

Women in Engineering

Jan Ward, *Millers Oils*

A recent survey by Shell indicated that there was far more to do to encourage women into engineering and the petrochemical sector. At the same time statistics released by Warwickshire County Council in the UK, with a population of more than half a million people, indicated there was not a single female student enrolled on a higher education programme in Physics in the county.



Talk to school students about a career in engineering and the image that comes back is of a mechanic with an oily rag in their pocket. A highly skilled chemical engineer cracking open molecules in a clinically-clean laboratory in a major scientific discovery simply doesn't spring to mind.

Certainly the role of teaching in schools can help to change perceptions. If students are taught by uninspiring individuals without an evident passion for their subject or well-developed communication skills, then how do they hope to enthuse others about the study of engineering or science?

Today the lubricant sector is a male dominated profession whose leaders are predominantly white and middle-aged. There are exceptions, BP South Africa announced last August the appointment of their first black CEO Priscillah Mabelane. ILMA is led by CEO Holly Alfano, and Valentina Serra-Holm heads up UEIL as its first female President, but such appointments are rare.

Over time this situation must change as there aren't enough students graduating in science or engineering to meet the needs of a sector with an ageing workforce. Apprenticeship schemes, well-established on continental Europe, can certainly help companies grow their own talent.

Aspirational leaders such as Christine Fuchs, Vice-President of Global Research & Development at Fuchs Petrolub, Jacqui Berryman of Infineum and UKLA Board Member, or Abigail Waller UK & Ireland General Manager for Nynas can help create positive role models that women can succeed in the sector.

It doesn't stop with positive role models though. More flexible working patterns can help to retain female staff over the course of their career as their desire for full or part-time work changes over time. The days of 9am to 5pm for 5 days a week just don't work for everyone wishing to balance their working career with their family commitments or quality of life.

If a career in engineering is to be a career of choice amongst students, especially females, then positive cultures need to be developed within organisations that are more in line with the values and aspirations of women rather than expecting women to adapt to male-influenced cultures.

According to Dr Pat Heim CEO of the Heim Group, women view the world through the prism of relationships and males through the lens of hierarchies. Developing networks of people sharing common goals might be more appealing to females than an autocratic command and control structure favoured by more traditional organisations.

Today, according to research at least 40% of women consider themselves to be feminists. However, most women would still prefer to work for a male boss than a female one, so there is more to do on overcoming stereotypes and barriers than just breaking through the glass ceiling.

LINK
www.millersoils.co.uk

Women in the world of lubricants

Attracting the next generation of outstanding leaders

The European lubricants industry faces a shortage of higher education leavers holding awards in science, chemistry and engineering to replace an ageing workforce occupying senior management roles. With too few young, qualified new entrants joining the sector, could attracting more female professionals into our industry help to address this skills gap issue?

Over the past few months I have made it a mission to meet as many lubricant companies as possible, visiting manufacturing sites, inspecting laboratory facilities, attending industry conferences, taking part in the UKLA's Certificate of Lubricant Competence training programme, travelling to overseas summits and working group meetings, and more recently, attending the UEIL Congress (read more in our report on page 53). This will continue.

But the human landscape I've encountered on my travels so far has been mostly male. Is this a fair representation of the diverse and experienced pool of talent in our industry?

This disproportionate male to female ratio is a concern that is raised in the wider context of an acknowledged industry skills shortage and is highlighted by the drive to recruit younger talent to replace the ageing status quo. In this issue's Industry Insight, Jan Ward, CEO of Corrotherm and Chair of the Board of Millers Oils, highlights the need for female "aspirational leaders... and positive role models" to inspire the next generation of women in engineering.

With recruitment and gender representation high on the topical agenda, I spoke to four female professionals from the industry who are doing just that:

Caroline Slinn is Customer Technical Service Specialist for Italmatch Chemicals and has been a chemist in the metalworking fluid industry for 15 years.



I fell into the industry by accident after graduating from York University with a Masters in Chemistry. It was a big reality check for me - I had to learn my trade from the bottom up, working through various technician and development chemist roles to learn the ins and outs of formulations and problem solving. I am still learning every day.

In 2008 I was honoured (and surprised!) to receive the prestigious UKLA 'Young Employee of the Year' Award. This award gave me a significant confidence boost. It inspired me to keep going, to be more determined and to get my voice heard in a very male dominated world; I must have been doing something right!

I have a diverse and exciting role supporting customers. My main geographical region is Western Europe and a large proportion of my time is taken up on customer visits to Germany, Switzerland, Italy and France, etc. Back at our base in Trafford Park Manchester, my time is divided between laboratory work and the office. It's great to keep close to the laboratory and work with the R&D team on commercialising the latest products and getting my hands on the latest technology our team is working on.

I spend a great deal of time supporting customers to help them solve problems, improve their formulations or demonstrating the performance of our technology in their particular application. Hosting customer workshops and lab sessions is another key function I enjoy. Serving such a wide customer base ensures that each customer and application is unique; life is never dull, no two days ever the same.

The future is looking very positive having recently become part of Italmatch Chemicals. The new Lubricants Performance Additives division offers exciting opportunities with its wide and diverse industrial product portfolio. I am looking forward to learning more about wider industrial applications and hoping to continue to travel and broaden my horizons and hope to pass this knowledge and experience on to the next generation of young (hopefully female) people entering this diverse and exciting industry.

The one piece of advice I'd give to ladies entering the industry is not to be afraid or intimidated; take all the opportunities you can and learn from them, and remember, in this industry 'expect the unexpected'.

LINK
www.italmatch.com

Kate McArdle is the Finance Director at Trent Oil Lubricants; during her time she has been the company administrator, credit controller, warehouse person and forklift driver!



My working life at Trent started in 2007. At that time there were just four of us growing the lubricants side of the business. Fast forward to today and I'm now part of a team of 3 Directors, employing 14 people, with several women in various roles, a far cry from the beginning when there was Barbara the bookkeeper and Joyce the cleaner. I am pleased to say there has been a definite shift in the male/female ratio in the 12 years I've been here.

My time is spent in the office, mostly sifting through all the paperwork that's needed to run a business whilst collating spreadsheets for our Director's meetings, enabling strategic planning and endless decision making. I wouldn't say that I've experienced obstacles as a woman in this industry, just perhaps been met with an element of surprise from a few people when I've either driven the forklift, or when I'm still seated in a boardroom, ready to discuss business strategy and not just making the tea!

As longstanding UKLA members (this was our 5th year attending the UKLA's Annual Dinner), it's encouraging to see that the presence of women here is also increasing. And as a working mother with a son and daughter, I would be very happy for both my children to enter our industry; the opportunities are vast and exciting and could take them all over the world.

I believe having more women in a wider variety of roles can only be a good move forward. I certainly hope that my career is an inspiration to my daughter (and son!) should they decide to move into the world of lubricants.

LINK
www.trentoil.co.uk

Rachel Drewitt is a Chemical Technician with Afton Chemical.



I have always been inspired by those around me to be whoever I wanted to be. As a teenager I didn't have a firm idea of which career path to take, all I knew for certain was that I wanted to go to university and study a subject I enjoyed... chemistry.

I started my current position at Afton Chemical in July 2017 as a Chemical Technician. My main responsibility is to provide product technical support to our customers in the EMEA region. When I started, the immediate challenge was to establish myself within the wider team. Being in a global organisation, I was working with international colleagues and customers from all over the region.

To begin with I felt overwhelmed, thinking of the vast amounts of knowledge and experience needed to do my job well. But I soon realised I had colleagues all around me, whose experience I could draw on to help! I decided it was time to stop worrying about the future and when the next career milestone will come, or how I can reach it sooner. I now make a conscious effort to concentrate on the present and deliver the project that is needed.

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Making the best of the immediate job in hand will open future opportunities – and most likely some opportunities I never thought possible.

My ambition is to climb the technical ladder, which will take time, patience and determination. It is not uncommon to see women in Afton or the wider chemical industry filling management or technical roles but I know, from my own experience the surprise that professionals from other sectors show upon learning what I do for work. Individually no one person can change these perceptions but my advice is to not get overwhelmed by the wider picture.

If you believe you can achieve within the lubricants industry, give it a go. It takes belief in yourself to succeed, although a few cheerleaders along the way can't hurt!

LINK
www.aftonchemical.com

Teri Crosby is Global Manager, Automotive Engine Oils and Viscosity Modifiers at Chevron Oronite.



With nearly three decades of experience in the additives industry, Teri Crosby has served in a variety of roles ranging from the technical side of the business to sales and marketing. Currently, she leads a large Products and Technology team located in every corner of the world. While her home base is Richmond, California, Crosby is often on the road in all parts of Europe, Asia and the Americas, visiting with team members or customers.

“My early days in Oronite were spent in Information Technology as a statistical consultant before taking advantage of an opportunity to move to Rotterdam to lead the technology group that developed marine additives. My admiration for formulating really started during those days in the marine team and I loved living abroad. On my return to the USA, I was responsible for Information Protection, Product Stewardship, the statistical consultants, and all our bench and analytical labs around the world. This gave me the background in all the tests we use to develop

and qualify lubricants and specialty fluids. I made a big change at that point in my career and I moved from Technology to the Sales and Marketing team.”

Here, Crosby's roles ranged from being a Global Account Manager to an Advisor to the President, where she led several key strategic projects. Ultimately coming full circle, she returned to the technology side of the business where she has led every Oronite product line at some point in her career. “By being fortunate to change jobs every 3 years during my career, I have been able to grow the diversity and depth of my skills, as well as develop my passion for additives along the way.”

But Crosby admits there were moments on her journey where she felt uncomfortable, “I generally thought that if I was given a new role, I could surround myself with bright people and learn from them to get the skills to do the job well. Chevron provides a great atmosphere for growth and diversity, so I never felt that I had any big obstacles to overcome outside my own self-doubt!”

So given that it's ok to feel uncomfortable at times, what other advice would Crosby give to young women in the additives industry? “Jump in, work hard, and have a bit of fun along the way. It's a dynamic industry with lots of challenges to keep you interested. And keep a close eye on balancing work and personal time to keep yourself healthy.”

LINK
www.oronite.com

In 2019, the Women's Engineering Society (WES) will be celebrating its centenary year. Founded in 1919, its mission is to promote and inspire young women to consider science and engineering based careers through the study of science, technology, engineering and mathematics (STEM) subjects.

Clearly, the impact and potential benefit for our own lubricants' related industries will be very welcome. The female force is definitely with us, and something that Lube will continue to report on in future issues.

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