



# Lifting Aotearoa's sights to greater sustainable transport opportunities

Transport Conference 2024,  
Garreth Hayman

# Agenda



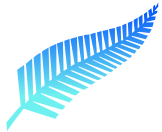
**Cable Car technology**



**Urban application**



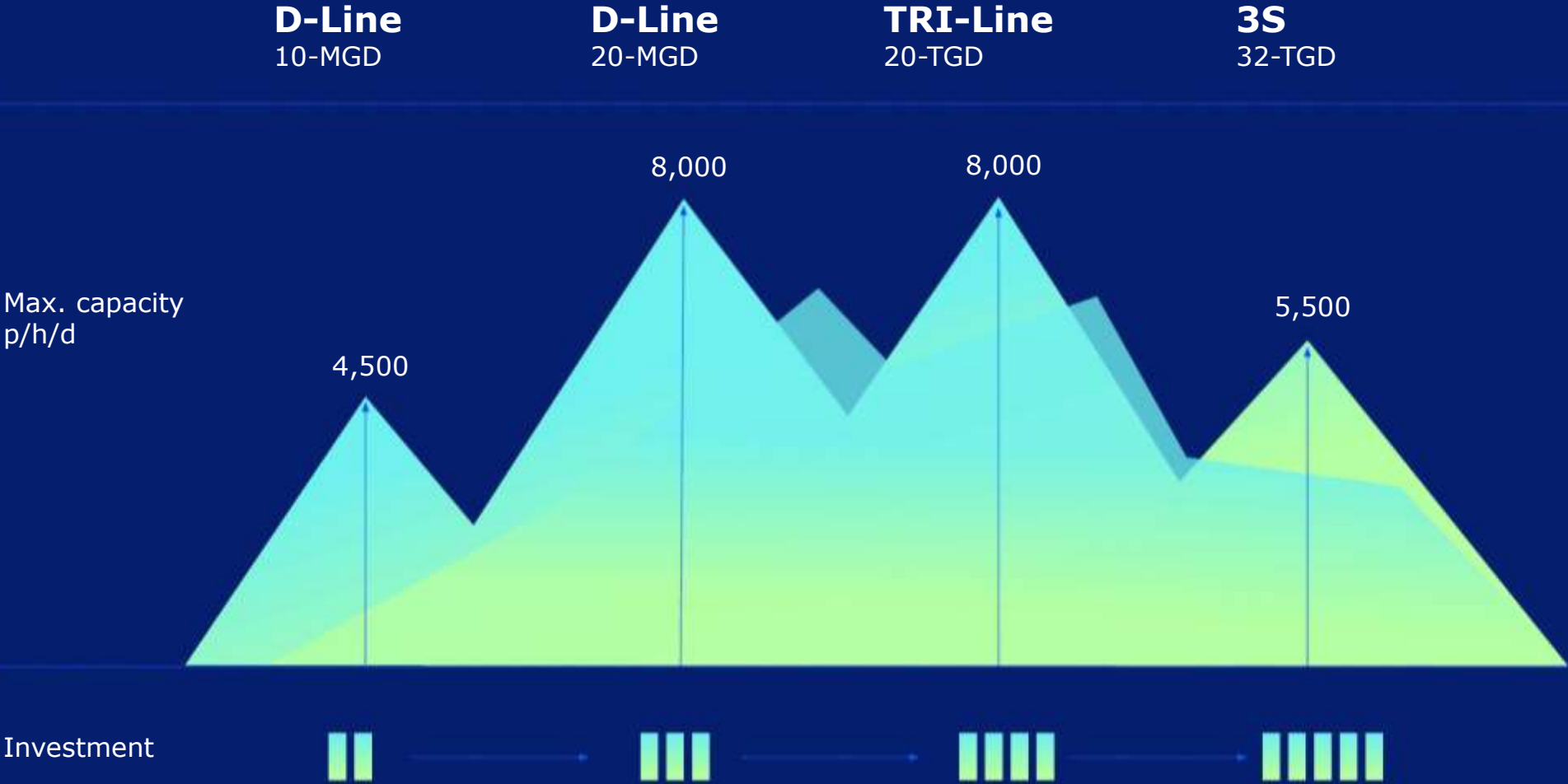
**International references**



**Opportunity to lift Aotearoa**



# Mass Rapid Transport Solution





**Performance**



**Sustainability**



**Integration**



**Cost**





**Performance**



**Sustainability**



**Integration**



**Cost**



## Reliable transport performance



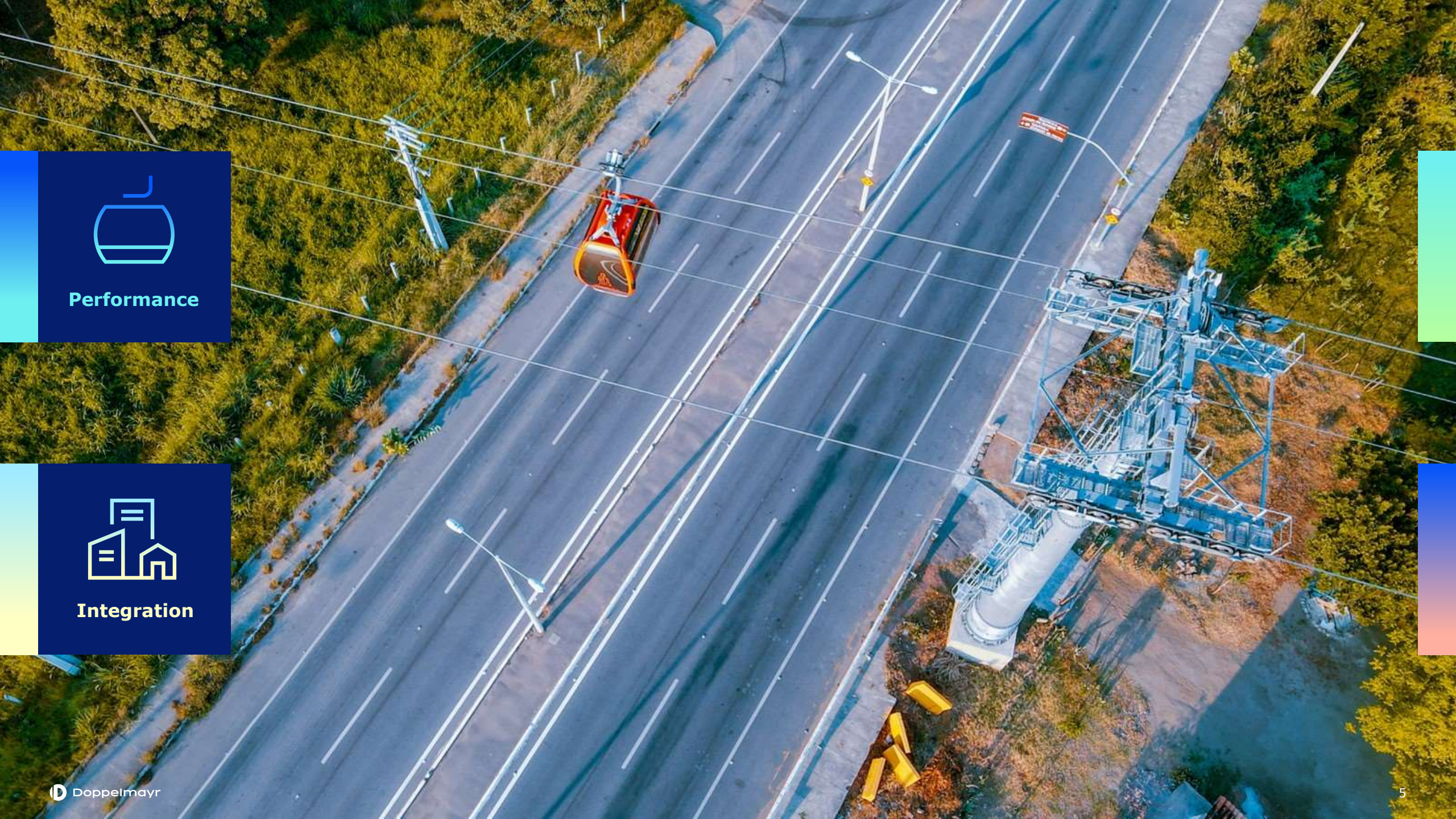
**99 %**  
availability

**35 years**  
usage period

**25 km/h**  
non-stop

**19 h**  
operation per day

**15 s**  
interval of cabins



**Performance**



**Integration**



# Network integration



# Structural integration

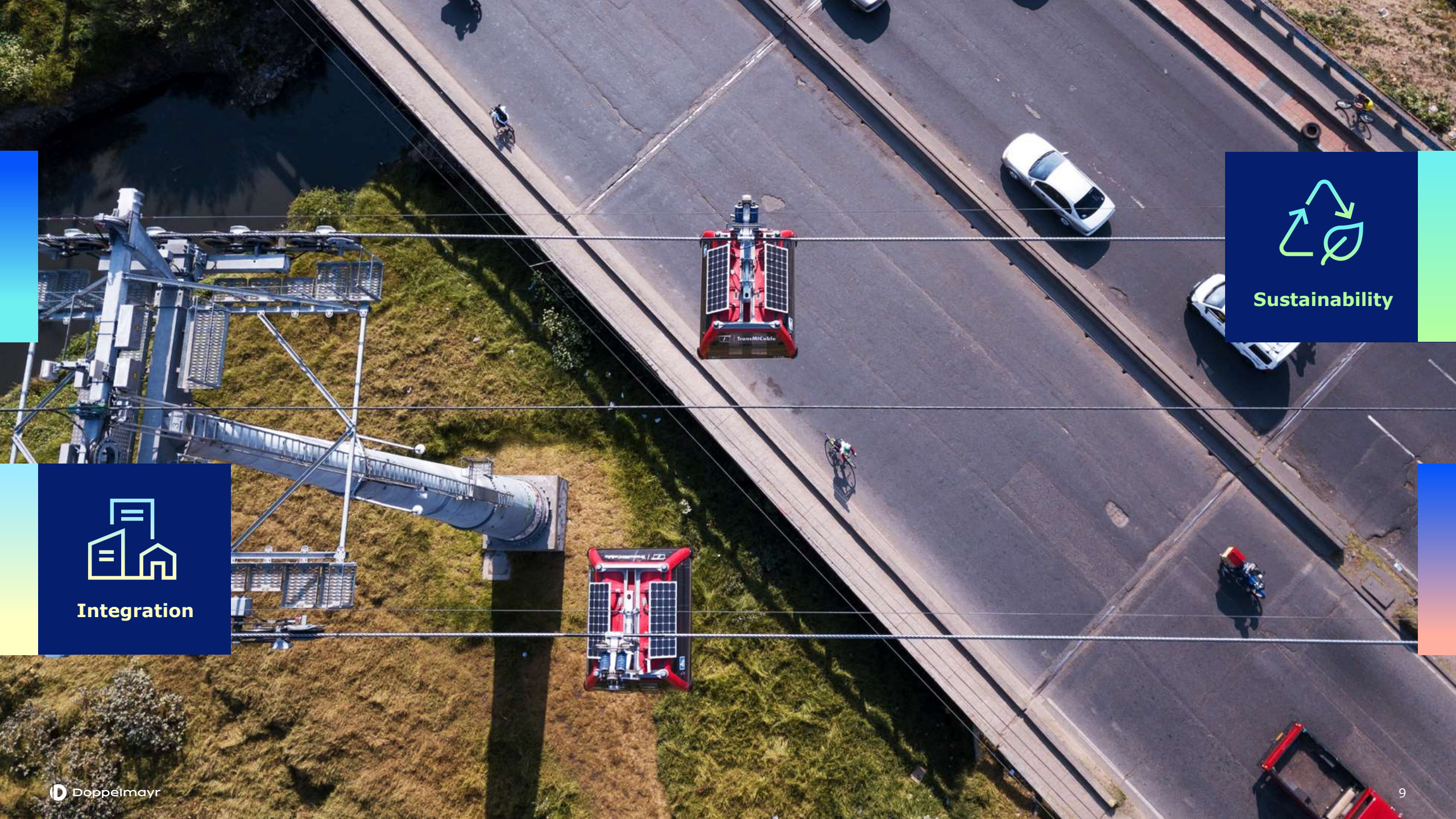
Lowest land usage out of motorized transport modes



# Social integration

Accessible and attractive for everyone



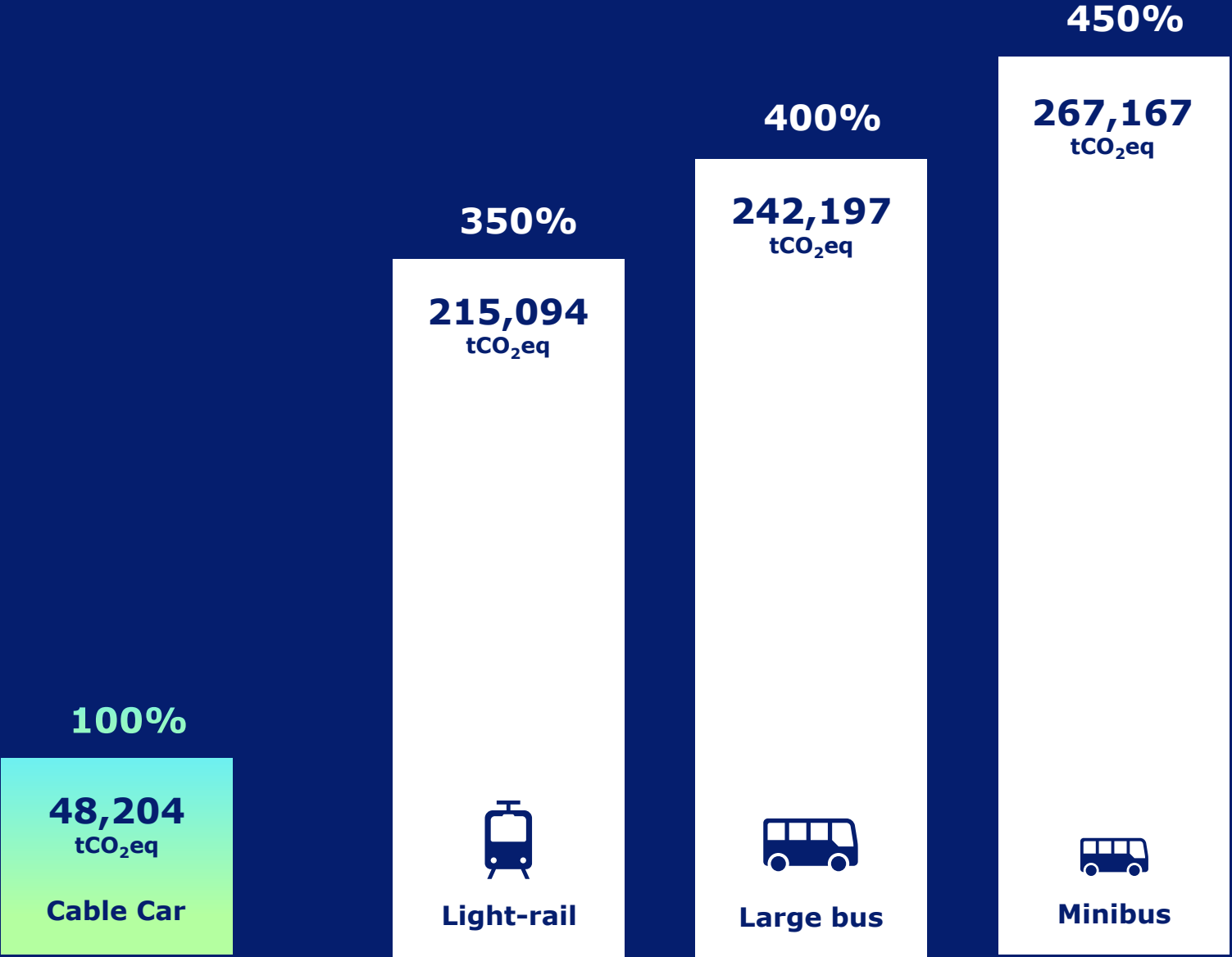


Sustainability



Integration

# Carbon footprint of public transport solutions



Scenario: Linea Roja in La Paz  
Capacity utilization: 69%  
Transportation: 2069p/h/d, 16.6h/day  
Time frame: 30 years, cradle-to-grave  
*Study "Green City Deals" by Prof. Dr. Jörg Niemann, University of Düsseldorf*



**Sustainability**



**Cost**

# Cost-effective

**33%**

cost of light-rail

**10%**

cost of underground railway

**2 years**

construction time



Light-rail

33%



Cable Car

**1%**

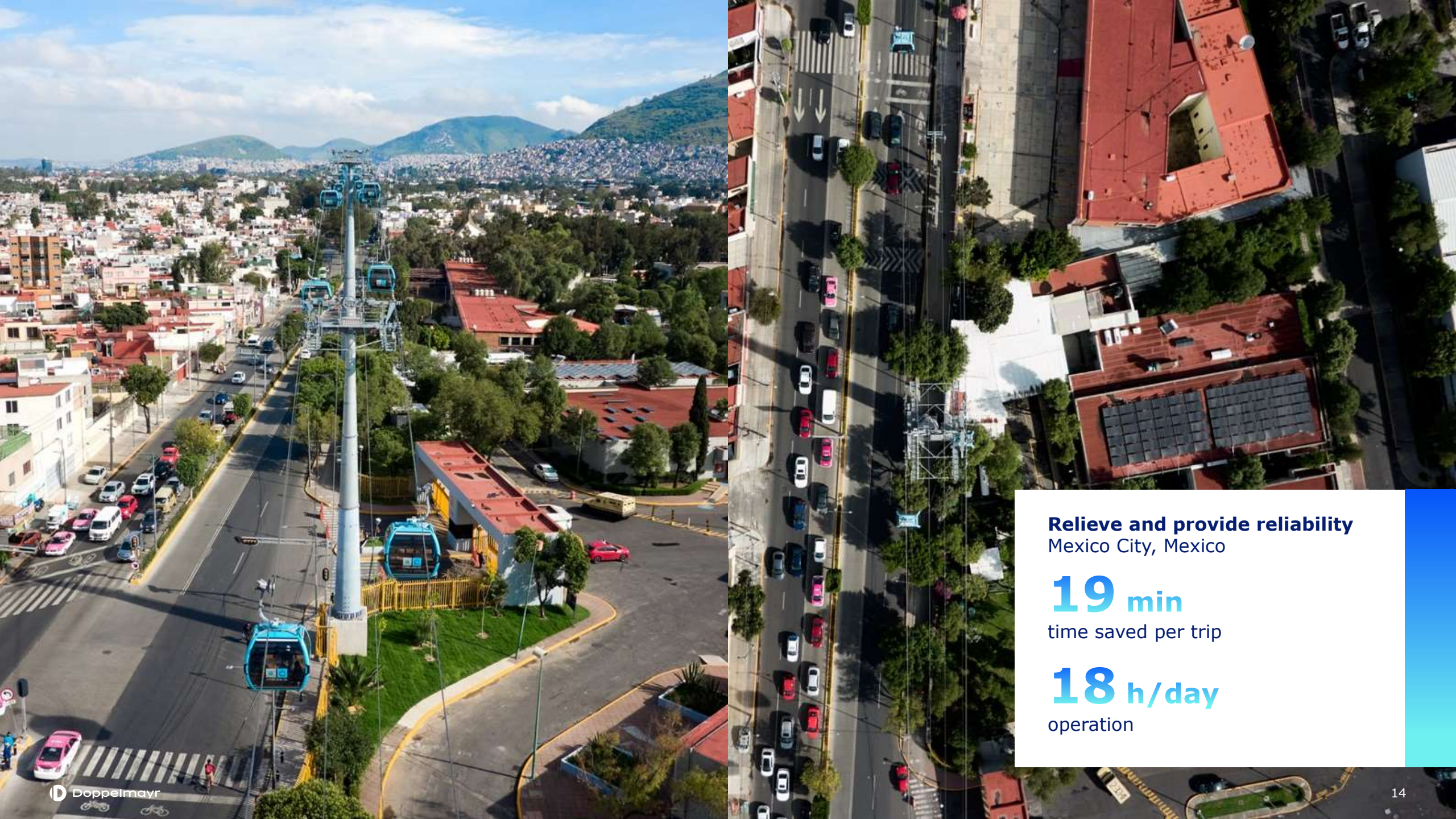
operational cost per year

**40%**

of BRT operational cost

**4 years**

tested autonomous operation

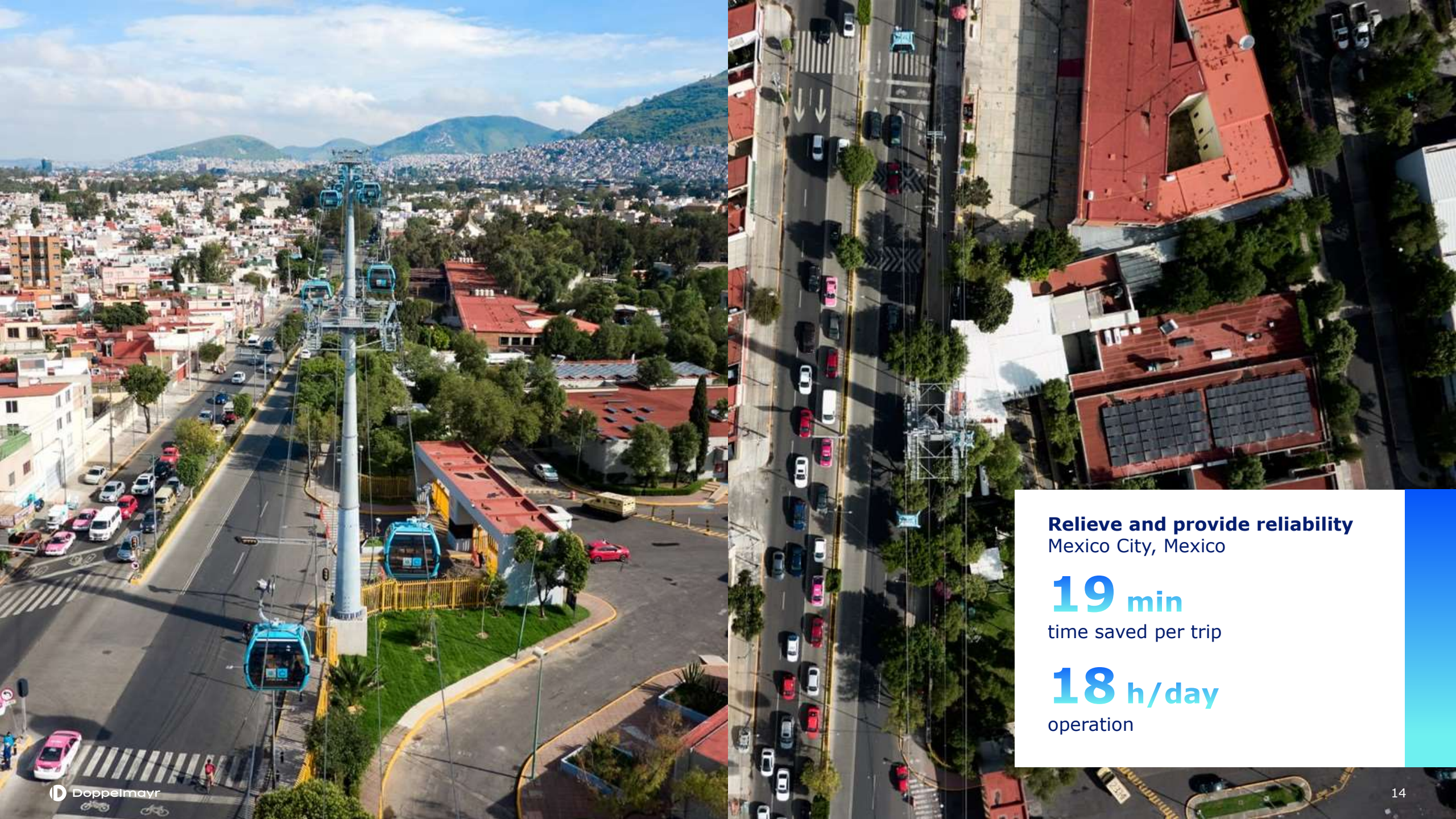


**Relieve and provide reliability**  
Mexico City, Mexico

**19 min**  
time saved per trip

**18 h/day**  
operation





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**Extend public transport network**  
Paris, France

**18 min**  
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**2026**  
start of operation



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**Close gaps and connect**  
Bogota, Colombia

**20,000**  
passengers per day

**3,250 m**  
inclined length



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# Opportunities for Aotearoa's public transport



## 01

### Tāmaki Makaurau, Auckland

Airport to Botany

## 02

### Tahuna, Queenstown

Airport to Town Centre

03 Christchurch  
Airport to City Centre

04 Christchurch  
Belfast to City Centre

05 Wellington  
Island Bay to City Centre

06 Wellington  
Airport to City Centre

07 Wellington  
Karori to City Centre

08 Wellington  
Wainuiomata to Hutt City

09 Auckland  
Airport to Onehunga

10 Auckland  
Extension of Northern Busway

# Auckland Airport to Botany

Connect and close gaps in public transport network

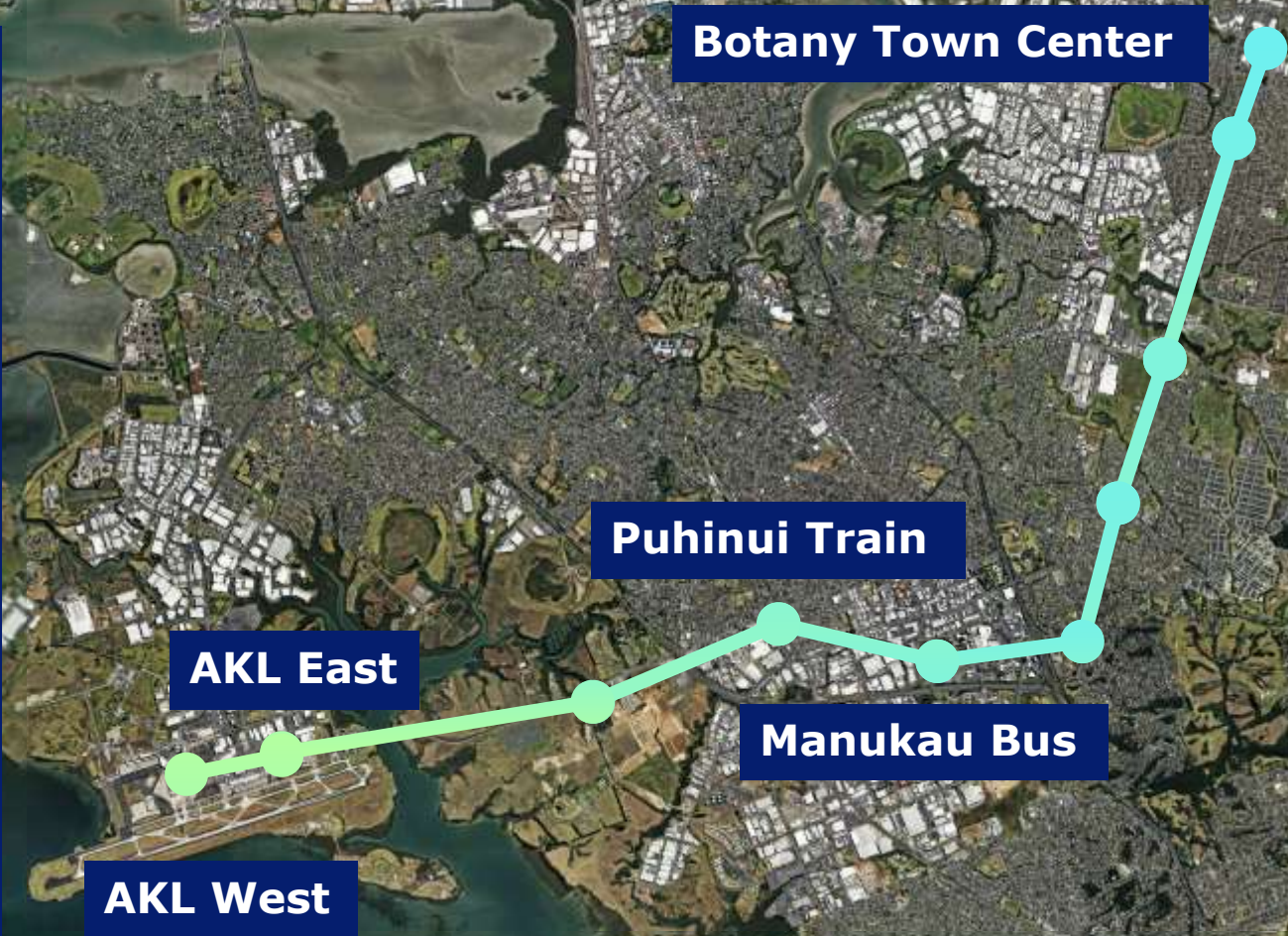
**3,000** p/h/d  
capacity

**7** m/s  
speed

**16,800** m  
length

**15** min  
time saving per trip

**2.4**  
strategic benefit cost ratio



# Auckland Airport to Botany

Connect and close gaps in public transport network

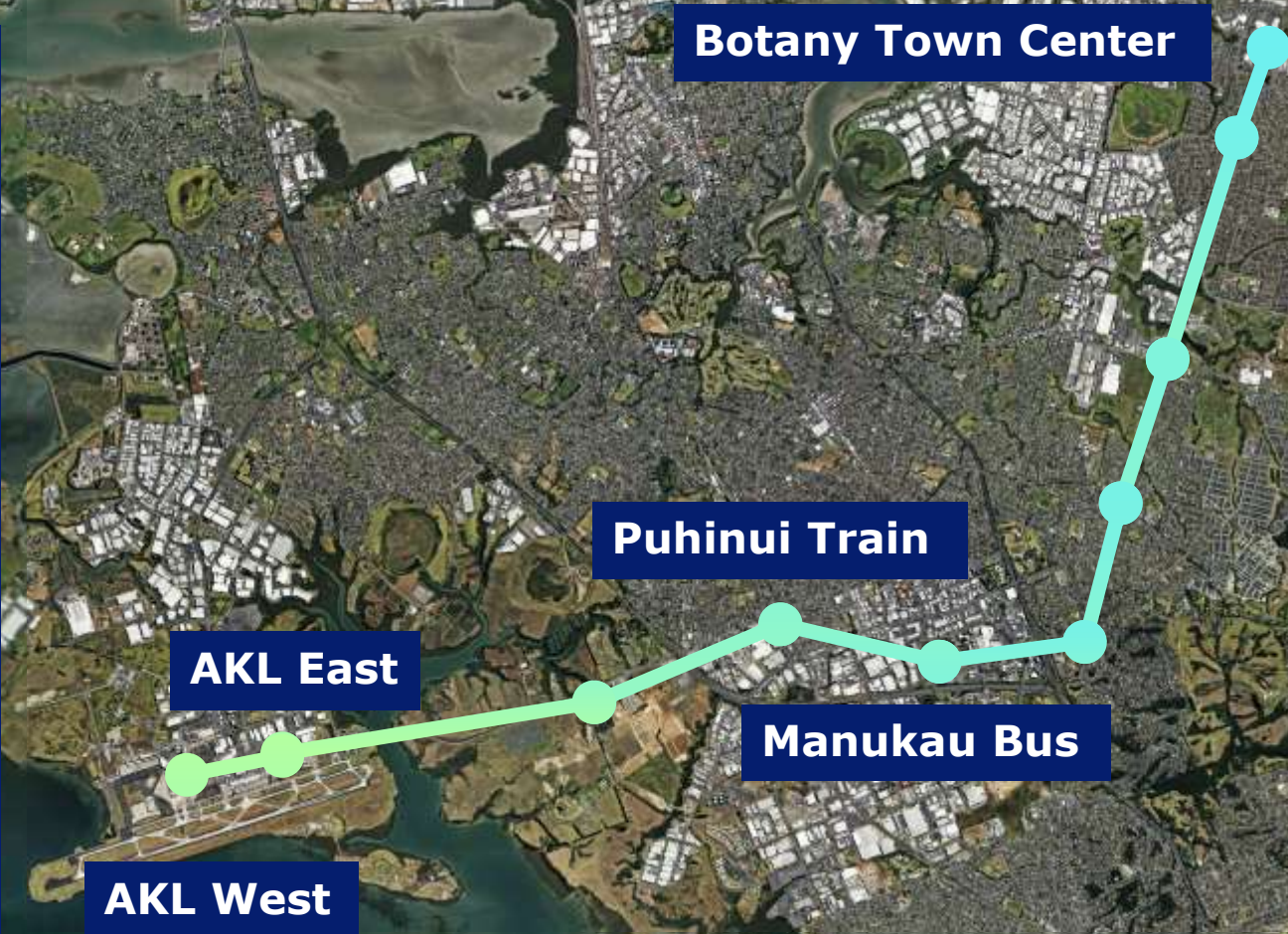
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strategic benefit cost ratio





# Queenstown Airport to Town Center

Relieve congestion, connect transport hubs

**1,500** p/h/d  
capacity

**7** m/s  
speed

**6,800** m  
length

**4** min  
time saving per trip

**1.1**  
strategic benefit cost ratio



**Frankton  
Transport Hub**

**Airport**

**Town  
Center**



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**Frankton  
Transport Hub**

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Dipl.-Ing. Dr. Stephan Tischler,  
University of Innsbruck

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of the future calls  
for multi-modal  
transport solutions.«**



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