Editorial

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This December issue of *Infrastructure Asset Management* has an international flavour with contributions from Switzerland, New Zealand, the UK and Japan. The featured subject in this edition is highways. Roads, as part of national infrastructure, are important in social and economic development. The performance of roads through a variety of indicators are monitored by highways authorities and other stakeholders. The papers in this edition vary from modelling accident occurrence to asset maintenance strategies and stakeholder strategy. This volume contains an interesting mix of thinking about the way we consider roads.

Road safety is a major societal concern in all parts of the world. The level of road accidents and deaths is a transport performance indicator that continues to exercise the minds of most transport authorities. Dueblein, Schubert, Adey and de Soto (2015) propose an approach to estimating the number of accidents involving personal injury on the Swiss Highway network using a Bayesian probabilistic network model. This approach predicts the number of accidents on a section of highway and can be used to identify segments that are predicted to have a higher than expected level of accidents. The use of Bayesian interpretation is well founded within the field of accident risk assessment. Bayesian networks are designed to emulate a problem by encoding dependency in causal relationships within the model. The model presented user response variables such as injury accidents and fatalities, and risk variables such as road gradient and traffic volume. In such studies the reliability of the data sets are critical. The Swiss Highways Authority provides a verifiable source of data. The model is further validated through a case study. The results indicate that the model performs well in predicting the number of accidents on segments of highway. However, not all accidents were predicted and not all accidents can be predicted using the indicator variables as other factors not considered in the model may impact outcomes. The model offers opportunities to improve decision making in planning, design, construction and maintenance of roads. Its long-term potential will help reduce deaths and injury.

The development of the management of highways assets has tended to look at the implementation of strategic frameworks for new and existing assets. These frameworks have usually considered pavements and structures within a wider strategic focus. The management of other infrastructure assets such as drainage systems do not receive the same level of attention. Stylianides *et al.* (2015) examines the management of highways filter drains (HFD) as assets. The paper is founded

on the premise that HFDs have a finite operational life and there is an absence of a planned approach to the management of these assets. An examination of the existing degradation characteristics, deterioration models, maintenance challenges and asset management systems of HFDs was conducted. The review of the literature suggested a limited body of knowledge on these issues. The paper proposes a conceptualised definition of HFD condition bands along with currently available renewable strategies to restore the condition of the drains. The proposed model allows asset owners to characterise filter drain sections within a network. The paper presents a conceptualised model for HFD management. The authors are careful in advocating the need for further work in developing the assessment approach with further work on hydraulic trails and the improvement of non-invasive inspection regimes. The paper is to be welcomed as it adds to a subject domain that is under-represented in highways asset management.

Blom and Guthrie (2015) continues the exploration of the relationship between strategic and operational performance in roads management in New Zealand. Blom, De Marco and Guthrie (2015) set out some of the technical paradigm questions on performance, whereas this paper focuses on two key aspects: general satisfaction and comfort. The work continues to confirm greater satisfaction of road conditions from car users than other modes and user groups. The paper also identifies the emergence of a physical (how comfortable, vulnerable, safe etc. is the person) and emotive reflection (does the road allow the person to live their life comfortably). These findings may force transport authorities to consider the wider public interest rather than a narrow, more technical paradigm. The paper draws further attention to the relationship between strategic intent and operational outcomes. It highlights the challenges with aligning strategic outcomes for an organisation with the operational performance indicators. The paper starts to highlight that one of the keys to 'top-down' asset management is the need for operational level performance indicators to feed back into managerial decision making. The context of the paper is New Zealand but there are lessons learnt that have the potential to be applied in other authorities.

This is the final issue for 2015. The journal has enjoyed another successful year with contributions from Switzerland, Canada, New Zealand, USA, Japan and the UK. I would also like to acknowledge the work of Professor Richard Dawson for acting as editor for the two-part themed issue on climate change and infrastructure. Happy New Year.

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