



High-Speed Rail: An International Success Story

The California High-Speed Rail Authority (Authority) is responsible for planning, designing, building and operation of the first high-speed rail system in the nation. California high-speed rail will connect the mega-regions of the state, contribute to economic development and a cleaner environment, create jobs and preserve agricultural and protected lands. By 2029, the system will run from San Francisco to the Los Angeles basin in under three hours at speeds capable of over 200 miles per hour. The system will eventually extend to Sacramento and San Diego, totaling 800 miles with up to 24 stations. In addition, the Authority is working with regional partners to implement a statewide rail modernization plan that will invest billions of dollars in local and regional rail lines to meet the state's 21st century transportation needs.

Capital funding to develop the high-speed rail project will come from federal, state, local and private sources. These funds will be available to the Authority at different times based on the development timeline of the system. Under Proposition 1A and the phased implementation strategy outlined in the 2012 Business Plan that allows for a more regional, cost-effective approach to developing the system, the state would not start developing a new segment until funding has been identified. Every segment will have independent utility and will add value to the state's transportation system.

HIGH-SPEED RAIL IN CALIFORNIA WILL NOT REQUIRE OPERATING SUBSIDIES

While developing the 2012 Business Plan, the Authority met with several international experts and representatives from countries with experience with high-speed rail. Their input was used to refine the existing business plan to guide the Authority from design to construction to operations and maintenance to create a system that is sustainable, financially stable and blends with existing rail systems as part of a statewide rail modernization plan. These experts weighed in on all aspects of the project ridership models to funding and finance issues, and provided guidance and assistance.

High-speed rail systems throughout the world have demonstrated that service revenues are able to cover operating costs without public subsidies to support high-speed rail operation. High-speed rail's commercial success is based on its ability to provide superior service for medium length trips, which are typically 100 to 600 miles, that are too long for auto travel and too short for convenient air travel. In these corridors, high-speed rail is able to deliver reliable, fast, and convenient service, while at the same time, offering amenities that are not available

"Starting a new high-speed rail service is challenging, as was the case in Japan in 1964; however, it is very rewarding for the country in the longer term."

**- Masaki Ogata,
Vice Chairman,
East Japan Railway
Company**



through other modes of transportation. These factors enable high-speed rail systems to attract and sustain strong ridership numbers and high operating profits.

HIGH-SPEED RAIL SYSTEMS CONSISTENTLY MAKE MONEY

High-speed rail systems from Europe and Japan have repeatedly demonstrated their ability to operate at a significant profit. For example, in just its fifth year of operation, the Taiwan High Speed Rail Corporation, which owns and runs the high-speed rail line in Taiwan, reported a net income from operation of \$415 million (U.S.) in 2011. The system's commercial success is attributed to a steady increase in ridership since operations began. Similar to Taiwan, JR Central, the operator of the Tokaido Shinkansen network connecting Tokyo and Osaka, reported a net income of \$4.5 billion (U.S.) in 2012.

In Europe, Renfe, operator of Spain's Alta Velocidad Española (AVE) high-speed rail system and several conventional lines, had a gross operating profit of \$259 million (U.S.) in 2010. Two high speed rail lines, the Paris-Lyon TGV line and the Tokyo-Osaka line, have even been able to fully repay their infrastructure costs from their operating profits.

In the United States, Amtrak's "high-speed" Acela Express, which operates at speeds up to 150 mph, and Northeast Regional, which operates at speeds up to 125 mph, both set new ridership records and had net operating profits of \$207 million and \$72 million in 2012. In addition to these corridors, Amtrak is already examining other areas of the country to run new high-speed rail lines and is working with state and federal stakeholders to bring high-speed rail to connect mega-regions in other parts of the country.

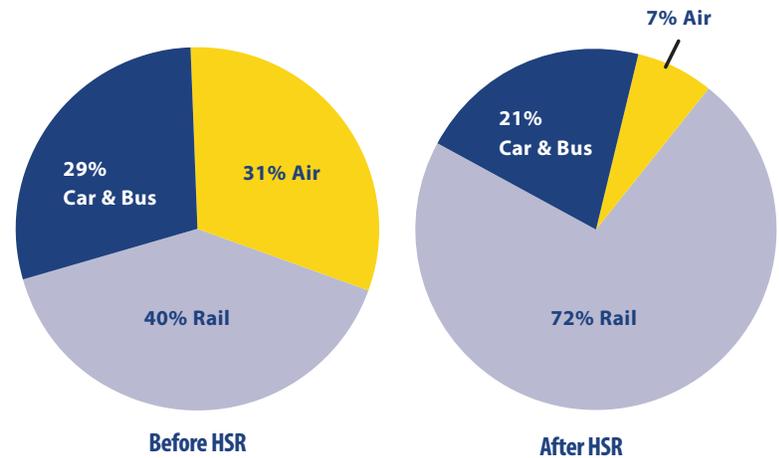
PRIVATE SECTOR INVESTS ITS OWN FUNDS FOR HIGH-SPEED RAIL OPERATING PROFITS

Around the world, private sector firms have invested in high-speed rail because of its profit generating potential. Generally, the private sector has provided up-front funding and financing to high-speed rail projects in return for the operating profits from running the systems. In 2011, a \$11.3 billion (U.S.) concession contract between the state-owned Réseau Ferré de France (RFF) and LISEA, a company run by VINCI, was signed for the construction and operation of the Tours-Bordeaux TGV high-speed rail line in France.

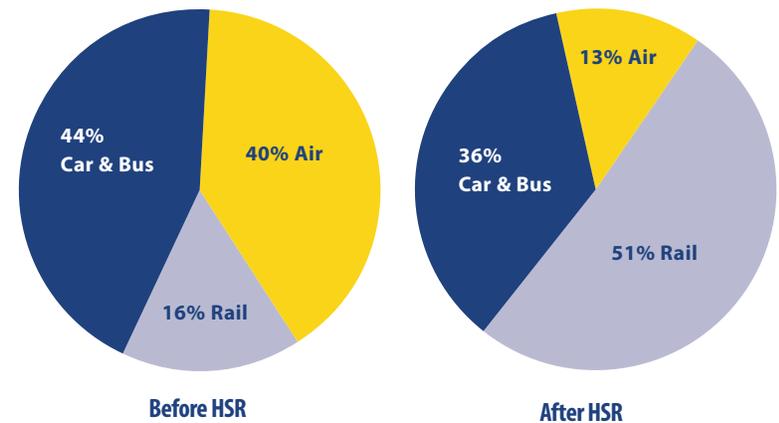
In the UK, the government constructed High Speed 1 between London and the Chunnel and then contracted with a private sector firm for 30 years of operation. The contract to manage the system was won by a consortium of Canadian investors, Borealis Infrastructure and Ontario Teachers' Pension Plan, for \$3 billion (U.S.) after a competitive bidding process in 2010. The consortium gets access fees from the track and four stations to recoup its investment and is responsible for maintaining the railway.

These are just a few examples that demonstrate that high-speed rail projects around the world do not require operating subsidies, can and do successfully compete with other modes of transportation for passengers, and attract private investment. Unlike other conventional rail where many systems require operating subsidies from the public sector, high-speed rail has shown time and again that it is a money maker.

FRANCE'S TRAIN À GRAND VITESSE (TGV-Sud-Est)



SPAIN'S ALTA VELOCIDAD ESPAÑOLA (AVE Madrid-Seville)



The French and Spanish high-speed rail systems, which were built in phases and continue to expand, demonstrate a decrease in air and automobile travel and an increase in rail travel

Source: 2012 Business Plan, ES-12.