David Hodgkinson
Honorary Editor

Editorial

D. H. Hodgkinson MSc, CEng, FICE, MIHT

Municipal engineering is about satisfying communities' needs. Needs extend across the whole spectrum of human endeavour, from the basics of food and shelter to esoteric leisure pursuits. Unlike other branches of civil engineering, municipal engineering cannot be limited to specific construction activities nor can it be defined easily. Its practice lies at the interface between the professional engineer and the community, and that is forever changing. This issue of the Journal does not seek to focus on a specific topic, but covers a range of current issues. From these we can learn more about the municipal engineer's future roles.

The UK Government controls the output of local authorities through the mechanism of 'best value'. The concept of best value has some considerable virtues. Local authorities should 'consult' with residents and other stakeholders in the area. Indeed, authorities should be customer-led. The services provided should match the needs and aspirations of the populace. However, the reality is that engineers are constrained and limited in what they can do and how they can do it. Legislation increasingly defines the options.

The opening paper by Martin Wright documents the strategic mechanisms open to engineers to enable coastal protection in the UK. It charts the relationship between reducing risks to people and the mechanisms that can be used. The outstanding message is the importance of co-operation between all the bodies responsible for the coastline. We forget, at our peril, that the distinctions between the various tiers of government and its agencies are, at best, arbitrary. The 'customer's' perspective does not distinguish between the various authorities.

The thrust of civil engineering training is to understand how materials behave, such as soil, concrete or steel. The paper by Brendan O'Kelly extends our knowledge of materials, in this case, sewage sludge monofills. But municipal engineers also need to understand how people behave. This issue includes two papers that seek to extend our understanding of people. The analysis of pedestrian activity in Pamplona is used to deduce the factors that generate walking in an urban street. The authors conclude that there are just three key motivational factors. Similarly, the study of 'Litter deposition on minor rural roads in Ireland' allows an insight into the habitual nature of this anti-social behaviour. The costs of its collection and removal are staggering. This problem is universal. The solution is not to re-double efforts (and costs) of its removal, but to understand and rectify the behaviour patterns.

Unless municipal engineers focus on human behaviour, other professions will steal a march.

Municipal engineering may be customer-led, but it must also be data driven. The allocation of scarce resources requires that choices be made between competing demands. These demands may be very similar in nature and thus difficult to distinguish one from another. Without data, the engineer is at the mercy of the whims and fancies of politicians, and the pressures of vested interests. Reliable data and clear methodologies are both the foundation for optimal decision making and the protective shield against the pressures of particular interests. This Journal contains two significant papers that advocate clear systems and models for ensuring optimal allocation of resources to highway maintenance, 'The pavement management system for Lisbon' and 'Development of deterioration models for local authority roads'. Both demonstrate how decision making can be improved so as to convince politicians and the public that resources are being allocated to the greatest effect.

Best value sets continuous improvement as its aim. If we are to deliver improvements, the nature of the profession must change. The municipal engineer should focus on the key issues: community needs, decision systems, human behaviour, loosening the constraints, persuading politicians. Technical details must be left to others. That is not to say that engineers should not have a grasp of technical issues, but these matters feature in university education and early career training. The important issues for the municipal engineer lie elsewhere. Engineers must develop the skills to meet the challenges and to manage their organisations to deliver the new agendas. Albert Hamilton analyses just such a transformation in his paper 'Project management practice reform: a public body case study'. In order to deliver the services (and projects) the community requires, the municipal engineer must manage the process, not the detail. His findings and advice warrant serious thought.

By the time you read this journal, the Olympic Games will be over once more, but the effects on Athens will be felt long-term. In many cities, the feverish activity to host future events will continue. Vast resources will be deployed. The question remains: is it all worthwhile? The paper by Eleni Theodoraki *et al.*, from Loughborough University, suggests that current analytical practices are far from clear. It concludes that the legacies of hosting the Olympics are difficult to quantify, prone to political interpretation and multifaceted.

So this issue of the Journal develops the definition of the municipal engineer's role. It is to: understand people, their needs and behaviours; develop clear data-based decision systems; analyse the real effects of investments on society; deliver the services by effectively managing the processes; and convince politicians we know what we are doing.

The Editorial Panel seeks continuous improvement of the Journal. We hope you agree that we are making real progress. Papers published in *Municipal Engineer* each year are eligible for awards from The Institution of Civil Engineers. Papers from any of the ICE journals can be nominated for several awards. In addition each journal has awards dedicated to their specific subject area.

Four of the papers published last year won awards. Make sure you read them. We offer our congratulations to the authors.

George Stephenson Medal

Urban poverty: addressing the scale of the problem. David B. Cook and John Kirke, *Municipal Engineer*, 156, No. 4, 251–262.

Frederick Palmer Prize

Engineering and gender issues – evidence from low-income countries. Brian Reed and Sue Coates, *Municipal Engineer*, 156, No. 2, 127–133.

James Hill Prize

A flood failure flowchart for buildings. Ilan Kelman and Robin Spence, *Municipal Engineer*, 156, No. 3, 207–214.

Safety in Construction Medal

Driver distraction by advertising, genuine risk or urban myth? Brendan Wallace, *Municipal Engineer*, 156, No. 3, 185–190.