

# Victrex, at the peak of innovation

## interview

AN INTERVIEW WITH  
DAVID HUMMEL,  
CEO  
Victrex

With more than 35 years of research and development on polyaryletherketones, Victrex is a key raw material supplier in the composites industry. Their CEO, David Hummel, highlights Victrex's philosophy about innovation for us and reveals new potential PEEK applications.

**JEC Composites Magazine:** Can you provide some key figures/dates to give us a clearer picture of your company?

**DAVID HUMMEL:** For an organization boasting an annual turnover of over £252m as well as a healthy operating income and consistent recommendations from leading financial analysts to invest in the company, it could be easy to become complacent about bringing new products to market. But this isn't the approach Victrex takes, preferring instead to move nimbly into high value, R&D-intensive manufacturing.

**JCM:** In September, Anita Frew stepped down from her current position as chairperson, after 14 years of collaboration within Victrex. Does this change announce a shift in the group's mission and vision?

**D.H:** In September this year, Anita Frew stepped down after 14 years on the board of Victrex with six of these years serving as Chairperson. She will be replaced by Larry Pentz, a Non-Executive Director with more than 30 years of experience in Johnson Matthey Plc, who has already been serving on the Victrex board for approximately 6 years. The advent of the new Chairperson didn't herald a revolution and the company continues to be firmly committed to innovation, as well as sticking to the previously agreed focus on developing PEEK solutions in designated market segments.

**JCM:** What challenges will her successor have to meet??

**D.H:** The existing five focus industries, aerospace, automotive, electronics, energy, medical, remain at the core of the com-



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Quality, innovation, reliability and safety are exactly what we deliver (...)

pany's objectives and powerful statements of intent that encapsulate the whole philosophy behind Victrex' operations. For example, a "No Heavy Metal" assertion represents the company's intention to facilitate the design and build of ever more portable and long-lasting electronic

devices. In the energy sector, Victrex sees "Recover More" as its slogan, by providing reliable, efficient and safe solutions that perform in extreme temperatures and corrosive environments that can be found in downhole drilling operations. Our strategy continues to focus on keeping us well-positioned to maintain global leadership, while accelerating growth and capturing value by a market-led and innovation-driven approach.

**JCM:** Automotive and aviation have always been traditional sectors for PEEK, and these sectors continue to be central to Victrex's development. What was your strategy to get OEMs to choose PEEK?

**D.H:** Let me give you a brief example from aerospace. There are thousands of metal brackets on every aircraft. Replacing them

## About Victrex

From filing of the PEEK patent in 1978 or just over 60 employees in 1993, the company has moved from strength to strength, with innovation and the creation of value-added solutions being at the very heart of its mission. Ian Smith, Head of Marketing knows about the advantages of Victrex' unrivalled more than 35 years as a world leader in high

performance polymers. "We define our innovation journey as focusing on three horizons. The first being innovation for today and in the second horizon it is innovation being a blend of disruptive and significant steps forward. This will result in solutions which are radically different and bring a new value / performance combination. Finally, we have our long term goal of capabilities innovation."



OneSubsea Diamould electrical connector – ©OneSubsea

with strong, lightweight thermo-plastic solutions makes sound economic sense as it helps in reducing operational costs as well as CO<sub>2</sub> emissions. The strategic approach led from unloaded to loaded brackets. Victrex' latest PEEK polymer coupled with an innovative hybrid moulding technology has made it possible to design components that are not only longer-lasting than their metal counterparts, but also 60% lighter. The new loaded bracket was showcased at the Aircraft Interiors Expo in Seattle last October. It was developed in conjunction with Tri-Mack Plastics Manufacturing Corporation.

**JCM:** What new markets have you identified as being potentially promising?

**D.H.:** Victrex sees greater scope for development in ultra-reinforced base polymers. Our recent developments in the medical sector fit well with our combined goals of disruptive innovation and exploiting market adjacencies. In the first instance, our objective was to persuade medical specialists to replace previously used metal implants with polymer-based ones like ours – to address unmet needs associated with the use of metals despite it having been used for many years. This required 'disrupting' conventional thinking.

At the same time, we used our previous experience of PEEK spine and dental implants to develop new trauma metal replacement solutions. Continuing in this field, our final 'horizon' will encompass higher performance driven solutions, such as knee replacements, in order to meet the demands of an older global population.

**JCM:** How are you planning to develop in these new markets? Will your strategy stay the same, or does it need adapting?

**D.H.:** These developments do not happen overnight. Solutions for the aerospace and medical industry require rigorous testing meaning the journey from inception to production can last several years. Victrex' in-depth knowledge and collaboration with researchers and scientists in various academic areas is also important for Victrex. Victrex has a long history of academic collaboration. I see it as a key element of our R&D activities and a source of learning and expertise for us outside of our core competencies. With Dr. John Grasmeyer, our Director of Technology, as Chair of the KCMC (Knowledge Centre for Material Chemistry) Industry Steering Group, it is no surprise, for example, that we have been working on various activities with them for more

than a decade. However, we also have active contacts at more than 60 academic institutions around the world and about half of these are currently pursuing scientific studies with us on present and future technologies."

**JCM:** How does PEEK stand out from the other polymers in the market?

**D.H.:** With demand for global PEEK estimated by some independent analysts to be worth over £800m by 2018, it's little wonder competition is rife. More than 60% of the current global production capacity lies with Victrex. The technical strength and services, marketing know-how, and product quality differentiates Victrex from the competition, who is trying to catch up. Victrex sees this as an opportunity for moving even faster into research and development and towards higher-value, high-quality finished or semi-finished components. As well as investing in future capacity to ensure security of supply as we grow, we are moving downstream into added value processing, and into finished or semi-finished components. Manufacturing these parts requires stringent regulatory processes as well as complex risk assessment operations and



Trauma plate composed of a high performance polymer « PEEK-OPTIMA Ultra Reinforced polymer » © Invibio® Biomaterial Solutions

unwavering quality assurance. Or for short: Quality, innovation, reliability and safety come first, which is exactly what we deliver at Victrex.

**JCM:** What developments are you considering in your various markets over a period of 3 to 5 years? What drivers can Victrex exploit to consolidate its market penetration?

**D.H.:** A new state-of-the-art £90m plant is about to be opened in Thornton, England. This new polyetheretherketone operation will be commissioned in early 2015, raising the group's annual PEEK capacity to more than 7,000 metric tons, up nearly three-quarters from its current levels. This substantial investment is funded entirely from Victrex' own cash flow and is a firm statement of the company's commitment to its core market. With such a fast and progressive innovation approach, there is no telling what the limits for Victrex will be over the next decade. Recent examples like the brackets mentioned earlier or Magma Global's unique M-pipe system produced from carbon fibre and Victrex PEEK polymer are distinct proof of how Victrex contributes to future performance. All of the ingredients for long-term prosperity and success are there with the main challenge, aside from externalities, being the ability to continue focussing on high-value finished or semi-finished advanced components. With such a strategic approach and unblemished record, it's no wonder that Victrex was labeled by Management Today as one of the UK's top 20 most admired companies at the end of 2013. ■

More information:  
[www.victrex.com](http://www.victrex.com)