



SMART STATIONS IN SMART CITIES

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Next Stations: Smart & Inclusive

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Session 2a - Next Station: Smart & Inclusive

UNDER THE HIGH PATRONAGE OF



ORGANISERS



What stations need to fit within a Smart City?

Challenges and opportunities for Cities

Population growth



Change in mentalities



NTIC/digital/IoT



Emmurgence 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



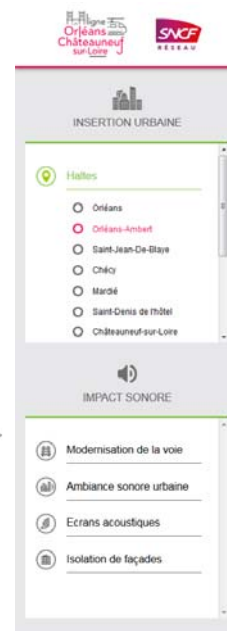
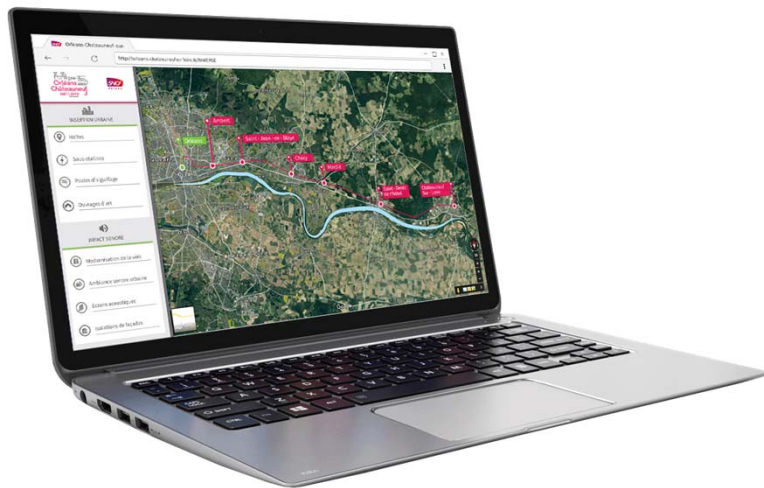
Smart and efficient



Inclusive Stations

Stations designed with the citizen

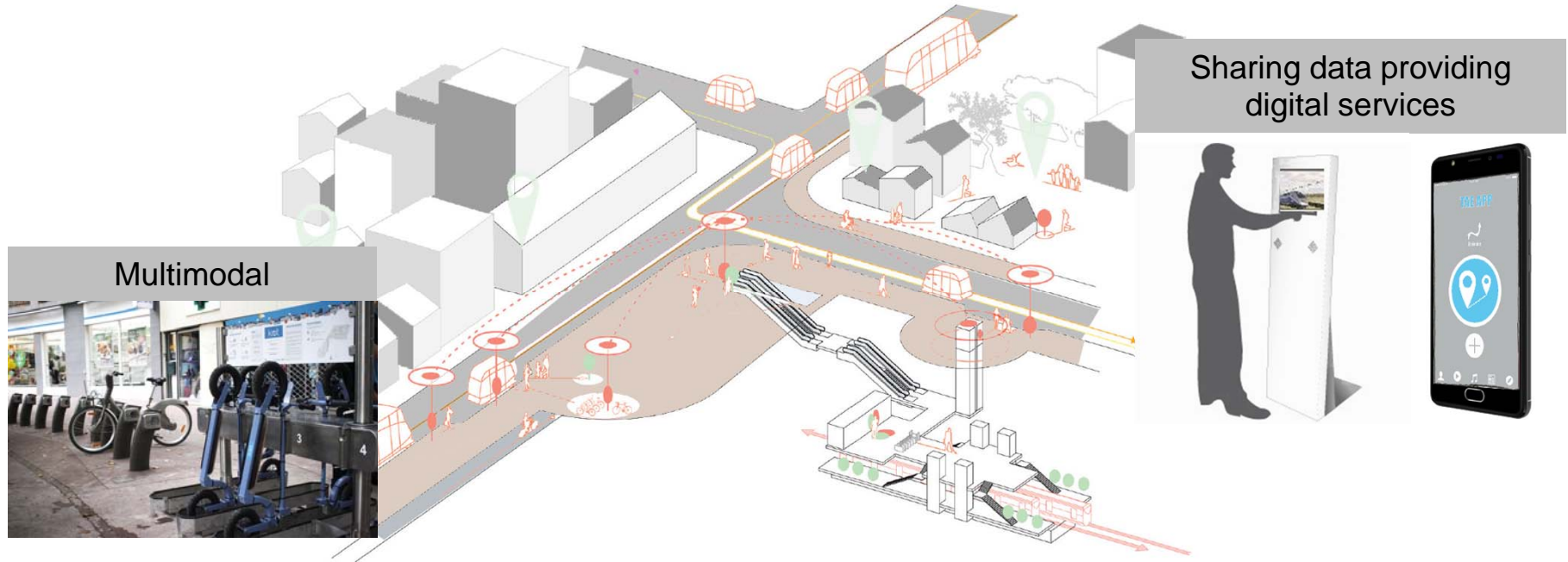
Project acceptability – Answering new uses – Better inserted in the local urban tissu



Connected Stations

Stations connected to the city

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



Smart Stations

Station designed as living organisms

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



Saint-Lazare
"Salle des pas perdus", 2006

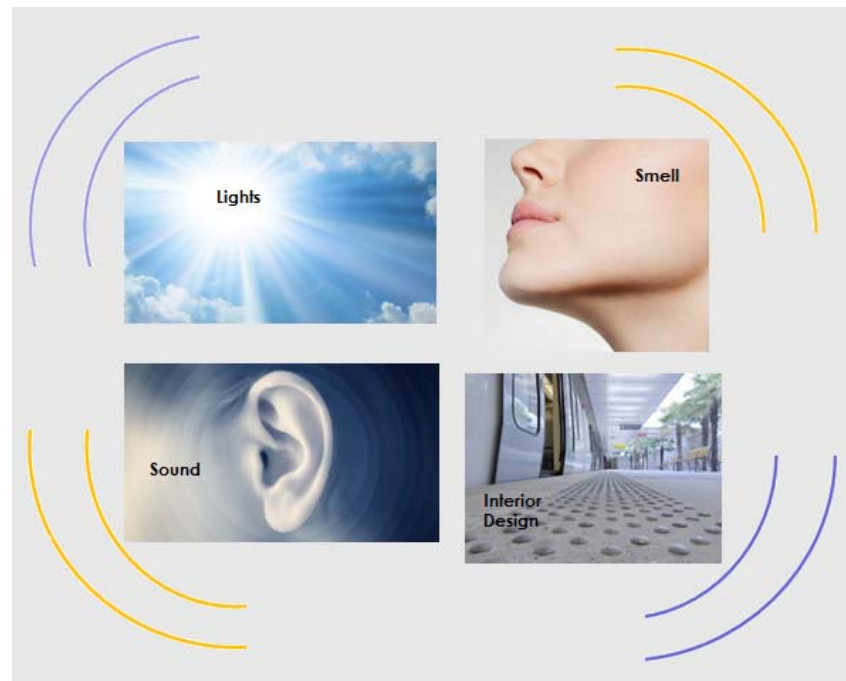


Saint-Lazare
"Salle des pas perdus", 2016

Smart Stations

Station designed as living organisms

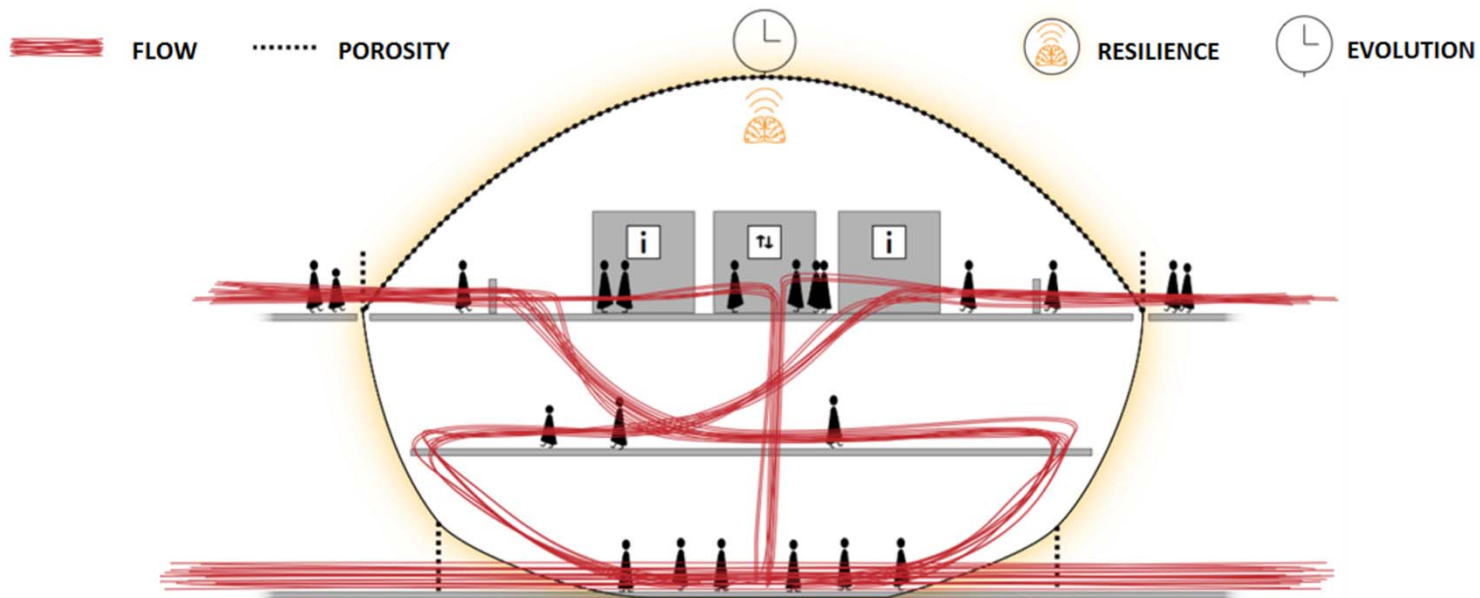
For a revisited passenger experience (ambiance / passengers flow...)



Smart Stations

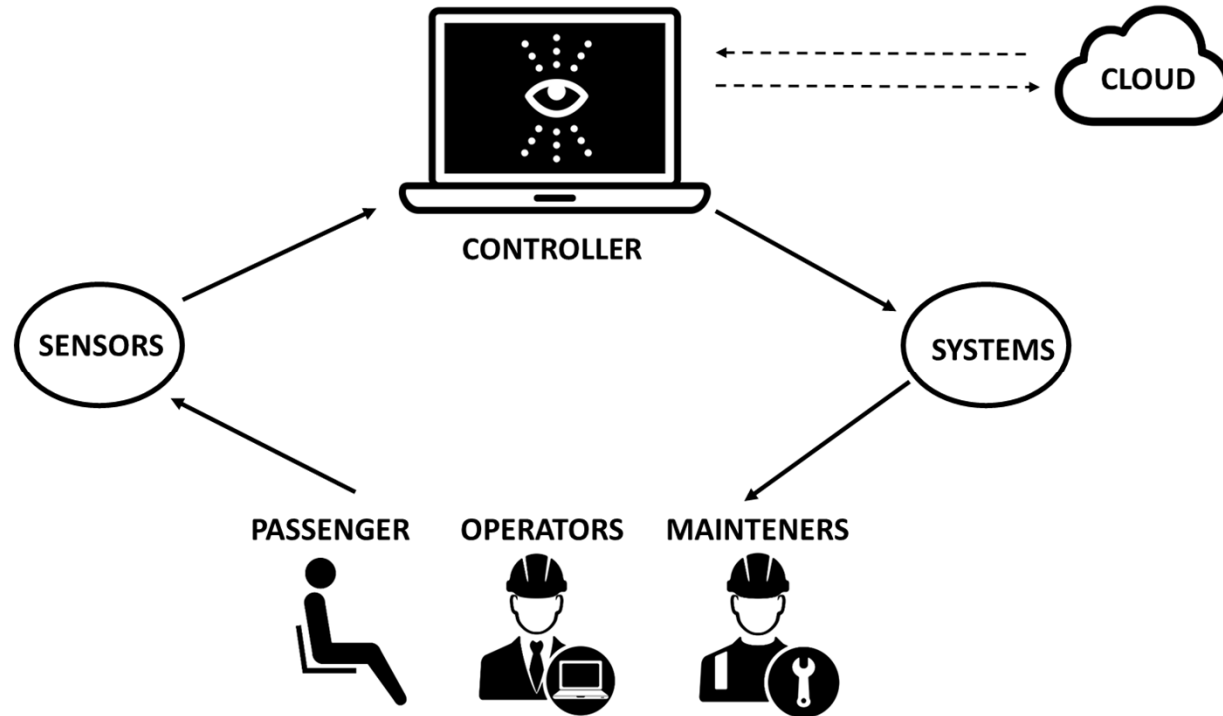
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Smart Stations

Station designed to be efficient



Smart Stations

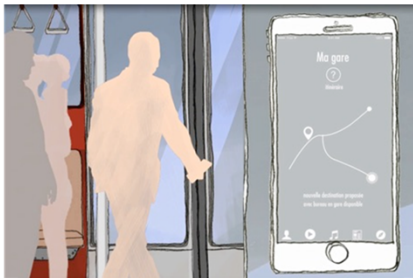
Station designed to be efficient

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



PASSENGER EXPERIENCE

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



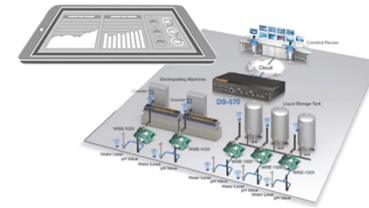
OPERATION

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



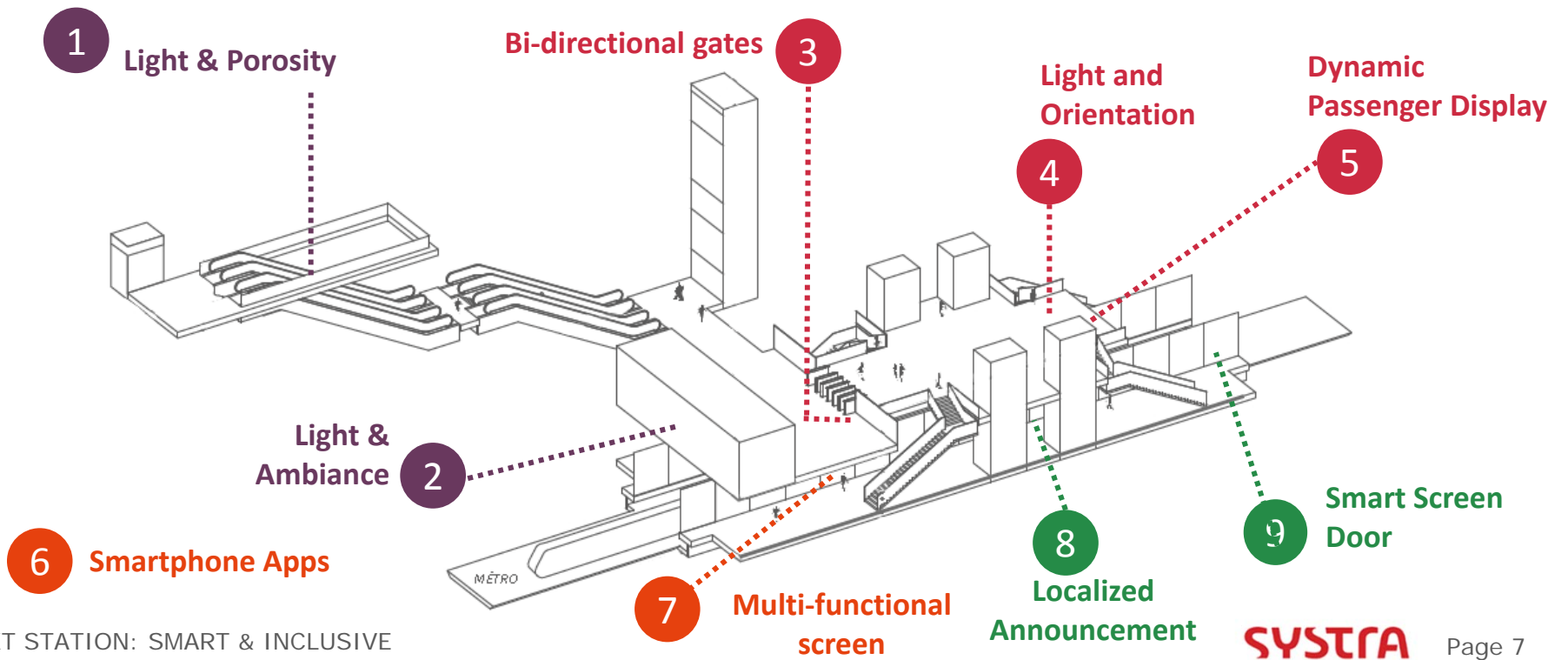
MAINTENANCE

Rationalize maintenance costs of equipments (predictive maintenance, real time information, failure localisation)



Smart Stations

Station designed to be efficient



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.



Solution:
Dynamic lighting atmosphere

Travellers Experience

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

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ORGANISERS