

Mr Chancellor,

If I was to start by telling you that Tony Trapp is a hugely successful entrepreneur and left school at the age of 15 with three O levels.... the parents in the room might fear the worst. Using his example perhaps I am about to go on to illustrate to the parents and families gathered here, that after all those years of investment in education, your child could easily have carved out a career without it. Perhaps the graduates in their gowns are, right now, shrugging their shoulders and thinking, “well it was fun, but hey, I could have left school at 16 and been a millionaire by now”. However, that is not the example set by Tony Trapp, indeed nothing could be further from the truth.

Dr Tony Trapp **did** leave school at 15, and he **is**, by any definition, an entrepreneur but he is, first and foremost, an engineer. He is an engineer with years of study behind him, including a PhD from Newcastle University. His business is offshore engineering and for the last 35 years he has been involved in the design of some very large machines, and some quite small ones, but all with their origin in innovation and knowledge. The fact that he did very well indeed in his Physics O level (one of the three) was perhaps a clue to his future trajectory. He is a living illustration of the value of a knowledge-based economy that is built around a highly educated workforce. He will also tell you that, to make that sort of system work, you have to have very good graduates and know exactly how to get the very best out of them. Those who have contact with him will also note his passion for what he does, his passion for quality in everything he does, his passion as an engineer

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and above all his passion to help to develop those who work with him. He believes in ABC; ambition, belief and courage.

Dr Trapp was born in Leamington Spa and brought up in the London area. After he left school (at age 15) he went to work in a commercial nursery but it did not take him long to realise that he aspired to something else. His family had no history of going to University so, as a strongly self-motivated individual, he found his own way. He became one of the first students at Rycotewood College in Oxfordshire to study a new diploma course in Agricultural Engineering. In his time in the greenhouses at the nursery he had been more interested in the heating systems than the plants and had perhaps already realised that actually, he was an engineer at heart.

With his new diploma he started to find his niche and decided to move on to study for a degree and that is what brought him north. Presented with the choice of the sun-kissed beaches and splashing waves of Brighton and a future in electrical and electronic engineering or the dark industrial heartlands of 1960s Newcastle and something more mechanical, he chose the sensible option and headed north to a proper engineering heartland to study Agricultural Engineering. His tutor here spotted some talent and encouraged the young Tony Trapp to go the whole hog and, to continue on to a PhD. At that stage it looked like a future in academia was inevitable. With opportunities in either Edinburgh or..... Malawi, north won over south again and he headed on to Edinburgh University as a lecturer in 1973.

By 1978 though, for the second time in his adult life, he recognised the need for a fundamental change of direction. Academia was, for Tony, very safe but very stifling. As he does now, he found the interaction with bright students very stimulating and enjoyable, but there was something missing. It was not money or academic success that drove the next move, it was the promise of an exciting new project and the linked challenge to take some of that engineering creativity into the real world, to design things that solved real life problems.

He returned to Newcastle University to work with his old tutor, Alan Reece. For several years he worked on short-term contracts for SMD (standing for Soil Machine Dynamics). The company was originally set up on the back of work in the field of soil and rock cutting including work from Tony's PhD.

People have been ploughing for ten thousand years. We have pretty much got ploughing sussed. There used to be an annual and rather debauched student agric versus dental student challenge that included a ploughing competition and Tony tells me that the dentists sometimes won it – so even a dentist can plough. I am head of the Dental School, maybe I could take up ploughing? But ploughing trenches at the bottom of the sea..., now that is a very different engineering proposition all together and there is no substitute for experiment. Tony and his co-workers ploughed up all manner of substrates including sand in Druridge Bay and silts in Maryport harbour, all four of the necessary basic substrates could be found somewhere in the region. With careful research came knowledge, with knowledge came innovation and with innovation came success and the big contracts rolled in.

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Underwater ploughing sounds like something of a fringe activity, like bog-snorkelling, but the need was very serious and the engineering challenges were considerable. At this point in time (the late 1970s and 1980s) a couple of critical things were happening. North Sea Oil was booming whilst fibre optic technology was just starting to emerge as a potential game changer in communication. Both industries urgently needed to find ways to bury valuable cables or pipes safely into the sea bed. SMD had the know-how and found the solutions. These included machines that were impressive and beautiful in equal measure.

Dr Trapp spent 19 years in SMD and it did very well, but eventually the company changed. It was a family business and it was no longer led by the engineers. SMD and Tony parted company so once again it was time to do something else. So, he set up afresh, teaming up with former colleagues and establishing a company that was led by four engineers as owner directors. Unsure about what to call it, they alighted on “The Engineering Business” or EB. Amazingly, no-one else had claimed the name. It did exactly what it said on the tin and it was based here in the northeast. His approach to building the business was one of balancing risk against caution, diversifying and planning in order to minimise the risks of being caught out by volatile markets. The business model also gave 20% of the business to the staff, all of the staff, so everyone had a stake in its success.

And it was very successful. It won myriad awards including a Queen’s Award for Industry. Tony himself was named entrepreneur of the year by the Entrepreneurs Forum and was northeast business executive of the year, both in 2008. Companies as successful as this are attractive so, also in 2008,

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it was bought for a lot of money, by a Dutch company called IHC Merwede. About £27M qualifies as a lot of money I think, so overnight all of the staff received a windfall for which they were doubtless very grateful.

Tony and his colleagues continued their involvement with IHC for a few years but Tony is not, to use his own words “a big company man”. He was now at a stage of life where he could perhaps comfortably retire and relax and do the things he loves.

The problem is that he loves running and growing engineering businesses from scratch and he loves the creativity of engineering so, obviously... he started another engineering company. Osbit Power was set up in 2010 to provide solutions for the offshore industries, and that nowadays includes work for renewables such as wind farms, as well as the oil, gas and communication industries. He also continues to invest in other initiatives across the region and beyond, from inventing a low cost warming pillow to keep heating bills down to involvement in systems that manage big data.

It seems there is really no stopping the man, but all along the way, Tony Trapp has been generous with his time and knowledge. This applies particularly for students and young engineers and particularly where he sees talent and commitment. He takes them into his businesses to turn them into real engineers. He was appointed David Goldman Visiting Professor here from 2008-2010 and continues to come here to the University to share his entrepreneurial wisdom with students in the Business School. He supports

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enterprises where he sees excellence; music, the arts, engineering, invention and business.

Finally, and for all of us in this city, he is aspirational for the region. He is clear that it has the infrastructure, the supply chain and the people to ensure that it can lead the world in offshore engineering. His organisations do not own the means of production, they provide the designs, but the opportunities are there to grow all aspects of offshore engineering across the northeast. The award of an honorary degree to Tony Trapp is not because he has been successful in business or in engineering, but because of what he has done, and continues to do, **with** that success.

Mr Chancellor, for his continuing contribution to engineering, to business and to the region, I commend Tony Trapp to you for the degree of Doctor of Engineering honoris causa.

*Citation by Professor Jimmy Steele, 9 July 2015*