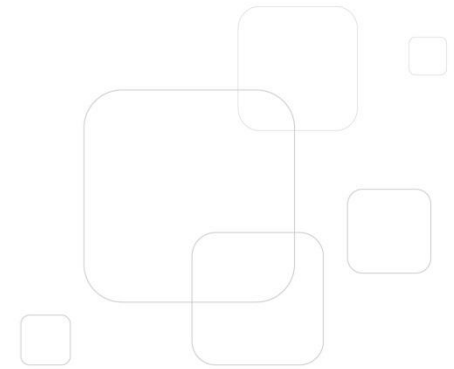


EU-Brazil possibilities for cooperation in clean vehicles and innovative public transport

Alessandro Santiago

Instituto de Pesquisas Tecnológicas do Estado de
São Paulo

Innovative Public Transport



- Emblematic Example
 - BRT(Bus Rapid Transit)
 - Curitiba developed BRT solution around 1970

“Serving as the backbone of Curitiba, BRT has provided a range of benefits for the city. The efficient BRT has substantially reduced travel time and fuel consumption, which helps to promote sustainable urban development”

- Several countries are developing BRT solutions and ITS are fundamental to increase results

Innovative Public Transport and Mobility Plans

- For Big Events.
 - Nine of the twelve World Cup host cities are building BRT lanes.
 - Olympic Games: Rio de Janeiro are building Transcarioca, TransOlímpica and TransOeste (BRT solutions).
- For medium cities(20 000 habitants) is mandatory establish a mobility plan until 2015 to obtain national resources

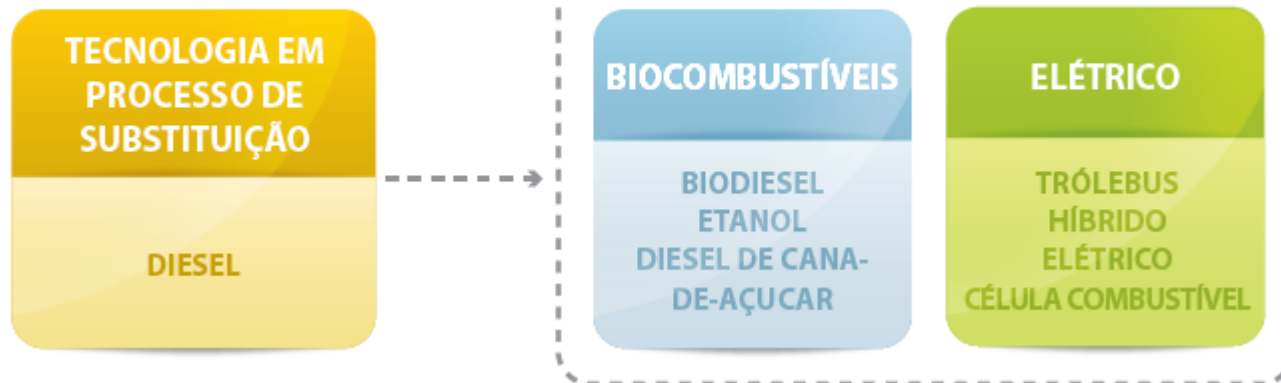
Clean Vehicles

- Emblematic Example:
 - São Paulo – SPTrans

- 1.870 buses (December 2012)

- Nowadays are 15% of the fleet, with a goal of reaching to 80%

- Technologies



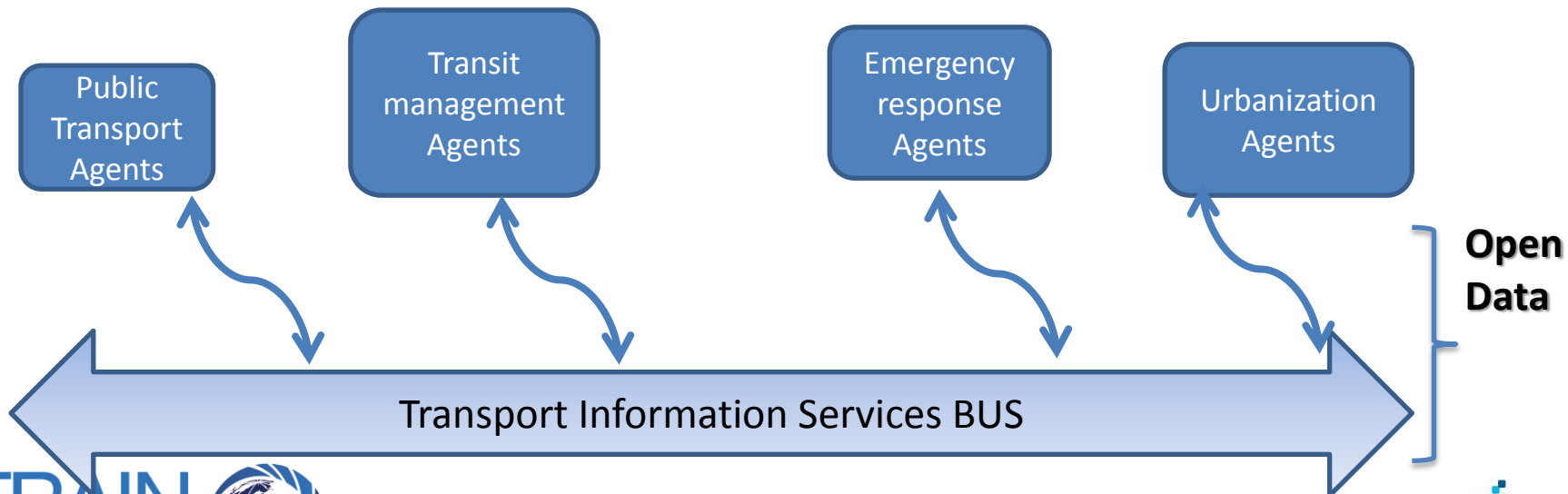
Clean Vehicles

- Hybrid Taxis
 - Initiative to use hybrid taxis in urban area
 - *116 vehicles will be in operation in São Paulo city*



Challenges and opportunities

- The User information services are common in Europe, however in Brazil, this initiative is recent, and it is done by isolated solutions.(Goiania, São Paulo, etc..)
 - Needs:
 - Polices for Open Data
 - “Transport Information Service BUS”

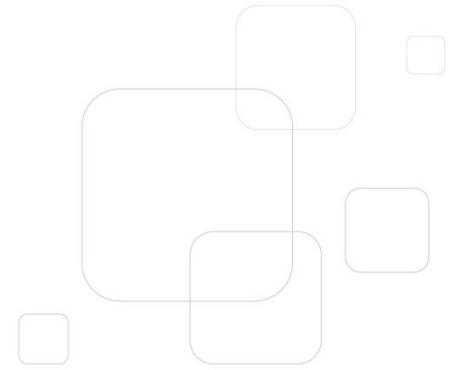


Challenges and opportunities

- The movement to smart cities are increasing, and the Operational Control Center are raising in medium and big cities. The Transit and transport management are fundamental for this environment.
 - Needs:
 - Standardization
 - ITS Reference models integrated with mobility plans

Challenges and opportunities

- The goal to reduce impacts on environment are increasing, and clean vehicles are inevitable.
 - Research Needs:
 - Improve the motor efficiency and use with biofuel
 - Vehicle moved by hydrogen cell
 - Standards and operation models for use of electric cars



Alessandro Santiago – alesan@ipt.br

THE END.