

# Oslo Sporveier – Benchmark Presentation

## Overall Metro Context

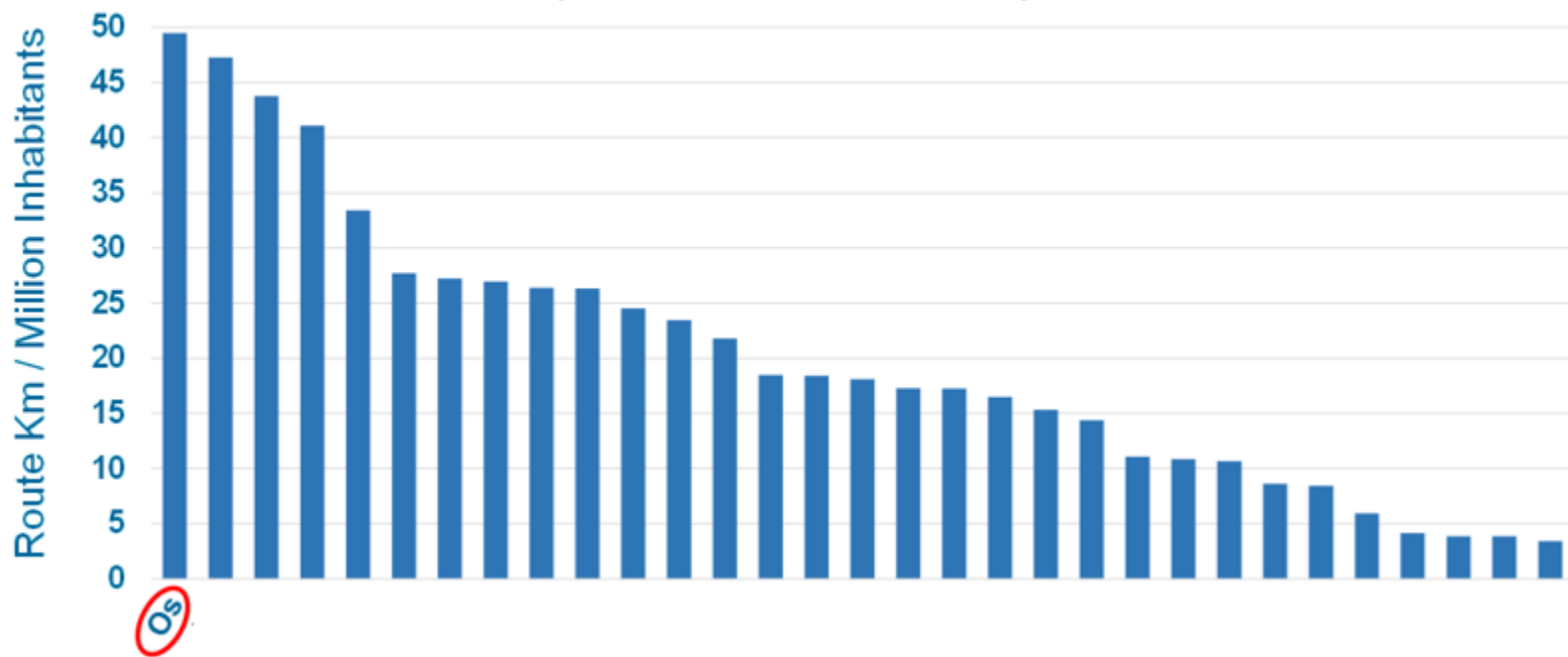
---

- Short Station Spacing
  - Os: 0.85km, global metro average 1.28km (1km for EU+NA)
- Short Passenger Journeys
  - Os: 6.6km, similar to EU+NA average but well below global average of 9.2km
- Relatively Average Commercial Speed
  - Os: 31km/hour, slightly above EU+NA but below global average of 34km/hour
- Most of Network At Grade
  - Unlike most metros, but similar to Newcastle and Sydney
- Low Number of Escalators / Elevators
  - Significantly fewer than most other metros – efficient design with ramps
- Young and uniform fleet

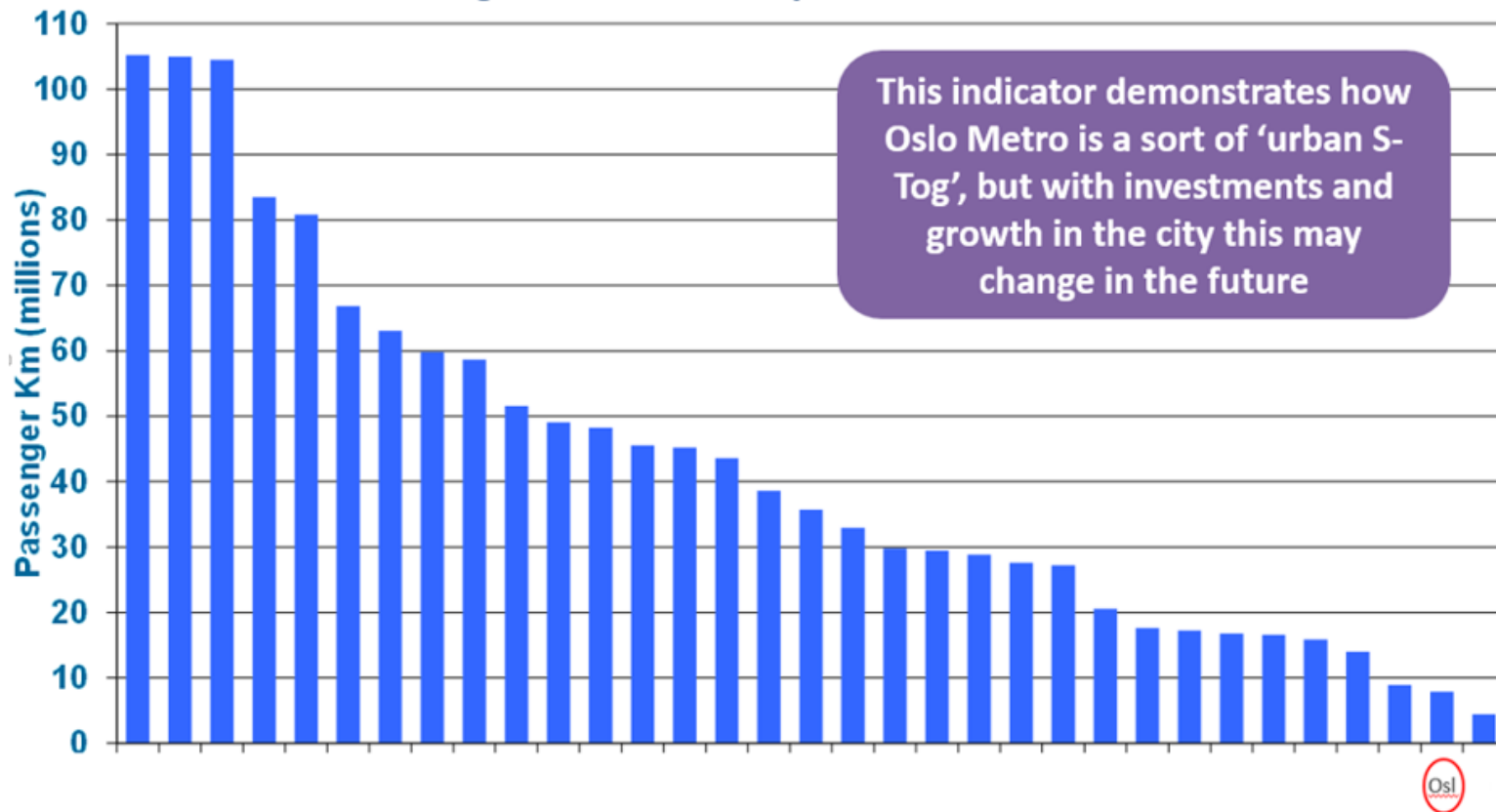
# Main findings in Benchmark towards other peers

- > Oslo has a fairly large metro system compared to number of passenger journeys.
- > Oslo has a large number of km metro per capita which leads to fairly low density of passengers per journey. Cost pr passenger is therefore naturally higher in Oslo.
- > Productivity is high in the Oslo Metro system due to a light-weight operational model combined with a high efficiency rate. Oslo therefore rated as a low cost metro.
- > Number of cars in use versus cars available (utility rate) is high in Oslo, and Oslo is one of very few systems that do not utilize peak periods during days, but rather have a flat production model during weekdays.
- > Oslo has a high utilization of central tunnel, with 32 trains per hour on the main line.
- > Reliability in Oslo average compared to comparable systems.

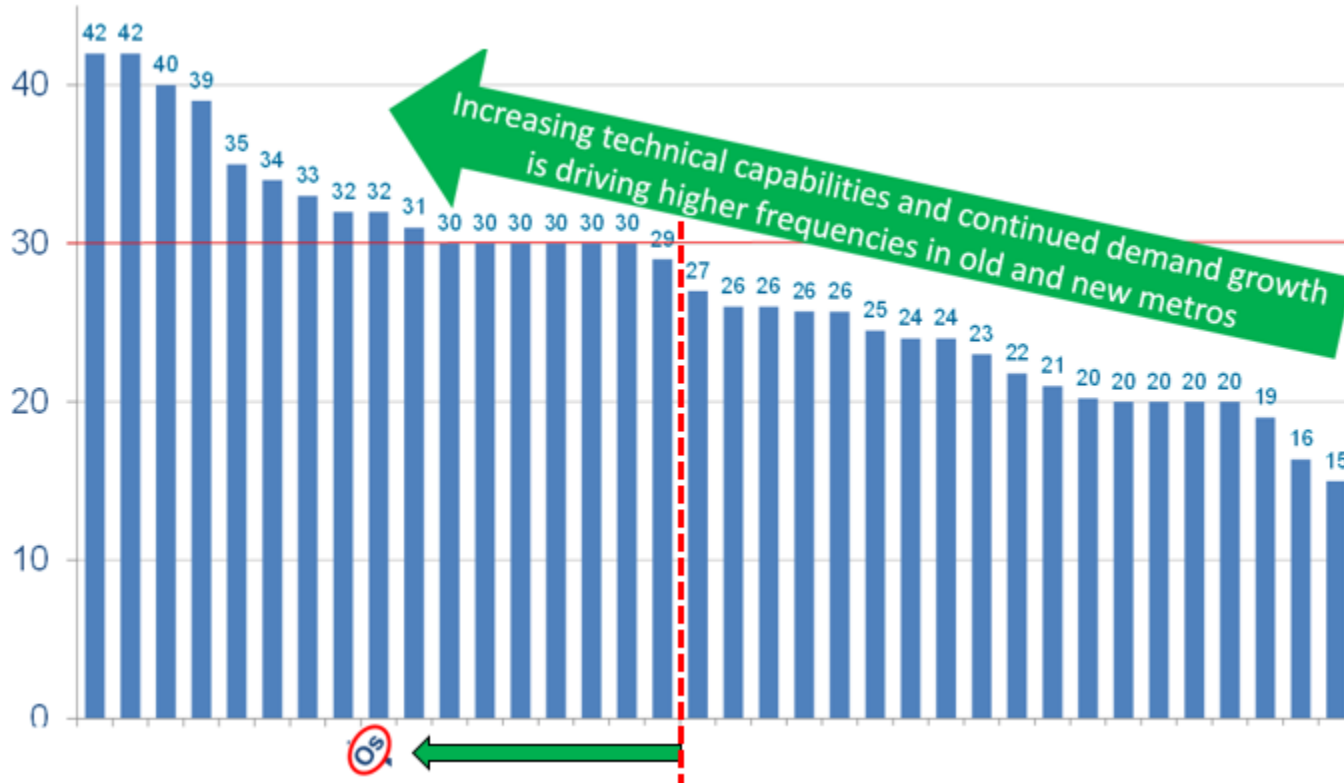
## Metro Route Kilometres per Million Metropolitan Area Inhabitants (2015 or Latest Available)



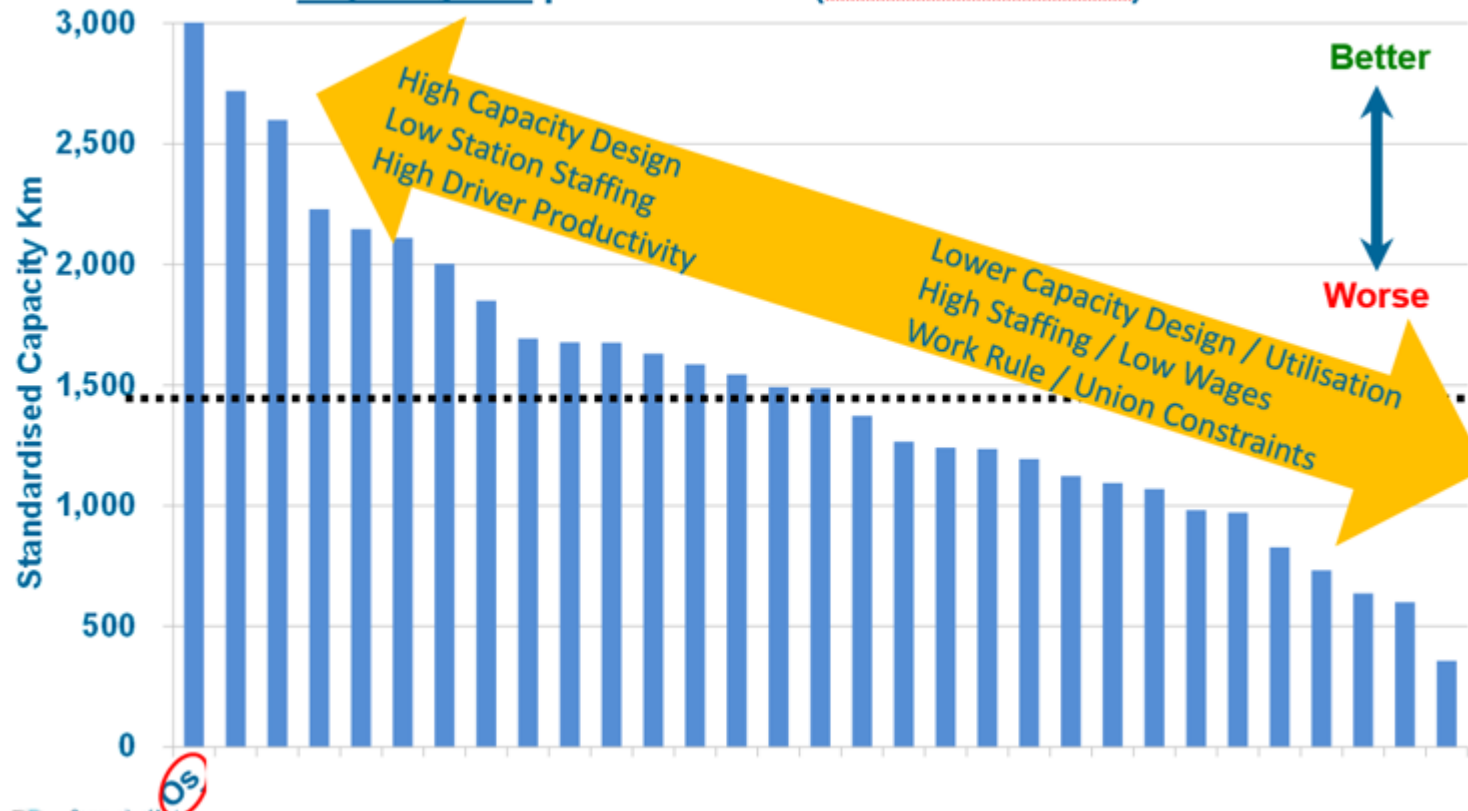
## Passenger Demand Density



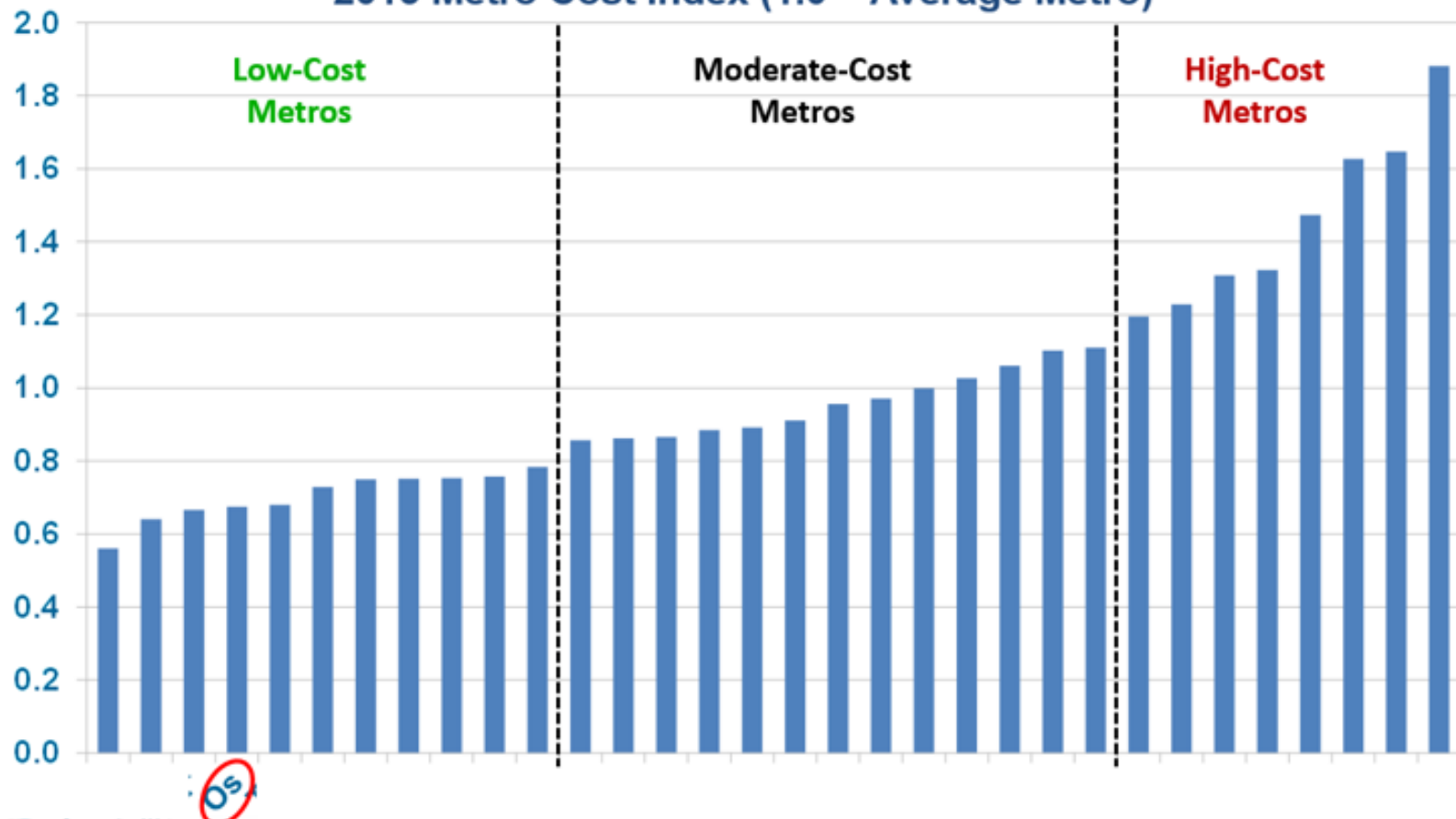
# Maximum number of trains pr hour



## Standard Capacity Km per Total Staff (Own+Contractor) Hours

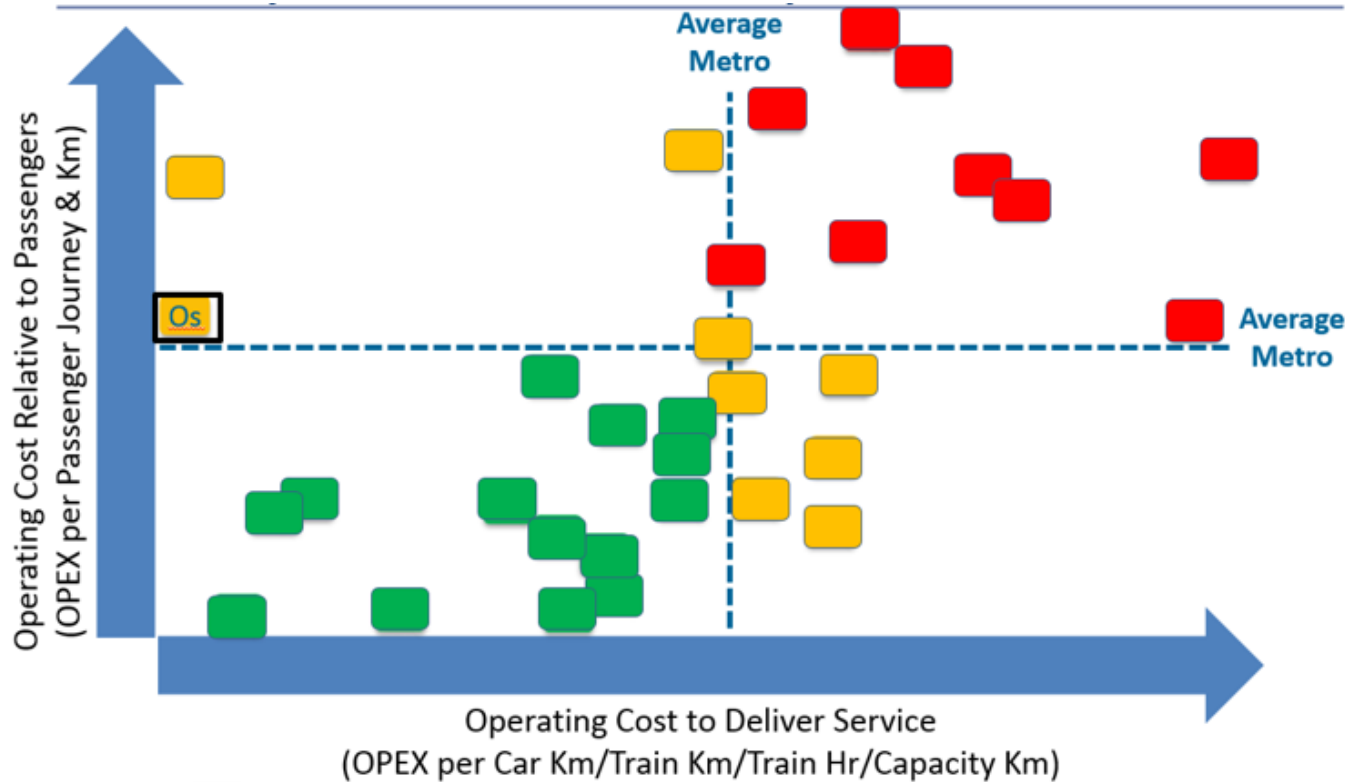


## 2015 Metro Cost Index (1.0 = Average Metro)





# Low production cost, average cost pr passenger



# Oppsummering Sporveien T banen

- > Resultater fra Best 2015 perioden bekreftes av ekstern benchmark.
- > Kostnad pr passasjer høyere en gjennomsnittlig
- > Kostnad pr kilometer meget lav ift gjennomsnittet.
  - Driftsmodell
  - Produktivitet
- > Driftsstabilitet i paritet med sammenlignbare kulturer.
  - Dog fortsatt fokusområde for forbedring