tant que leader régionale de la sécurité routière
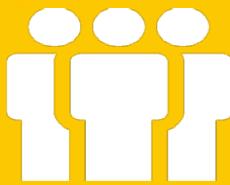
Assainissement et renforcement des capacités du secteur des auto-écoles

Formation des candidats au permis de conduire adapté
aux exigences de sécurité routière

100% des candidats au permis sont effectivement formés

Processus d'évaluation en centre d'examen automatisé

Les auto-écoles se modernisent et améliore leur viabilité économique

Diminution des accidents

AQTr
Association québécoise
des transports

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Modele Operationnel

Candidat au permis de conduire

Suit un cours de conduite

Auto-école

Évaluation théorique et pratique

Envoi du permis de conduire

Accréditation de l'auto-école

Inscription du candidat

Matériel de formation

Remise des résultats

Formation et évaluation des instructeurs

Système National de Certification, de Formation et

Centre de service et de formation

Contact center

Contrôles, Suivi et Sanctions des auto-écoles

AQTr
Association québécoise des transports

Integrated vehicle dismantling control solution

Case of sucess: Sao Paulo State

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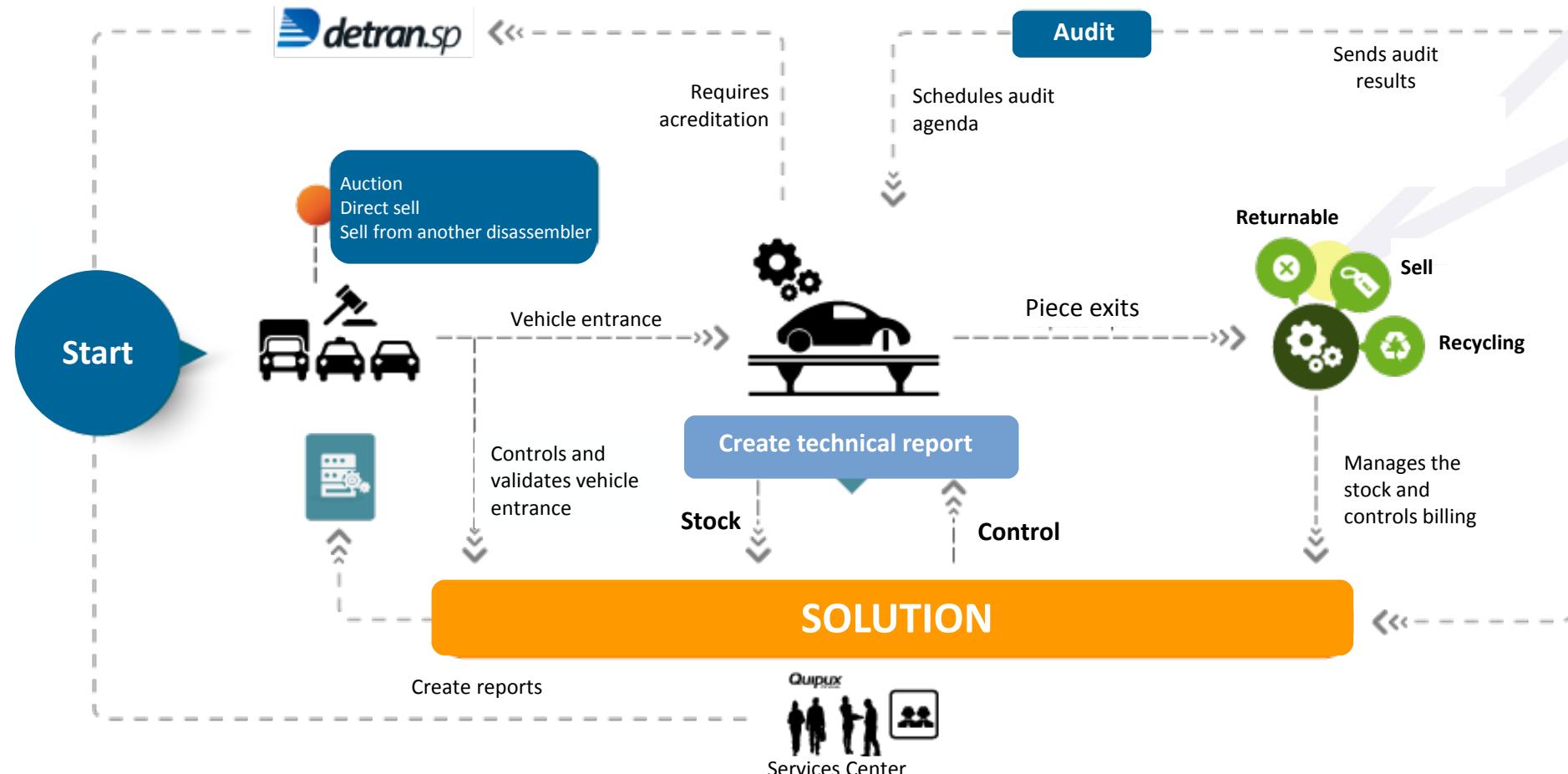
Vehicle recycling   end-of-life vehicles

Vehicle recycling – end-of-life vehicles

AUCTIONEERS
450
Private and Public

Unlimited
CITIZENS

COMPANIES
5.000
Certificated

GOVERNMENT
ENTITIES

300 Detran

Integrations

Auctioneers

Cards suppliers

Citizens

Disassemblers

PRODESP

Recycling companies

Secretary of Finance

Insurance companies

Civil police

Traders
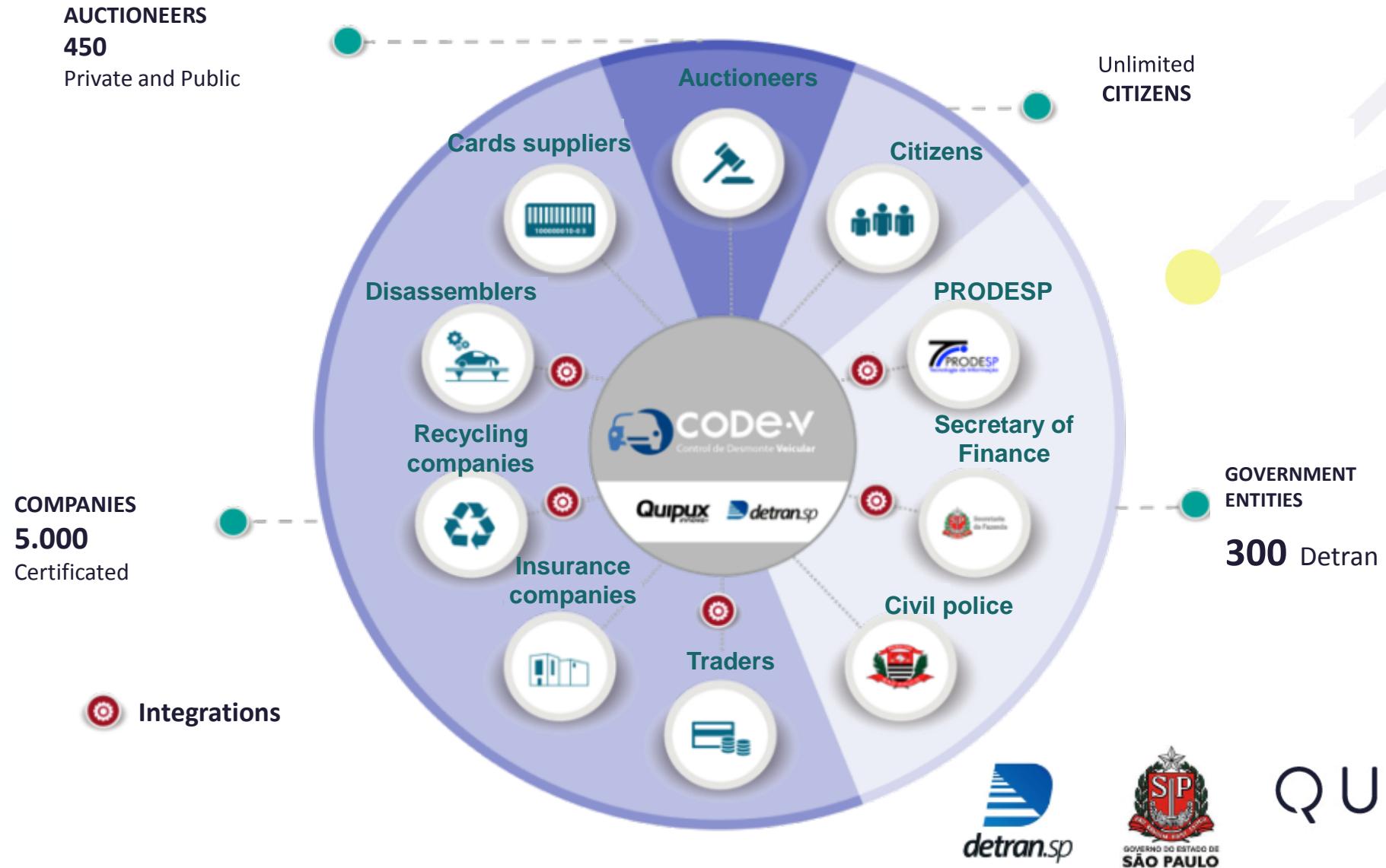
Vehicle recycling – end-of-life vehicles

Brazilian Press

Lei do Desmanche completa 1 ano e diminui furtos e roubos de carros.
2015, July 1th. Retrieved from http://g1.globo.com/sao-paulo/noticia/2015/07/lei-do-desmanche-completa-1-ano-e-diminui-furtos-e-roubos-de-carros.html

Brasil pode ter seguro popular de automóvel no ano que vem. 2015, December 12th.
Retrieved from http://g1.globo.com/bom-dia-brasil/noticia/2016/01/carro-usado-pode-ter-seguro-popular-ate-30-mais-barato.html

QUIPUX

Next innovative solutions …

100% digital services for the citizens

The new driver license

Use Case #1 – Mobile Driving License (mDL)

- Certified digital representation of a physical driving license document, securely stored and displayed by an App in the mobile device of the license holder.

- License holders can make use of this certified digital copy as an alternative to the physical document, especially in cases where this later one might not be present.

- Security features guarantee the truthfulness and integrity of the displayed mobile Driving License, and can be validated from an inspection device.

QR code inspection

QUIPUX

Thank you

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