Strategies for saving the existing Infrastructure in Germany

Ioannis Retzepis
KREBS+KIEFER Ingenieure GmbH, Karlsruhe, GERMANY

Contact: retzepis.ioannis@kuk.de

Abstract
In the past decades great efforts have been undertaken in Germany for saving the existing highway and railway infrastructure due to limited financial and natural resources. Sophisticated evaluation methods have been established, which take into account the current state of the structure as well as the results of the recalculation. Furthermore, many repair and strengthening strategies have been developed and applied successfully. In addition, experience with the structure plays an important role as well. The recent strategies which are applied in Germany for preserving the existing infrastructure are presented.

Keywords: Bridges; sustainability; recalculation; retrofitting.

1 Introduction
Most of the existing highway infrastructure in Germany is over 40 years old and those of the existing railway infrastructure even over 70 years old (Fig. 1 and 2).

Due to the limited financial and natural resources, great efforts have been undertaken in the past decades to save the existing infrastructure in Germany. Many sophisticated evaluation methods have been established which take into account the current state of the structure, the results of the recalculation as well as the experience with existing structures. In addition, repair and strengthening strategies have been developed and applied successfully.