« Data sharing as a service to support the collaborative governance of mobility. »

COMMUTE
Digital Platform

INSA Conference, The future of connected mobility IoT applications and services

Didier Bosque, Paul Pidou
Sopra Steria
AGENDA

1. Why a **collaborative governance** of Mobility
2. **Colibry**, the Digital Operational Concept
3. The **Commute** project to improve the mobility of the Aeronautical Area of Toulouse
4. The **Data Box**
5. Let’s go further with **IOT**
Increasing the take up and scale-up of innovative solutions to achieve sustainable mobility in urban areas

- **Soaring Urbanisation** Growth
- Answering *only* by infrastructure is fighting a *loosing battle*
- **Innovation** is mandatory to **Transform the Demand**

“This is the time of Managed and Collaborative Mobility!”
COLIBRY(*), How does the operational concept work?

**Databox**

- **Collect**
  - Start-up & éditeurs
  - Maas

- **Cloud**
  - Predict
  - Disseminate
  - Operate
  - Adapt
  - Evaluate

- **Cockpit**
  - Councils & Transportation Authorities
  - Enterprises

- **Assistant**
  - Citizens and Employees

- **API**

- **IoT**
  - GPS & GSM Positions
  - Roads
  - Lines
  - Weather forecast
  - Incidents

- **Heterogeneous data**

- **Events**

**Social**

**Mobile**

- **Cyber security**

(*) « COLaborative moBility gets RealitY »
COMMUTE - Méthodology

Collaborative Gouvernance

Public & private partnership

Weekly meetings and thematic workshops together with enterprises & authorities

Multipartners Mobility Strategic & Operation plans (PMIE)

Plateforme Digitale

Assessment

Measures et analysis for “present time”

Adjust & deploy

Including enterprises of the Airport Area and from the “Club Reussir”

Public Transport

Carpooling

New ways of work

Bicycles

18/11/2019 – Commute SASMob
Digital Platform : sourced by heterogeneous data

- One way ways
- Parking relays
- Urban Expressways
- Parking meters
- 30 km/h Speed Zones
- Delivery area
- Shared Spaces

Public transports

- Metro Stations
- Tramway Stations
- Train Timetables
- Bus Stations
- Bus/Tram Timetables

Road equipments

- Traffic Information
- Surveys
- Counting Loops
- GSM Data
- Carpooling

Usages

Environmental

- Pollution
- Weather
- Air Quality

Events

- Hollidays
- Urban worksites
- Sports events
- Strikes
- Cultural events
- Incidents
- Markets
- COMMUTE Actions

Other equipments

- Cycle Network
- Conference Rooms
- Urban Coworking
- entreprise sites equipments

Digital Platform : sourced by heterogeneous data

18/11/2019 – Commute SASMob
Multi-partners view: Sustainable development management

27,543 employees
5 enterprises

1 hour 9 minutes
14.6 euros
6,445 kg CO2
Enterprise Site view: anonymised Origins & Destinations, modal share
Heterogeneous data → Injection → Valorisation → Use Cases

Supervision
- Data Lineage
- Data Description
- Quality (Data / IA)

Data
- RAW / REFINERY
- GOLD

Visualization

DATA LAKE

DATA PLATEFORM

IDEs
- ZEPLIN

LAB
- jupyterhub

Data Governance tools

Data Scientists tools

Data Engineers
DIGITAL PLATFORM: GO FURTHER
Video pre-treatment → Vehicles detection → Identification of the vehicles emissions → Vehicles counting → Front-end

Video treatment
Vehicles detection
Identification of the vehicles emissions
Vehicles counting
Front-end

Séminaire INSA, The future of connected mobility IoT applications and services
QUESTIONS / ANSWERS

Contacts
• didier.bosque@soprasteria.com
• paul.pidou@soprasteria.com