

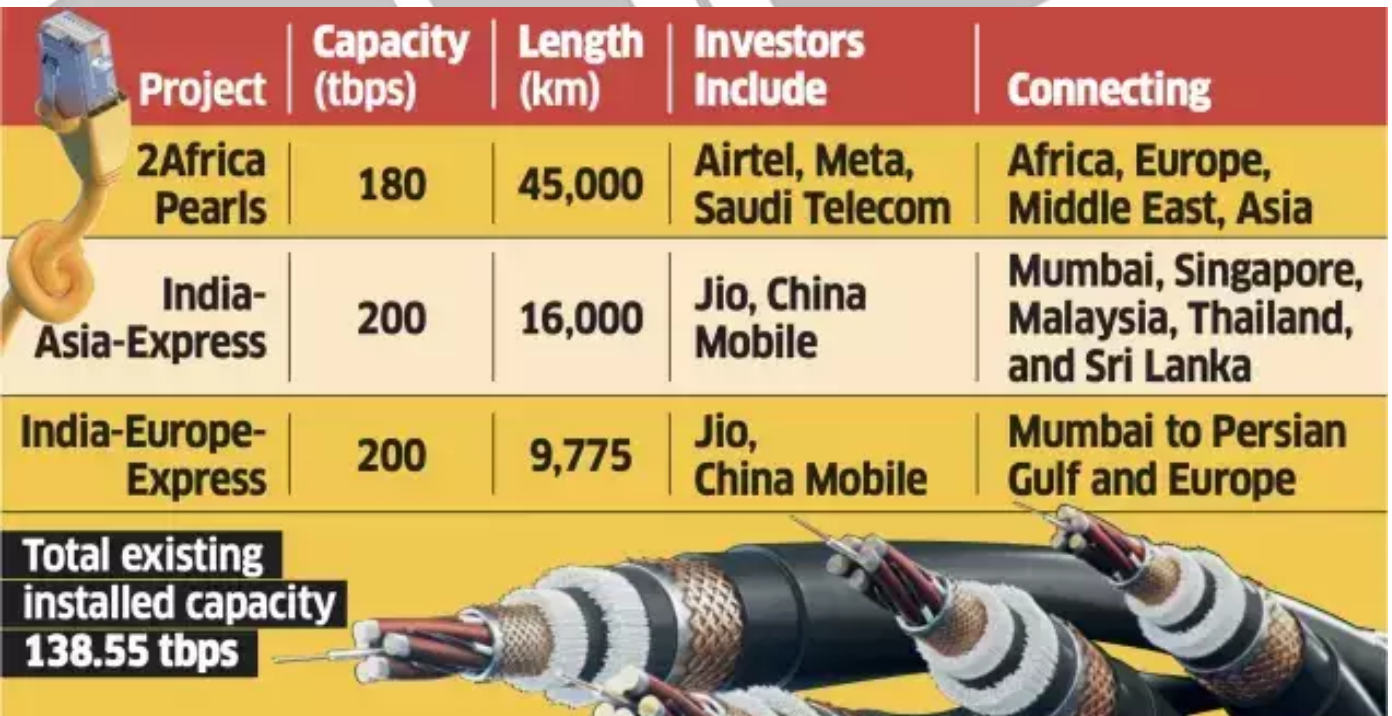


Undersea Cable Network

[Source: TH](#)

India is set to launch **two new cable systems** in the coming months namely [India Asia Xpress \(IAX\)](#) and [India Europe Xpress \(IEX\)](#).

- **IAX** connects Chennai and Mumbai with **Singapore, Thailand and Malaysia** in Asia while IEX connects them with **France, Greece, Saudi Arabia, Egypt and Djibouti**.
- **Undersea Cable (Submarine Cables):**
 - They are **high-capacity optic fibre cables** laid on the **ocean floor** that play a crucial role in providing **global connectivity for high-speed data exchange**.
 - Fiber optic cables that use **fast-traveling pulses of light** to transfer digital information. It relies on **total internal reflection** for their operation.
 - Lasers on one end fire at **extremely rapid rates** down thin glass fibers to receptors at the other end of the cable.
 - These glass fibers are wrapped in **layers of plastic** (and sometimes steel wire) for protection.
 - They provide **unlimited bandwidth** and **very low latency** compared to satellite communication which face **risks** from **space weather, radiation, and debris**.
- As of 2023, India had **17 international subsea cables** landing in **14 distinct stations across five cities**, with a cumulative lit capacity of **138.55 terabits per second (tbps)** and activated capacity of **111.11 tbps**.



Project	Capacity (tbps)	Length (km)	Investors Include	Connecting
2Africa Pearls	180	45,000	Airtel, Meta, Saudi Telecom	Africa, Europe, Middle East, Asia
India-Asia-Express	200	16,000	Jio, China Mobile	Mumbai, Singapore, Malaysia, Thailand, and Sri Lanka
India-Europe-Express	200	9,775	Jio, China Mobile	Mumbai to Persian Gulf and Europe
Total existing installed capacity	138.55 tbps			

Read More: [Fibre Optic Cables](#)

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