[Author’s accepted manuscript. Published in Physics World (2017), Vol 30. Issue 9, p 21, with title ‘Transport that lives up to the hype?’]

**On Evacuated Tube Transport**

[In response to Jon Cartwright's feature "From hype to hyperloop" (Physics World (2017), Vol 30, Issue 8, Vacuum and Instruments supplement, pp13, 15, 17).]

The less extreme versions of evacuated tube transport are feasible but it must be noted that high-speed passenger transport proposals are part of a culture of continued economic growth and increasing inequality. A passenger system could be viable - for a while - precisely because expensive and exclusive. In view of multiple ecological and social stresses, however, economic growth is not likely to last much longer.

In a conserver society, more modest evacuated tube systems for the transport of goods could play a role. Two distinct designs suggest themselves. One takes small freight items from one local distribution point to another, thereby reducing conventional freight traffic. A suitable bore might be a little more than 1 m. The other system, with a bore of perhaps 0.2 m, transports smaller items directly from and to households. With efficient air-locks and regenerative braking, the systems consume little energy. A modern control system permits high throughput. In the conserver society, speed is not so important. With a maximum speed of, say, 70 km/hr, the mechanical aspects of the systems can be cost-effective and quiet.

Today's question is - hyper, or modest and sustainable? High-speed passenger transport can come later.

Alan Cottey

University of East Anglia, UK

[a.cottey@uea.ac.uk](mailto:a.cottey@uea.ac.uk)