

2018 Transportation Research Board Executive Committee

Holistic, Integrated Public
Transportation Delivery



Fundamentals Of A Successful Transit Agency

- Consistent risk-based approach
- Consider the cost of doing nothing
- Continuous improvement model
- Long term planning paired with predictable funding
- Public and political support



United States Transit Industry Dynamic

- Governance can be political (ribbon cutting/jurisdictional)
- Current backlog to achieve state of good repair, \$95 billion
 - 40% of buses and 25% of rail “*marginal or poor*”
- Older transit systems in greatest need:
 - Washington, New York City, Boston, Chicago, Philadelphia
- Increasing competition but with significant fixed costs/regulations
 - Longstanding public policies that are based on moving vehicles vs. people
- Unmet public expectations, limited financial models for public agencies (value capture)
- Inconsistent and generally insufficient federal/state/local funding support



International Transit Industry Model

- Structure that values a commitment to safety, maintenance, reliability, customer service, asset management, state of good repair, and workforce development
- All supported by stable, long-term operating and capital funding (alternative business models)
- Governance tends to be more business like
- High public support and use (land use, density, fuel pricing)



2017 International Study Mission to Asia -

Hong Kong, Singapore & Tokyo

Safety Culture, State of Good Repair,
Innovative Operations





Managed residential flats in Hong Kong (2016)



Square metres of managed commercial and office space in Hong Kong (2016)

87 Heavy Rail Stations



220.9 Kilometres of Track



2,110 Rail Cars



Train and Light Rail Trips Operated

2.9 Million

99.9% On-time Passenger Service



Passenger Journeys
1.938 Billion





Rail Network

129.8km
7.8km LRT
rail length

More than 2 million
Passenger trips per day

84 MRT
14 LRT
stations

Operate
205 trains
32 train cars



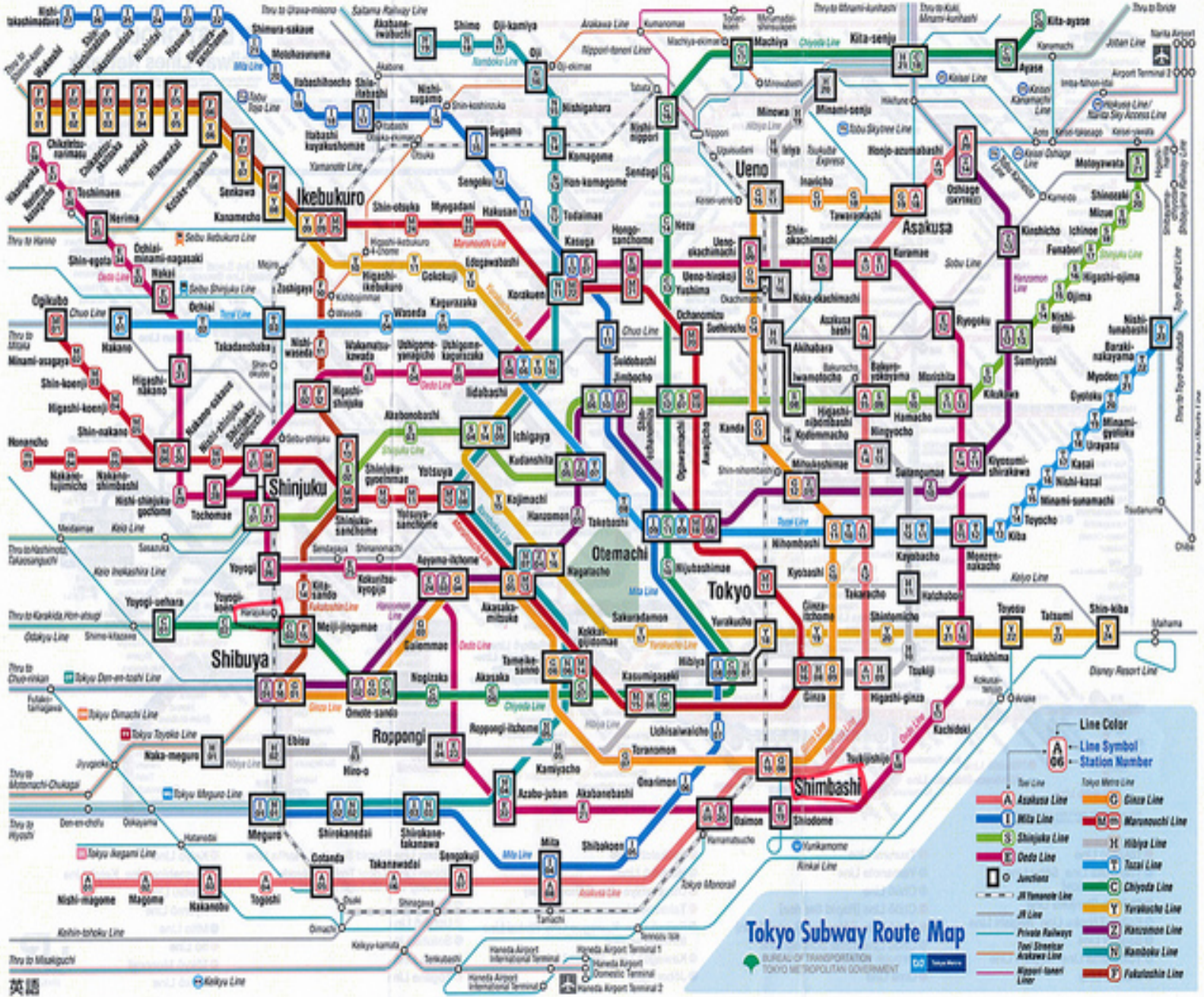
North-South Line

East-West Line

Circle Line

Bukit Panjang LRT







Metropolitan

Network: **7,458 km**

No. of Passengers: **17 Million /day**

No. of Trains: **12,400 /day**



High Speed

Annual Operating Revenue: **\$25.4 Billion**
(no subsidies from the government)

Net Annual Income: **\$2.2 Billion**

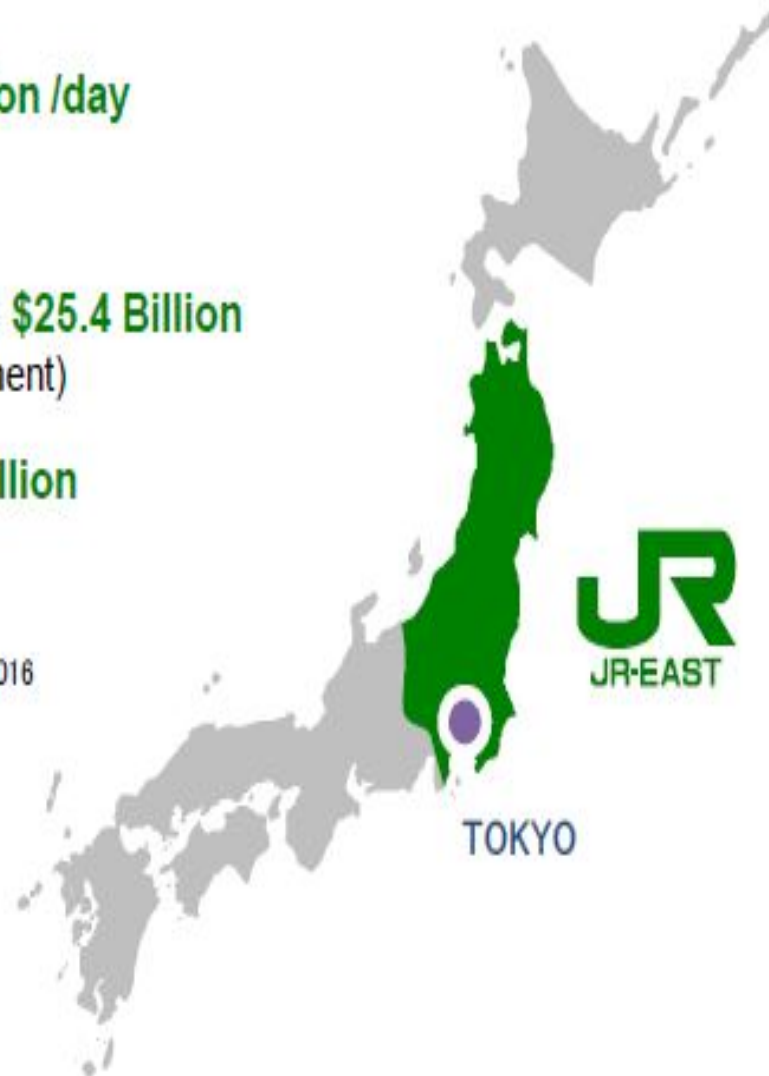


Regional

No. of Employees: **58,550**

*Numbers are as of FY ended March 31, 2016

**Calculated by 1 \$ = 113 JPY



TOKYO

JR
JR-EAST



The Fundamentals of a Safety Culture

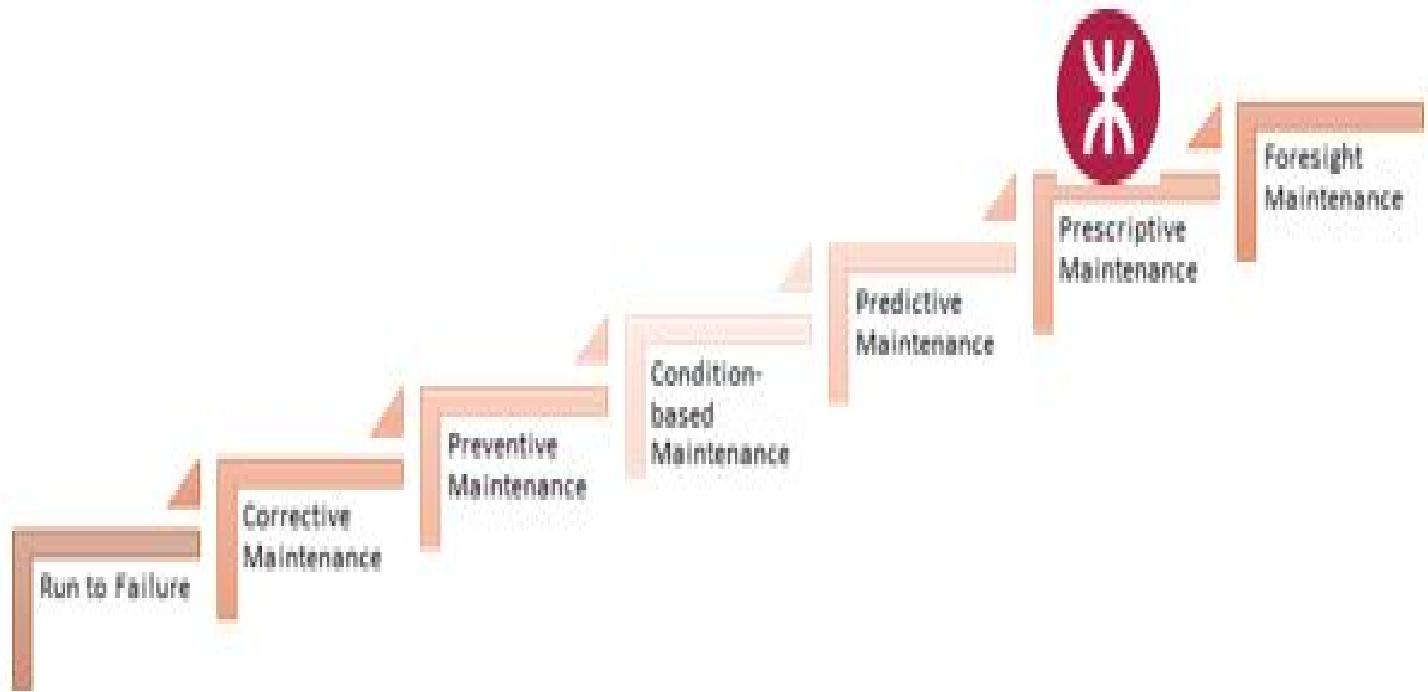
- A culture in which safety is ingrained in everything the organization does
- Safety is a way of doing and thinking about the business
- Each employee clearly understand their role in safety
- Leaders walk the walk, no grandstanding



The Fundamentals of Asset Management

- Data driven risk based framework backed by strong engineering
- Defined performance level and long term Opex for assets at birth
- An organizational structure with defined roles and responsibilities relative to asset performance;
- A robust financial management system
- A commitment to investment in employee competence





The Fundamentals of Workforce Development

- Human capital is most valued asset
- Engaged and customer-focused employees are key to success
- Invest heavily in training and education at all levels
- Put in place effective systems and processes to ensure good performance



MTR provides a full suite of in-house training programmes for over 17,000 MTR people in Hong Kong and develop our young talents into railway professionals

Apprentices



> 6000 classes delivered per year
> 120,000 trainee-mandays per year
600+ new Operations staff trained
184 apprentice intake in 2016

Operations Training



Management Training



> 900 classes delivered per year
> 20,000 trainee-mandays per year





Concluding Take-Aways

1. A holistic, risk-based business model based on predictable, long term funding for operations and capital
2. Spirit of continuous improvement where failure is not punitive
3. Service excellence based on an ingrained focus on safety and good performing assets
4. Significant investment in human capital/professionalization of the workforce
5. Extensive use of technology/data analysis

