SMART STATIONS IN SMART CITIES
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Next Stations: Smart & Inclusive

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Session 2a - Next Station: Smart & Inclusive
What stations need to fit within a Smart City?
Challenges and opportunities for Cities

- Population growth
- Change in mentalities
- NTIC/digital/IoT
- Emmergence of new mobilities
What stations need to fit within a Smart City?

Stations designed to be at the heart of the cities evolution

- Designed and animated with citizen
- Multimodal hub sharing data with cities and citizen
- Smart and efficient
Inclusive Stations

Stations designed with the citizen

Project acceptability – Answering new uses – Better inserted in the local urban tissue
Connected Stations
Stations connected to the city

City enters the station and is open to the city connected to the citizen

Sharing data providing digital services

Multimodal
Smart Stations
Station designed as living organisms

For a revisited passenger experience (ambiance / passengers flow...)

Saint-Lazare
“Salle des pas perdus”, 2006

Saint-Lazare
“Salle des pas perdus”, 2016
Smart Stations

Station designed as living organisms

For a revisited passenger experience (ambiance / passengers flow...)

NEXT STATION: SMART & INCLUSIVE
Smart Stations

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Smart Stations

Station designed to be efficient
Smart Stations
Station designed to be efficient

For a revisited passenger experience (ambiance / passengers flow…)

PASSenger EXPERIENCE
Improving passenger experience with a real time lighting, acoustic, ventilation and signage management

OPERATION
Optimise station operations by centralizing the management of equipments (camera, lighting, sound system..)

MAINTENANCE
Rationalize maintenance costs of equipments (predictive maintenance, real time information, failure localisation)
Smart Stations
Station designed to be efficient

1. Light & Porosity
2. Light & Ambiance
3. Bi-directional gates
4. Light and Orientation
5. Dynamic Passenger Display
6. Smartphone Apps
7. Multi-functional screen
8. Localized Announcement
9. Smart Screen Door

NEXT STATION: SMART & INCLUSIVE
**Stations: Inclusive / Connected / Smart**

**Use cases**

**Smart Lighting**

**Solution:**
- **Light porosity**
  Intelligence to adapt the light temperature and intensity to outside light

- **Indoor Positioning:**
  Localisation by light. Detect the traveller localisation and give them access to a GPS to travel inside the station.

**Travellers Experience**

**Solution:**
Dynamic lighting atmosphere
Stations: Inclusive / Connected / Smart

Use cases

Dynamic signs

Solutions:
Dynamic signs adjust to crowd and linked with illuminated paths (force flow orientations).

Dynamic and/or interactive Information Panels at screen doors.

Flow Optimisation

Solutions:
Dynamic illuminated paths adjusting to crowd and pre-defined scenarios.
Stations: Inclusive / Connected / Smart

Use cases

Smart Screen Door

Solutions:
Lighting sections indicates at each door the wagon free capacity in order for passengers to better position themselves on the platform.

Reduce station stopping times
=> increase the line capacity

Flow Optimisation
THANK YOU
GRACIAS