

# Tolling infrastructure around the world: **Mexico**

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IBTTA 79th Annual Meeting  
Berlin, Germany

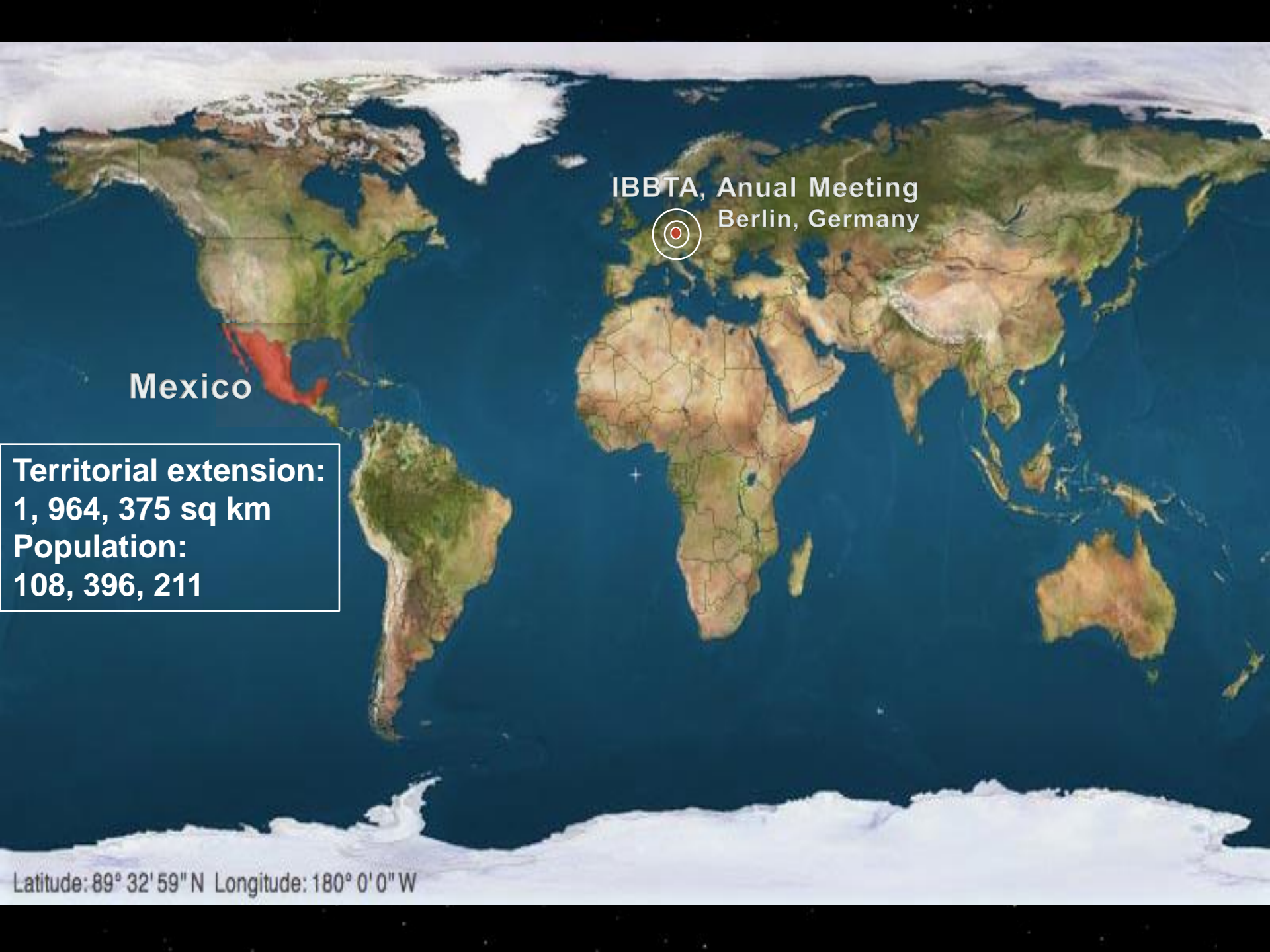
September 13th, 2011

# 1

## INTRODUCTION AND BACKGROUND

### Tolling in Mexico





IBBTA, Anual Meeting  
Berlin, Germany

Mexico

**Territorial extension:**  
**1, 964, 375 sq km**  
**Population:**  
**108, 396, 211**

Latitude: 89° 32' 59" N Longitude: 180° 0' 0" W

# Mexico at glance



SHCP

## Road network

366,340 km

1.2 million  $\approx$  daily vehicles

Cars 74%, Trucks 21% Buses 5%

## Toll roads

126 toll roads

35 concessionaires

8,156 km

## ETC

444 toll booths, 40% with ETC

920  $\approx$  ETC lanes

10 million  $\approx$  monthly ETC transactions

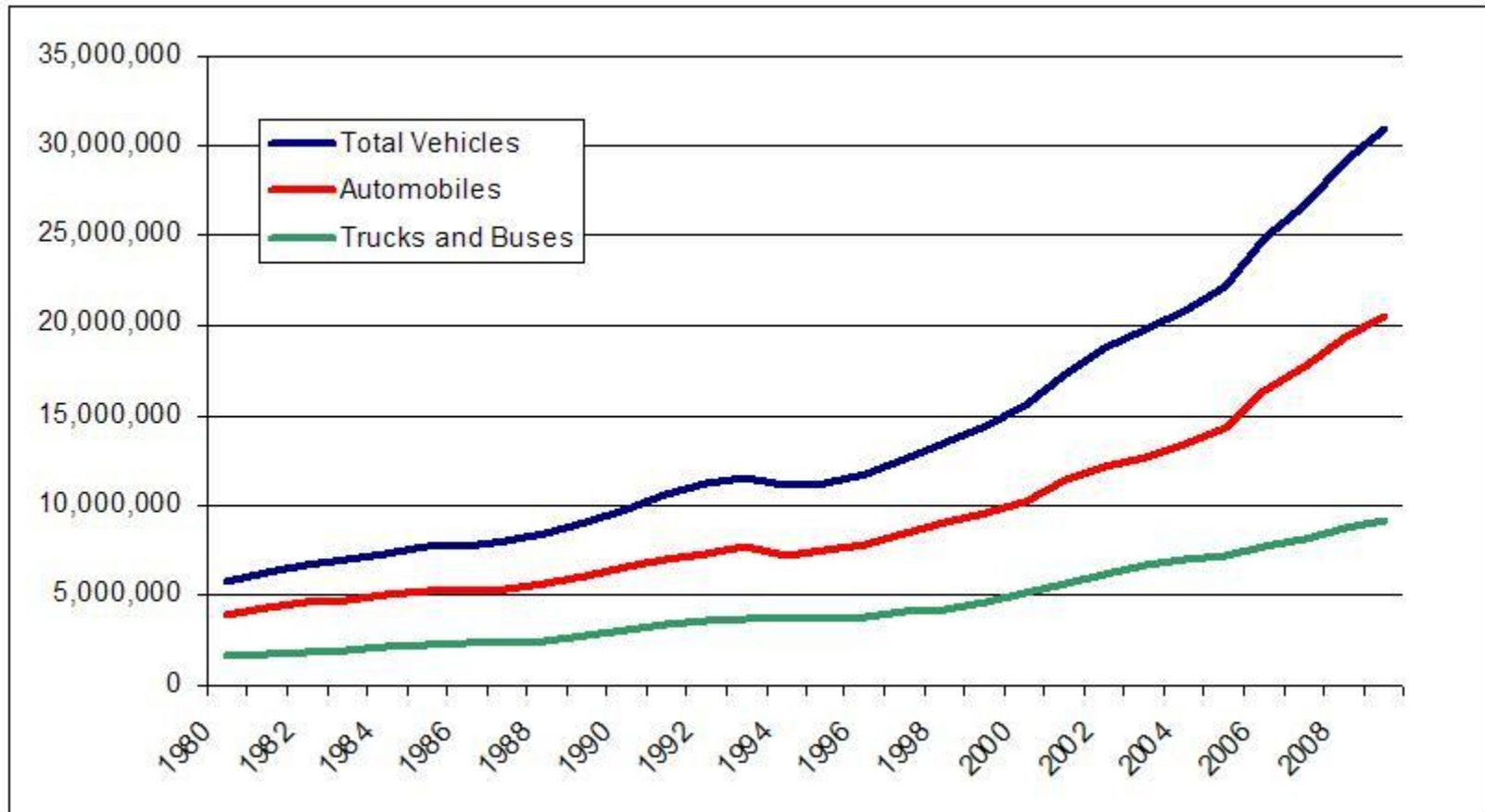


# Transport sector growth

Indicator	1995	2005	2010
Length of road network (km)	305,000	356,000	366,340
Total number of vehicles (thousands)	11,000	21,000	34,000
Mexican residents per vehicle	8.2*	NA	3.7

\* Data from 1990.

# Composition of vehicle's growth



# Main highways 2006



# Main highways 2012





# Tolling in Mexico

## Toll highways

- **Objective:** promote the construction of new infrastructure
- **Policy:** National Highway Program 1989-1994
- **Mechanism:** Build-Operate-Transfer concessions
- **Target:** 52 concessions, over 5,300 km
- **Expected outcomes:** high-quality infrastructure services

## ETC background

- Around 1995
- Means to control residents in toll booths
- Extended to cargo transport
- Further extended to private users

# 2 EXPERIENCE

## Difficulties and lessons learned

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# Issues and difficulties

Carpintero, Gómez-Ibañez (2011):

- Short concession periods and high tariffs
- Optimistic construction costs and demand estimates
- Moral hazard for investors
- Little hedging of dollar-denominated debt
- Too fast of an expansion

Further complicated by:

- Crisis of 1994-1995
- Tenders of highways without a winning operator
- Only one main electronic toll collection service provider
- No consideration of customers

# Lessons learned

- ✓ Long-term view and more accurate estimates
- ✓ Customer oriented policies to help with performance decisions
- ✓ Need for uniformity in concession requirements for past and new concessions
- ✓ Competition improves level of service and prices
- ✓ Contractual agreements with service suppliers must be done with experience to avoid future problems
- ✓ Interoperability might be the solution to provide a uniform service to the customer

# 3

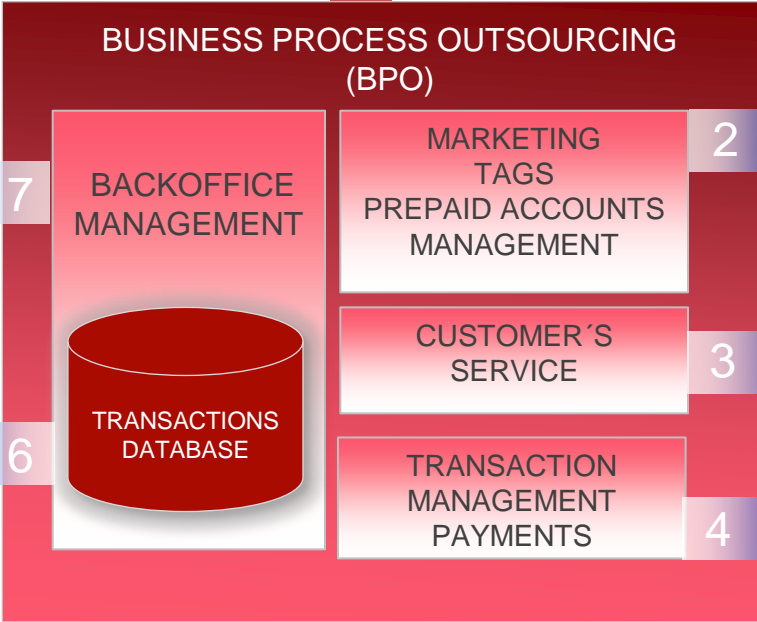
## FUTURE DIRECTION

### Towards ETC interoperability

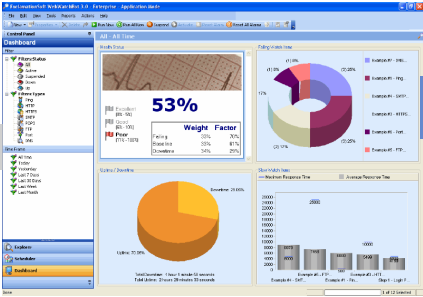


# New operation model

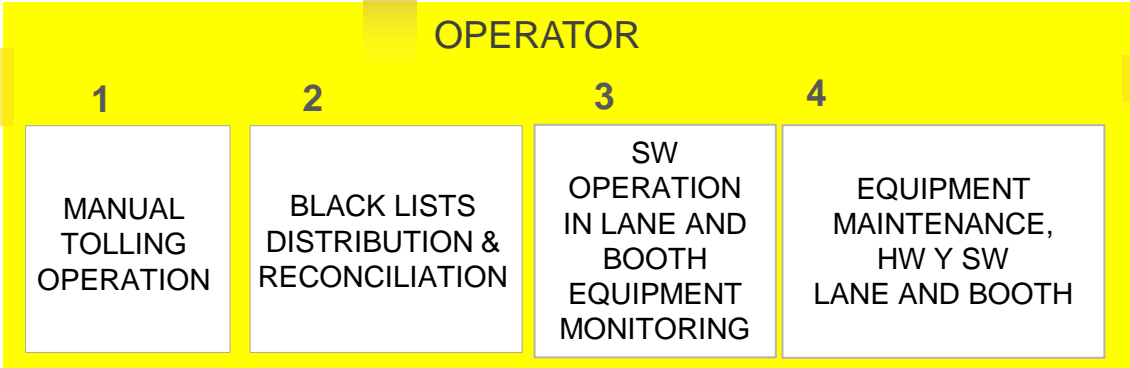
- **Objective:** modernization of the toll collection systems in order to provide a higher-quality service for users
- **Definition:** integral system with the interaction of several actors with different roles and responsibilities for an interoperable electronic toll collection.
- **Agents:**
  - Ministry of Communications and Transport (SCT)
  - Concessionaires
  - Business Process Outsourcing (BPO)
  - Operator
  - Integrators



CUSTOMER'S WEBSITE



DASHBOARD



TECHNOLOGICAL EQUIPMENT

# Future actions

## Next 5 years

- Implement a new model of operation efficiency and customer oriented
- Provide a national interoperable ETC system
- Policies to increase the level of quality and service

## Next 10 years:

- Reach a higher balance for private concessions vs public operators
- Give priority to ETC in toll plazas with adapted infrastructure for a fast ETC only lanes



Thank you very much for  
your attention!

Pleased to answer any questions...

Note: The information presented before must not be taken as the official government position.