

Proactive Management of Aging Roads

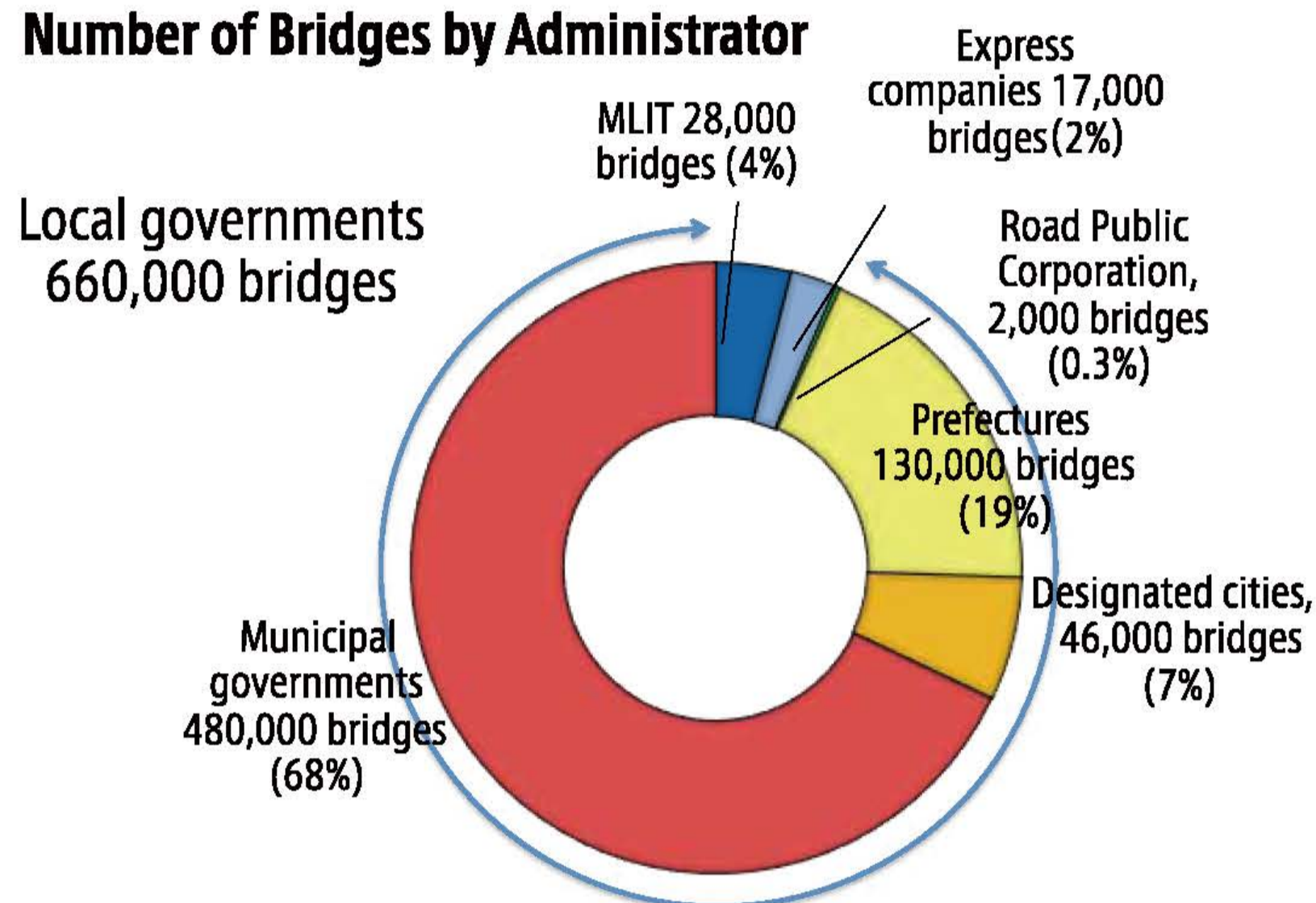
노후화 대책을 본격 실시

Japan has 700,000 road bridges. About 90% of them are managed by municipal governments. Bridges older than 50 years old will increase from 18% of the total in 2015 to 42% in 2025. National government has obligated road administrators to follow "maintenance cycle" (i.e. inspection, evaluation, action and record) by providing sufficient financial and human resources.

Road Bridges Today

Over 90% of bridges are managed by municipal governments.

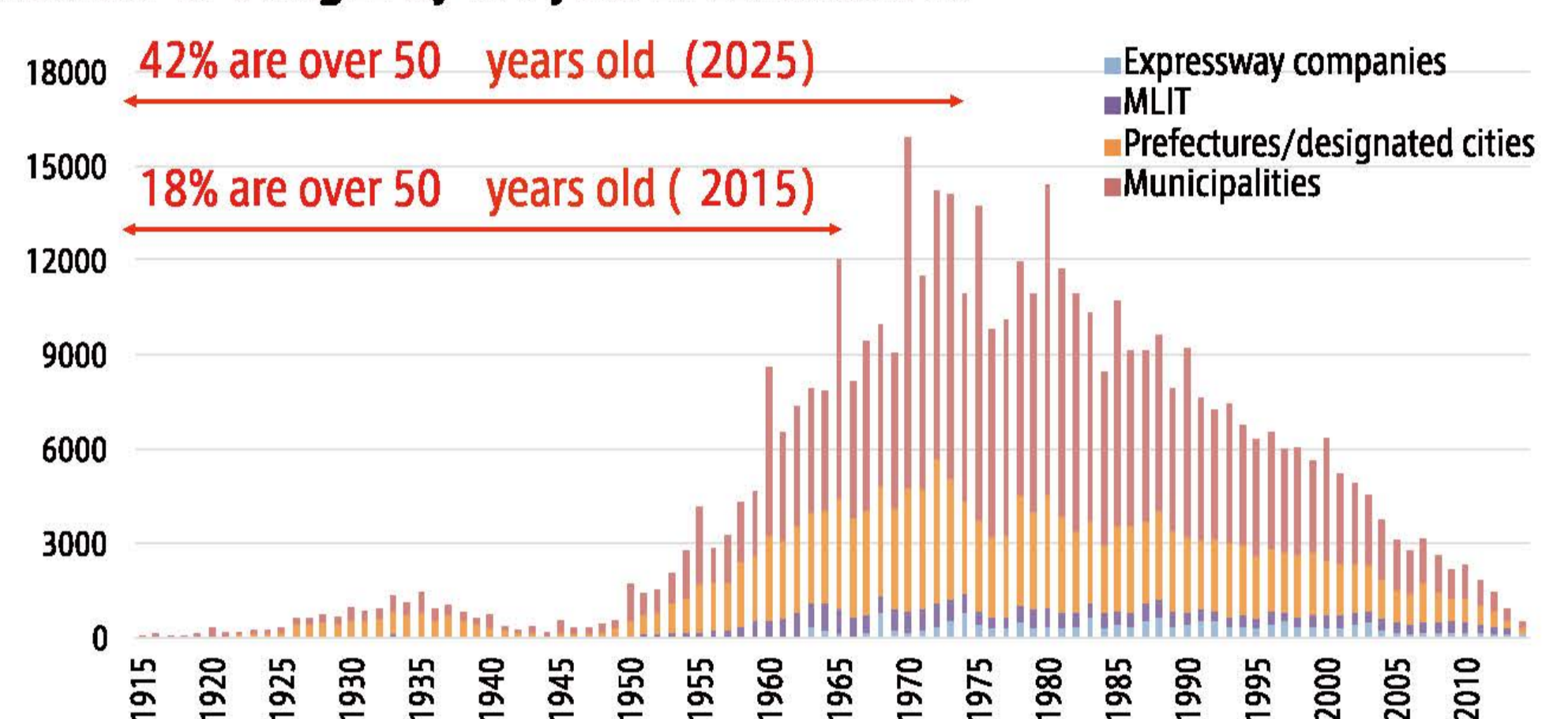
Number of Bridges by Administrator



Aging Road Bridges

Bridges older than 50 years old are estimated to increase from 18% of the total in 2015 to 42% in 2025

Number of Bridges by the year of construction



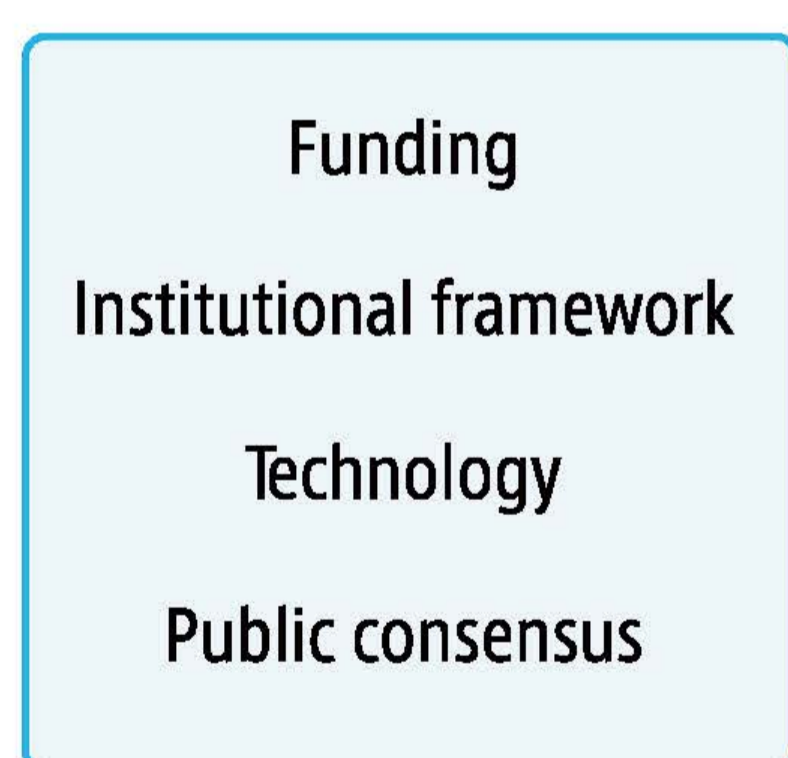
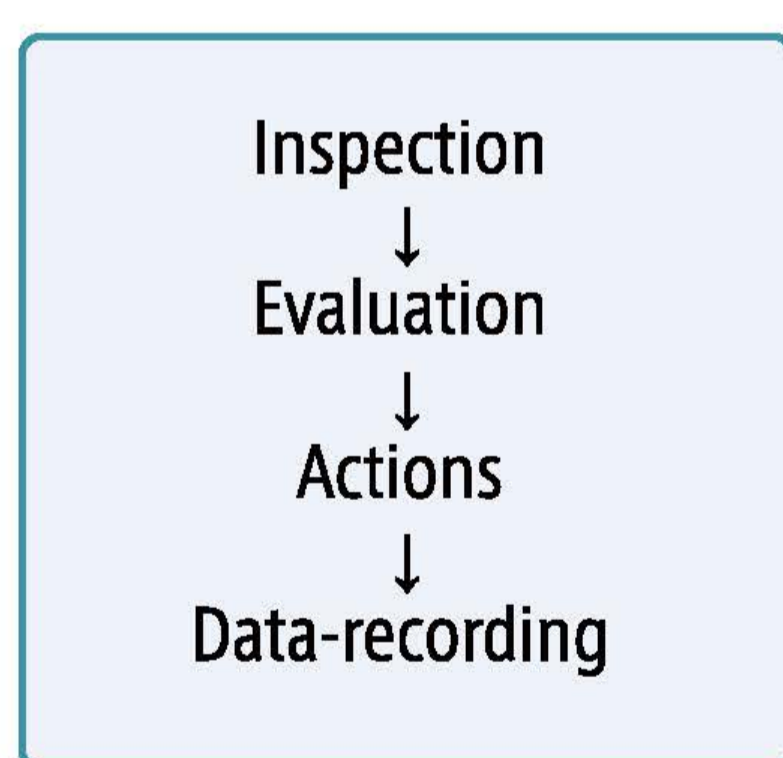
Note: There are another 230 thousand bridges that are unknown of ages.

Proactive Management of Aging Roads

"Maintenance Cycle" for aging roads has started, focusing on the following two components:

Defining "maintenance cycle"
(Responsibilities of road administrators are clarified)

A mechanism to facilitate the maintenance cycle is established (Support)



All road administrators are obligated to implement inspections of all public road bridges within their jurisdictions once a 5 years.

[Inspection] Bridges and tunnels across Japan must go through the inspections according to the uniform National Standard, including once-a-five-year close visual inspections for all bridges and tunnels

[Evaluation] Conditions of bridges and tunnels are evaluated according to the Standard classification.

Type		Condition
I	Good	No structural deficiency
II	Preventive maintenance	Preventive maintenance is desirable although no structural deficiency is found.
III	Early rehabilitation	The structure needs early rehabilitation, or it can become deficient.
IV	Urgent rehabilitation	The structure needs urgent rehabilitation, because it is deficient or it will most likely become deficient.

Repairing bridges

Bridge decks are adhered with carbon fiber reinforced concrete for enhanced load-bearing capacity.



National Guideline for Periodic Bridge Inspection

The MLIT has developed a periodic inspection guideline containing bridge deformation to be looked for and case examples to technically assist municipalities to carry out their inspections.



"Road Maintenance Panel"

Road Maintenance Panels were launched in all prefectures to facilitate cooperation with interested parties, to grasp and share the current issues, and to assist with creating effective measures for aging roads.



Inspections are systematically carried out for maintaining durability.

Training courses

Training courses for bridge/tunnel inspection are provided by the National Government. 5,000 participants are expected to take the courses over 5 years.



Training course