



An Overview of the European Situation on Quality Control of Existing Bridges – COST Action TU1406

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Abstract

Across Europe, the need to manage roadway bridges efficiently led to the development of multiple management systems. Although presenting similar architectural frameworks, the condition assessment procedure can be identified as one of the difference that distinguishes them. This dissimilarity constitutes a divergent mechanism that has direct interference in the decision making process leading to considerable variations in roadway bridges quality. COST Action TU1406 aims to achieve the European economic and societal needs by standardizing the condition assessment and maintenance level of roadway bridges. Such purpose requires the establishment of recommendations for the quantification of performance indicators, the definition of performance goals and a guideline for the standardization of quality control plans for bridges. The purpose of Work Group 1 (WG1) was the characterisation and definition of performance indicators. WG2 assessed a methodology to link performance indicators to performance goals. WG3, based on the results of WG1 and WG2, will provide a methodology to establish quality control plans for different types of bridges. By developing new approaches to quantify and assess bridge performance, as well as quality specifications to assure expected performance levels, bridge management strategies will be significantly improved, enhancing asset management of ageing structures in Europe. The work developed by COST Action TU1406 will be presented.

Keywords: roadway; bridges; performance; indicators; goals; quality; control, standardization.

1 Introduction

Significant worldwide research has been developed over the past years regarding the condition assessment of roadway bridges. As a result, there are nowadays several ways to assess a bridge condition.

More recently, the concept of performance indicators (PI) was introduced, simplifying the communication between stakeholders. However, large deviations are still verified on how these indicators are obtained. Therefore, the standardization of these procedures is very much needed.