THREE OPERATIONAL ATN SYSTEMS

A Case Study

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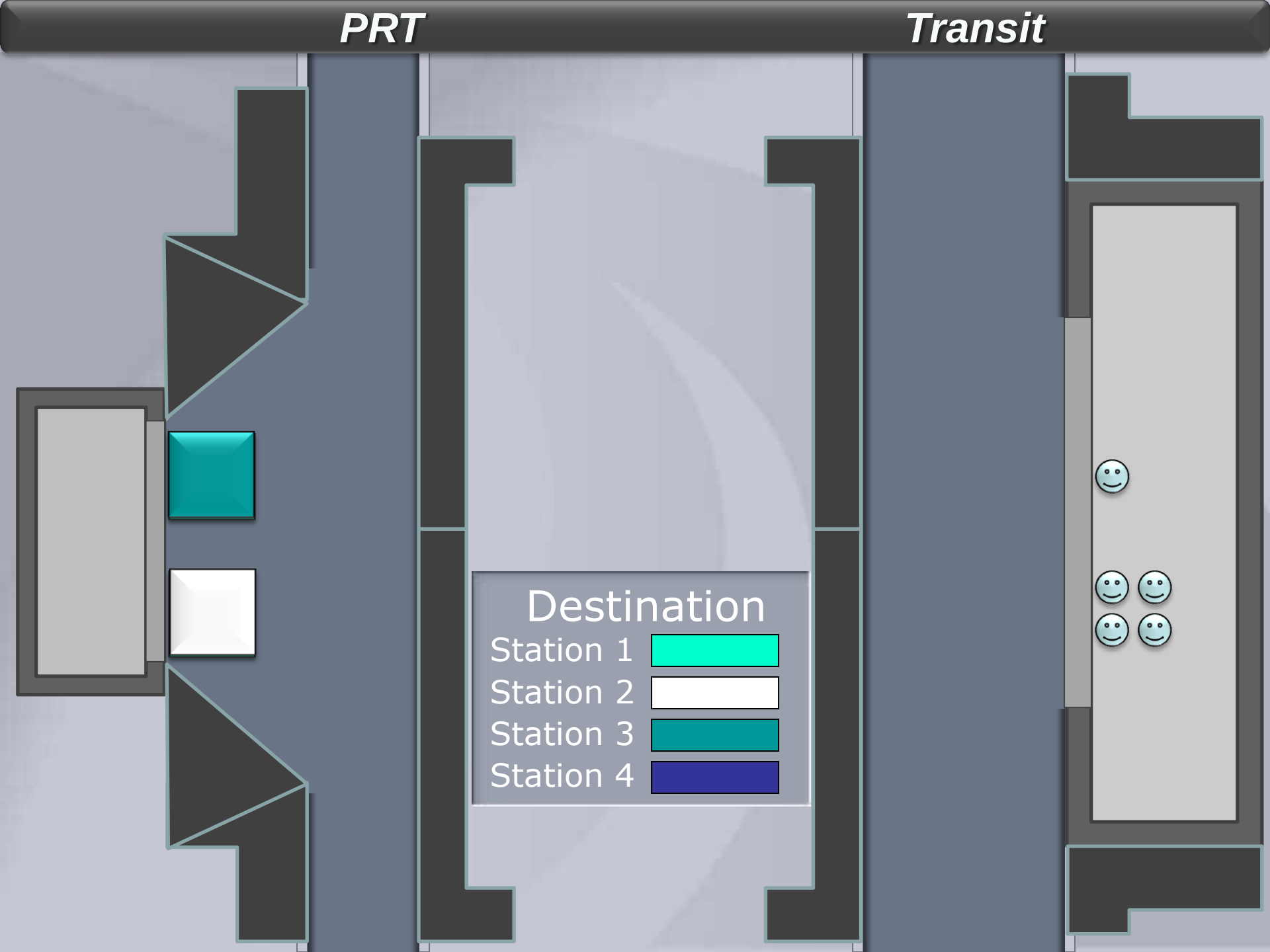
Outline

- ATN Operation
- Application descriptions
  - Masdar City (2getthere)
  - Heathrow Airport (ultra global prt)
  - Suncheon Bay (Vectus)
- Video
- Facts and Figures
- Transit mode share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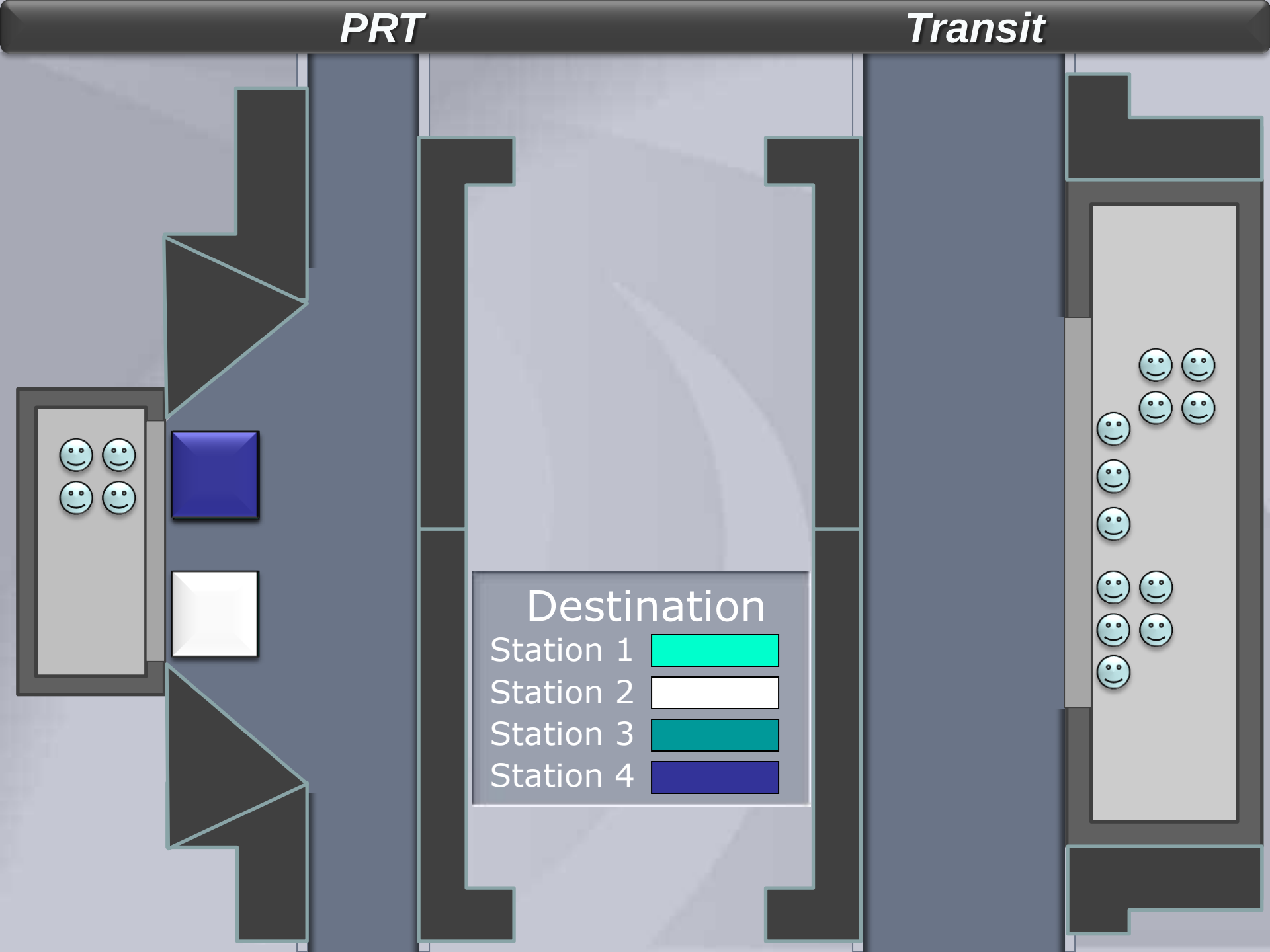
Transit
Destination
Station 1
Station 2
Station 3
Station 4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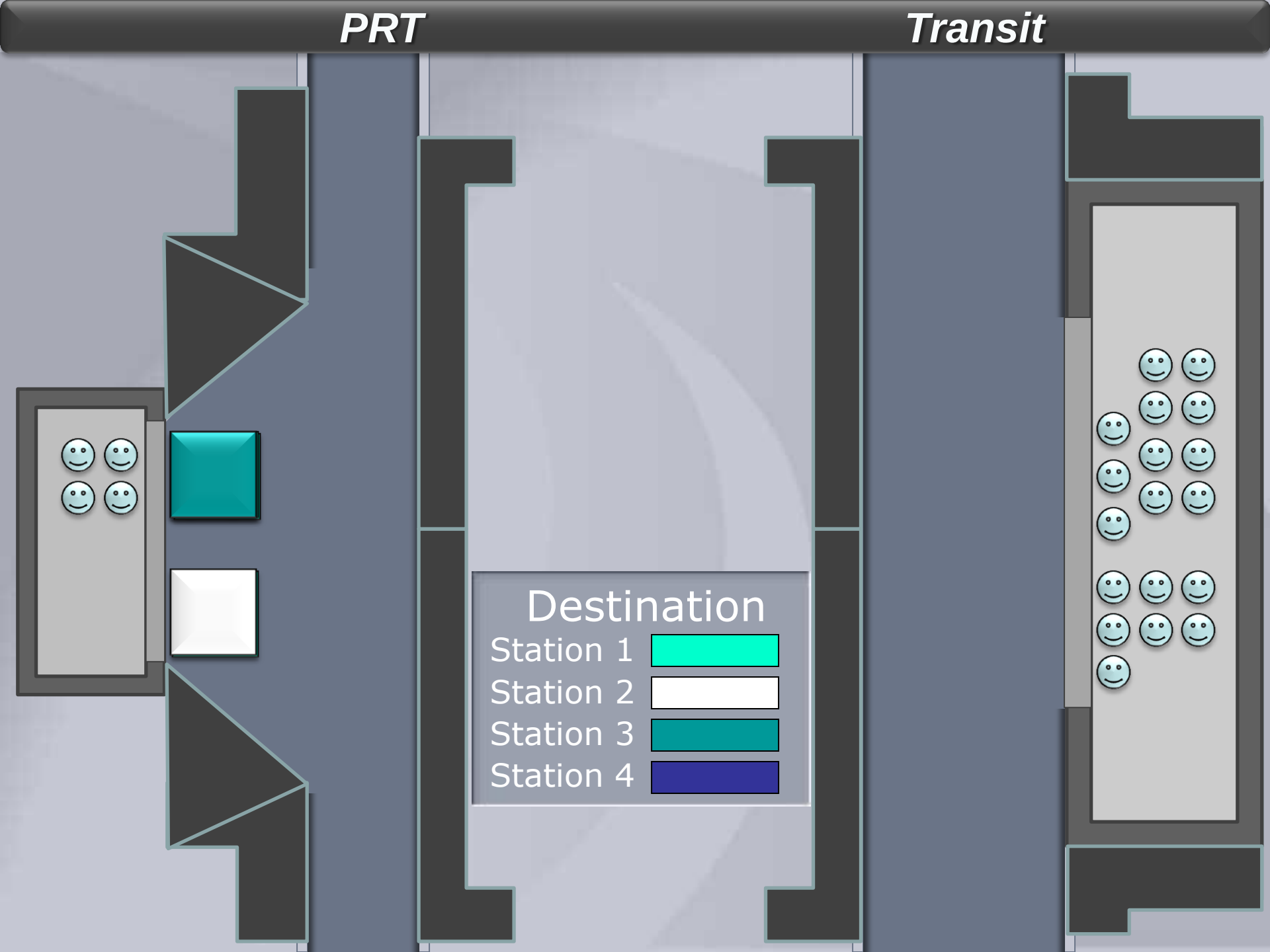
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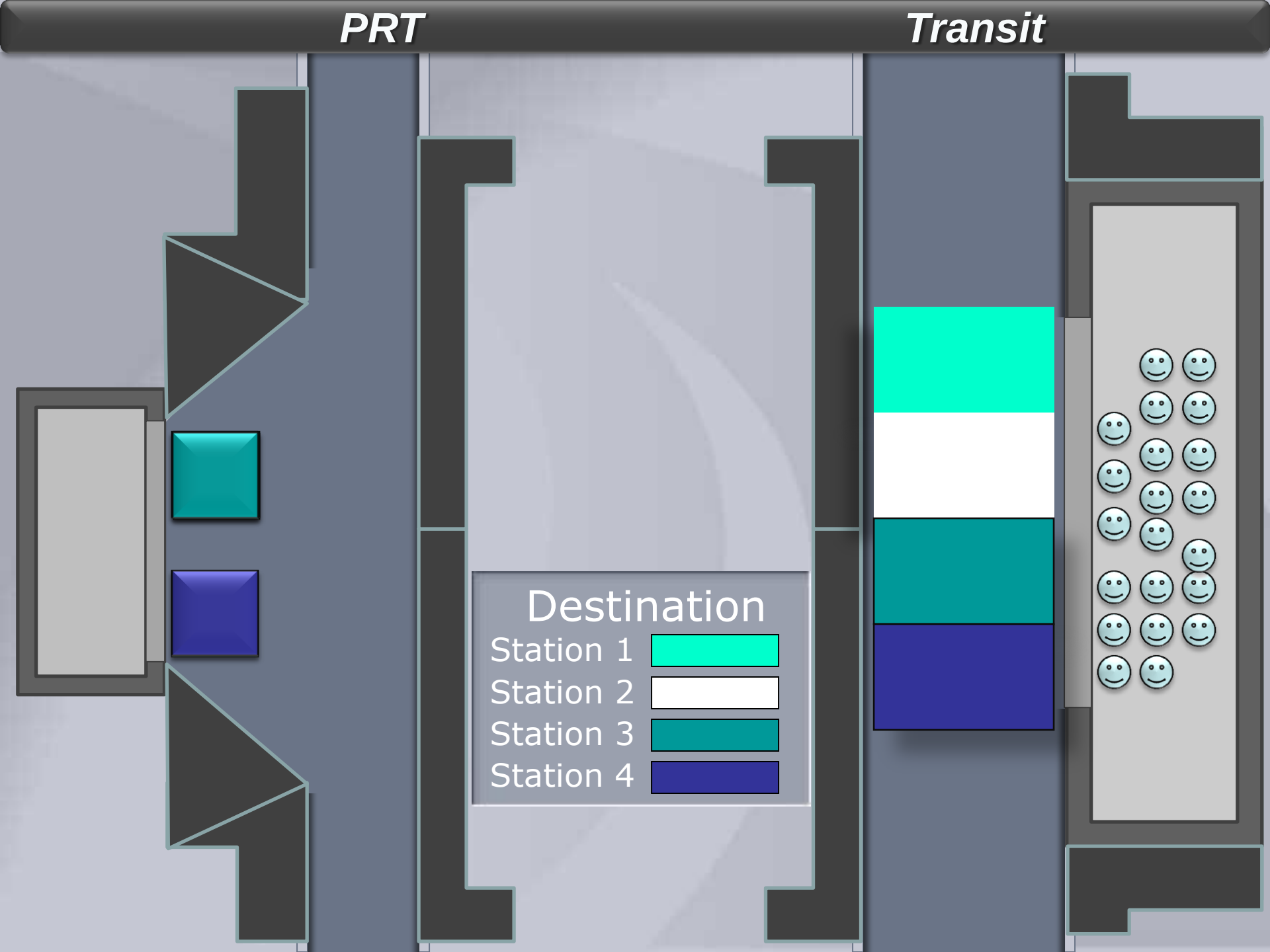
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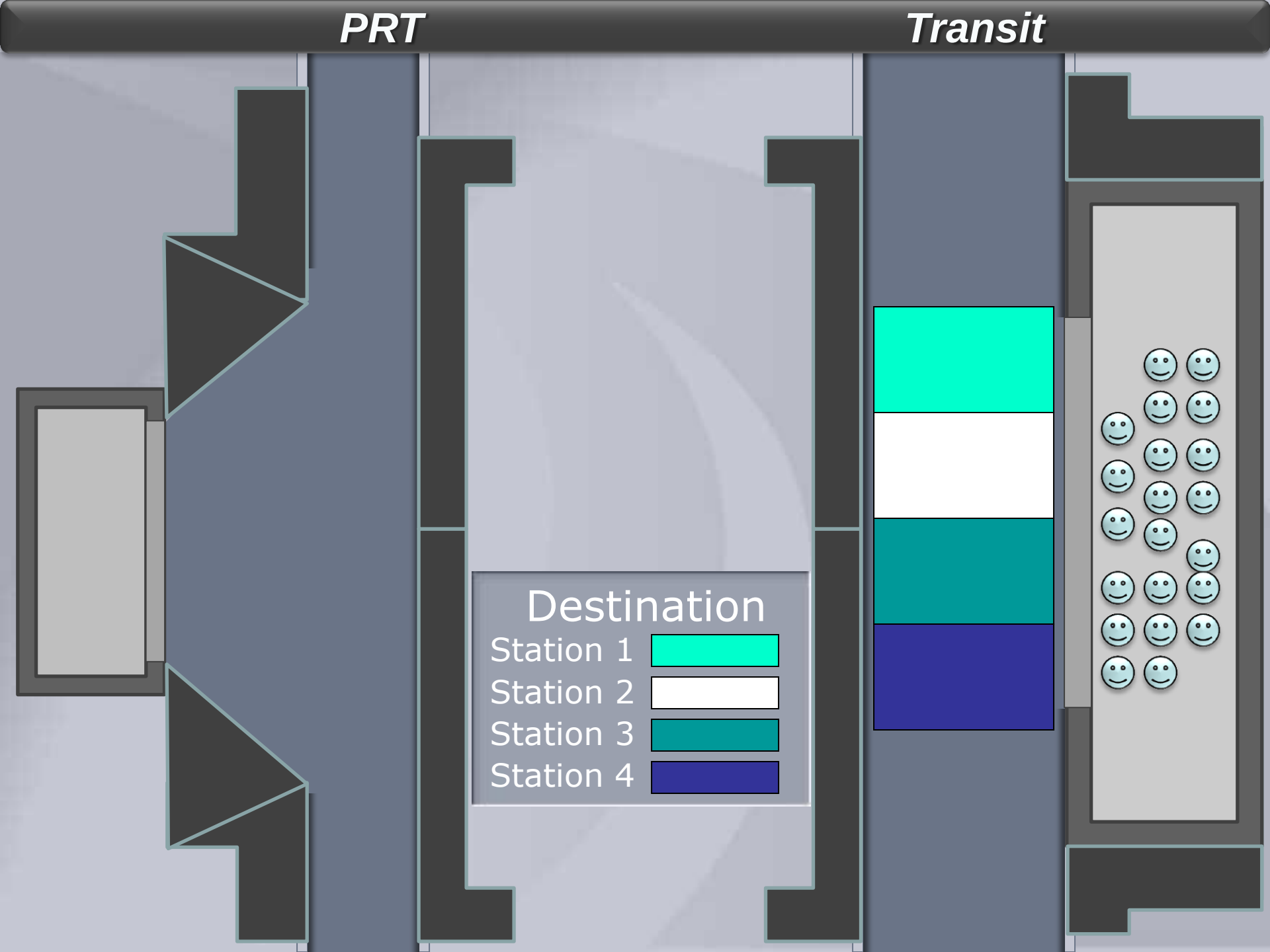
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2getthere Masdar City ATN System

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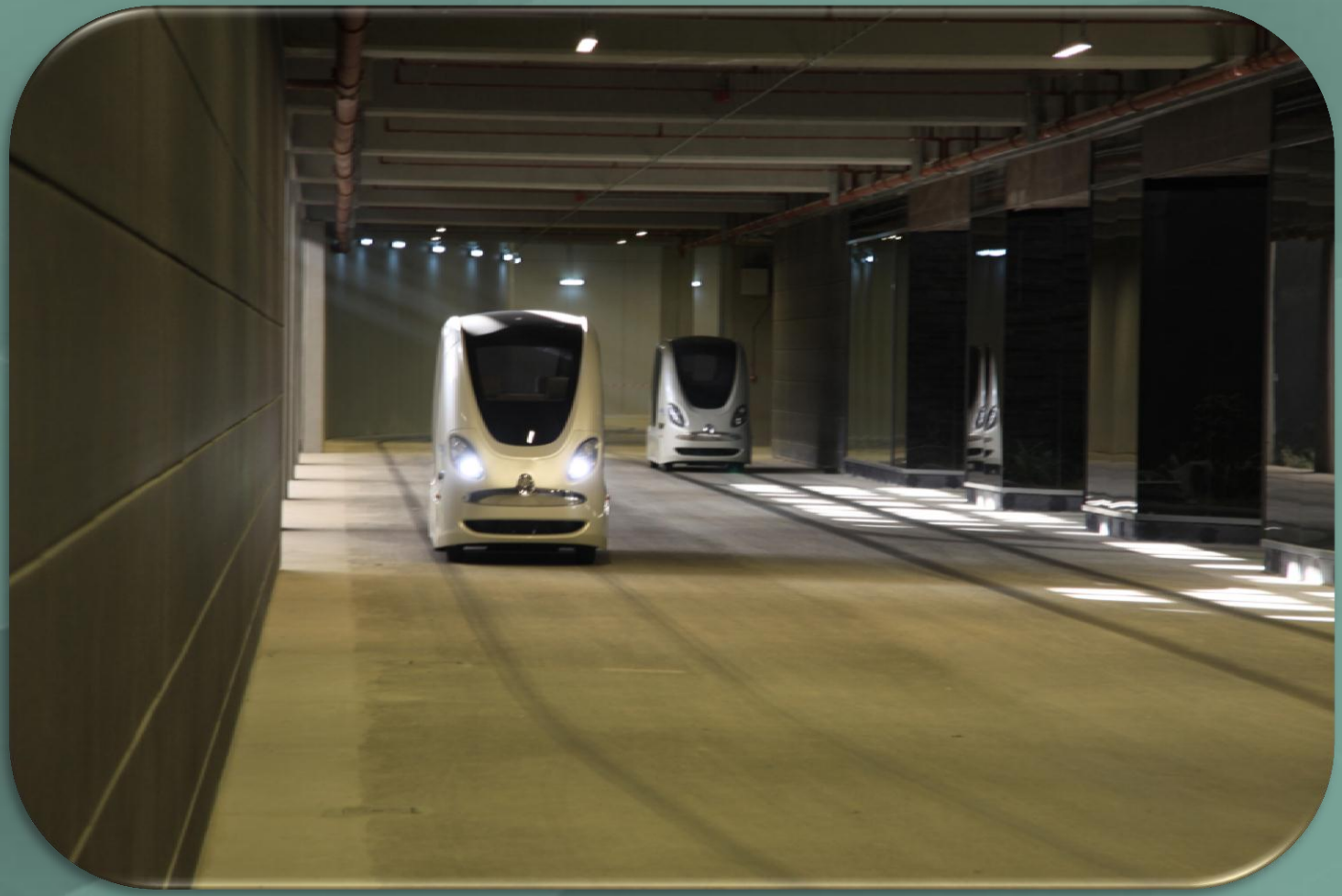

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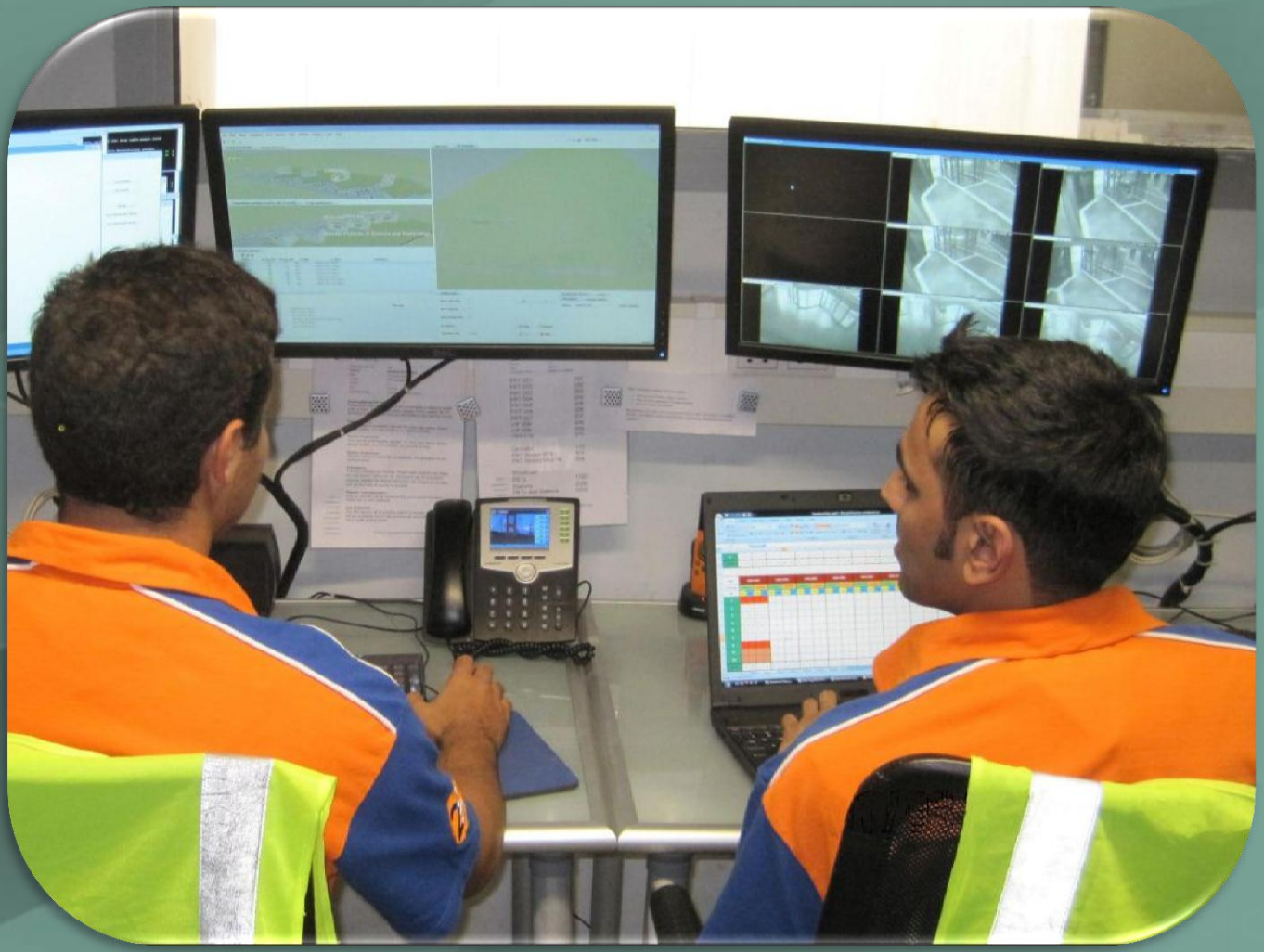

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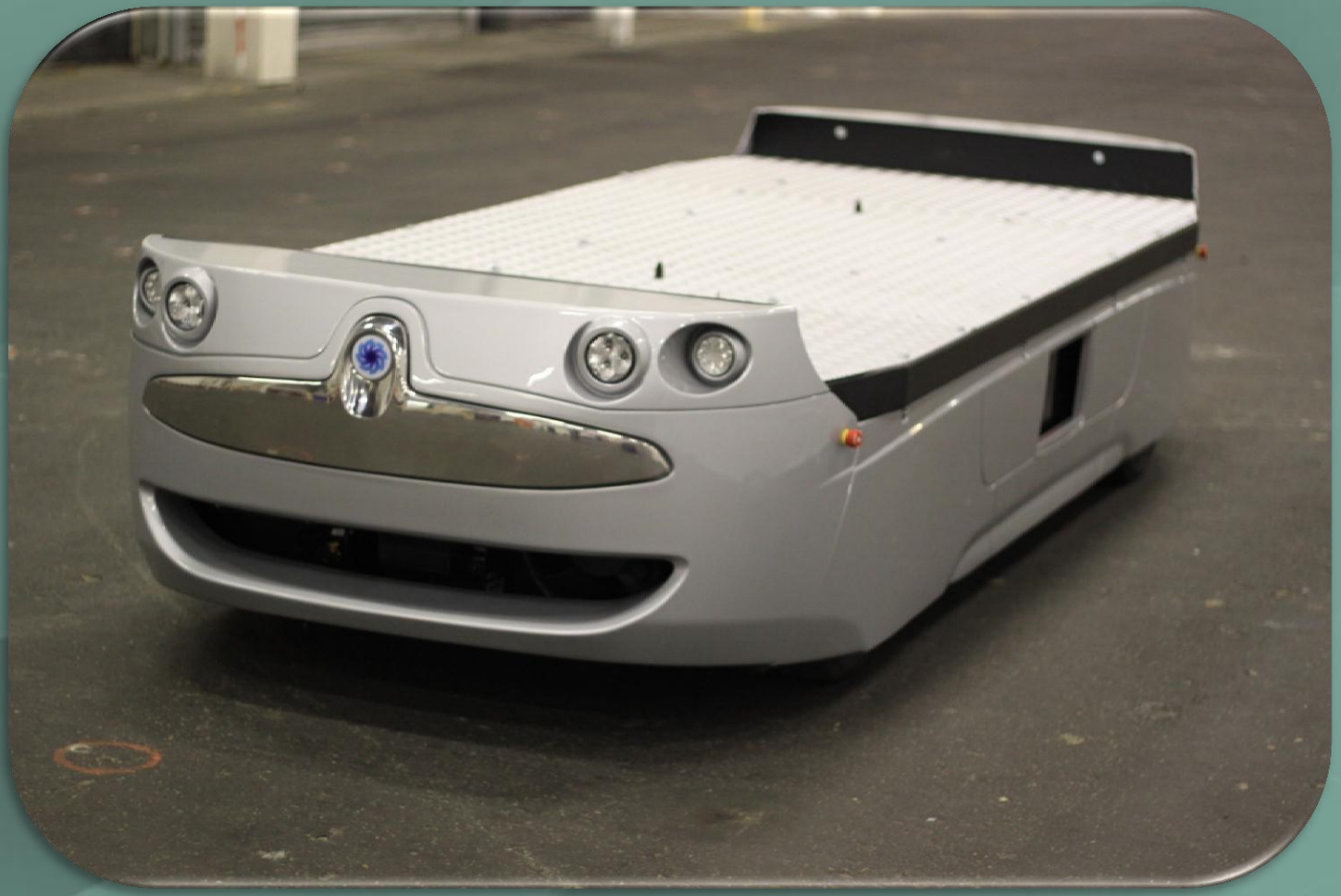

ULTra Heathrow Airport ATN System

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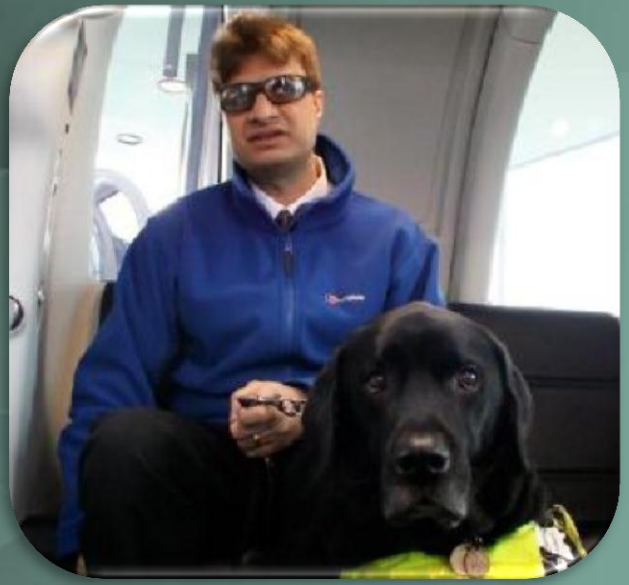

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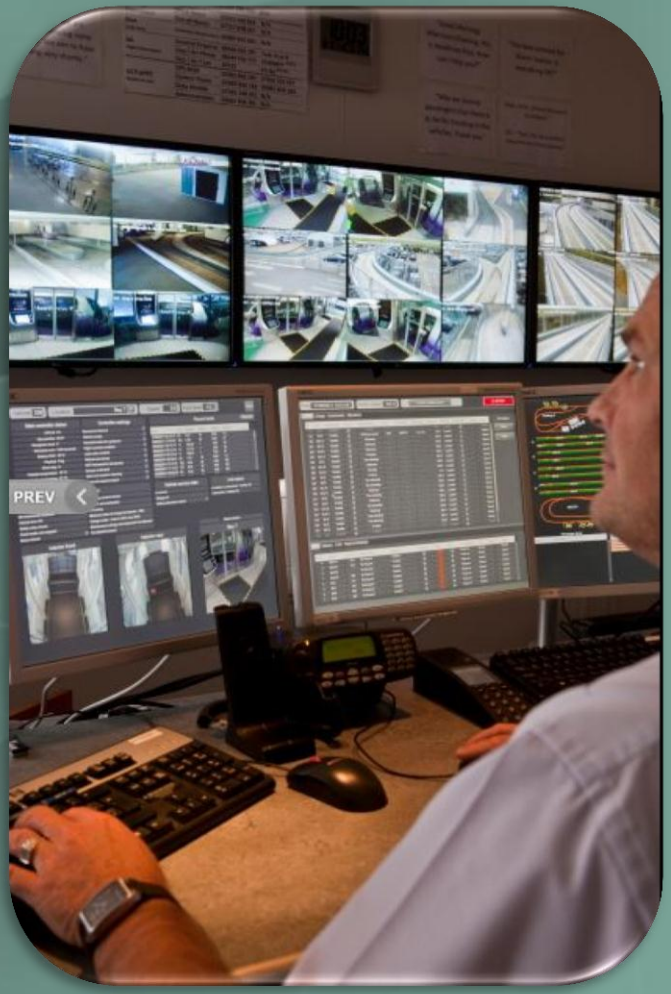

ULTra Heathrow Airport ATN System

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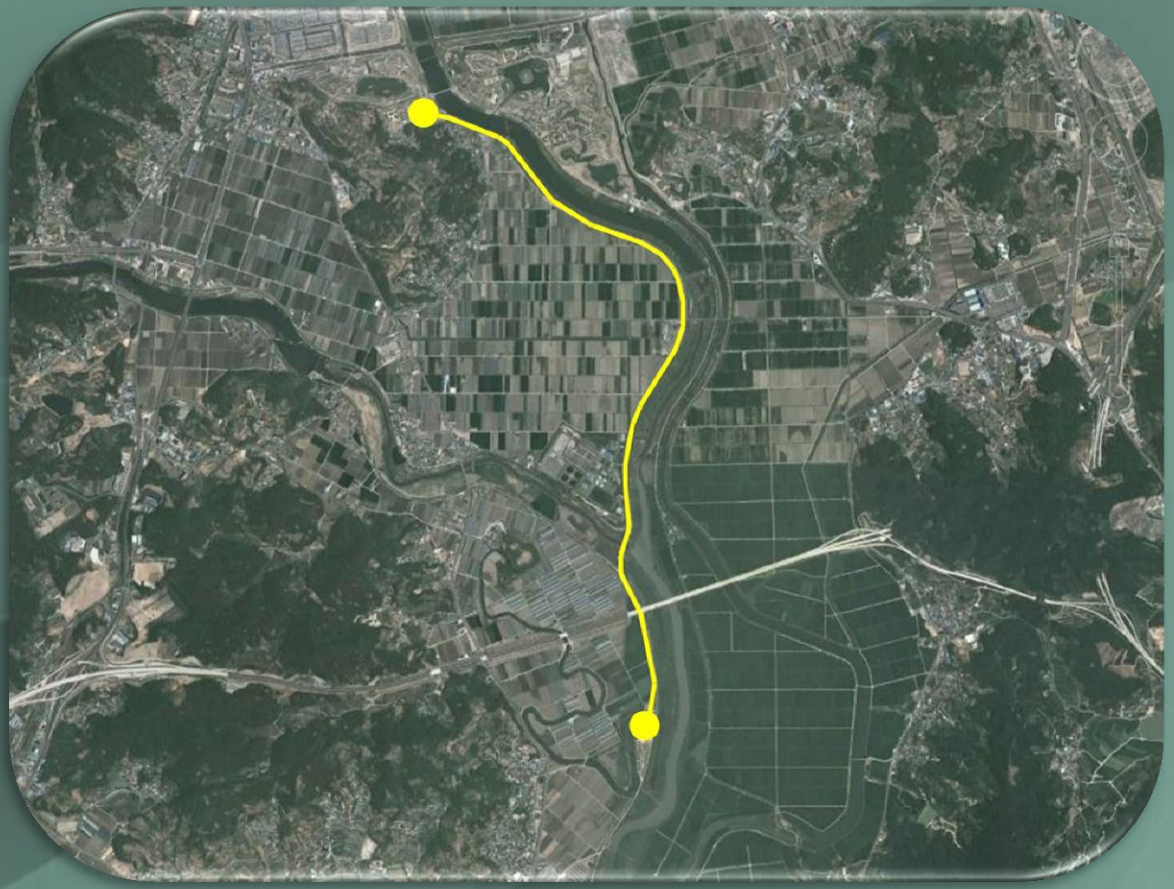
Vectus Suncheon Bay ATN System



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Video

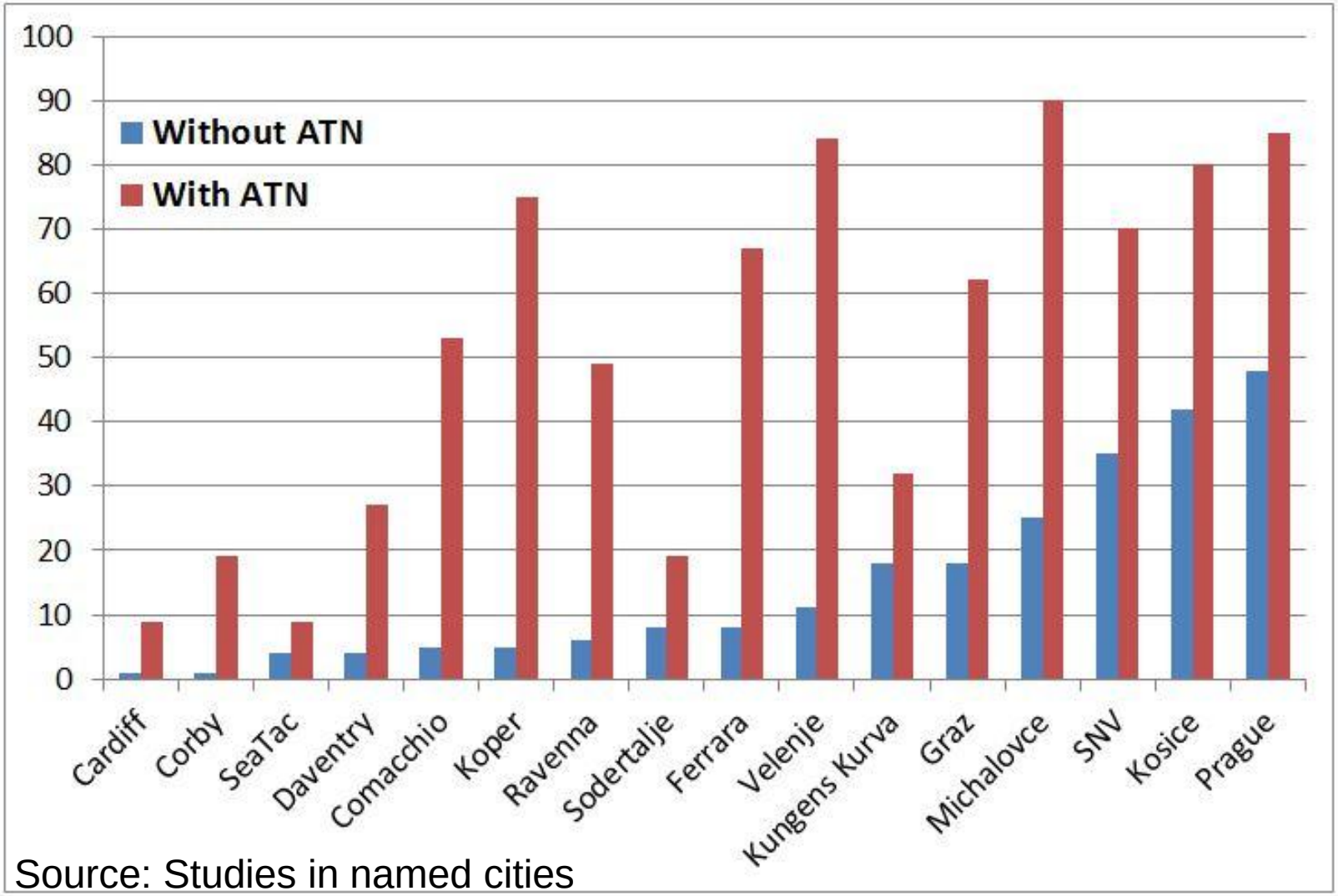
Facts and Figures

	Masdar	Heathrow	Suncheon
In service date	11/28/2010	4/18/2011	8/15/2013
Number of vehicles	13	21	20 - 40
Miles of one-way track	0.75	2.4	5.8
Number of stations	2 (+3 freight)	3	2
Maximum speed (mph)	25	25	40
Availability (%)	99.5	99.5	NA
Vehicle power principle	Battery	Battery	Wayside electric
Range (miles)	37	12	Unlimited
Vehicle/guideway interface	Rubber tires	Rubber tires	Polymer on steel
Lateral guidance	Magnets in pavement	Laser sensing of sidewalls	Side rails
Switching	Steered	Steered	On-board side wheels

Facts and Figures

	Masdar	Heathrow	Suncheon
Vehicle capacity	4 + 2 children	4 + 2 children	6 seated, 3 standing
Minimum headway (sec)	5	6	3 - 4
Max theoretical capacity	2,880	2,400	8,100
Max track gradient (%)	10	10	10
Min centerline radius (feet)	18	16.5	16.5
Clearance envelope (feet wxh)	6.1 x 7.5	6.9 x 6.6	6.9 x 8.2
Max berth throughput per hour	120	120	160 - 200
Emergency recovery	Manual + tow vehicle	Reduced speed + tow vehicle	Reverse operation + push/tow with other vehicles
CCTV/Intercom/Operator	Yes	Yes	Yes
Energy consumption (kWh/mile)	0.30	0.21	0.38

Transit Mode Share Percent



Source: Studies in named cities

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