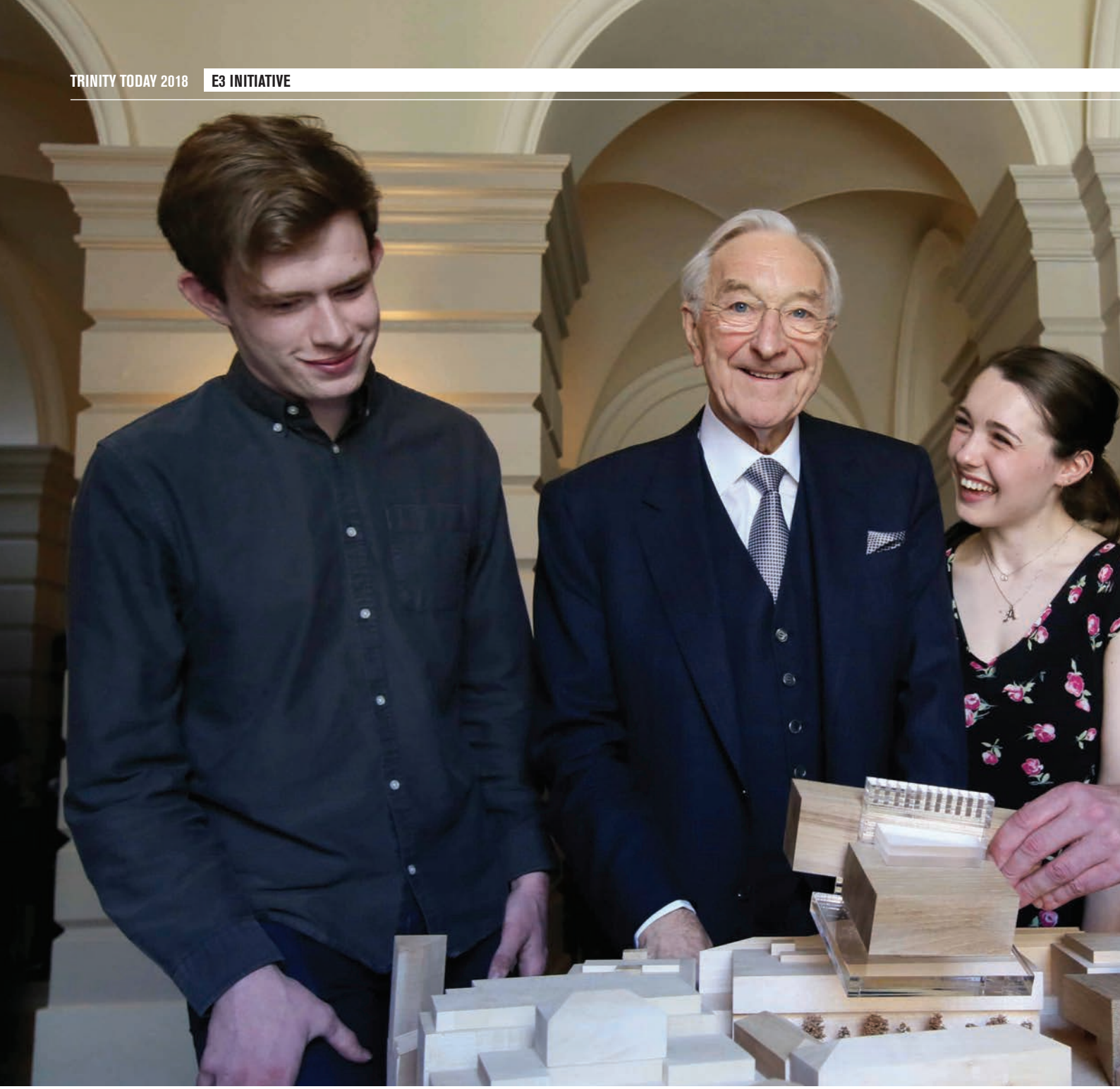

Tackling Global Challenges

Trinity STEM students Cian Walsh (Computer Science & a Language) and Aedin McAdams (Zoology) with Dr Martin Naughton & Provost, Dr Patrick Prendergast

Photo: Mark Stedman

A landmark gift of €25 million by the Naughton family has secured the development of E3, an initiative which will enable collaboration between engineers, natural scientists and computer scientists in order to address some of the biggest challenges facing Ireland and the world.

On 25 May 2018, Trinity announced plans for E3, an ambitious new initiative which will be without precedent in Ireland. As the first global centre of its kind, it will integrate engineering, technology and scientific expertise to address some of the biggest challenges facing Ireland and the world. These areas of priority include climate change, personalised data, renewable energy, water, connectivity and sustainable manufacturing. E3 will expand education and research activities across engineering, environment and emerging technologies in order to take a more integrated approach towards solving these complex issues.

E3 has been made possible by a major private philanthropic donation of €25 million by the Naughton family through the Naughton Foundation, established by the founder of the Glen Dimplex Group, Dr Martin Naughton, and his wife, Carmel. This transformative gift – believed to be the largest by an Irish family in the history of the state – will be combined with €15 million of Government funding from the Department of Education and Skills. E3 has also benefitted from the support and vision of those working within the School of Engineering Board, the Schools of Engineering, Natural Sciences, Computer Science and Statistics and the outstanding philanthropic support of donors including Dr Beate Schuler, Dr Paul and Theresa Johnston, and Dr Mike Peirce.

> **"Throughout my life in business I have been fortunate to have been able to play my part in effecting positive societal change."**

Speaking at the launch Dr Martin Naughton said that Ireland will need increasing numbers of engineers, scientists and IT specialists among other STEM graduates who will be able to work together to tackle the big global challenges we face today. "Throughout my life in business I have been fortunate to have been able to play my part in effecting positive societal change. Education has a central role in influencing such change and it is for this reason we have decided to make this donation to Trinity's ambitious plans for the E3 Institute. E3 represents a real step change in education, which will benefit future generations for years to come."

Minister Mary Mitchell O'Connor, Martin and Carmel Naughton, Provost, Dr Patrick Prendergast and Minister Richard Bruton

The Learning Foundry

Central to the vision of E3 is the construction of a €60 million Learning Foundry, a state-of-the-art 6,086 square metre facility to be located in the East End of the main Trinity campus. The Foundry will deliver new teaching facilities and an innovative interactive learning space for undergraduate and postgraduate students. It will pave the way for 1,800 additional places for students of Science, Technology, Engineering and Mathematics (STEM) which constitutes a 50% increase in STEM places over ten years and will see the recruitment of 80 new academic staff. The works on site will begin in 2019 and the new building will be delivered in 2022. The Learning Foundry will be followed by the creation of a new research facility in the proposed Trinity Technology & Enterprise Centre (TTEC) at Grand Canal Quay.

> **"E3 will be a crucial component of the engine of growth in the Irish economy and in the transition to a 'smarter', healthier society."**

E3 will enable new research around key areas of global challenge, create new curricula in STEM and attract many more students to Trinity, according to Provost Dr Patrick Prendergast. "Trinity is currently the top choice for STEM applications in the CAO but we have to turn away many qualified applicants for engineering and ICT courses despite there being a shortage. We are working with government, business and industry to address this shortage and provide for the future skills needs of the country in education, research and innovation. E3 will be a crucial component of the engine of growth in the Irish economy and in the transition to a 'smarter', healthier society," he says.

"I think it's so important to work together to tackle these issues, as they don't have one solution. Computational models could be made to predict the damage a storm may do to an area, which could then be interpreted by natural scientists to estimate the ecological and environmental effects of the damage. Engineers could then make structures that could withstand this and dilute the possible damages. This sort of cross discipline work is already occurring with vertical forests and piers with biological attachment points incorporated, to better improve our air and water. Working together allows us to predict, plan and protect our planet."

Aedin McAdams, Junior Sophister Zoology Student

Innovating for a healthy planet

E3's ambition is to innovate for a healthy planet by preparing graduates to take on the following challenges:

- Manufacturing and producing smartly
- Creating technologies and solutions that allow for healthy lives
- Developing better cities
- Sustaining and enhancing natural resources
- Modelling the environment
- Predicting and designing from complex data

"As a Trinity School of Engineering graduate I set up one of the first campus companies in Trinity in 1978. Since then and throughout my career I've understood that in order to solve difficult problems you need creative approaches – the world faces many such challenges today and I'm excited to see the opportunities the E3 Institute will facilitate for the next generation of engineers at Trinity."

Dr Mike Peirce Ph.D. (1976) is a member of Trinity Engineering Board and the Provost's Council — a network of leading Trinity supporters who act as advisors to the University

"The E3 Institute will be world-class, providing a unique experience to its students. International markets demand flexible and collaborative approaches to work – the Institute's multi-disciplinary approach ensures Trinity's E3 graduates will be adaptable and creative individuals with strong problem-solving skills."

Dr Beate Schuler, member of the Provost's Council