

Cite this article

Agapiou A (2021)

Editorial.

Proceedings of the Institution of Civil Engineers – Management, Procurement and Law
174(3): 93–94, <https://doi.org/10.1680/jmapl.2021.174.3.93>

Editorial

ICE Publishing: All rights reserved

Editorial

Andrew Agapiou BEng (Hons), LLM, PhD, MCI Arb
University of Strathclyde, Glasgow, UK



Proceedings of the Institution of Civil Engineers – Management, Procurement and Law is a peer-reviewed quarterly journal which provides an international forum for disseminating the latest original research, achievements, briefings and developments in all areas of civil engineering management, procurement and law. The journal aims to provide a multidisciplinary forum for researchers, designers, users and manufacturers involved in the different fields of the construction industry.

Construction as a sector has been highlighted by government in the UK as key for driving growth and recovery, and has continued to operate despite Brexit and the recent Covid-19 pandemic crisis. Meanwhile, the rapid advancement and adoption of digital technologies has helped to move the industry forward in this critical area and forms a crucial part of the post-pandemic roadmap to recovery.

Welcome to the August issue of *Management, Procurement and Law*; this issue contains two briefing articles and two full-length papers.

On 24 December 2020, the European Union (EU) and the UK finally agreed a post-Brexit trade agreement, the Trade and Cooperation Agreement (TCA), which came into effect on 1 January 2021. In the first briefing article, Charlson (2021) details and explains the most significant issues for the construction industry, including supply chain concerns, the 'level-playing-field' implications, restrictions on the movement of people, limitations on the recognition of professional qualifications and different product standards. Regarding procurement, Charlson highlights that the TCA will mandate consideration for environmental, labour and social issues and that UK and EU suppliers must be treated equally in both the UK and EU. Undoubtedly there is change ahead for the construction sector as it comes to terms with a whole host of new rules and regulations affecting almost every aspect of the procurement and delivery of projects in the UK and across the EU. Finally, Charlson cautions that construction firms will need to collaborate with their supply chains to ensure that they have adapted to the complexities and compliance issues of the new trading relationship between the UK and the EU.

In many developing countries, credit markets are characterised by numerous failures and imperfections. As a result, small- and

medium-sized enterprises (SMEs) struggle to access finance for business start-up and expansion.

In the second briefing note, Cornish and Mugova (2021) review the key achievements and impacts of the Ugandan CrossRoads Construction Guarantee Fund (CGF). The CrossRoads project was implemented in Uganda in 2011–2015 to address these and other challenges in the sector. The project was funded by the UK Department for International Development (DFID) and the EU and implemented by IMC Worldwide. The CGF was established to improve access to finance (bid bonds, performance bonds and advance payment guarantees) by small- and medium-sized local road contractors. Amongst other things, the researchers consider the improved access by construction companies to complementary markets for finance and equipment hire as one of the intended outputs of the project.

Cornish and Mugova draw out a number of key lessons from their review of the Ugandan experience, which should help inform the design and implementation of similar interventions, particularly in developing countries. One of the most important lessons is that a relatively low-cost development intervention can lead to long-term, sustainable, positive behavioural change in the market. The briefing article suggests that the CGF has proved its value by building mutual trust and confidence between the banking sector and local contracting firms within the Ugandan context.

Construction is a highly information-dense industry, requiring by nature extensive exchanges of three-dimensional (3D) information between various project stakeholders throughout the project life cycle (Dave and Koskela, 2009). Construction is also an industry which is growing at a rapid rate, with projections placing global construction expenditure at \$15.5 trillion by 2030 (PwC, 2017). Alongside this growth, industries worldwide are currently in the midst of a fourth wave of technological advancement, or Industry 4.0 (Rüßmann *et al.*, 2015). This wave of advancement includes the development and integration of innovative information and communication technology (ICT) into the industry (Barreto *et al.*, 2017).

In the first of two articles addressing ICT adoption in construction, Umar (2021) explores the key factors that influence 3D printing adaptation and implementation in the sector. In the study, a

qualitative research method was used to extract the main research studies from 2000 to 2019 related to 3D printing using specific keywords. The process yielded factors and subfactors broadly split into four categories: technology, organisation, environment and cost. While Umar recognises that the study is limited and not exhaustive – in that time and resources did not permit investigating the views of construction industry professionals, particularly those who are working on 3D printing projects globally – the paper does provide a richer understanding of technology, organisation, environment and cost factors that will be helpful in developing effective strategies towards adaptation and implementation of 3D printing in the construction industry.

In the second paper, Agapiou (2021) presents one of the first academic forays into the regulatory and legal aspects of drone operation and usage within the construction environment and across different jurisdictions. In the review, while Agapiou recognises and identifies that the legal and regulatory aspects of drone technology, operation and usage have already been mentioned in more than 17 000 publications (conference paper, articles, reviews etc.) from the year 2012 onwards, he acknowledges that authors of relevant articles either discuss the topic from the perspective of one context (e.g., privacy) or technical specification (e.g., sense-and-avoid systems) or cover only a few countries. As a comparative regulatory analysis, the paper is particularly useful, and insightful for the uninitiated in drone law and regulation. Agapiou also contends that while emerging international dialogue towards a legal framework for harmonised regulatory standards may replace the patchwork of soft and hard national drone regulations, market forces such as industry design standards are expected to shape future developments. Finally, Agapiou cautions that construction companies should be aware of the potential risks of using drones, as well as the potential benefits, so that they can implement strategies to mitigate the risks.

On behalf of the editorial panel, I would like to thank the contributors to the August 2021 issue for their valuable endeavours, which will make the issue a success. I also thank the reviewers for their efforts and critical and constructive comments. Finally, I would like to thank the editorial team of the journal for their excellent work.

It is hoped that these papers will provide readers with new insights into the civil engineering management, procurement and legal domains.

REFERENCES

- Agapiou A (2021) Drones in construction: an international review of the legal and regulatory landscape. *Proceedings of the Institution of Civil Engineers – Management, Procurement and Law* **174(3)**: 118–125, <https://doi.org/10.1680/jmapl.19.00041>.
- Charlson J (2021) Briefing: Beyond Brexit: trade and procurement implications for the UK construction industry. *Proceedings of the Institution of Civil Engineers – Management, Procurement and Law* **174(3)**: 95–98, <https://doi.org/10.1680/jmapl.21.00005>.
- Cornish K and Mugova A (2021) Briefing: The Ugandan CrossRoads Construction Guarantee Fund: key achievements and impacts. *Proceedings of the Institution of Civil Engineers – Management, Procurement and Law* **174(3)**: 99–103, <https://doi.org/10.1680/jmapl.20.00030>.
- Dave B and Koskela L (2009) Collaborative knowledge management—a construction case study. *Automation in Construction* **18(7)**: 894–902.
- PwC (PricewaterhouseCoopers) (2017) *Global Construction 2030: A Global Forecast for the Construction Industry to 2030*. PwC, London, UK.
- Rüßmann M, Lorenz M, Gerbert P et al. (2015) *Industry 4.0: The Future of Productivity and Growth in Manufacturing Industries*. Boston Consulting Group, Boston, MA, USA. See https://www.bcg.com/publications/2015/engineered_products_project_business_industry_4_future_productivity_growth_manufacturing_industries (accessed 30/07/2021).
- Umar T (2021) Key factors influencing the implementation of three-dimensional printing in construction. *Proceedings of the Institution of Civil Engineers – Management, Procurement and Law* **174(3)**: 104–117, <https://doi.org/10.1680/jmapl.19.00029>.