

SCMAGLEV – Chuo Shinkansen



Levitation and Guidance Coils
(closed circuit coils)

Propulsion Coils
(powered by substation)

Superconducting Magnet

Max. operating speed : **500km/h (311mph)**
Levitating : **10cm (4 inches)** above ground

Superconducting coils refrigerated around -255C
Light weight, Powerful, Permanent Magnet

The Project – Route and Journey Time



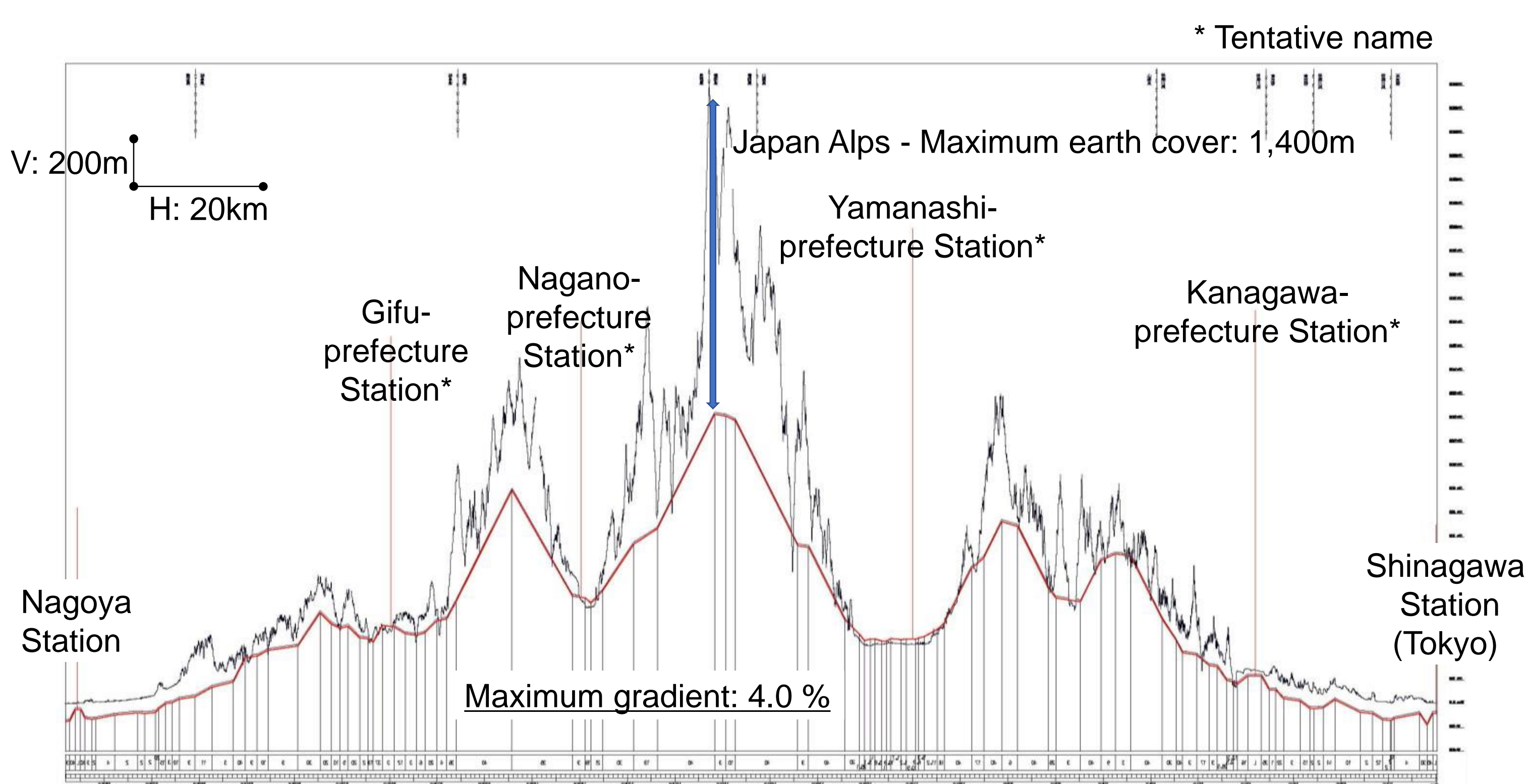
	Operating speed	Tokyo – Nagoya	Tokyo – Osaka
Chuo Shinkansen	500 km/h	40 minutes (286 km)	67 minutes (438 km)
Tokaido Shinkansen	285 km/h	86 minutes (342 km)	142 minutes (515 km)

Survey using high-speed long advanced boring

Minami Alps Tunnel (Southern Japan Alps Tunnel) – Located max. 1400m deep underground

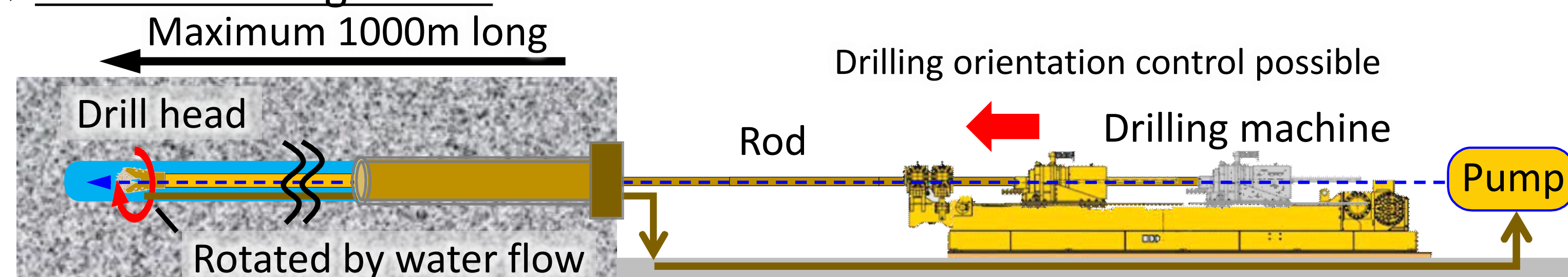
- Geological survey – Extremely difficult vertically from top ground surface
- Investigated using high-speed long advanced horizontal boring from inside the tunnel

Vertical Alignment of Chuo Shinkansen



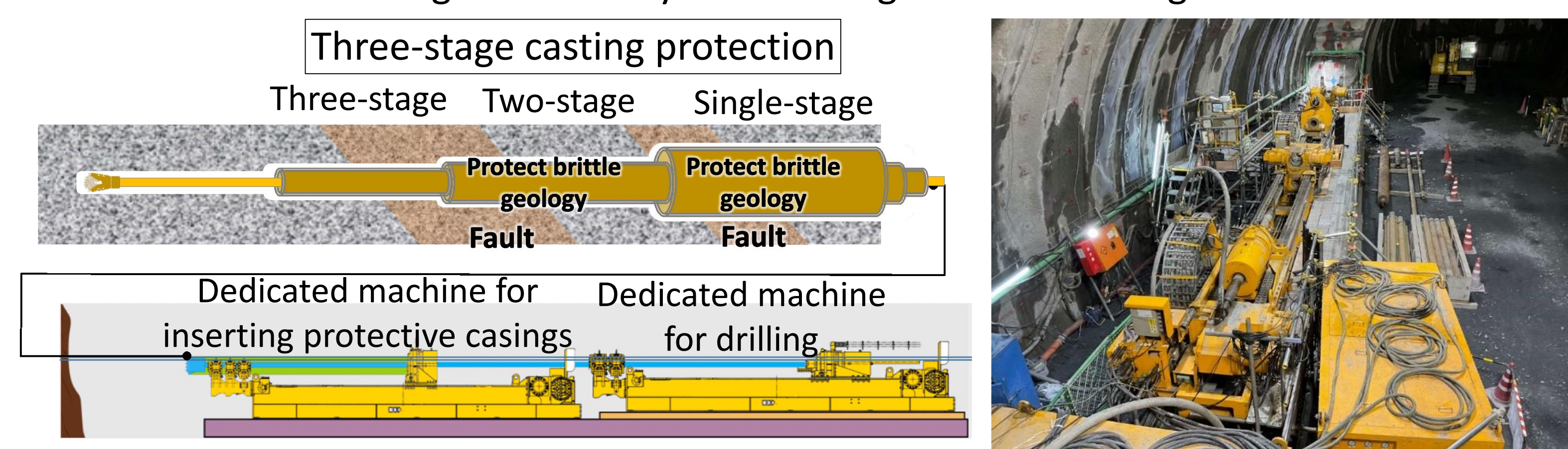
• Tunneled section – **86%** of entire route between Tokyo and Nagoya

Standard configuration

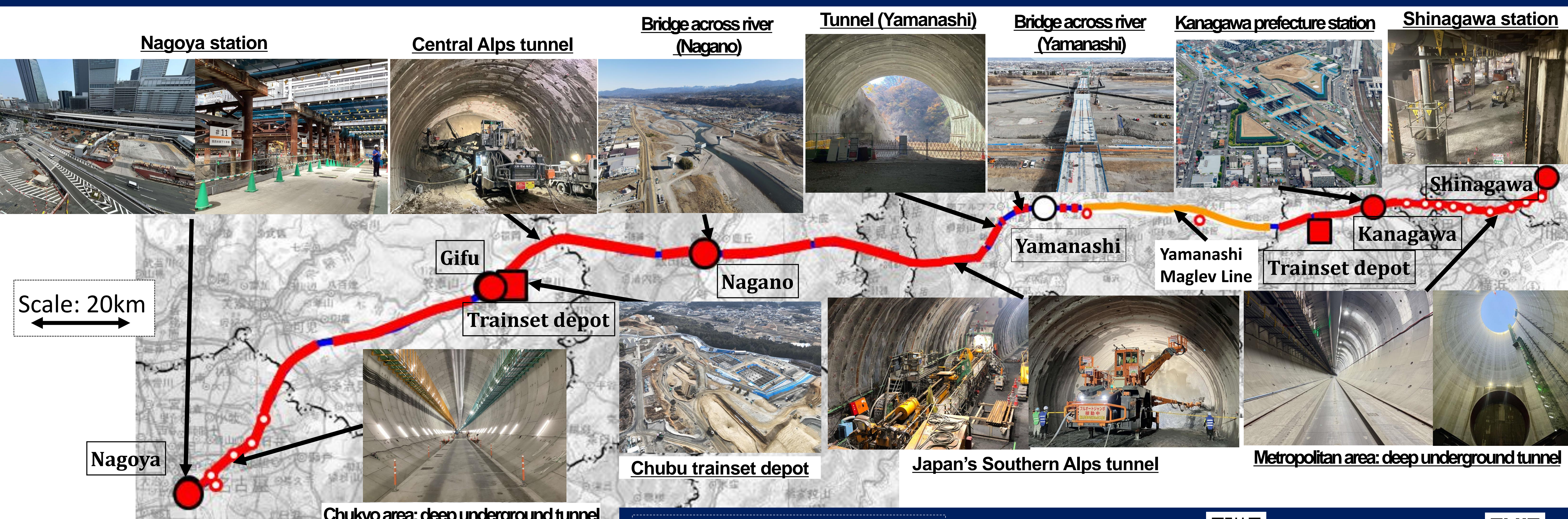


Specially improved configuration

- Applied to brittle geology including faults
- Protection with casing immediately after drilling to avoid blockage inside the bore



Progress of Main Construction Work



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JR Central Shinagawa Building – A Wing 2-1-85,
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SCMAGLEV Website

<https://scmaglev.jr-central-global.com/sp/>



Company Website

<https://global.jr-central.co.jp/en/>

