



Economic and Financial Aspects of High-Speed Rail in Japan

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Tokaido, Sanyo, Tohoku (Tokyo-Morioka) & Joetsu Shinkansen

Kyushu, Hokuriku & Tohoku (above Morioka) Shinkansen

Yamagata & Akita Shinkansen





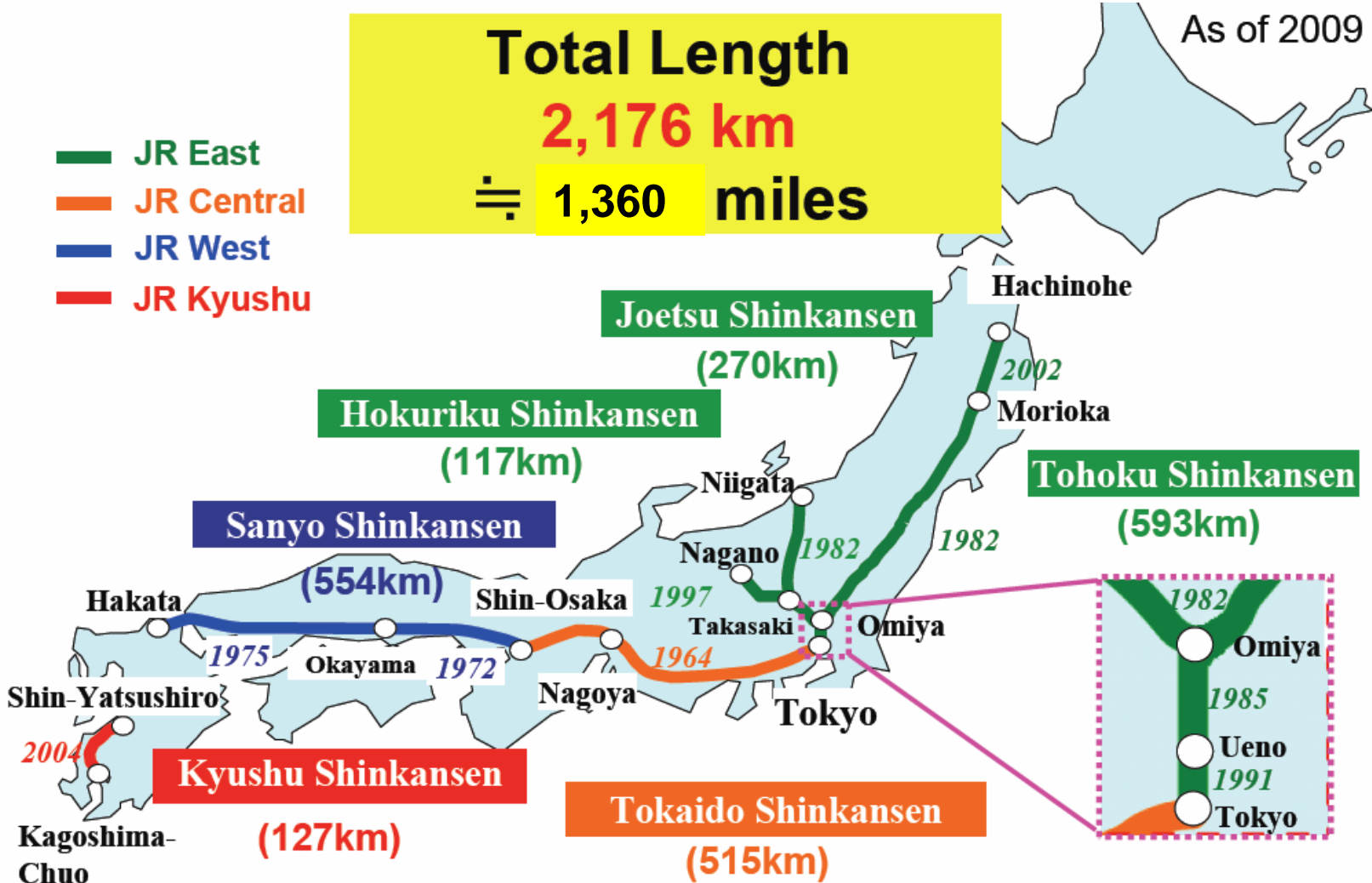
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Current Shinkansen Network

As of 2009

Total Length
2,176 km
≐ 1,360 miles

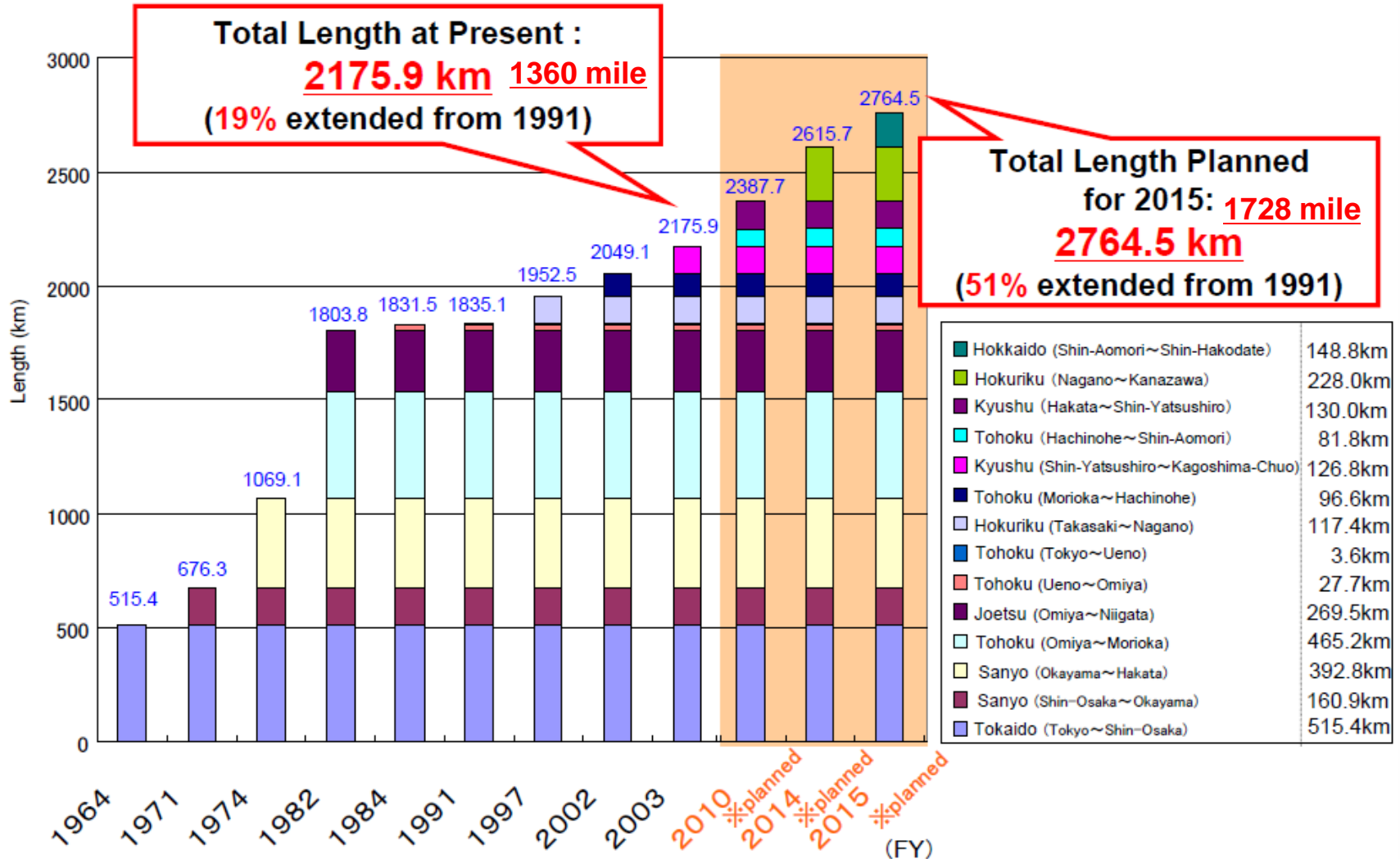
- JR East
- JR Central
- JR West
- JR Kyushu





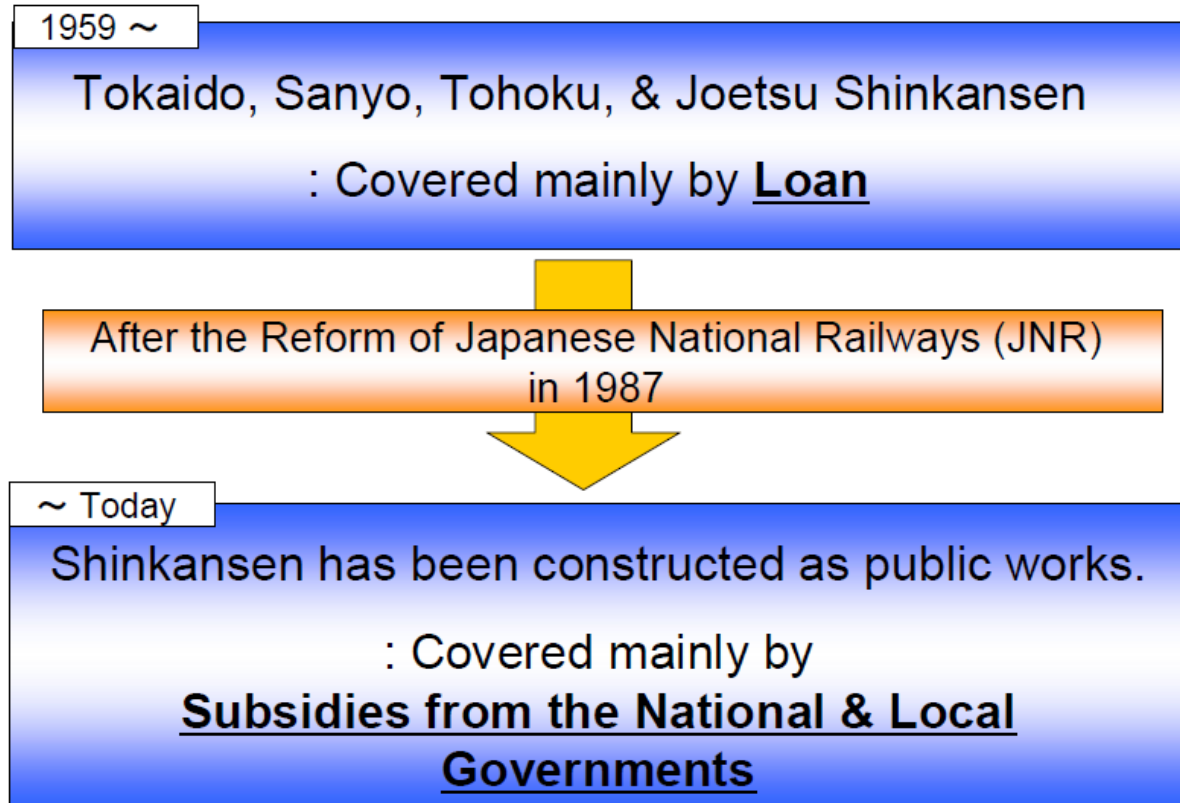
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Total Length of Shinkansen





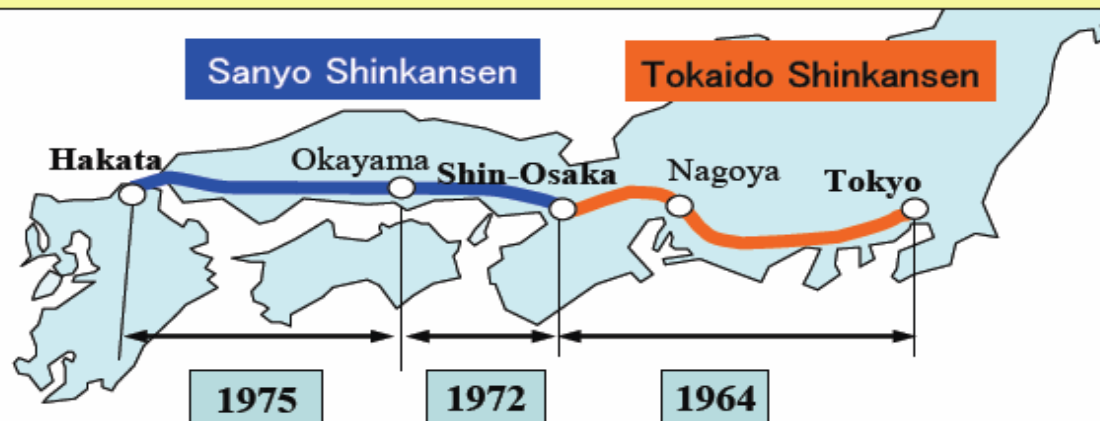
Construction Planning for Shinkansen Network





Tokaido & Sanyo Shinkansen Construction

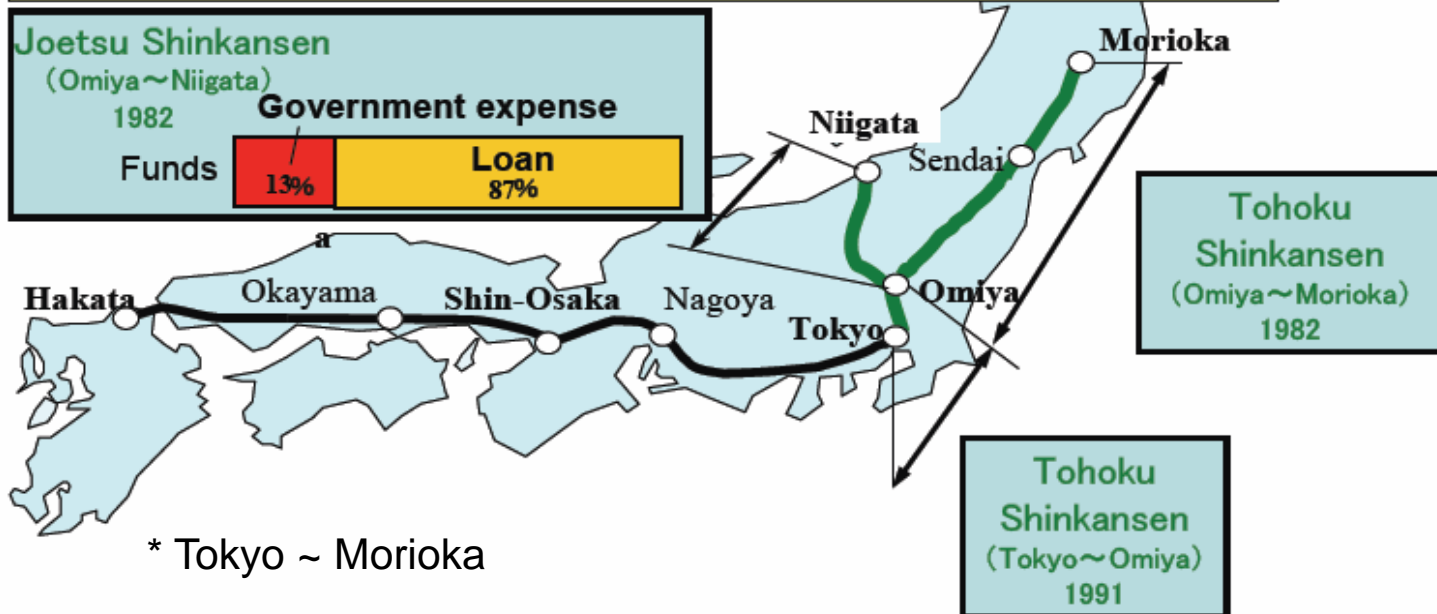
- No special legislation covered Shinkansen construction
- The construction cost was covered mainly by loan with interest.
- For Tokaido Shinkansen, the World Bank (IBRD) Loan amounted to 28.8 billion yen (\$80 million), which was about 7.5% of the total cost (about 380 billion yen).





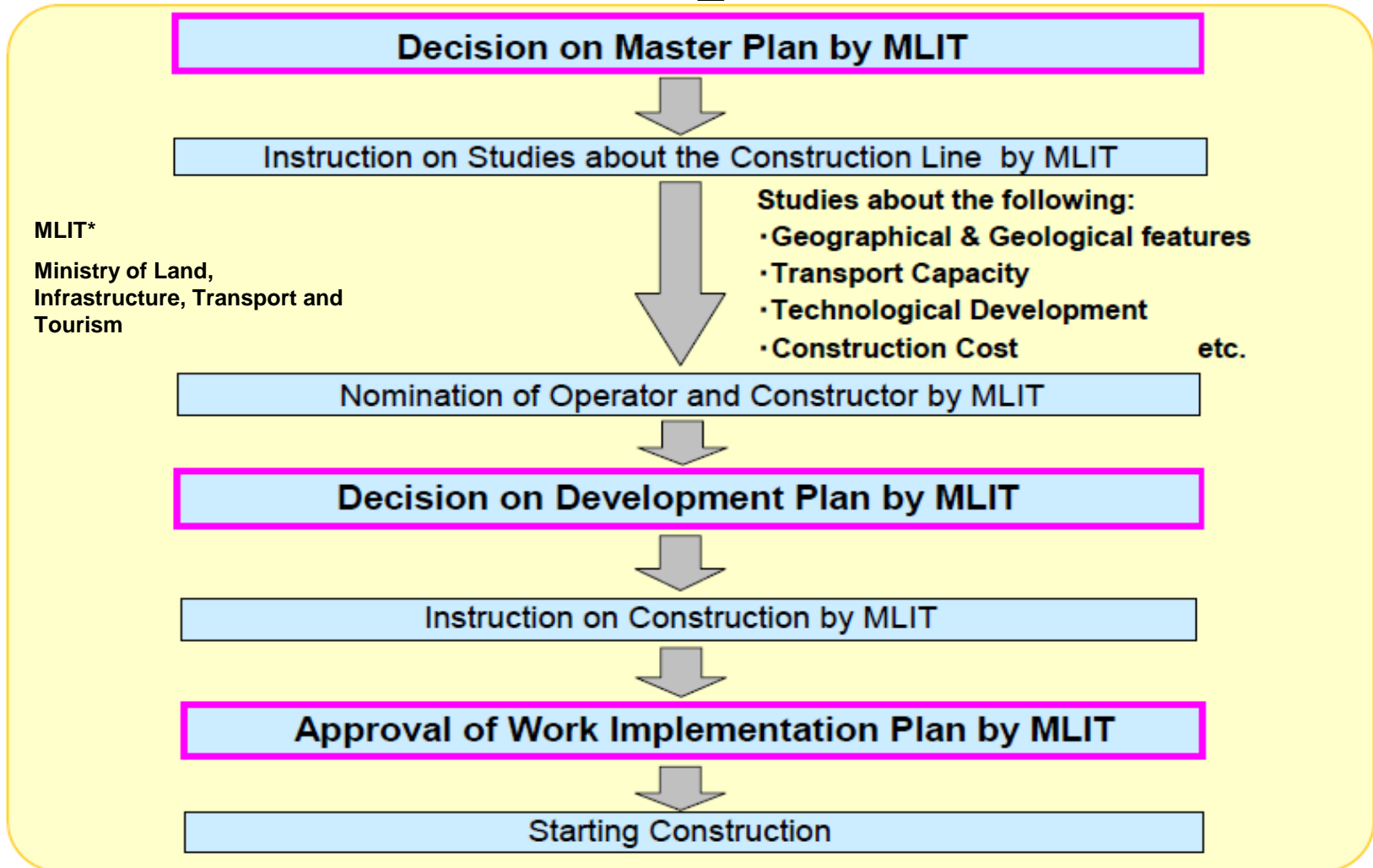
Tohoku* & Joetsu Shinkansen Construction

- Tohoku Shinkansen (Tokyo-Morioka) & Joetsu Shinkansen (Omiya-Niigata) were constructed by **JNR & Japan Railway Construction Public Corporation (JRCC) under the Nationwide Shinkansen Railway Development Law, enforced in 1970.**
- The government paid part of construction costs, but most was covered by **loan with interest.**





Procedure following the NSRD Law





Construction Planning

More
Specific
&
in Detail



Master Plan

- Name of the Line
- Origin & Terminal
- Major Points on the Line

Development Plan

- Running System
- Maximum Speed
- Approximate Construction Cost etc.

Work Implementation Plan

- Construction Section
- Location of Facilities
- Route Length
- Construction Method
- Construction Cost etc.



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Kyushu, Hokuriku & Morioka* Shinkansen Construction

➤ Separation of construction and operation

JRTT* (Government Agency)
Construction
Ownership of Infrastructure



JRTT*
 The Japan Railway
 Construction, Transport and
 Technology Agency

Lease of
 Facilities

Lease Fee
 Payment

JR (Operation of Shinkansen)
Operation and Maintenance
(Ownership of Rolling Stocks)



➤ Subsidy for construction

(Budget for 2009 fiscal year : 353.9 billion yen)

National Gov. 235.9	Local Gov. 118
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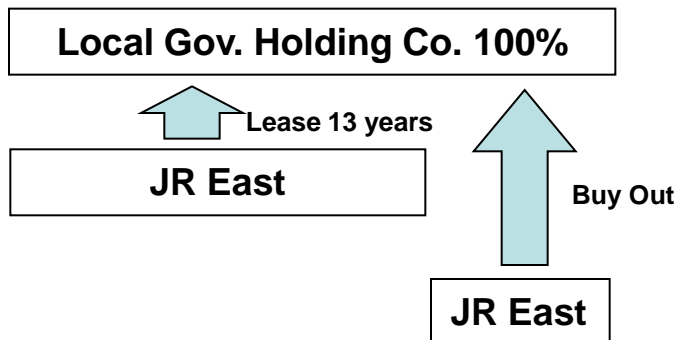
Yamagata & Akita Shinkansen Construction

➤ Infrastructure (Actual share of expense)

National Gov. 20%	Local Gov. 40%	JR East 40%
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JR East received interest-free loan from National Gov. and Local Gov. and bought infrastructure before the opening of the operation.

➤ Rolling stock



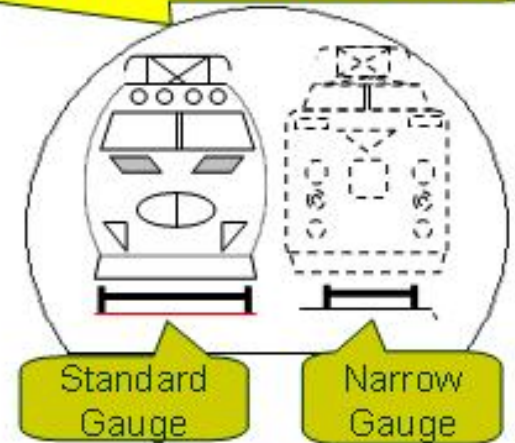
JR East leased the rolling stocks for 13 years and bought them at the estimated residual value.



Improvement of Conventional Lines



Conventional line Structure Gauge



- The conventional lines were Improved in the following three ways;
- constructed standard gauge instead of the narrow gauge.
 - constructed additional rail to the narrow gauge as above.
 - constructed standard gauge next to narrow gauge.



Summary

➤ **Construction Scheme**

Construction plans were established through agreement by the national government, local governments and the operating company.

➤ **Suggestion**

We believe that train operators, track owners, local governments and the federal government all have their own important roles in bringing about any future success in U.S. High-Speed Rail projects.



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**Thank you very much
for your attention**



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