

# SmartMove...

## SUCCESS STORIES FROM THE TOLLING INDUSTRY



### Agency

Central Nippon Expressway Co. Ltd.

### Project

Shin Tomei Expressway

### Purpose

To ensure the free flow of people and goods between Tokyo, the center of Japan's economy, and Nagoya, one of its main industrial cities.

### Vital Stats

- 162 kilometers.
- 12 all-electronic tolling points.
- Construction cost of ¥2,571 billion (US\$25.7 billion), funded mainly through the bond market.
- 92 percent reduction in episodes of traffic gridlock spanning 10 kilometers or more, from 227 to 18 per year.
- 27.5 percent reduction in collisions involving human injury or death, from 521 to 378 per year.
- 70 percent of through traffic diverted to the Shin Tomei, with 80 percent of local traffic in Shizuoka Prefecture remaining on the original Tomei Expressway and larger, long-haul vehicles switching to the new road.
- 13 percent increase in regional traffic volume, from 73,000 to 83,000 vehicles per day.
- 97 percent increase in commercial/industrial land transactions in Shizuoka Prefecture, from 37 to 73, in the first year after the Shin Tomei Expressway opened.
- 95 percent reduction in traffic gridlock lasting 10 kilometers or more, from 60 to three, during the holiday season.
- 23,000,000 visitors to NEOPASA, a rest area under the Expressway's management.

### History

Motorists have depended on the Tomei Expressway as a major arterial road since it opened in 1969. But after nearly a half-century of often explosive economic growth, traffic volumes have increased and the vehicles themselves are larger, so that most sections of the road have faced serious congestion.

Central Nippon Expressway (NEXCO-Central) built the Shin (New) Tomei Expressway to improve reliability and service levels on the existing highway, provide more resilient infrastructure in an area at risk for landslides and typhoons and revitalize the national and regional economy by speeding the flow of people and goods between Tokyo and Nagoya.

NEXCO-Central funded construction primarily through the bond market. The Japan Expressway Holding Debt Repayment Agency (JEHDRA) took ownership under a leasing agreement and assumed all the highway's debts after construction was complete. The agreement sped up completion of an essential highway infrastructure project, minimized the burden on public funds and delivered a flexible tolling system with excellent ancillary services for users, while allowing a profit for the private concessionaire.



## SmartMove...Central Nippon Expressway



### Results

Central Nippon Expressway completed the Shin Tomei Expressway on budget, and almost a year ahead of schedule. The road runs on the straightest possible line through mountainous terrain, so it was important to use the very best design and construction techniques to protect genetic diversity and local ecosystems and help prevent landslides.

The road offers a state-of-the-art customer experience, using real-time camera coverage, back office analysis, and electronic signage to track and report on congestion, collisions or other roadway obstructions.

The Shin Tomei Expressway won IBTTA's 2014 Toll Excellence Award for Administration and Finance.

### Key Success Factors

“The key factor in the success of the Shin Tomei Expressway project was a solid partnership between expressway companies and JEHDRA concerning expressway construction, maintenance, and debt repayment, as well as a shared commitment to using state-of-the-art technologies,” said Takahisa Takamatsu, senior managing officer and director general of the Tokyo branch of NEXCO-Central. “We aim to make the Shin Tomei one of the world’s leading expressways, providing safe, secure and comfortable travel. We conduct efficient construction, management and maintenance of a total of 2,000 kilometers of expressways, including the Shin Tomei Expressway, and operation of rest areas. Since 2013, we have been intensively working on ensuring customer safety: removal and replacement of heavy tunnel structures, and performing dual safety procedures.”

The SmartMove series highlights innovative and proven solutions to funding and maintaining transportation infrastructure. Visit [www.IBTTA.org/MAF](http://www.IBTTA.org/MAF) for more IBTTA member SmartMoves.

## Join the Conversation

[www.IBTTA.org](http://www.IBTTA.org) | [@IBTTA](https://twitter.com/IBTTA) | [#TollRoads](https://twitter.com/IBTTA)

**IBTTA**

TOLLING. MOVING SMARTER.

1146 19th Street, NW, Suite 600  
Washington, DC 20036  
(202) 659-4620

The International Bridge, Tunnel and Turnpike Association (IBTTA) is the worldwide association for the owners and operators of toll facilities and the businesses that serve them. Founded in 1932, IBTTA has members in 20 countries on six continents. Through advocacy, thought leadership and education, members are implementing state-of-the-art, innovative user-based transportation financing solutions to address the critical infrastructure challenges of the 21<sup>st</sup> Century.