Editorial

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Welcome to the April 2014 issue of *Transport*. The five papers in this issue cover railways and highways and continue to reflect the broad-based interests of our readers.

The first paper, by Insa *et al.* (2014), contributes to one of the key issues facing civil engineers designing, constructing and maintaining high-speed railways – the interface between embankments and structures, and the transition zone between them. This is an area that has not had a great deal of attention, and the paper usefully identifies work undertaken recently. It demonstrates that the use of under-sleeper pads does not significantly influence deflections and stresses in the transition zone, prompting the need for further research and development of solutions. The panel would welcome further papers dealing with this critical area, which is a focus in the UK at present with the development of High Speed 2.

In the December 2013 issue of *Transport* the paper ‘Rail track costs management for efficient railway charges’ by Calvo *et al.* (2013) considered how track maintenance and renewal costs can be incorporated into access charges. Continuing the theme of access charges, but considering different traffic types, the second paper in this issue, by Calvo and de Oña (2014), proposes a methodology utilising capacity factors to identify the maximum charging level for the various types of rail services that use a railway: intercity, suburban, regional and freight.

Moving to highways, the third paper, by Vasconcelos *et al.* (2014), uses gap-acceptance theory to calculate roundabout capacity for two-lane and turbo-roundabouts. The safety benefits of turbo-roundabouts are well known but the capacity constraints they may introduce are less so. The authors have found that the increased accuracy obtained from using gap-acceptance shows that two-lane roundabouts provide more capacity under most demand scenarios. However, they rightly point out that many roundabouts do not operate at full capacity and that the usefulness of turbo-roundabouts is not diminished by their findings.

Continuing the subject of traffic flow, the paper by Feng *et al.* (2014) describes a study to clarify the influence of traffic state on road network fuel economy and an evaluation methodology. A local network was used to verify the applicability of the models developed.

This issue’s final paper considers low-volume roads in Botswana

and how their maintenance could be managed (Khan, 2014). These roads are mostly gravelled and have a maintenance regime based on engineering judgement, rather than on any economic or technical basis. The partial implementation of a pavement management strategy was considered, an asset valuation undertaken and a long-term maintenance strategy developed. However, to address the neglect of rural roads in Africa the authors propose that policy and strategy, as well as funding, are needed for better road management.

This issue of *Transport* continues to cover the wide nature of transport issues. Please contribute to discussion on these papers, which will provide the editorial advisory panel with useful feedback.

To obtain access to recent papers, including those published online ahead of print, you can visit the ICE Virtual Library (<http://www.icevirtual library.com>).

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