From transportation to mobility management
Veolia Transportation NA

- Global leader operating contracts for over 5,000 transit authorities in 28 countries.
- 20,000 employees, 7,000 vehicles, over 200 locations in North America
- Number one multi-modal passenger transport company in North America.

> **Fixed route, Bus Rapid Transit, University Transit, Airport Shuttles and Circulators** with rigorous safety and maintenance programs with a focus on the passenger experience

> A leader in **Paratransit** services providing innovative service delivery models to elderly and disabled users.

> **Commuter rail, light rail, trolleys and subways** moving 750 million rail passengers a year!

> **Taxis and shared ride vans** in over twenty cities
Transport services, a priority and major issue for cities

- Cities are larger and more complex, requiring seamless and integrated transport systems
- Growing interest for environmental and social issues
- Growing financial pressure on public transport authorities
- Customers looking for A to Z solutions, new more comfortable and fluid means of public transport
4 main changes are impacting the transit industry

- Social: new expectations from city inhabitants
  → A to Z solutions, seamless, easy, bringing value
- Institutional: larger and more complex areas, multi-authority, multi-operators
- Technical: huge improvements allowed by information and communication technologies
- Environmental: more and more energy and environment concerns, new mix of solutions

Urban mobility is now changing quickly from mass transit services to high tech, clean and personalized services,
Transit : an industry looking for innovations

- Digital Mobility to complement Physical Mobility
- New contractual schemes bringing locally new transverse solutions, including new actors
- From fossil energy towards renewable energy or electric ones
- Simulation and modelisation of mobility are more and more key to a good optimisation

Target is to bring more and more intelligence within transportation to city inhabitants and to every actors of the « ecosystem »
Digital Mobility will allow each city inhabitant to choose and control his mobility needs

Passengers expectations

- End to end solutions
- Imposed time => useful time
- Easy, reliable, safe

Digital mobility : 3 pillars

- Real time information, trip calculators, easy access to every type of transportation
- Universal ticketing on mobile phones
- To give some value to the time during a trip : infotainment, internet access…

On demand or shared trips, supported by high tech softwares and tools
mobile phones and mobility

i-phone application
Several networks
Need to invent new contractual schemes

PTAs expectations

- More complex and multi-authority territories
- To ease intermodality
- To design attractive and efficient intermodal stations
- Urban space optimisation, long term city planning

Solutions

- To eliminate geographic, administrative and pricing borders
  - Limburg Province
  - New Orleans model
- To propose solutions cross operators and cross PTAs
  - Mobility Information
  - Ticketing systems
- Key rôle of intermodal stations: rail and bus stations, park and rides, multimodal areas
New Orleans: a reference case

Delegated Management begun Sept. 09

- RTA retains all policy responsibility including fares, service standards, service levels, budget and funding.
- Veolia responsible for implementing Board policy and daily operations
  - Implemented Veolia best practices
    - Reduced operating costs by 21%
    - Improved on-time performance
      - Bus from 78% to 93%
      - Streetcar from 81% to 88%
      - Paratransit from 79% to 90%
    - Reduced number of accidents by 20%
  - Significant investment in technical resources towards rail expansion, safety, marketing, and service planning
To decrease environmental impact of transit and to bring a new energy mix

- Transport accounts for 19% of total CO2 emissions in the world, 14% out of total green gases, increasing
- First priority is to have less cars and to increase share trips
- 2nd priority is to improve the carbon footprint of the transit industry
  - Improve smooth driving, maintenance … and decrease fuel consumption
  - Use new and acceptable bio fuels or biogaz => 25 % (biofuels) to 70 % (biogaz) CO2 reduction
  - New vehicle architecture, hybrid vehicles => ~25% improvement
  - Electric vehicles : trains, light trains, busses, taxis, cars …
- What is important is the complementarity of all these actions
Foothill Transit Ecoliner

- fully electrical bus (from 100% green energy)
- batteries: Lithium Titinate
- drive motors: 150 kW UQM (201 bhp peak)
- Material: 100% Composite – Energetx Composites
- Length: 35 ft. 9 inches without bumpers
- 2 in-route docking stations (95% charge < 10 minutes)
- capacity: 35 Passenger Seats
- can operate 24/7 in the system
- 3 vehicles ordered /12 option vehicles

- Weight (net): 27,250 lb (12.4 t)
- Load (max): 8,410 lb (3.8 t)

Photo Courtesy North American Bus Industries
Electromobility downtown in large cities

- Freight and passengers vehicles
- All vehicles: busses, trucks, city and professional ones, taxis …
- More and more shared vehicles
  - Business shared fleets
  - Carsharing, autolib, rented cars, taxis
  - Connected and interlinked with public passenger transportation
- Incentives towards electric vehicles
  - Eco taxes and city tolls
  - Parkings, priorities on HOV or BRT special lanes, …
Our major challenges

- Promote public transportation as a remedy for climate change
- Offer the public optimum flexibility and personalized mobility
- Help public authorities manage increase in transportation needs
- Make public transportation a friendly space
Our vision of mobility in 2015