

Overview of Taiwan High Speed Rail



Taiwan High Speed Rail Corporation
2015/10/14

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Taiwan High Speed Rail Project

The first overseas project based on
Japan's Shinkansen technology

700T Train-set

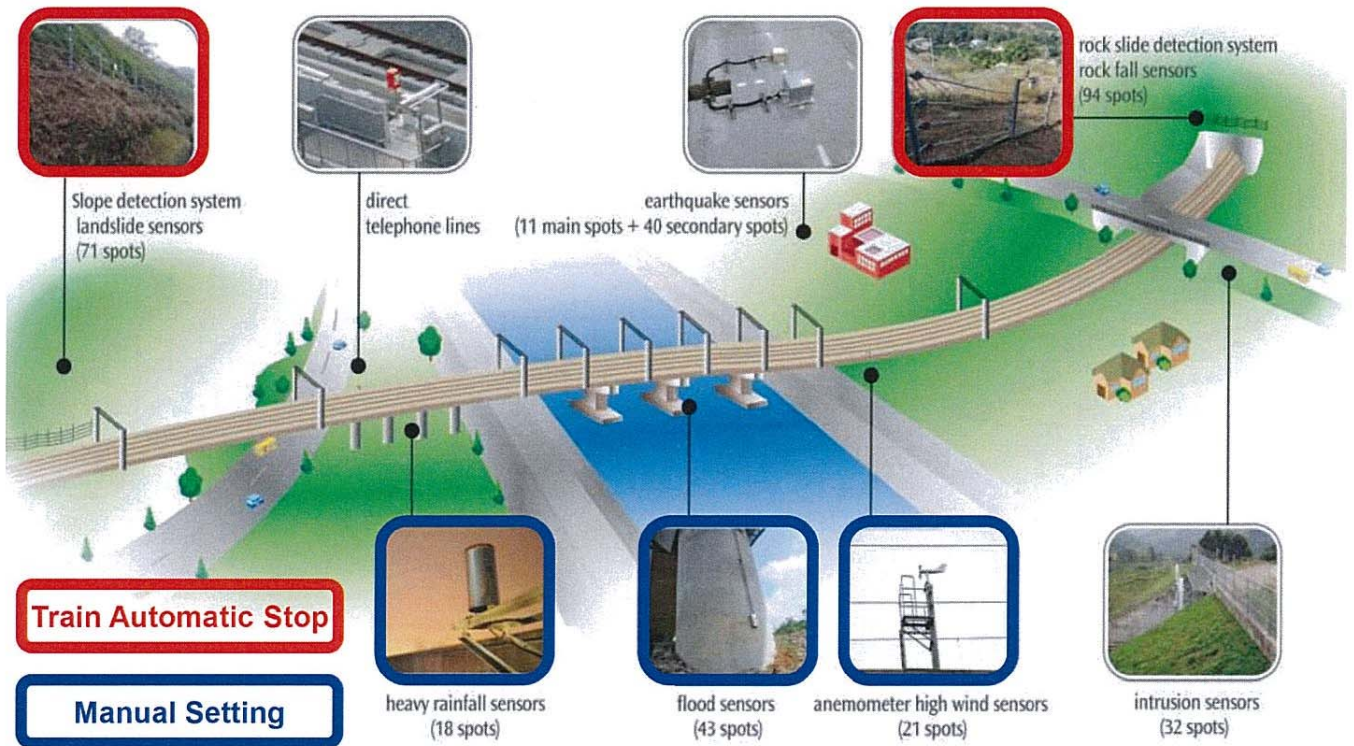


- Train-set : 700T, 34 sets
- Max Operation Speed : 300 kph
- 12 Cars, 989 seats (11 Standard Cars & 1 Business Car)
- Core System from JR Shinkansen, 700 series & 500 series

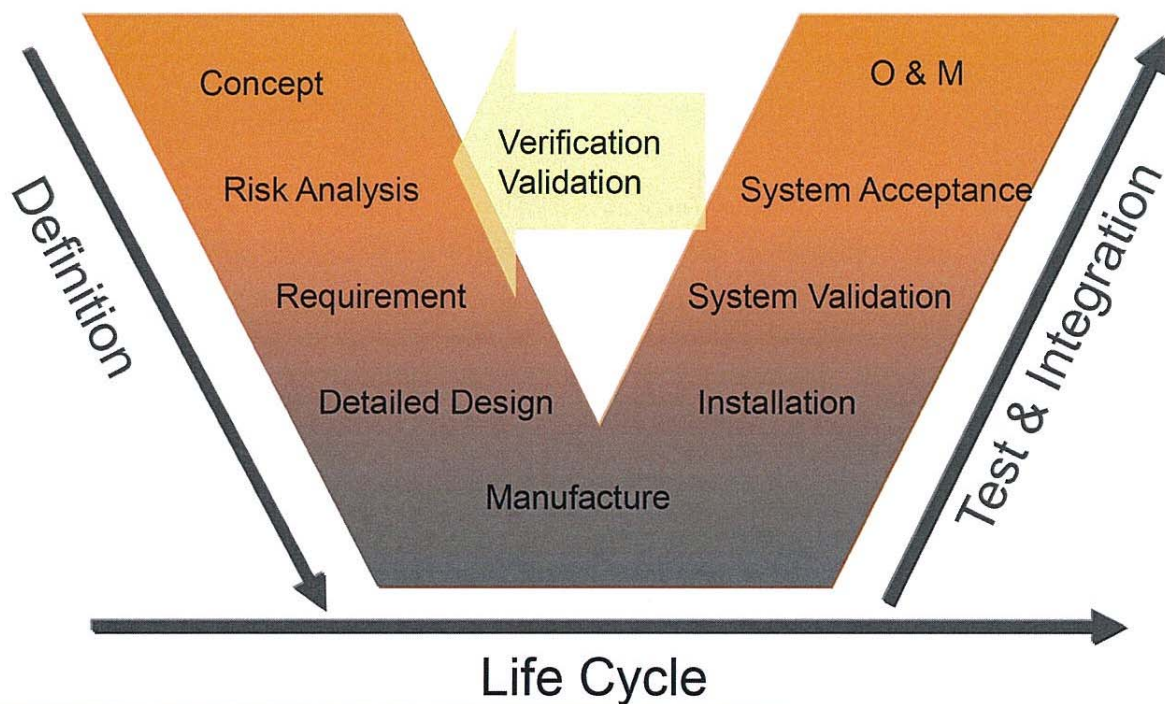


System Assurance & Operation Readiness

Disaster Warning System



System Safety Design & Operation (EN50126 Safety Norm)



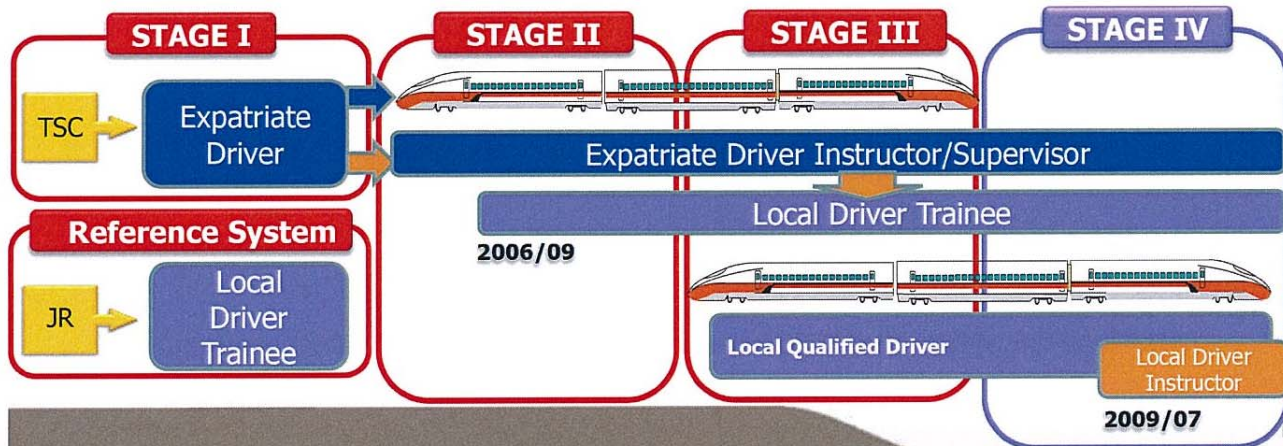
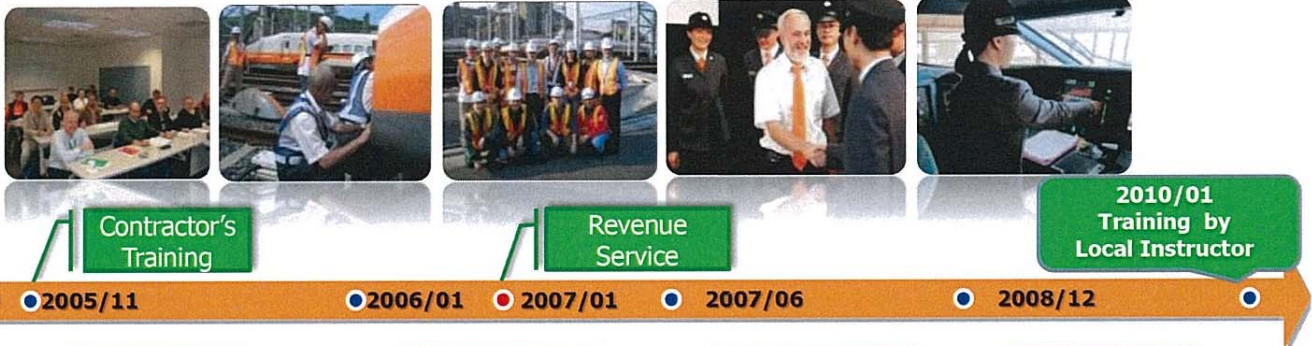


• 146 Qualified Train Drivers (as of Sep. 2015)

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Build up in-house Driver Training





Operation Stage

Train Ramp-Up Strategy





Innovative Service

Innovative Ticketing Service



- Convenience Store Tickets (over 10,000 stores in Taiwan)



- Ticketing Service via Smart Phone through TExpress App.



- Multi-Ride Ticket and Periodic Ticket through CSC (Contactless Smart Card) provide convenient service for commuters.



- Easy Card is a kind of CSC used for Taipei Metro with issued number over 49 million.
- Co-branded Easy Card is Easy Card linked with a credit account to add value automatically which is able to take Non-Reserved seat of THSR.



Innovative Ticketing Service



- **SMIS (Seat Map Information System)** installed on smart phone is equipped for Train Master.
- Clear seat occupation status and ticket holder identification for effective ticket validation.
- Seat Map information downloads & updates automatically.



Each Ticket Type with Specific Color

- Full Fare
- Senior Person
- Children
- Disabled
- Promotion

Each Seat Usage with Specific Image

- ☐ No passenger
- ☑ Occupied
- ☑ Occupied (taken by another passenger at next station)
- ☐ Seat to be taken



Management System

- Data Interchange
- Live Monitoring and Tracing
- Breakdown train assistance

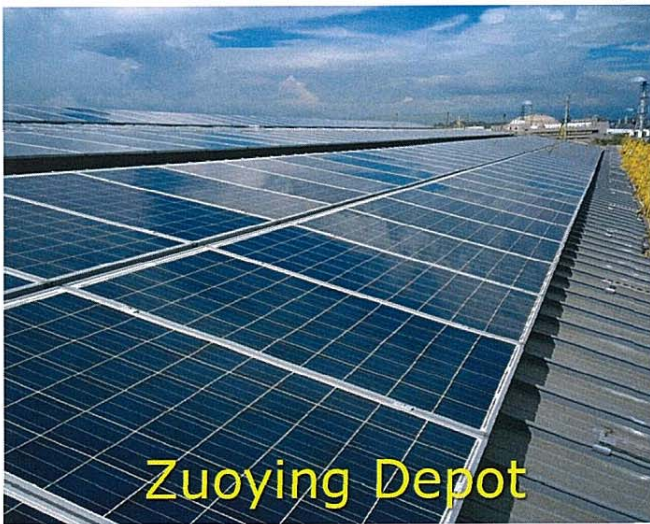
On-board System

- ATP
- On-board Information(wrong direction, turnout approaching, Ei boundary, system status, etc...)
- Fail-safe concept

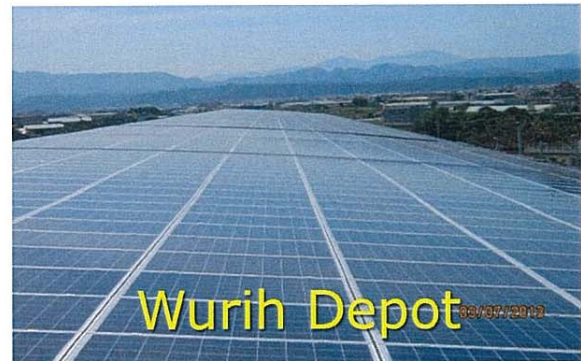
Innovative Energy Saving Service



Shop Roof equipped with Solar Power System



Zuoying Depot



Wurih Depot

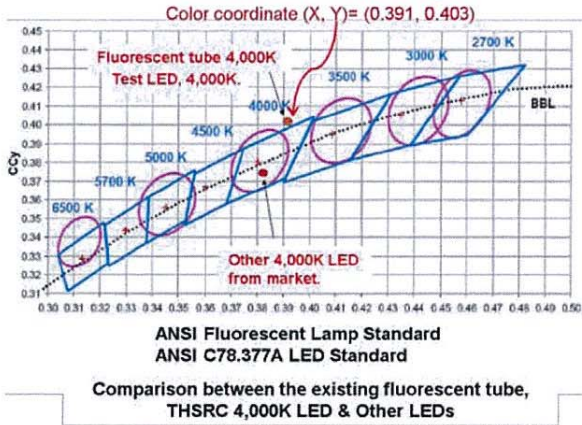


Yenchao MWS

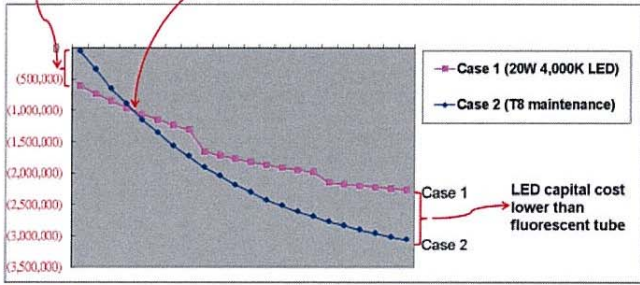
Solar Power System	Capacity (kW)
WUD	1106.85
ZUD	395.74
MWS	3856.58

Innovative Energy Saving Service

700T Train-set Carriages LED Lighting Application for Energy Saving Cost Benefit analysis



LED capital cost higher than fluorescent tube
BEP on 3.2 years (20W 4,000K LED vs. 45W Existing 4,000K fluorescent tube)



LED color temperature 4,000K, same as the original configuration

Major achievements

- ◆ 55.3% energy saving per train can be achieved. NT\$5 million energy cost saving for 30 trains per year.
- ◆ LED tube has been put into service since November, 2013. No complain from passenger so far.
- ◆ Train maintenance cost can be lower (Replacement of traditional fluorescent tube can be extended from 2 years to 7 years.)

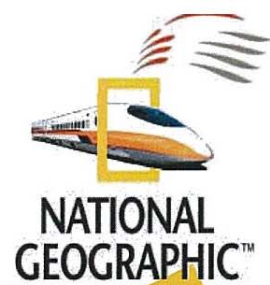
Awards



Golden Service Champion

Awards

Best Winter Trips 2013



Traveling through western Taiwan on the country's high speed rail line has been selected by the editors of National Geographic as one of its "Best Winter Trips 2013,"

"Hop on a high-speed bullet train in Taipei to zip across western Taiwan's valleys, plains, and Central Mountain Range foothills,"



Thanks !

