

Alan Wood oversees the 21,000 strong workforce of Siemens in the UK. Jenny Bardwell talked to the Chief Executive about his life, robotic surgeons, the Chinese and our high-tech global future.

ALAN WOOD

CBE FREng

It's been quite a year for Alan Wood, head of Siemens in the UK. He was awarded a CBE in the Queen's Birthday Honours list this year for services to industry, and has just been elected a Fellow of The Royal Academy of Engineering. Having waited for a month to talk to Alan as he criss-crossed the world, I finally have half an hour with him to compile a Profile as he waits in the Warden's Room of Draper's Hall, prior to his Academy investiture. "I was very pleased and honoured to be selected" he says, as he studies the evening's line-up of speeches, scrolls and presentations by the HRH Duke of Edinburgh.

We begin, naturally enough, with Alan's childhood. He pinpoints moments when engineering began to take a hold on him. "When I was at school I found I had a gift for things like maths, which is the foundation of engineering. I loved physics. I found engineering drawing straightforward and I had a natural aptitude for it. Obviously you tend to be happy pursuing things for which you have a talent."

AN INSPIRING LIFE STORY

"Interestingly, looking back to when I was 14 or 15, it was in fact an English lesson that struck a chord that would shape my life. We read a biography of Isambard Kingdom Brunel, and I was amazed by the fact that this fellow was not just a very gifted engineer, he was a pioneer. He undertook challenges that were quite remarkable and as a teenager that impressed me. From that moment on, I decided that I would pursue engineering related subjects at A level, and continued at university."

Alan was further encouraged by his father who spent his life in the motor trade and ran garages. Alan was perpetually surrounded by all things mechanical, watching them being taken to pieces and put back together again. His father gave him an ancient Ford Popular and Alan, not being old enough to drive, spent most of the year before he was 17 taking it apart and renovating it.



Alan Wood shortly before his investiture as a Fellow of The Royal Academy of Engineering, Oct. 2005 © Mark Crick

Alan chose Grand Prix engine development for his sixth form Physics project, and followed this up with a final year undergraduate thesis on the applications of operational amplifiers – unusual in those days for a Mechanical Engineering student. OpAmps were early integrated circuits which, when combined with other components, had the potential for accurate, state-of-the-art experimental data measurement. Alan's circuits were so user friendly that they were adopted immediately by academic research staff.

Alan considers his time at school, and what is going on today, and says "I think very few teachers have a clear idea about what engineering is or the sort of satisfying careers you can build on engineering. Based on anecdotal evidence, my impression is that very few have ever worked in industry."

A PEER INITIATIVE

"At Siemens we try to help in this respect, in a number of locations up and down the country. We get involved in partnerships with local schools, and encourage our young

engineers who have recently graduated to go back into schools to talk to the next generation about what the opportunities are. If teenagers see someone in their early twenties who is well dressed, speaks enthusiastically about their job and maybe arrives in a trendy car, then there is a better chance that they will identify with that and consider engineering as a career option."

When it comes to universities, Alan remembers that when he studied for his Mechanical Engineering degree at Manchester (he gained first class honours) he was one of 100 men and just three women. When he was invited back around 10 years ago the number of women had climbed to seven or eight. He still believes there is much to be done to widen participation and increase the engineering base in the UK. "The catchment that we enjoy is so low to start. We need more role models for them to follow. We also need to break down the mythology of the dark satanic mills!"

I ask Alan if either of his daughters has caught the engineering bug. He laughs apologetically. "My greatest efforts have failed. I couldn't get either of my daughters

into engineering or technology. My elder daughter always showed a flair for languages and so pursued that route to university. My younger daughter did show an affinity for chemistry and physics so she went to university to do chemistry. But then, as it developed into more complex organic chemistry, she found she didn't get on so well and switched to cellular and molecular pathology. When she left university, she decided to go into advertising and is now an Assistant Producer, filming television commercials!"

A CLEAN START

Alan began his career in the 1970s as a management trainee with Unilever on Merseyside. During his five years with the company he spent periods in the soap and detergents business as well as chemicals, but his major experience was with Van den Bergh & Jurgens. He went on to plant management at the largest margarine factory in Europe and became a full member of the Institution of Mechanical Engineers at 25.



Alan says "This picture was taken around 1971 (age 24) when I was a Project Engineer at the Bromborough (Merseyside) factory of Van den Bergh and Jurgens. As it was a food plant, all staff had to wear hats. At that time this was the largest margarine and edible oils and fats plant in the country. We were looking at speeding up the process for melting solidified fats out of the 40 gallon drums in which we received them."

"The Chinese are clearly entrepreneurial people; intelligent and highly motivated; and these qualities, combined with the new infrastructure they are building, are a great formula for success. . . . Western companies need to become involved in China, not just thinking of it as a place to manufacture goods competitively, but as a very interesting market in its own right."

ACHIEVEMENTS

Born 20 March **1947** in Sheffield. Educated at King Edward VII Grammar School, Sheffield. Wins Open Scholarship to Manchester University in **1965** and graduates with First Class Honours Degree in Mechanical Engineering. Engineering Management Trainee, Project Management and Plant Management at Unilever **1968–1973**. Awarded Masters Degree in Business Administration from Harvard University and then joins Crittall Construction **1975**. Managing Director of Small Electric Motors **1978–1981**. Numerous management roles in Siemens after joining in **1981**. Chief Executive of Siemens plc **1998**. Chairman of CBI regional and manufacturing councils **1996**. Chairman of the German-British Chamber of Industry and Commerce **2001**. Chairman of EEF Economic Policy Committee **2003** and President of the EEF **2005**. Led review for Treasury and DTI into application of EU procurement rules **2004**. Awarded Honorary Degree of Doctor of Laws by Manchester University **2003**. Fellow of the Institution of Mechanical Engineers **2004** and The Royal Academy of Engineering **2005**. Awarded CBE for services to industry **2005**.

Alan then went to the United States, where he was awarded a Masters Degree in Business Administration from Harvard University. Following his return to the UK, he took over responsibility for the Manufacturing Operations of Crittall Construction, a supplier of bespoke curtain wall projects for prestige office developments. He then reversed the fortunes of Small Electric Motors, a specialist manufacturer of servomotors and tachogenerators, taking them into overseas markets and achieving profitability in what had been a non-standard, niche market company through restructuring them around a range of generic products with common components.

EARNING YOUR SPURS

Alan sees his shop floor training as a positive asset for managing teams. He says that he applies a 'squeaky wheel gets the oil' approach to managing – you focus on the exceptions. "In those days, to become a Member of the IMechE, even as a graduate, you had to serve two years on the shop floor and learn how to use the tools, lathes, milling machines, and learn how to weld and so on. That was extremely valuable because you really came to know what you were talking about. If later you were working with the guys on the shop floor, there was no way

that they could pull the wool over your eyes."

In 1981 Alan was attracted by a recruitment advertisement for a managing director in a larger electrical company, specifying a practical, German-speaking engineer with an MBA. This turned out to be for Siemens. Alan worked initially in Germany and subsequently headed Siemens Measurements in Oldham before taking over as Managing Director of Siemens Electronic Components. A period as Group Managing Director of the Energy and Industry Divisions in Manchester eventually led to arrival in his current role as Chief Executive of Siemens plc in April 1998.

Alan believes that innovation and R&D are the main key to competitiveness for manufacturing in the West these days. "If you look at how capable lots of the developing countries are at manufacturing products at very low costs (because they are paying very low wages) you know we are going to get eaten alive if we don't keep innovating. We shall no longer be able to enjoy the standard of living to which we have become accustomed if we try to compete on their terms. I think not just for our company, but for any developed economy, the only way to be successful in the future is to be proactively innovative.

Innovation has to be the life blood of all successful economies."

LOOKING EAST

Talking of which, Alan is full of news of his first visit to China. His recent week-long tour in October covered Beijing, X'ian, Shanghai and Guangzhou. More than 30,000 Siemens employees are based in the country now and work in areas such as mobile telecommunications networks, signalling and points equipment for railways, high efficiency lamps and medical scanners to mention only a few. "Right the way across our activities in China we are growing local indigenous businesses primarily focused on local markets, that is to say Chinese and Asian markets."

Alan is struck by the rapid pace of development since the Communist regime relaxed its commercial strictures. "I drove through Schenzhen, a free trade area in the south where the climate is tropical. There are palm trees, high rise buildings and dual carriageways, and you could almost imagine you were in Miami not in communist China. And generally, when you speak to the people, you don't get a hint of it being a communist state."



Alan (middle) in 1977 when he was head of production at Crittal Construction

Alan was left with a feeling of admiration. "The Chinese are clearly entrepreneurial people; intelligent and highly motivated; and these qualities, combined with the new infrastructure, are a great formula for success. As 1.3 billion people gradually become more affluent, that's going to create a huge market in itself. Western companies need to become involved in China, not just thinking of it as a place to manufacture goods competitively, but as a very interesting market in its own right."

APPLE OF HIS EYE

We are interrupted by the photographer for this Profile feature. They begin chatting about the latest video version of the iPod. Alan, at 58, is an unashamed and highly enthusiastic technophile. He tells the photographer "Do you realise that you will now be able to take your favourite films with you all over the place – the pace of innovation is phenomenal!"

"What is fantastic about the iPod is that when you go on holiday you don't have to mess about packing CDs – you can carry your whole collection on the iPod! I can play a mix of classical music, Diana Krall or Elton John through the audio system in my hotel room. The relationship developing between the internet age and the digital age, plus mobility, will serve to transform our society in the next few years."

It is time for Alan to join the other twenty-plus new Fellows being invested by the Academy's Senior Fellow this winter evening. His parting words are yet again to do with innovation. "We make lots of different medical technology – from hearing aids to MRI scanners. I don't think technology is that far away from being able to perform a very intricate operation using robots. A patient could be in a small hospital somewhere where surgeons would prepare them for an operation. Then a specialist surgeon in another country could carry out the operation, using a robot and camera connected on a broadband link. I think things like this are really going to transform both developed and developing countries."

BIOGRAPHY – Jenny Bardwell

Jenny Bardwell was a radio and TV producer with the BBC Open University and now writes for magazines and the web.