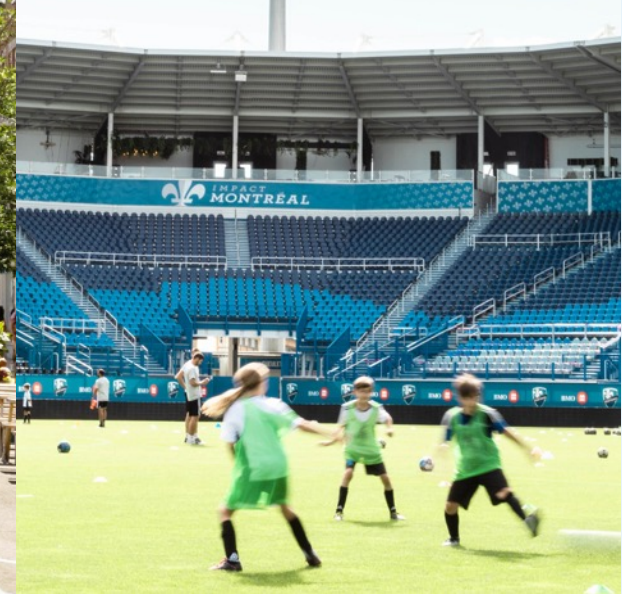
A new public transit network for the east end of Montreal



Technical presentation

Décember 2020

Subsidiary of Caisse de dépôt et placement du Québec

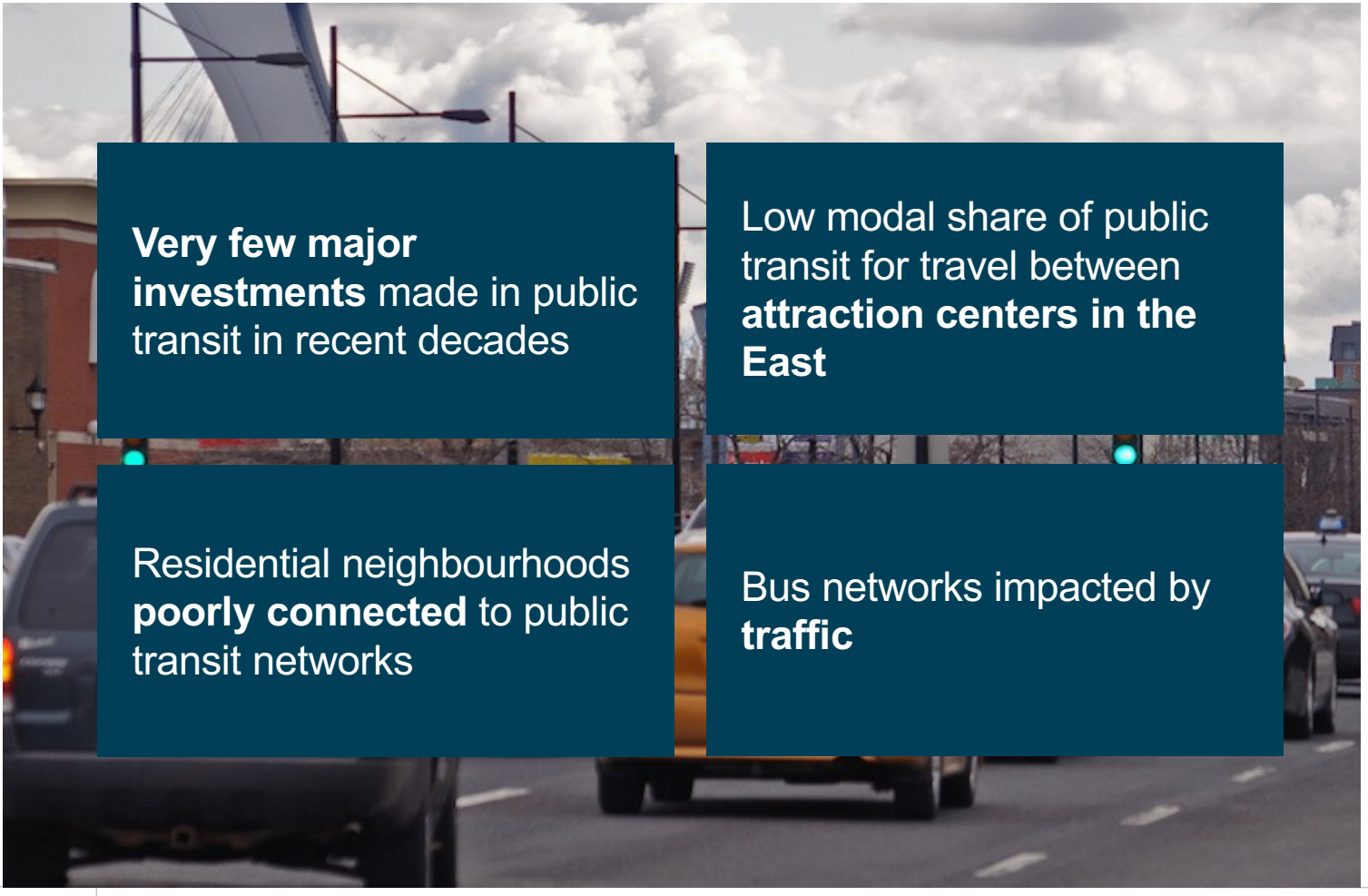
cdpqinfra.com

This document contains privileged and confidential information, and may not be transmitted or shared without prior consent from CDPQ Infra.

CDPQ Infra

East and northeast sector of Montréal

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

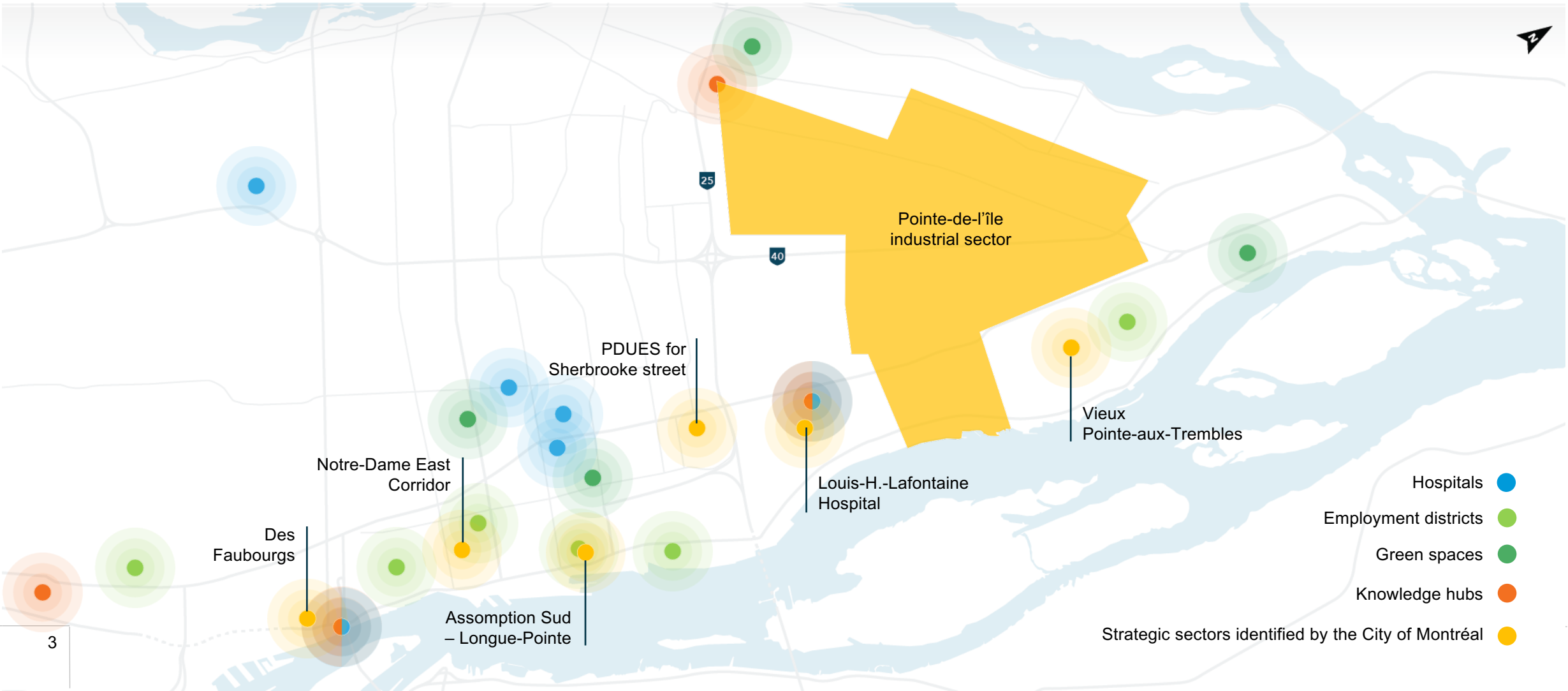
- ✓ Service for the population and travel hubs
- ✓ Consideration of the city's development plans and policies
- ✓ Optimization of connections with other transit networks

3

Analysis of the stakes

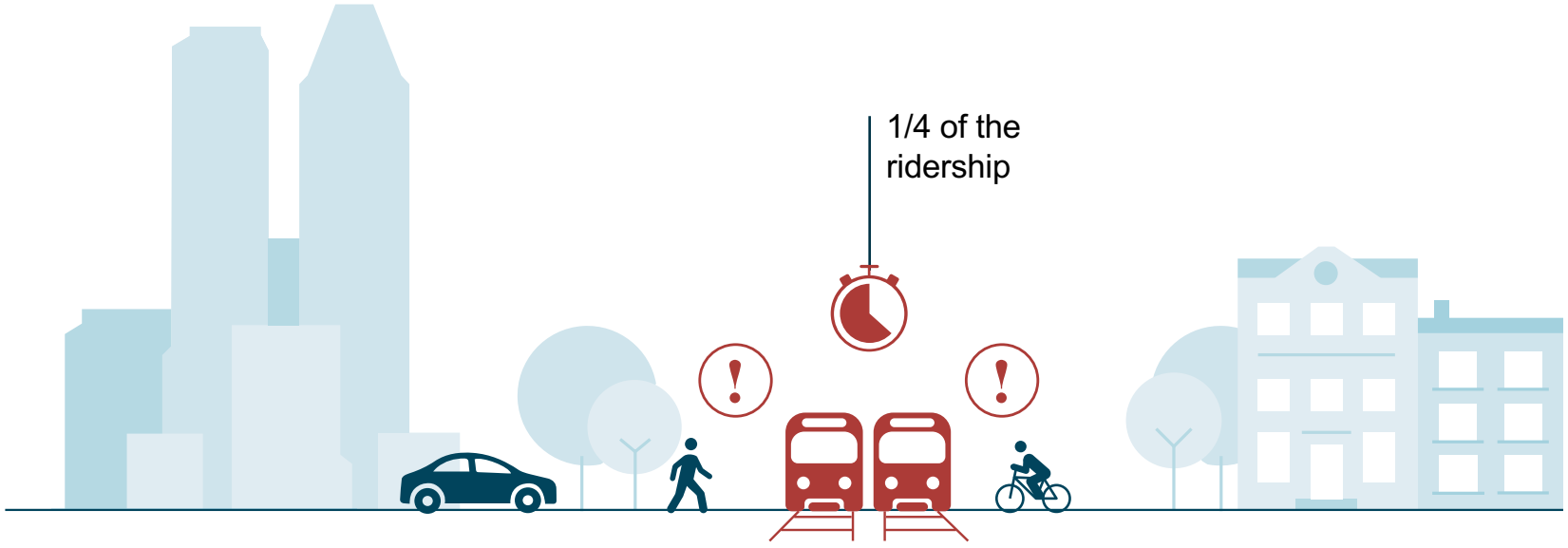
- ✓ Technical feasibility
- ✓ Social and environmental acceptability
- ✓ Economic viability of the project

Strategic areas to service



The travel corridors studied

Technology to be identified



Tramway analysis results

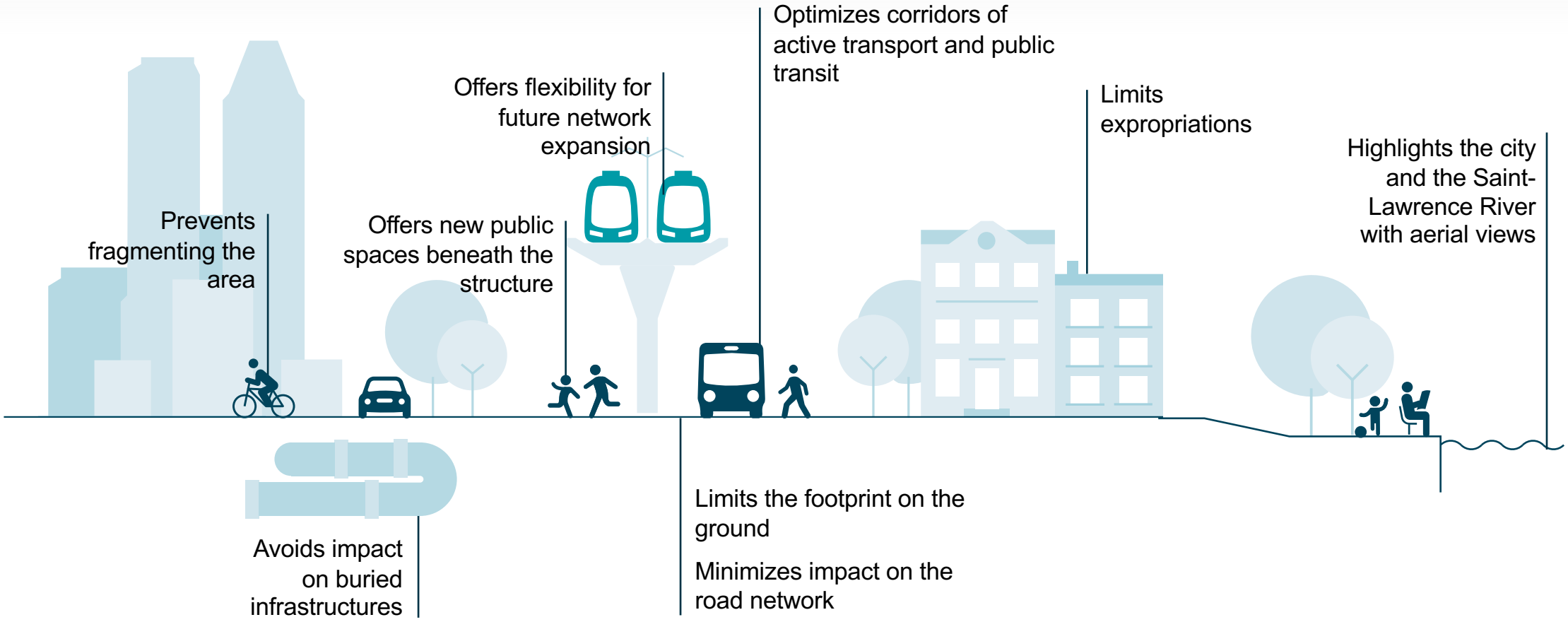
- Non-competitive travel time: 20 km/h
- Capacity not compatible with current needs
- Not flexible to evolving requirements
- Low transport cost performance

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

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

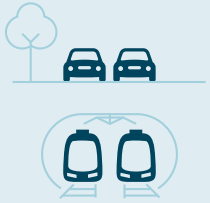
- ✓ Will harmonize with future redevelopment as an **urban boulevard**
- ✓ **Maximizes the safety** of pedestrians, cyclists and cars
- ✓ Offers **new views** from the river bank

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**

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

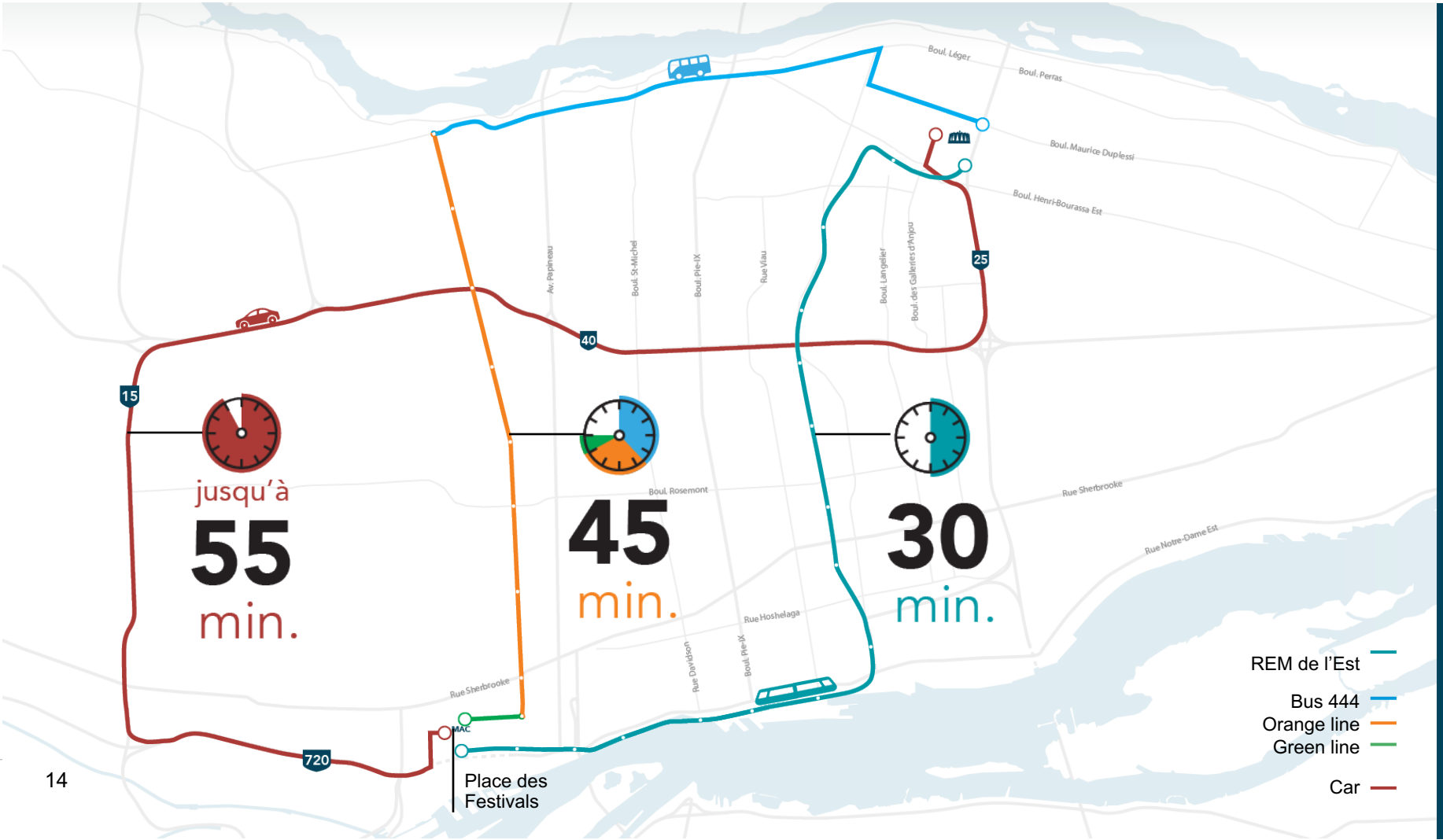
CDPQ Infra

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%**
Maisonneuve 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

CDPQ Infra

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

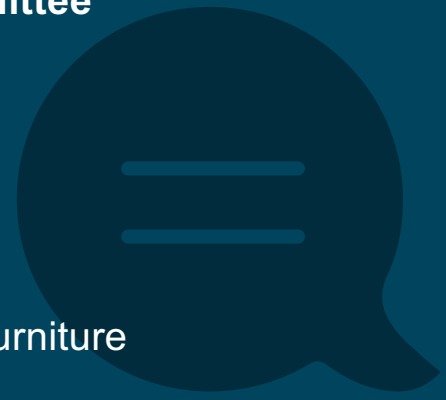
A design that **adapts to the defining elements** of each segment

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

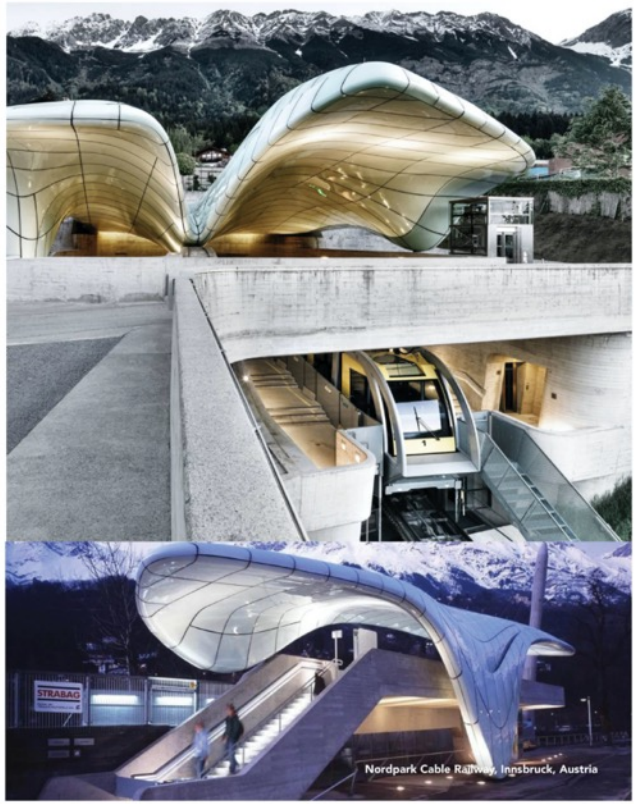


- The stations
- Works of art
- The materials
- Indoor and outdoor furniture
- Landscaping
- Integration of works of art
- The ambiance *(visual, sound, tactile)*
- Distinctive elements according to the neighborhoods

Model underground station – Saint-Léonard

Contributes to revitalization of Notre-Dame Street

Examples of international station architecture



Examples of international urban integration


Bulfinch Crossing Underpass, Boston, États-Unis


Buffalo Bayou Promenade, Houston, États-Unis

LightRails, Birmingham, Angleterre


The Bentway, Toronto, Canada

The Underline, Miami, États-Unis

Koog aan de Zaan, Pays-Bas

Environment

CDPQ Infra

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

CDPQ Infra

Structures development in the east

DURING CONSTRUCTION

+ 6.3 B $
contributed to Quebec's GDP

+ 60,000 jobs
and indirect jobs

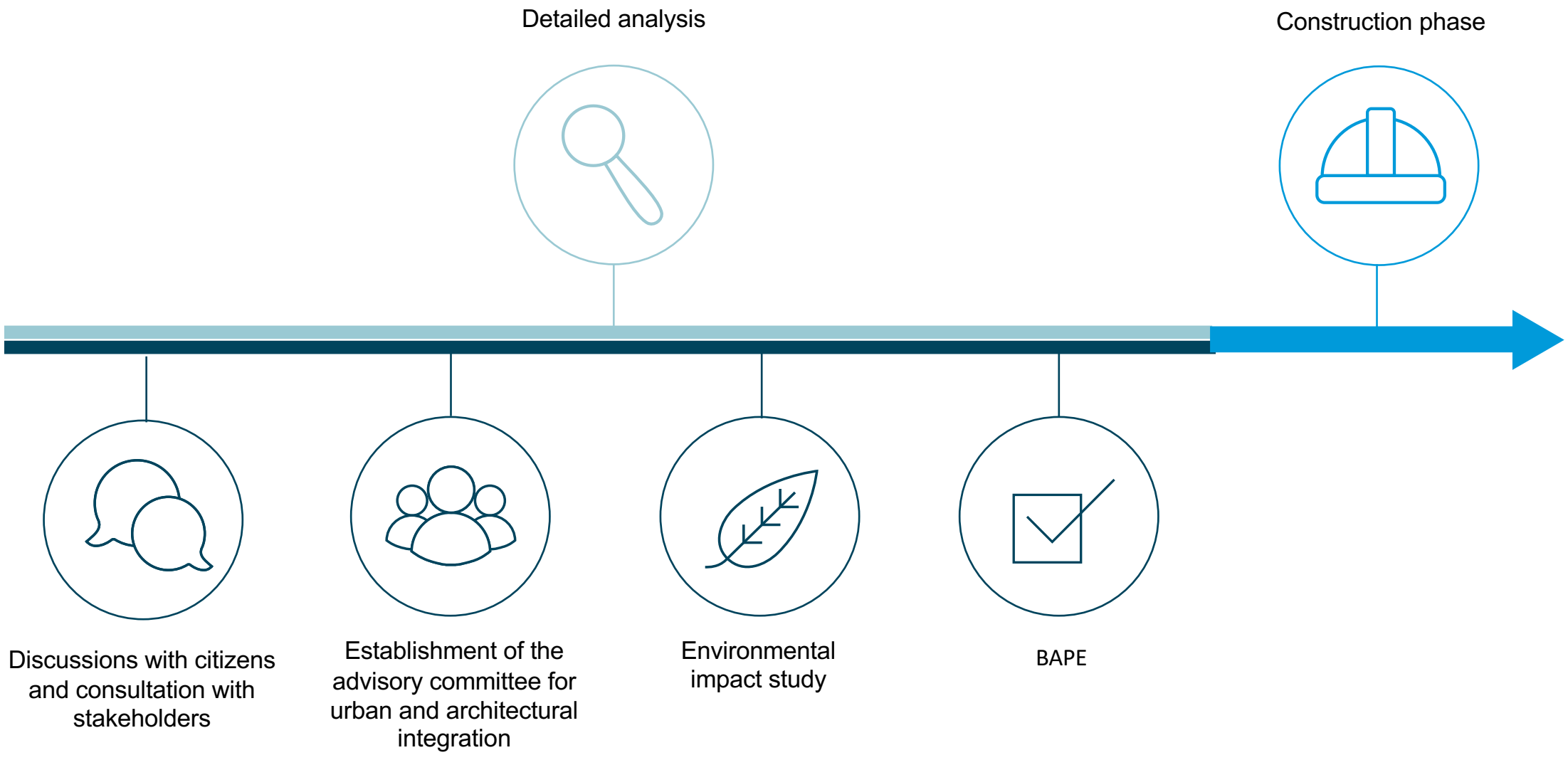
+ Largest investment ever made in public transit infrastructure in Quebec

- ✓ **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

CDPQ Infra

The next steps

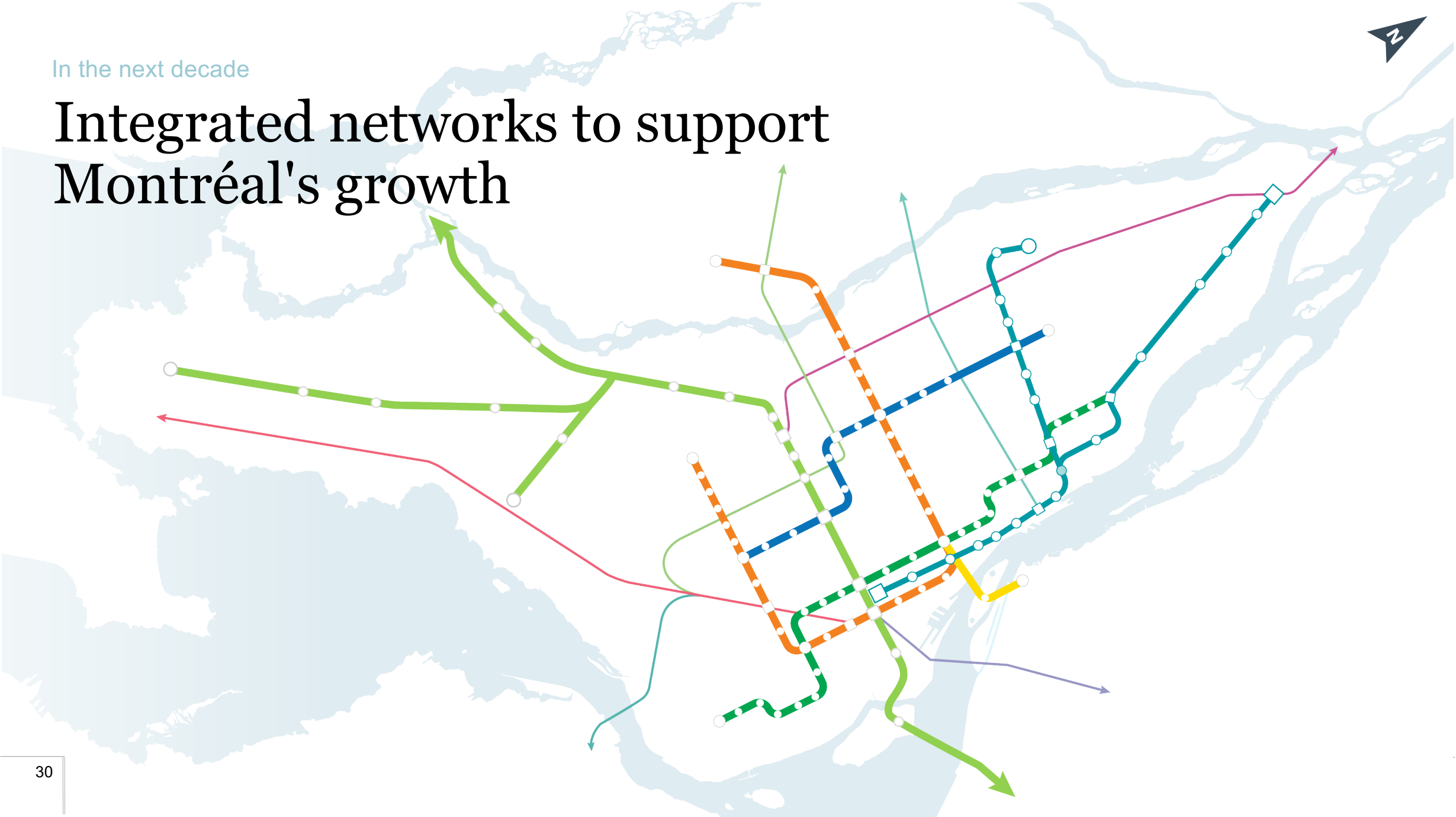


In the next decade

CDPQ Infra

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

CDPQ Infra