



Transport Infrastructures and Asset Management in Portugal: Past, Present and Future

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Abstract

Bridge management in Portugal had a remarkable development during the larger part of the last two decades. This paper intends to present an historical review of the situation before and after the Entre-os-Rios accident, a tragedy that triggered a modern approach to bridge management in Portugal. Nowadays the country is on par with worldwide best practices, supported by a system developed by Betar and adopted by all major stakeholders. Building on the idea that most BMS principles can be applied to other asset types in a road or network and the current lack of tools for managing those assets, the paper proposes a methodology for implementing GOA[®] to new types of assets, presenting some challenges that may arise. Following the implementation to different assets, the paper also discusses a model for integrating those different sets of assets into a coherent and effective management strategy.

Keywords: transport infrastructures, bridge, road assets, asset management.

1. Introduction

Road owners in Portugal started by implementing management systems for bridges. This starting point is connected to the collapse of the Entre-os-Rios bridge, a tragedy that led to the death of 59 people. Nevertheless, starting by bridges was also quite reasonable as they constitute the most important structures in a road or railway, both due to structural complexity and susceptibility but also due to investment.

Nowadays, with well-established national practices of bridge management and the continuous aging of transport infrastructures, there has been a growing necessity for broadening those practices from bridges to other relevant assets, namely sign gantries, retaining walls, sound barriers, slopes, drainage, or high mast columns, to name a few.

In the following sections the paper offers an historical review for the adoption of GOA[®] in

Portugal and proposes a methodology for implementing GOA[®] to new types of assets, including a model for integrating those different sets of assets into a coherent and effective management strategy.

2. Historical review

In the early decades of bridge infrastructures in Portugal, the aspects of Bridge Management consisted merely of the tasks of inspection, conservation and rehabilitation. Pursued solely by the public sector, maintenance of bridges and, more broadly, transport infrastructures were characterized by heavily staffed public organizations based on non-systematic and local action.