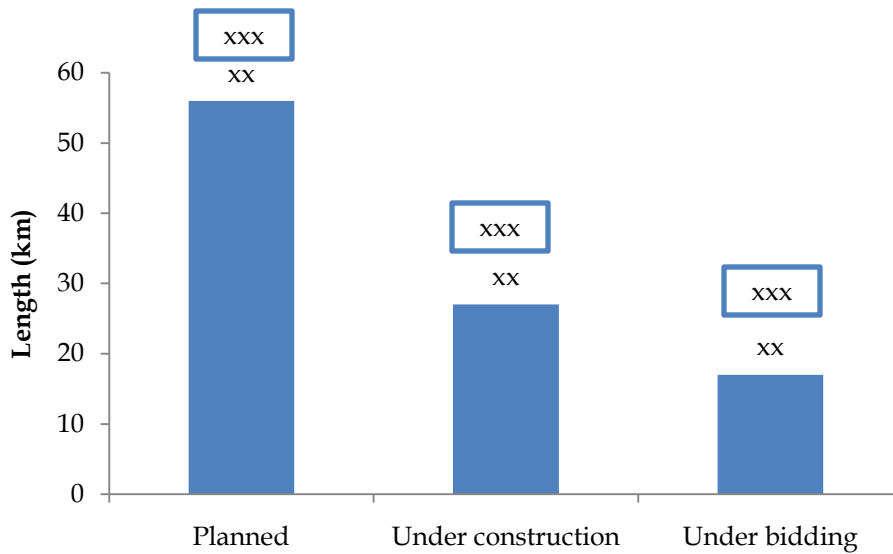


Project Pipeline and Analysis

- According to *Global Mass Transit Research*, the overall project pipeline for the sector includes xxx tunnels spanning over xxx km.
- Stage-wise, in terms of length, the planned tunnel projects account for the maximum share of about xxx%.
- Region-wise, the xxx region accounts for the maximum share in upcoming tunnel length at about xxx%.

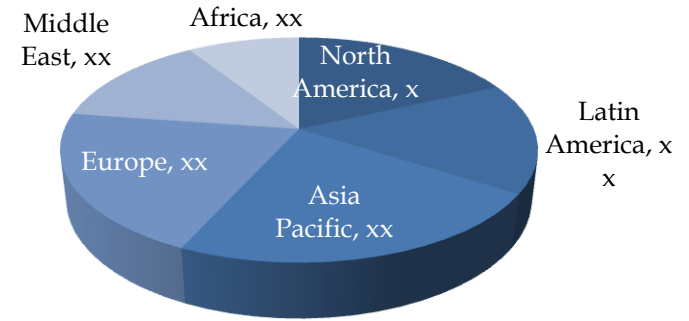


Upcoming Project Pipeline - By Stage of Development

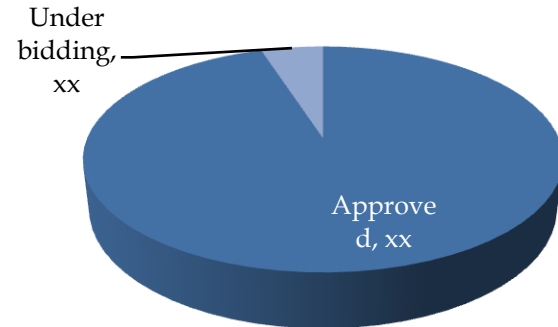


No. of tunnels

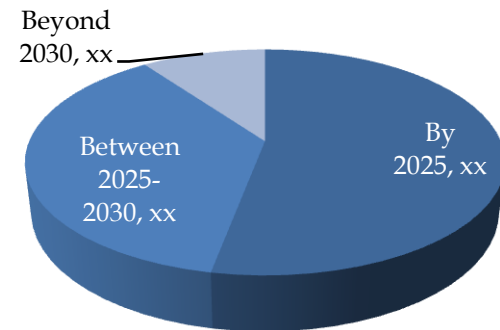
Region-wise share of rail tunnel projects



Share of approved & under-bidding projects

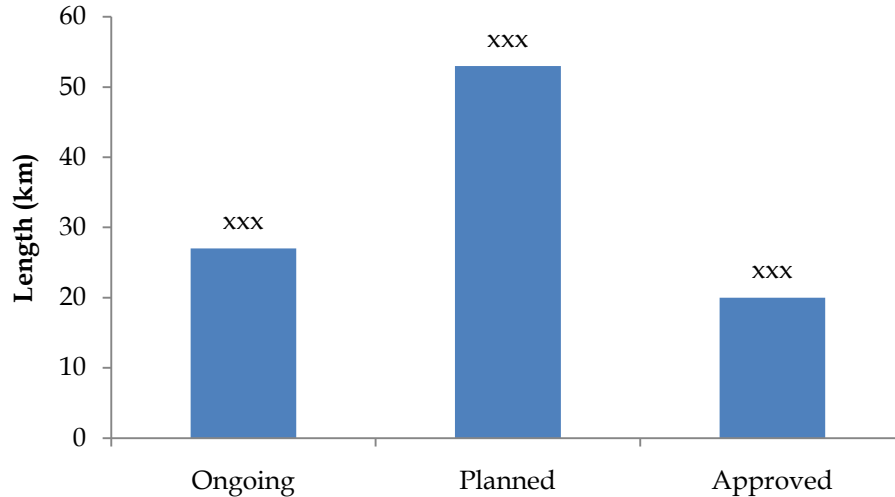


Share of projects by expected completion

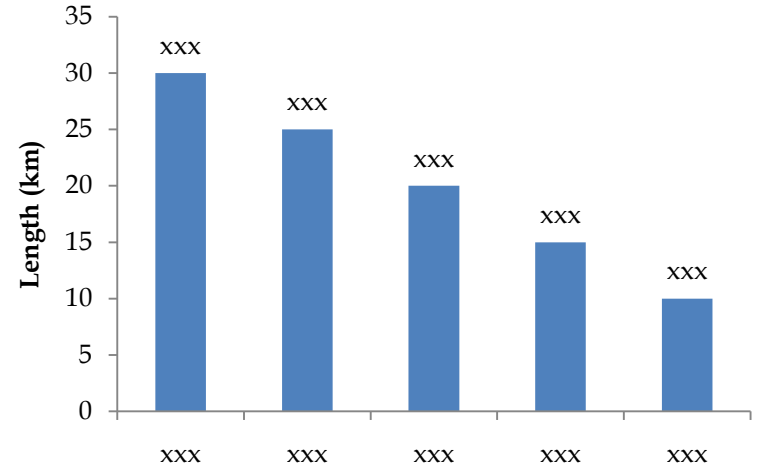


Project Pipeline and Analysis: Metrorail

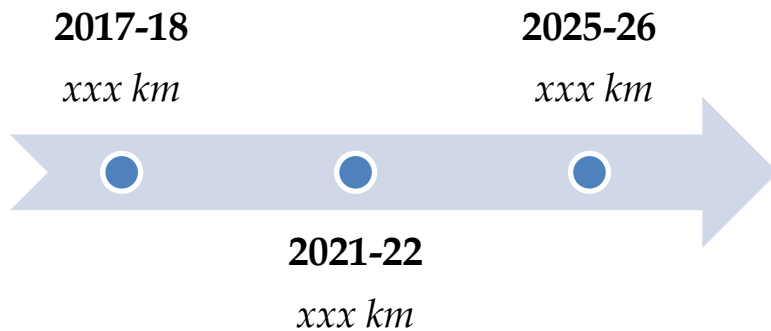
Project Pipeline



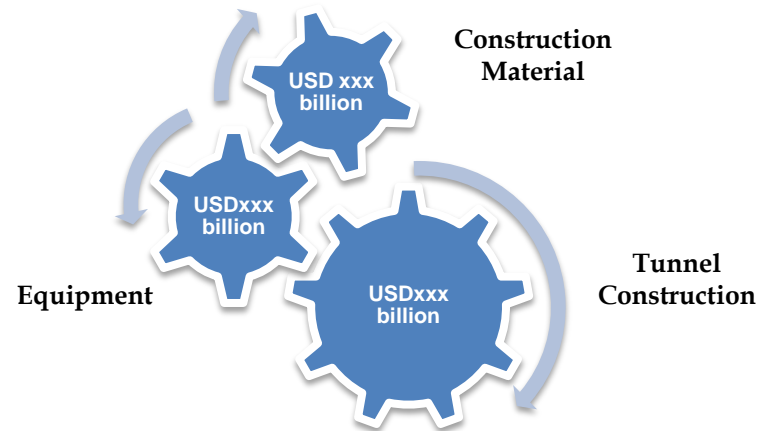
Top 5 countries with maximum construction opportunity



Metro Tunnel Projects Completion Timeline



Opportunities for key stakeholders



Source: Global Mass Transit Research

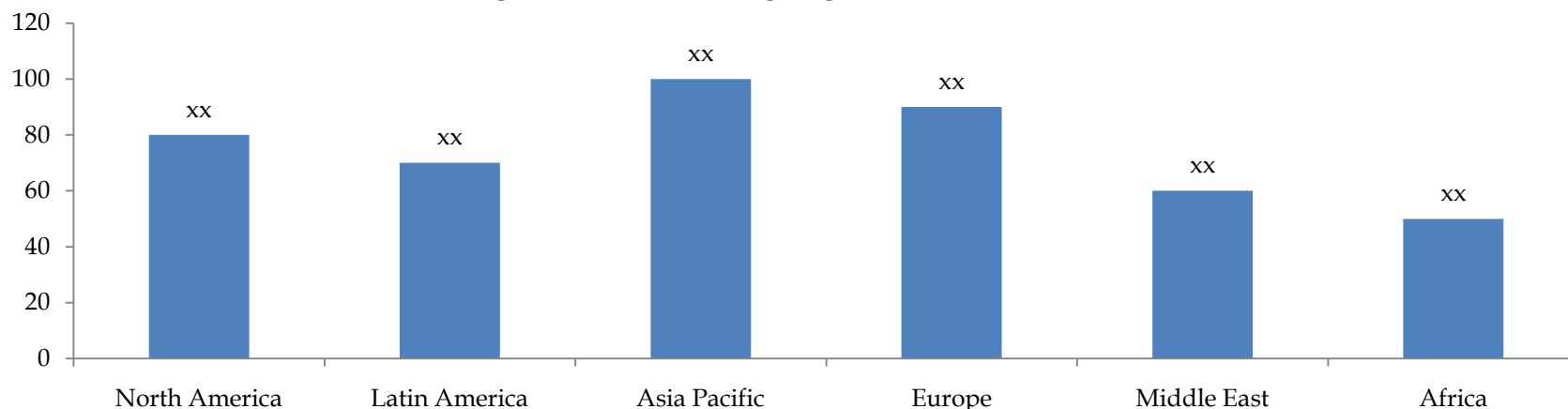
Project Pipeline and Analysis: High speed rail

- *Global Mass Transit Research* has analysed xxx upcoming (under construction, planned, approved and under bidding) high speed rail tunnel projects spanning a total length of xxx km.
- In terms of length, xxx region has the maximum share of xxx% with tunnels spanning a total length of xxx km.
- Xxx is closely followed by xxx with a share of xxx% (xxx km), and xxx at xxx%.

Length of the Upcoming High Speed Rail Tunnel Projects – By Stage of Development

Stage of development	Length (km)
Planned	xxx
Approved	xxx
Under bidding	xxx
Total	xxx

Region-wise Upcoming High Speed Rail Tunnels



Source: Global Mass Transit Research

Recent Contracts Awarded

Key contracts awarded during June 2017-June 18

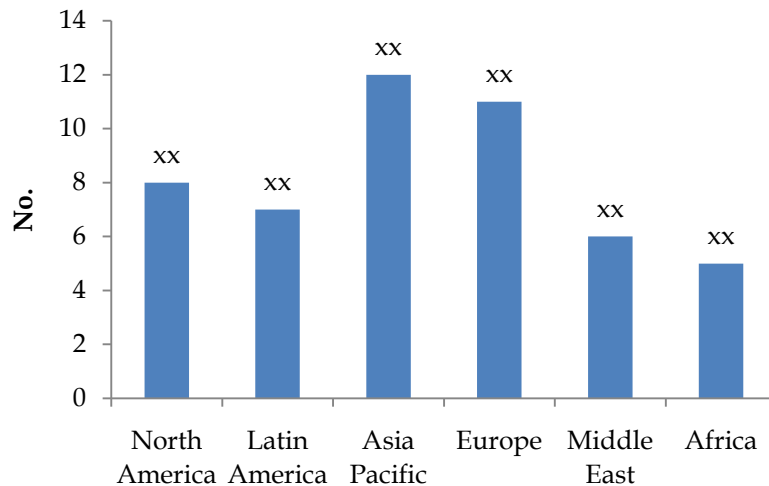
Region	Project	Tunnel length (km)	Date of contract award	Contractor	Expected completion
xxx	xxx	xxx		xxx	xxx
xxx	xxx	xxx		xxx	xxx
xxx	xxx	xxx		xxx	xxx
xxx	xxx	xxx		xxx	xxx
xxx	xxx	xxx		xxx	xxx
xxx	xxx	xxx		xxx	xxx

Source: Global Mass Transit Research

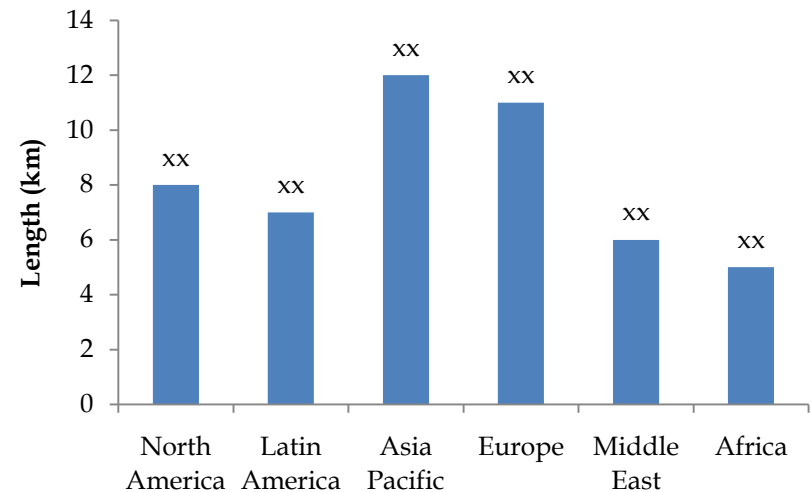
Analysis of Project Pipeline and Opportunities by Region

- Based on projects tracked by *Global Mass Transit Research*, the tunnelling segment offers a lucrative pipeline of xxx projects, spanning a length of over xxx km in the six regions.
- Xx region offers maximum opportunity, with around xx km rail tunnels planned to be developed. This is followed by xx (xx km) and xx (xx km).
- The development of rail tunnel projects is yet to pick up pace in xxx region, with only xx projects, spanning xx km planned to be developed.

Region-wise no. of rail tunnel projects



Region-wise length of rail tunnel projects



Source: Global Mass Transit Research

Key Ongoing Projects (1/x)

Top 5 under construction metro rail tunnel projects (in terms of length)

Project name	Stage/Phase	Route	Country	Length of tunnel (km)		Tunnel contractor	Diameter (m)	Tunnelling method	Actual/Expected date of completion
Delhi metro	Phase III Corridor II	xxx	India	17.29	xxx		xxx	xxx	xxx
xxx	Phase I UAA 02	xxx	xxx	7.23	xxx		xxx	TBM	2018
xxx	xxx	xxx	xxx	14.39	xxx		5.80	TBM, NATM, and cut and cover	2018

Source: Global Mass Transit Research

Equipment Outlook and Opportunities

Global Mass Transit Research has estimated that tunnels covering over xxx km are planned to be developed in the next 3-4 years.

- About xxx% of the tunnel construction cost is invested in procuring equipment and machinery.
- Over the next 3-4 years, around USDxxx billion will be spent on procuring equipment and machinery for upcoming tunnel projects (*cost may vary depending on the type of tunnelling method deployed*).

- In terms of length, it is estimated that xxx projects in xxx region will present most of the opportunity.
- In terms of value, xxx projects in xxx region will offer the maximum opportunity.

Region-wise Upcoming Tunnel Projects in the next 3-4 years

Sector	Length of tunnel (km)	Tunnel construction cost (USD billion)	Equipment cost (USD million)
North America	xxx	xxx	xxx
Latin America	xxx	xxx	xxx
Asia Pacific	xxx	xxx	xxx
Europe	xxx	xxx	xxx
Middle East	xxx	xxx	xxx
Africa	xxx	xxx	xxx

Source: Global Mass Transit Research