Maharashtra’s Hyperloop Plan

Why in news?

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Maharashtra government has signed an agreement with Virgin group to build a Hyperloop.

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What is Hyperloop?

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- Hyperloop is a proposed system of transport that would see pods or containers travel at high speeds through a tube that has been pumped into a near-vacuum.
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- The train pods would either float using magnetic levitation technology.
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- The pods would be able to travel at immense speeds with a projected top speeds of 760mph.
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- The pod would initially launch using an electric motor before levitation takes place and the pod can glide at cruising speed in the low-pressure environment.
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- Hyperloop One is the company which is working on this technology, has proposed routes in UK, Netherlands, Finland and Dubai, where it has backing from the governments to explore the potential of the system.
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What was the proposed Hyperloop route in India?

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- The proposed Hyperloop route in India will be connecting Mumbai and Pune in Maharashtra.
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- The proposed system will cut travel time between Mumbai and Pune to 25 minutes from the 3 hours it now takes by road.
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- Mumbai-Pune Hyperloop is estimated to connect 26 million people, support 150 million passenger trips per year, and reduce greenhouse gas emissions by up to 86,000 tonnes over 30 years.
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- It is expected that the project will have operational systems in service by 2021.
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What are the advantages of Hyperloop?

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- The system is fully autonomous and sealed, so no driver-related error is anticipated.
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- In a sealed environment with almost no air resistance, the pods are expected to reach very high speeds.
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- Motion will not involve contact, so the vehicle will be virtually noiseless.
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- The capital and operational costs of Hyperloop will be two-thirds that of high-speed rail.
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- Tunnels for the Hyperloop would be built either above or below ground, taking up a smaller ground footprint than traditional rail and road.
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- Hyperloop is “energy-agnostic”, drawing from whichever source is available, if that’s solar or wind, the system will be carbon-free.
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Source: Indian Express, Daily Mail

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