

A new public transit network for the east end of Montreal

Technical presentation

Décember 2020



Well-known challenges in the east and northeast



Very few major investments made in public transit in recent decades

Low modal share of public transit for travel between **attraction centers in the East**

Residential neighbourhoods **poorly connected** to public transit networks

Bus networks impacted by **traffic**

The current situation is

a major hindrance to development in the east

Analysis of the east and northeast sector

1

Exhaustive mobility analysis

- ✓ Regional diagnosis in terms of mobility services
- ✓ Corridor options
- ✓ User travel modes

2

Multi-criteria assessment of identified scenarios

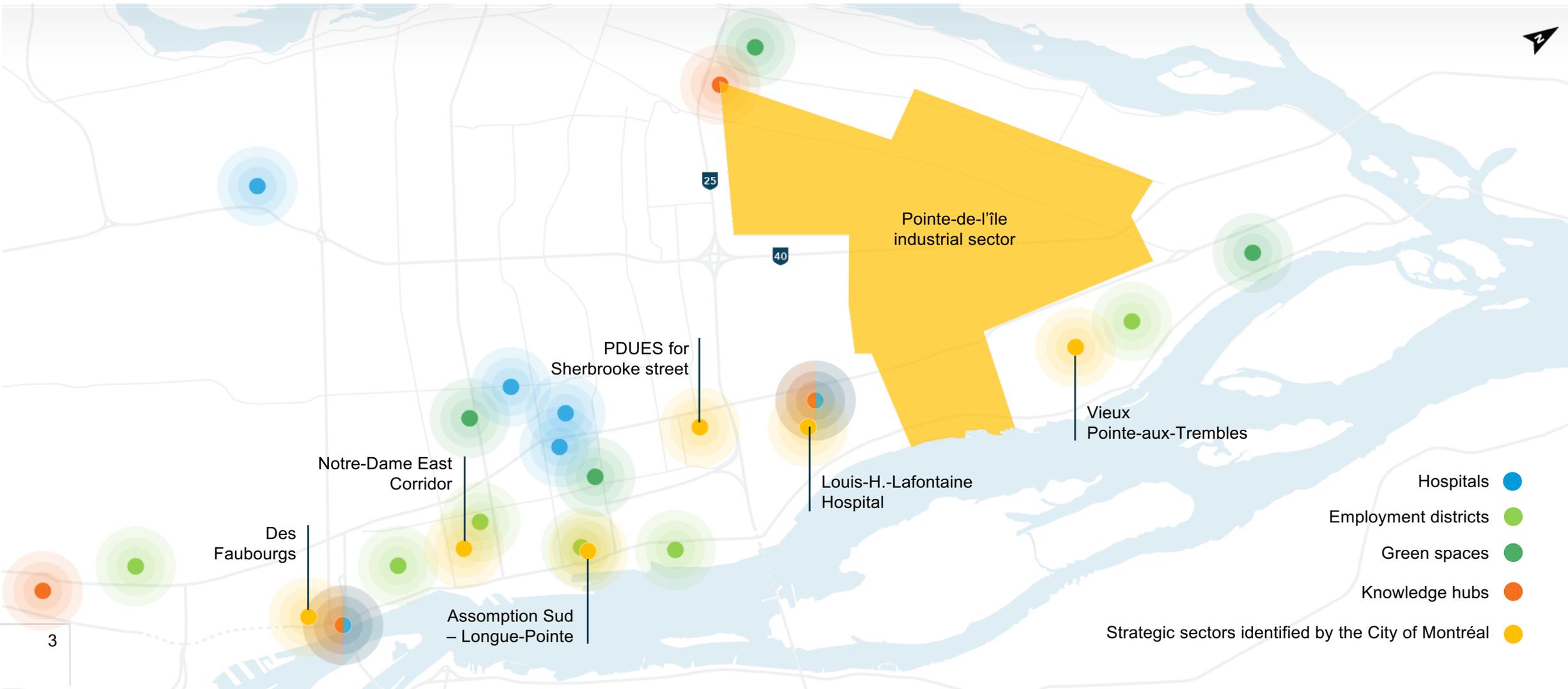
- ✓ Service for the population and travel hubs
- ✓ Consideration of the city's development plans and policies
- ✓ Optimization of connections with other transit networks

3

Analysis of the stakes

- ✓ Technical feasibility
- ✓ Social and environmental acceptability
- ✓ Economic viability of the project

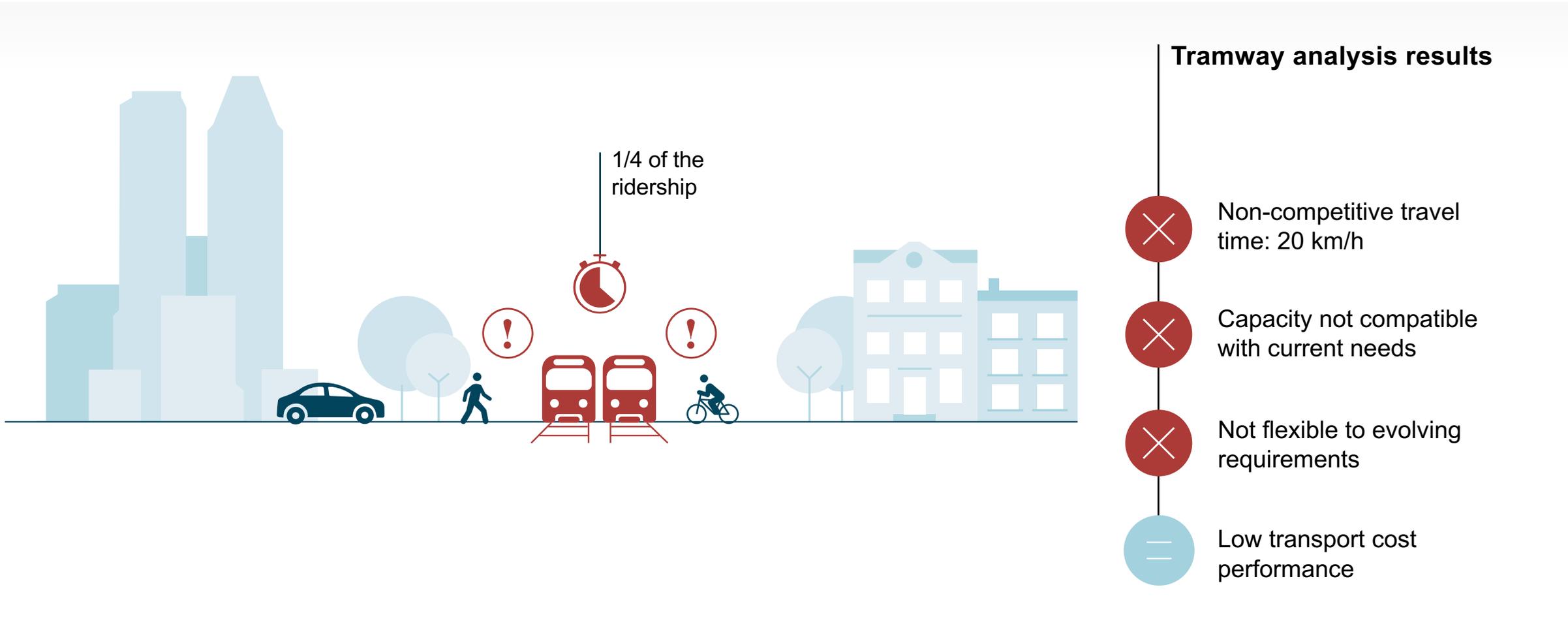
Strategic areas to service



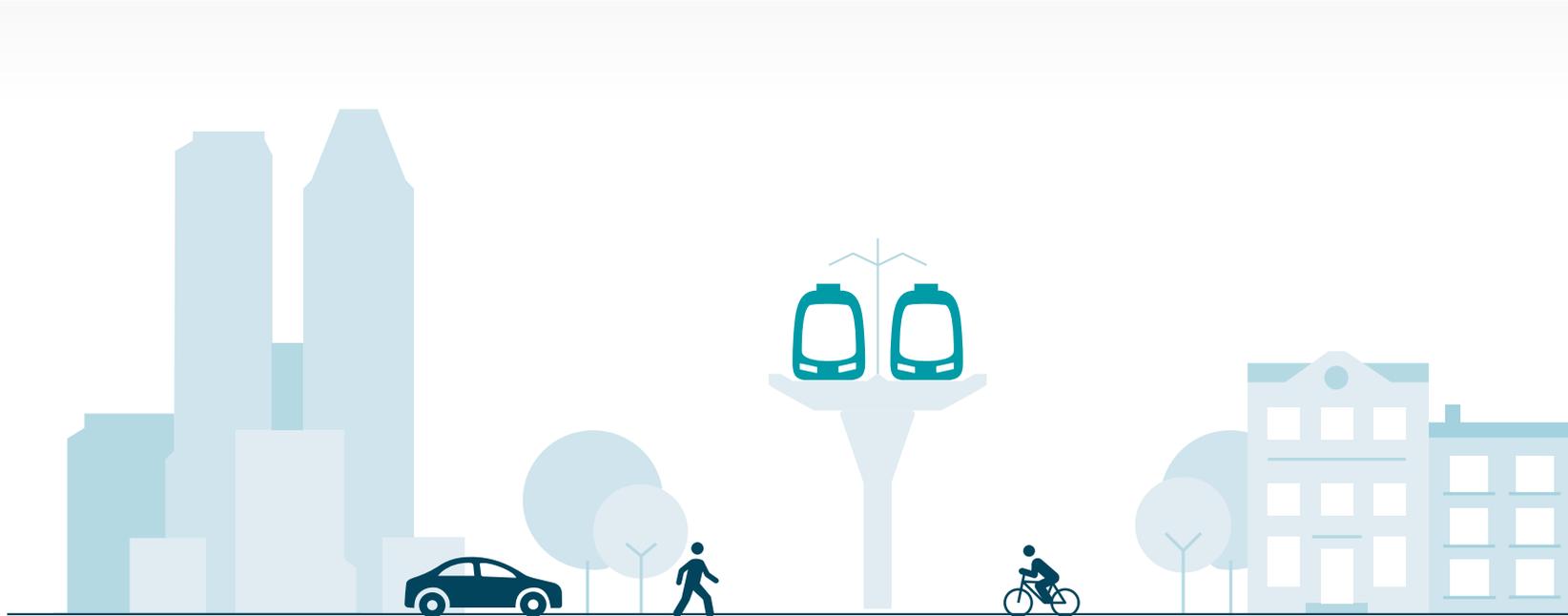
The travel corridors studied



Technology to be identified



Technology to be identified



Light rail analysis results



Competitive travel time:
40–45 km/h



Capacity compatible with
current needs

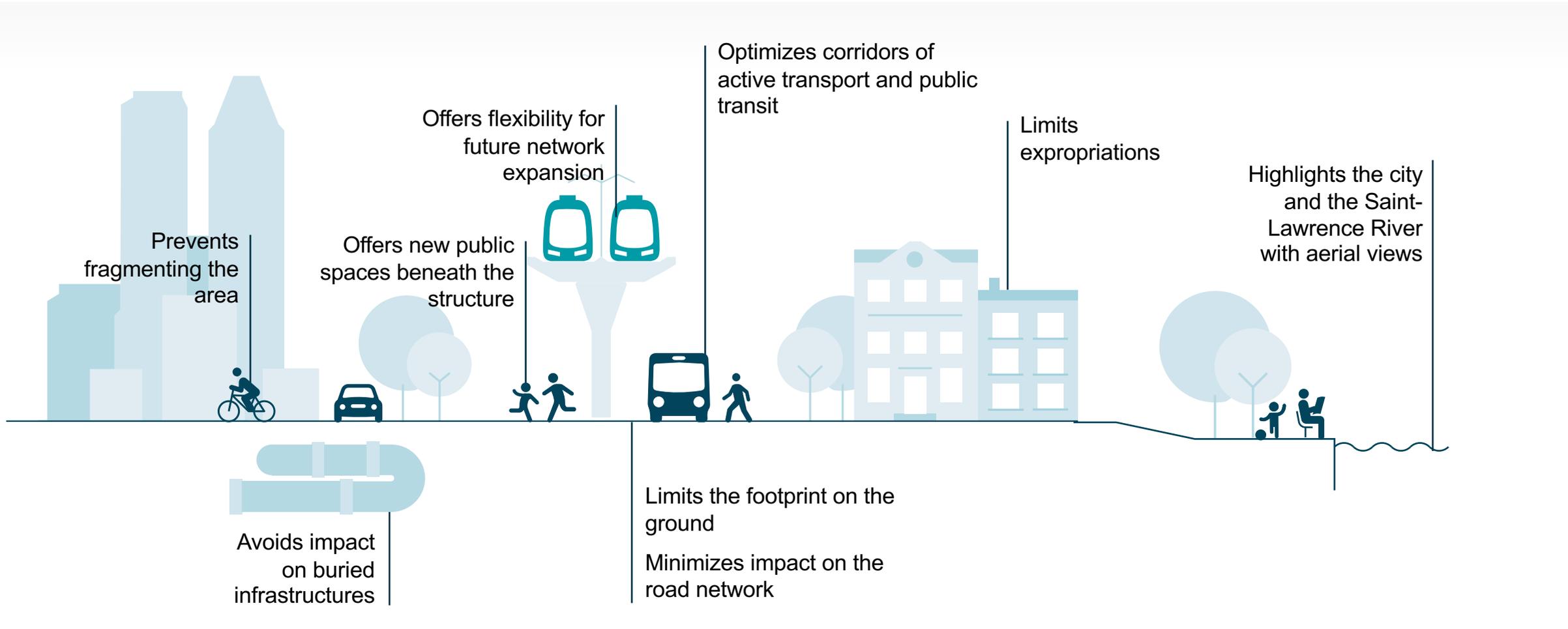


Flexible to evolving
requirements



Economic performance
of the transport cost and
speed of realization

Advantages of the elevated structure



The proposed solution: REM de l'Est

7 days/week

Schedule synchronized with the Montréal metro

2 to 4 min.

Frequency during rush hours

100%

electric and automated

\$10 billion

total estimated project cost

32 km

Dedicated tracks:
7 km underground
and 25 km above ground

23 stations

all universally accessible



Boul. René-Levesque



- ✓ **Avoids numerous buried infrastructures** (catch basins, metro, public utilities, foundations)
- ✓ **Offers new views** of downtown and the river

Elevated route above the **central median**



Notre-Dame Street



- ✓ Will harmonize with future redevelopment as an **urban boulevard**
- ✓ **Maximizes the safety** of pedestrians, cyclists and cars
- ✓ Offers **new views** from the river bank

Elevated route along the **north side** of Notre-Dame Street



Marie-Victorin Branch



- ✓ Integrates into a dense **residential area** composed of **low-height buildings**
- ✓ **Prevents expropriations**

Primarily **underground** route



Sherbrooke Street



- ✓ **Minimizes impact** on existing development
- ✓ **Maximizes safety** for pedestrians, cyclists and cars
- ✓ No impact on **commercial or residential driveways**

Elevated route above the **central median**



The proposed solution

A network integrated with other modes

133,000

users/days (by 2044)

380 million

passenger-km per year (by 2044)



Intermodal connections

- Mascouche line
- Green, blue and orange lines
- SRB
- REM
- STM, STL, RTL, exo bus networks

Four structuring effects for Greater Montréal



Mobility

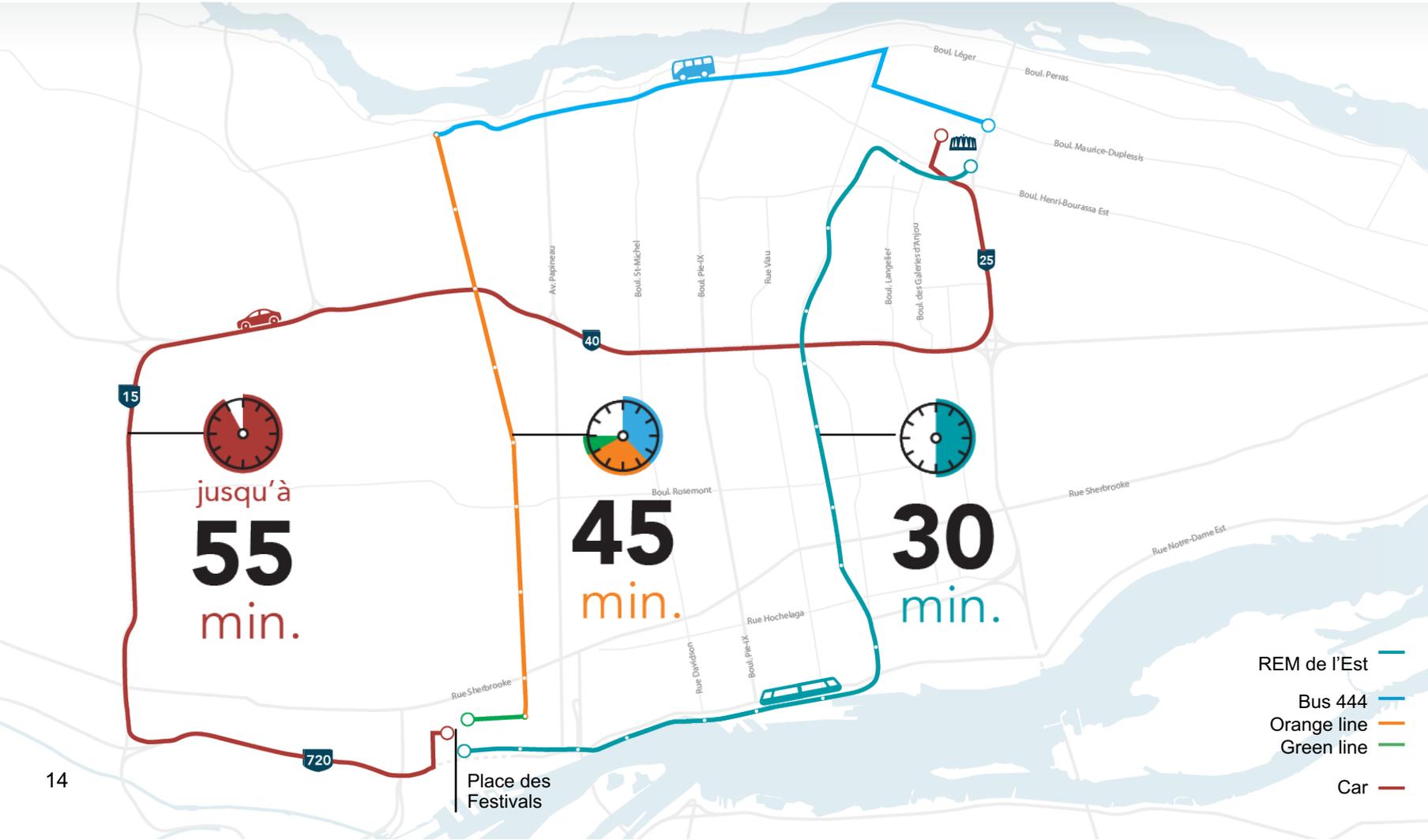


Generates significant time saved

	By car	By current public transit	With REM de l'Est	% of time saved compared to car
Pointe-aux-Trembles ↔ Downtown	40 to 80 minutes on average	45 to 60 minutes on average	25 minutes	35 to 70%
Cégep Marie-Victorin ↔ Downtown	40 to 75 minutes on average	55 to 70 minutes on average	30 minutes	25 to 60%
Maisonnette Park ↔ Downtown	15 to 35 minutes on average	35 to 55 minutes on average	10 minutes	30 to 70%

Monday 12:00

From the Cégep Marie-Victorin to the Place des Festivals



Time saved
even outside
peak hours

Improves the fluidity of travel

133,000

users/day (by 2044)

380 million

passenger-km per year
(by 2044)

165 million

vehicle-km saved (2044)

Better quality of life

- ✓ **Reduces traffic congestion** associated with “solo cars”
- ✓ Offers **frequent service**, even outside rush hours
- ✓ Allows communities to benefit from the advantages of urban environments

Simplified travel

- ✓ **Doubles the coverage of the metro network** in Montréal’s east end (x 2.5)
- ✓ Services destinations other than downtown
- ✓ **Relieves congestion** in the Montréal metro

Integration



An architectural signature to distinguish Montréal

Elevated structures and stations designed with a **modern and emblematic aesthetic** for downtown Montréal, in the manner of major metropolises around the world



Upstream development of **guidelines** through a concerted approach led by experts for the architectural, urban and landscape integration of the network



A design that **adapts to the defining elements** of each segment



REM de l'Est advisory committee on urban integration

Proposed mandate

- > Make recommendations to the design team in order to ensure a harmonious integration of the REM de l'Est's infrastructures into their environment
- > Comment on the guidelines for the architectural signature and urban integration of the REM de l'Est

Examples of subjects dealt with by the committee

The stations

Works of art

The materials

Indoor and outdoor furniture

Landscaping

Integration of works of art

The ambiance (*visual, sound, tactile*)

Distinctive elements according to the neighborhoods



Model underground station – Saint-Léonard



Contributes to revitalization of Notre-Dame Street



Examples of international station architecture



Station Washington/Wabash, Chicago, États-Unis



Beatrikwwartier Light Rail Station, Pays-Bas



Nordpark Cable Railway, Innsbruck, Austria



Palm Jumeirah, Monorail, Dubai, United Arab Emirates



Grand Paris Express, Paris, France

Examples of international urban integration



Environment



Contributes to sustainable development

35 000 tons

of GHGs prevented per year

165 million

vehicle-km prevented

More service

- ✓ Favours **sustainable mobility**
- ✓ Encourages modal transfer from “solo car” to **public transit**
- ✓ **Reduces noise pollution** associated with traffic congestion
- ✓ Fits within the government's strategy to **electrify transport**

More environmentally friendly

- ✓ Acts as an important vector for **rehabilitation of contaminated brownfields** in Montréal's east end
- ✓ Contributes to improving the overall **environmental performance** in Montréal's east end
- ✓ Includes a **GHG compensation strategy** during the construction phase

Economy



Structures development in the east

DURING CONSTRUCTION

+ 6.3 B \$

contributed to Quebec's GDP

+ 60,000 jobs

and indirect jobs

+ Largest investment ever made in public transit infrastructure in Quebec



- ✓ **Services industrial parks**, including the Port of Montréal and the Olympic Stadium
- ✓ Serves as a lever for the **development** of the Pointe-de-l'Île and Assomption Sud – Longue-Pointe industrial sectors
- ✓ Decreases economic losses associated with traffic congestion (estimated at **\$4.2B/year** in the greater Montréal area)
- ✓ Contributes to **revitalizing commercial arteries**
- ✓ Improves **recruiting and retention** of the workforce
- ✓ Serves **27 million square feet of vacant land**, conducive to redevelopment

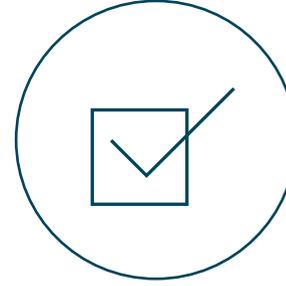
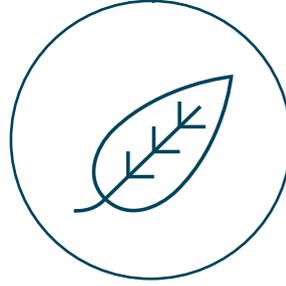
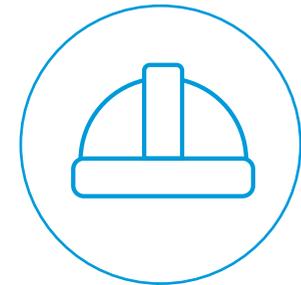
The next steps



The next steps

Detailed analysis

Construction phase



Discussions with citizens
and consultation with
stakeholders

Establishment of the
advisory committee for
urban and architectural
integration

Environmental
impact study

BAPE

In the next decade



In the next decade

Integrated networks to support Montréal's growth





For users:
breathtaking views
of the city and
its districts,

**an
enhanced
mobility
experience**

Thank you

