

# The A, B and C's of sustainable Polymers

The last edition of Elements featured an overview of Paul Jones (FRSC), Managing Director, Head of R&D & Co-Owner at multi award winning company Bitrez. Launching two more successful businesses, Anacarda and Chemical Processing Services, Paul leads the way in designing and patenting products to bring to market, interlinking the three businesses ensuring sustainability and REACH compliance are at the core of all three. This article covers the latest developments and awards recently achieved by Paul and his team.

Paul is recognised as being a one of the country's most dynamic forward-thinking business leaders, having recently won another plethora of awards including the 2021 Business World CEO Entrepreneur of the Year. For the second consecutive year, Paul has been awarded CEO of the Year for Manufacturing by CEO Today Magazine 2021 and most Innovative Management Professional of the Year by CorporateLiveWire Innovation and Excellence Awards. Paul has further been recognised by The Manufacturer Magazine as one of 2020's Top 100 achievers in the country for Innovation in Manufacturing.

## Anacarda

Anacarda is a niche speciality polymer resin supplier, designing and developing sustainable Bio based curing agents for epoxy resins derived from cashew nutshell liquid (CNSL). Working in the transport and construction sectors as well as industrial protective coatings and anti-corrosion protection they hold partnerships with the market leading companies to the marine coatings sector with products being utilised worldwide. Paul is at the forefront of generating new cutting-edge products which led him to develop Cardamine, a brand-new chemistry which utilises the sustainably sourced CNSL. Replacing traditional Phenalkamine curing agent attributes, Cardamine offers sustainable properties such as faster cure rates, fire resistant technology and reduced toxicity. [www.anacarda.com/](http://www.anacarda.com/)

## Bitrez

Bitrez is one of the UK's leading companies in designing, developing, and manufacturing multi award-winning polymers and speciality synthetic resins. Trading for nearly 40 years, running 24/7 production over two sites, they offer an extensive range of products under a recognised brand serving a multitude of industries.

Curaphen, a Bisphenol A (BPA) free phenolic resin which Paul led the R&D of is a worldwide bestseller used by composite and packaging companies in the food and drink industry globally. Curaphen has won a host of awards including the

2019 Queens Award for Enterprise in Innovation and the Chemicals Northwest 2021 Innovation Award.

Paul also revolutionised Curamine, the world's first a non-toxic Ketamine alternative coating. Curamine is sold to some of the world's leading specialist coating companies and Bitrez currently hold 100% of the European market.

Bitrez offers a multitude of resinous products covering a huge array of industries from flame retardant thermoset resins to formulated products for the diamond wheel industry. Recent awards have included the Composites UK Industry 2020 Award for Health and Safety and Innovation in Materials, Make UK 2020 North West Innovation Award and Manufacturing Innovation from Insider Media Made in the North West Awards. [www.bitrez.com](http://www.bitrez.com)

## Chemical Processing Services Limited (CPS)

Chemical Processing Services is a newly launched enterprise inaugurated by Paul utilising his 35 years in industry. CPS covers the lifecycle of specialist polymers and chemicals from design to manufacture, incorporating the full spectrum of industries which use chemicals. Providing a tailor-made service, CPS can help bring products to market including navigating the regulatory and legal aspects.



Wanting to find an alternative, safer, REACH compliant substitute to traditional Mannich base epoxy curing agents, Paul invented Permature, the world's only REACH compliant Mannich base resin. Discarding traditional attributes of conventional curing agents such as toxicity concerns, Permature provides the only non-toxic, non-carcinogenic alternative product which can be utilised by a multitude of industries worldwide which use Mannich reactions.

Furalkamines, are a newly launched curing agent chemistry revolutionised by Paul and are globally patent pending. Furalkamines, sourced from sustainable crop sources (corncoobs, sugar cane, etc) produce furfural, then converted to furfuryl alcohol. The alcohol has green characteristics but is toxic. Paul's cutting-edge chemistry polymerised the alcohol to make poly furfuryl alcohol polymer (PFA) which could then be managed to form a Mannich base without the toxic component of furfuryl alcohol.

[www.cps-consultancy.com](http://www.cps-consultancy.com)

## Summary

***Paul is at the heart of each business and leads the way in inventing and designing new products based on demand. If there is a health issue with a chemical, Paul is at the cutting edge in designing a safer alternative. He ensures that Anacarda, Bitrez and CPS have reactive business models which utilise dynamic cutting-edge chemistries to ensure sustainability is at the heart of each company. This results in the creation of products that protect human health and the environment, and his achievements are rightly being recognised worldwide.***