Engineering a better Future

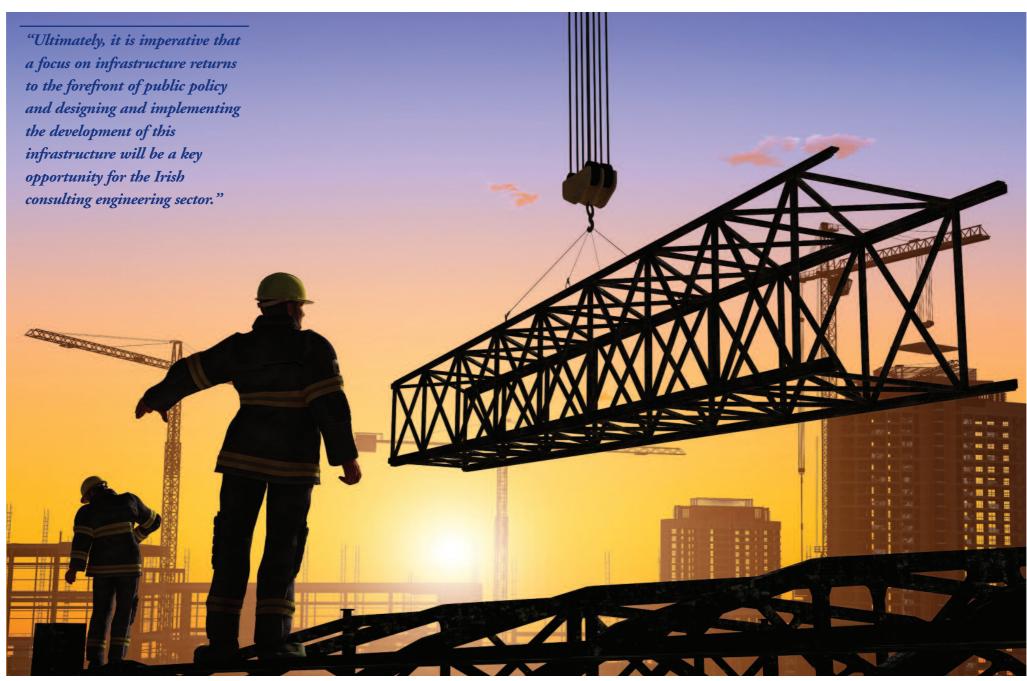
Irish Construction Industry Magazine was delighted to invite Dr. Sarah Ingle, Secretary General, Association of Consulting Engineers of Ireland, to write us an exclusive article detailing the challenges and opportunities facing the consulting engineers' profession and the stances that the ACEI takes on key engineering

and construction issues

C Firms who are members of the Association of Consulting Engineers of Ireland (ACEI) are well placed to make their mark within the improving Irish economy, however there are several major challenges ahead. One area of concern is that public investment in infrastructure is still well below the EU average and remains very low compared to overall expenditure. In addition, there has been a general shift in government spending towards current funding and away from investment.

"A recent report from the European Council noted that reduced investment by the government has negatively impacted the quality and adequacy of infrastructure in Ireland. It went on to identify key weaknesses in housing, water, public transport and climate change mitigation. The EC concluded that Ireland should act in 2016 and 2017 to prioritise government capital expenditure in public infrastructure, especially in transport, water services and housing. Ultimately, it is imperative that a focus on infrastructure returns to the forefront of public policy and designing and implementing the development of this infrastructure will be a key opportunity for the Irish consulting engineering sector. "In relation to water infrastructure, ACEI has always supported the establishment of a national utility for the delivery of water services and continues to support the concept of a single, efficient utility. Irish Water put in place a €5.5 billion Business Plan for the period from 2016 to 2021 to identify and address the national priorities in this area. The implementation of a coherent business plan which focuses on key needs in the water services sector will be crucial for the country in the years ahead.

"Delivery of improved infrastructure in the areas required is not without its challenges however. A steady supply of qualified graduates and others to work in the growing construction sector is needed. Based on recent forecasts there will be a requirement for 3000 extra consulting engineers by 2020 and it is clear from third



level student enrolments that the demand for Irish graduates will far exceed supply. Innovative solutions are also needed to attract back to Ireland the many engineers who emigrated in the last decade. ACEI and others are working on this problem, but the main constraints on engineers returning to work in Ireland are low salary levels and limited housing supply. For nonEU engineers, visas and work permits are also difficult to obtain.

"A further challenge in relation to the skills shortage is the low numbers of women entering the profession and setting out on careers in the construction industry. It is vital that this is addressed at primary, secondary and third-level in order to avail of the varied technological, teamwork,

continues to monitor the implementation of the Department of Finance's Prequalification of Consultants guidance note to ensure procedures are being properly applied by contracting authorities. The ACEI together with other professional bodies, was actively involved in government consultations in order to increase the 'quality' aspect in relation to the awarding

project management and design skills that

along with associated professional bodies

are making plans in this area in order to

men at all levels in construction.

promote career prospects for women and

"High competition, resulting in low

tender fees in the sector overall, is one of

the factors that has kept salaries low and

for ACEI members. The association

procurement procedures remain a key issue

women can bring to the sector. ACEI

"An important opportunity for the

of tender contracts. However, the association remains disappointed with the submission of extremely low tender prices and is of the view that the continued acceptance of such submissions by contracting authorities serves neither the public nor the industry as a whole. sector is the increased use of software for Building Information Modelling (BIM) and consulting engineers in Ireland are the most

prototypes of a building or piece of infrastructure and facilitates testing before building to analyse how everything fits construction.

advanced BIM practitioners in the country Among other advantages, BIM software provides Consulting Engineers with the ability to develop three dimensional digital together and to determine the sequence of

"ACEI was the driving force behind the development for the first time of a BIM vision for the Construction Industry Council (CIC) and has also been very active in the establishment of a task force to determine whether to adopt the RIBA work stages which would facilitate the establishment of a contractual framework for BIM. As a member of the European Federation of Engineering Consultancy Associations (EFCA), ACEI is also

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represented on the CEN Committee tasked with drafting a European BIM Standard. CEN representatives are being actively lobbied to ensure that the resulting European CEN standard will be very similar to the PAS1192 standards. Another Eurocode is not the desired outcome, as setting up a standard capable of being transposed differently in every member state across Europe would not be effective.

"Overall, currently there is increased activity in the Irish consulting engineering sector, however the growth is not being matched by associated government funding. The rate of state investment in Irish infrastructural projects needs to be much higher than the current 2%, a level which is considerably lower than the EU average. It will be crucial for the construction industry that this figure increases to at least 4% in the coming years in order to support the expansion of the Irish economy and address infrastructural problems in housing, transport, and water services."



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