The Institution of Engineering and Technology

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Board of Trustees

UPDATE ON PRESIDENT'S ADDRESS – FOUR Zs

(Note by Michelle Richmond and Simon Edwards. If you have any questions on this paper before the meeting please contact Michelle Richmond by email mrichmond@theiet.org)

1. Issue

To update on the themes arising from the President's Address 2021.

2. Timing

Board of Trustees meeting, 7 February 2022.

3. For Note

The Board of Trustees is invited to note this report.

4. Background

4.1. During the President's Address in October 2021, the President outlined the overall IET Strategy 2030, alongside a personal commitment to push forward four areas of the strategy during the Year. These were outlined as the 4 Zs. These are: Operationalizing STEM; Institutionalizing Professionalization; Squeezing Sustainability; and Embedding Digitalization.

4.2. These 4 Zs have formed part of the initial series of Meet Your President sessions. These sessions allow the membership to hear from the President on topical issues and take part in a question-and-answer session.

5. Key Points

The 4 Zs cover work happening across the Institution. Much of the work is developed and overseen by the three Main Boards as well as through the Strategic Themes and Societal Challenge staff groups established to support the strategy implementation. Below is a summary of some of the work being taken forward under each of the 4 Zs.

6. Operationalizing STEM

6.1. Research by the IET conducted in 2015 and 2019 showed that children's interest for STEM was on a decline as well as the finding that parents and teachers also felt they were unable to support children into engaging with STEM. This remains the primary focus of our own STEM outreach and the partnerships we support. Our main education

programmes of the IET First Lego League and Faraday Challenge Days are helping to bridge this gap.

6.2. Our recent letter to the UK Prime Minister highlighted the need to embed engineering into primary school learning by helping children to connect engineering, and its purpose and application, to their science and maths learning. The letter, supported by 150 world-leading engineers, STEM ambassadors, professional institutions, asks that the Government joins this campaign and commits to securing our future as a nation of innovators and embeds the importance of STEM and engineering within it.

6.3. A recent sponsorship agreement with SAGE Engineering Services, worth £800k over three years, will help to provide further resources to our education team and widen participation in the IET First Lego League focussed in the North East of England.

7. Institutionalizing Professionalization

The Concordat, which helps companies to encourage professional development and improve competence, continues to grow with our corporate, enterprise and MOD partners. Through these partnerships we are helping our partners see the value engineering professionals bring and the support the IET can offer individuals and organisations. This will be done through the recently piloted “toolkit” progression framework where organisations score their provision of different continuous professional development opportunities they offer their engineers. The CPD Toolkit will be more widely launched to all Concordat signatories early in 2022.

8. Squeezing Sustainability

8.1. The IET was granted Observer status and awarded a delegation for COP26. As part of this work we engaged with the Cabinet Office, COP Organising Committees and Chief Scientific Advisers and made our priority engineering skills for the green economy. As part of our activities around COP26 we published our Energy Technologies for Net Zero guide which continues to receive positive endorsement from the membership and wider stakeholders.

8.2. Furthermore, having a leadership role in the community we want to lead by example and have therefore set ourselves the target of becoming a net zero organisation by 2030. Investors in the Environment is a national environmental accreditation scheme designed to help organisations reduce their impact on the environment. In the autumn, we received Bronze accreditation for our sustainable practices.

9. Embedding Digitalization

9.1. Our courses support our members to acquire new digital skills. These courses include: Introduction to AI, Cybersecurity for Industrial Control Systems, Digital Health Software: Safety & Risk Management, Robot Ethics, Securing the Internet of Things Networks, and Introduction to 5G Networks.

9.2. Through our policy and insight work, we recently published an IET guide for the manufacturing and construction sector about digitalisation of the UK construction industry in order to respond to the requirements of a new building safety regulatory system and the need of manufacturers to share their data safely and sustainably. The guide sets out to manufacturers and those in construction a simple process to implement digitisation.

9.3. Following on from the successful establishment of the UK Cyber Security Council (UKCSC) in 2021, through our grant from the Department of Culture Medial and Sports, work is now underway for the IET to seek a licence to award professional cyber qualifications from the UKCSC.

10. Next Steps

The theme of the Meet Your President sessions in the first quarter of 2022 will be skills and the theme for the second quarter of 2022 will be globalisation. Updates on the 4 Zs will continue to be received as part of the work of the three Main Boards.

11. Risk

There are no specific risks associated with this update.

12. Resources

There are no additional resources required at this stage.