



Final overview of COST Action TU1406 – Quality Control of Existing Bridges

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Abstract

Across Europe, the need to manage roadway bridges efficiently led to the development of multiple management systems. Despite presenting similar system frameworks, the condition assessment procedure is 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 institute a standardized roadway bridges condition assessment procedure. 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. 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 and achieved 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 [1], 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.

Such normalization can be achieved through the implementation of quality control (QC) plans which compare assessed PIs with pre-specified performance goals (PG). However, these goals are even more difficult to establish as they are highly subjective, leading to a high level of QC plans dispersion.

In this context, COST Action TU1406 arose with the ambition to develop a European guideline for the establishment of QC plans for roadway bridges dealing with recent developments on bridge safety, maintenance and management, according to a lifecycle outlook.