

# Technological Development for Reducing the Life-Cycle-Costs (LCC) of Highway Bridges in Japan

## Développement technologique pour la réduction des coûts du cycle de vie (CCV) des ponts de voies à grande circulation du Japon

Since the reconstruction costs of bridges are approximately three times the initial costs, improvement of durability is the key to reducing of the LCC of highway bridges.

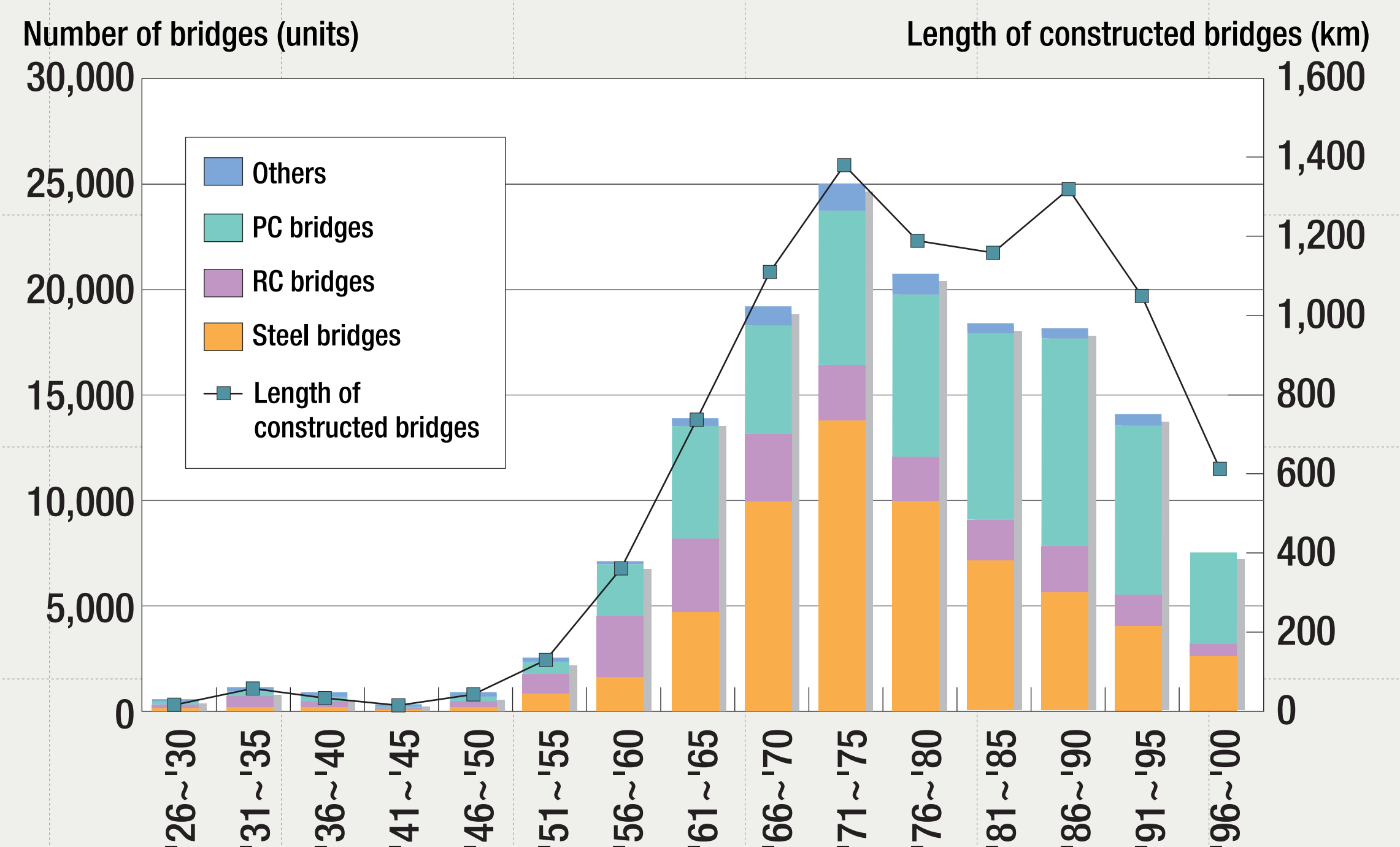
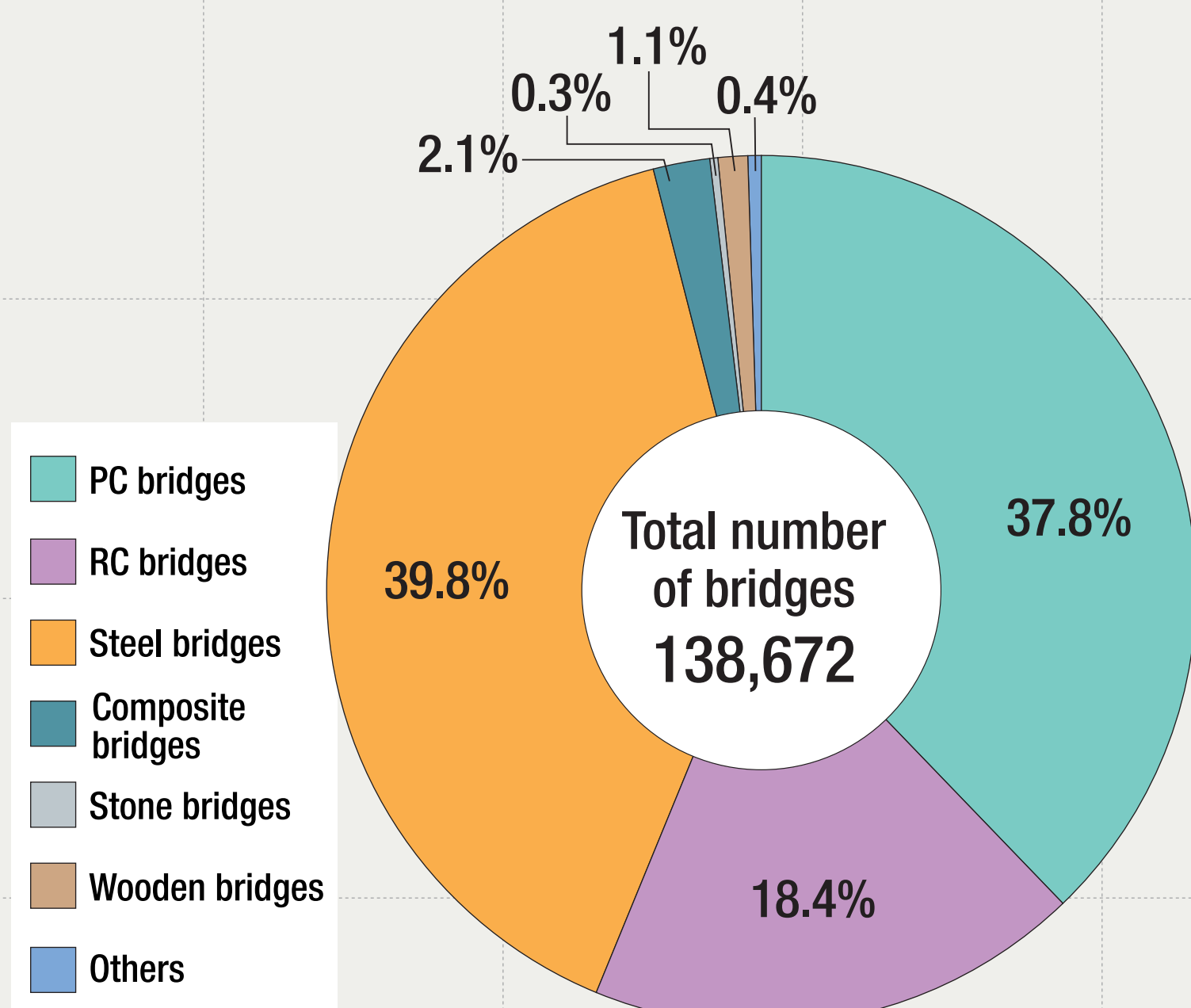
Les coûts de reconstruction des ponts représentant environ trois fois les coûts initiaux, l'amélioration de leur durabilité est donc la clé de la réduction du CCV des ponts de voies à grande circulation.

### Background

#### Contexte

There are a great number of highway bridges in Japan.. Approximately 140,000 bridges that are longer than 15 m are in use, and their total lengths are almost 8,000 kilometers.

Most of the bridges in Japan were built in the 1960s and 1970s. In the near future, their maintenance/repair and reconstruction costs will become very large.



LCC can be expressed by the sum of initial construction cost, maintenance cost, and renewal cost. Efforts have been made to reduce each of these costs.

Le CCV peut s'exprimer par la somme des coûts initiaux de construction, des coûts d'entretien et des coûts de renouvellement. Des efforts ont été entrepris pour réduire chacun de ces coûts.

### Efforts for reducing LCC

#### Efforts entrepris pour la réduction du CCV

