

High-speed rail service 'to change the UAE's transport landscape'

Experts excited about move to bring Abu Dhabi and Dubai closer, write **John Dennehy and Daniel Bardsley**

A high-speed railway designed to connect Abu Dhabi to Dubai in 30 minutes has the potential to transform the UAE, analysts believe.

Ethihad Rail unveiled the plan on Thursday and, while no launch date was revealed, experts say the project could revolutionise the UAE's economy, its environment and where its people will live. Six stations will be built in the first phase passing through Abu Dhabi's islands, connecting the airports and then up to Dubai Creek.

"It changes the landscape tremendously and brings the cities very close together," said Monica Menendez, professor of civil and urban engineering at New York University Abu Dhabi.

If a 30-minute travel time at speeds of up to 350kph replaces a fraught drive along busy Sheikh Zayed Road, more people could have more choice about where to live and work.

Paulo Anciaes, senior researcher at University College London, said he expected "a considerable shift".

"The new rail lines will be very competitive, in terms of travel time, comfort and convenience, compared with private car use," said Mr Anciaes.

"So, we can expect a

considerable modal shift from car to rail for intercity travel within the UAE, which will reduce congestion and pollution.

"The project will increase happiness, as travel will be faster and less stressful, so people can more easily travel to see family and friends in other cities and make more leisure trips.

"Reduced commuting times also makes it easier for workers to find a job that best matches their skills and opens up opportunities to access education and training."

Marcus Enoch, a professor of transport strategy at Loughborough University in the UK, said he thought that the new service may increase the amount of travel between Abu Dhabi and Dubai.

"You might get a lot of extra trips generated that you didn't get before, which I suspect is part of the point," Prof Enoch said.

It will connect areas of high density and typically has fewer stops so the trains can reach their top speed.

"Think of tourism," said Prof Menendez.

"Now you can be there in 30 minutes. The trip is less costly in terms of time and that is a valuable asset."

Like most megaprojects, such a network does not come cheap. Parts of the

UK's HS2 rail were cancelled due to several factors including the soaring costs, although Prof Enoch said that high-speed rail was more difficult to build in densely populated countries such as the UK, which have a long-established rail heritage, as new lines inevitably encounter planning obstacles such as long-established villages and towns.

"I never thought HS2 made any sense because there's nowhere to put it," Prof Enoch said.

Ethihad Rail did not disclose a cost but, according to the *International Railway Journal*, the cost of high-speed lines in Europe designed for operation at 300kph or faster is estimated to be \$25 million-\$39 million per kilometre and as high as \$52 million per kilometre in California.

In other countries it can be cheaper.

However, the economic benefits are strong,

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Paulo Anciaes
Senior researcher

connecting businesses and boosting trade. Much more remains to be revealed but authorities spoke of a Dh145 billion GDP boost.

"It increases the connectivity between businesses and consumers," said Mr Anciaes.

He pointed to a review published this week in the *Journal of Transport and Health* showing the economic gains.

Studies in China show each 10 per cent decrease in travel time leads to an increase of 0.44 per cent in the GDP of the areas served.

In Italy, high-speed rail led to a 5.6 per cent increase in GDP in the areas served and in Germany the line connecting Frankfurt and Cologne led to an 8.5 per cent growth in GDP.

Alexandra Gomes, a research fellow at the London School of Economics who has researched Abu Dhabi and Kuwait City, said rises in property prices might be expected.

"This increase would likely be more pronounced in areas with greater accessibility to train stations," said Dr Gomes.

"Nevertheless, these areas also present an opportunity to promote higher mixed-use development, higher densities and higher levels of walkability."

Many people are familiar

with Japan's bullet trains, but it is China that has built the largest share of high-speed rail, with about 40,000km of track across the country.

Still, it is growing in the Middle East and North Africa. Saudi Arabia's Haramain train links Jeddah, Makkah and Madinah. Morocco is expanding its network and Egypt is also building several lines.

"They are green, efficient and carry high numbers of people," said Kevin Smith, editor-in-chief at *International Railway Journal*, who said air travel reduces on routes served by high-speed rail such as London and Paris.

"Three to four hours is the sweet spot for high-speed rail," Mr Smith said. "Beyond that is less competitive."

Mr Smith said it was an exciting project.

"To have a high-speed line is a symbol of modernity."

The high-speed line is distinct from the passenger and freight railway services that will cross the entire country.

The high-speed line is electric while the other service will be slower as it uses diesel locomotives.

Mr Smith said the new line would have "substantially better" journey times as it had its own dedicated line.

"With high-speed rail, you don't have to mix and limit

freight movements." It is not yet clear how these two lines might be integrated, if it all, but Ethihad Rail said the regular line will be integrated with existing transport such as Dubai Metro.

Particularly important is what is known as the "last mile" integration – ensuring people do not have to walk long distances to the station.

"If you have to drive half an hour, you may as well continue by car," said Prof Menendez. People should also be able to purchase tickets that work across rail and buses.

"If you need to buy a separate ticket for every mode it is quite painful. It needs a seamless transition," she said.

Dr Gomes said improved connections between residential and employment hubs, and the train stations, was "crucial".

"Consider the journey from downtown Abu Dhabi, where many people live and work, to the nearest station located on one of the islands," said Dr Gomes.

"A reliable, accessible and interconnected public transport network will be essential for the success of this investment, not just in operational terms but also in enhancing the overall livability of the cities."



Ethihad Rail's new line promises faster travel between Abu Dhabi and Dubai Victor Bessa / The National