

ICE review

A review of recent developments at the Institution of Civil Engineers by ICE president Robert Mair. For further information please contact the press office on +44 20 7665 2107, email vienn.mcmasters@ice.org.uk or visit www.ice.org.uk.

Global Engineering Congress

ICE and the World Federation of Engineering Organisations held the first Global Engineering Congress (GEC) in London in October 2018. Engineers and policymakers from over 150 countries convened for the first time in a generation to discuss action on the areas where civil engineers can, and do, make a real difference. These include climate change, clean water, clean energy, innovation and infrastructure, and sustainable cities.

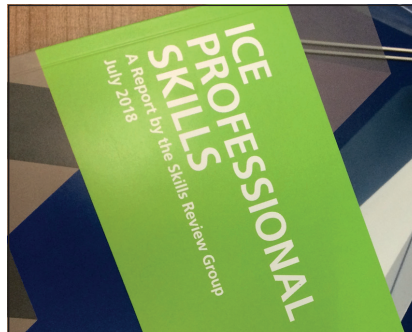
The programme featured more than 100 speakers over five days, with keynote presentations from Sir John Armit, chairman of Britain's National Infrastructure Commission; Michèle Blom, director general of the Dutch Ministry of Infrastructure and the Environment; Catherine Yang, head of artificial intelligence technologies at Baidu in China; and Makhtar Diop, infrastructure vice president at The World Bank.

Sessions included how to build climate resilience into city and infrastructure design and the role of sustainable finance in funding decarbonisation. The GEC was part of ICE's bicentenary celebrations and marked the UK government's Year of Engineering. Sponsors included Tony Gee and Partners, NPI and Mott MacDonald.

ICE is continuing to work together with its global counterparts on a practical road map for sustainable change.



ICE hosted the Global Engineering Congress in October



ICE published its professional skills review in July

Skills review

Soft skills are becoming increasingly important within civil engineering, along with a growing need for digital skills, according to the ICE skills review group's final report published in July 2018.

Led by ICE vice president Ed McCann, the group produced its findings following a series of workshops and consultations with industry leaders over nine months. It also conducted quantitative research, surveying the worldwide ICE membership body. The review examined the latest trends in engineering practice and the impact this has had on professional skills.

The report recommended that development of practical skills should be encouraged from the earliest stage. Continuous learning also needs to be promoted and appropriate learning resources made available to ensure that civil engineers adapt their skills in line with technical advances and developments. According to the report, the profession needs to embrace digital technology and civil engineers need to develop the rapidly evolving skills required to exploit its benefits.

The report also recommended that today's engineers need to focus on developing soft skills, such as communication, management and leadership. Team-working is becoming more important, particularly with multi-disciplinary, multi-organisational

and multi-national working becoming increasingly normal.

The full report is on the ICE website.

Shaping a Digital World

Following on from last year's success, ICE held its annual Shaping a Digital World conference in September 2018, with the support of Invennt and Topcon. This popular event brought together asset owners, consultants, contractors, academics and technology providers to debate the key challenges associated with the digital transformation of infrastructure.

The 2018 programme featured three key themes: productivity, behaviour and value of data. All focused on how to break down barriers and help turn infrastructure into an information-based industry. Martin Fischer, professor of civil engineering and environmental engineering at Stanford University in the USA, was among the speakers and discussed how technology start-ups, such as Tesla, are redefining design and build of global infrastructure.

Attendees discussed how better data can lead to better decision-making, help solve the productivity problem and provide better infrastructure services to society. The conference also addressed the need for collaboration to tackle the big transformational challenges, including culture, behaviours, skills, security and changes to business models.



ICE's Shaping a Digital World conference continues to be popular