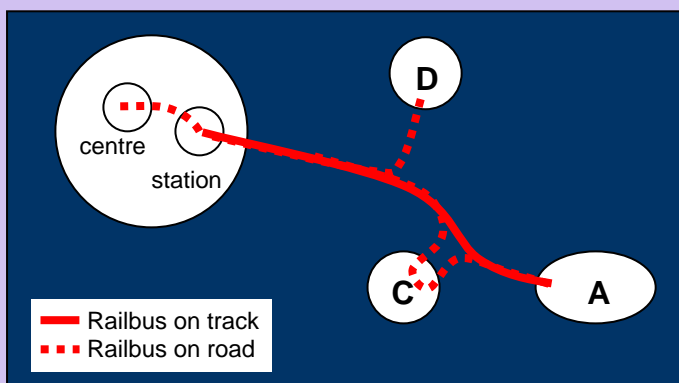
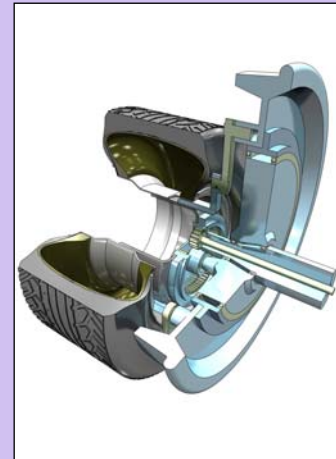


## Railbus – the wheel reinvented by Movares

The Railbus is a dual-mode vehicle (bus) that can drive on a road as well as on a railway. This dual-mode bus has been developed by Movares, an engineering consultancy in the Netherlands. The technique of the Railbus-concept is based on a track wheel at the inside and an air-filled road tire at the outside, placed eccentrically on one axle. Both wheels share one drive shaft, suspension and brake system, so the weight increase is limited. The bus can easily shift between roadmode and railmode, without stopping the bus. During the interchange process, the tires are being raised, and as a result the track wheel will take over. For this a special feed-in spot where road and rail meet, is needed. Interchange is possible with a speed of approximately 40 km/h because road wheel and track wheel have the same radius. Once on the tracks, the railbus can reach again 80 km/h. The drive system will be hybrid, so any kind of motor (or fuel cell) can power the Railbus.

According to Movares, the dual-mode bus is especially interesting for areas with a lot of road congestion and also unused or poorly used railways. The Railbus can efficiently serve residential areas by road and then continue the ride by using the fast, congestion free track to and further into the city.

It can also revive unprofitable regional railways. New residential areas that are developed at some distance from the track (C, D) can benefit from this concept. The Railbus brings passengers direct to their home in towns off the track, without any change of vehicle.



The system can also be a first step to a light rail system, extending the service to the city centre. In comparison a light rail offers a much higher capacity and quality, but at higher costs.

A Railbus costs approximately one and a half times the price of a normal bus. Movares, TU Eindhoven and Veolia are in contact now with the Dutch ministry of Economic Affairs for a R&D budget for further development of the Railbus concept. Information: [peter.kors@movares.nl](mailto:peter.kors@movares.nl)

Movares

giving shape  
to  
mobility