



What is Hyperloop?

Hyperloop is described as a sealed tube or system of tubes with low air pressure through which a pod may travel substantially free of air resistance or frictions.

• Speeds of
~ 1000 kmph

• EM propulsion

• Mag-lev incl

2021

System presently being developed by many companies -

incl - Virgin Hyperloop

The company tested human travel in a hyperloop pod for the first-time in November 2020.

First trial : MAY 2017
at Nevada Desert, US

→ 400+ tests
so far

8] Safer: can be tunneled below or elevated above ground, avoiding dangerous at-grade crossings

Benefits

- 1) Speed of a plane
- 2) Expected to be cheaper than planes
- 3) Can provide more connectivity like trains
- 4) Safer
- 5) Customisable trips can be planned for smaller number of passenger i.e. chartered
- 6) The system is well suited for Indian conditions as it requires very little land compared to alternative modes
- 7] Enclosed - weather proof
- 10] Job creation during dev.

9] Less env. footprint

Less friction \therefore \uparrow efficient

Challenges

- Technology divide
- Cost of setting up infrastructure
- Must be affordable else people won't use it
- ensure the system is tested for passenger use under strict safety guidelines

India Plans

3

plans

o Maharashtra

o Karnataka

o Punjab

} feasibility studies undertaken

Amritsar and Chandigarh in Punjab

In February 2018, chairman of Virgin Hyperloop One, Richard Branson had announced plans of a hyperloop system between Pune and Navi Mumbai in Maharashtra. Those plans have stalled due to coronavirus outbreak.

In 2020, a study was undertaken to assess whether a hyperloop corridor connecting the Bengaluru International Airport to the city centre was feasible

Niti Aayog Member **V K Saraswat** is heading a committee to explore the technological and commercial viability of the Virgin Hyperloop technology

TIME LINE

The developers are looking to have the system safety-certified by 2025, which would enable passenger operations on commercial projects as early as 2030.