



## Development of new ink product for global markets

### The Challenge

Multichem is an international ink manufacturer based in the North East of England, supplying clients around the world. The business identified an opportunity for innovation within its product range by creating a new type of ink. This needed to be a permanent ink, specifically developed to meet strict heavy metal regulations and safety standards. The new ink had to be fast drying and adhere to non-porous surfaces, including polyethylene, polypropylene and aluminium. The product also had to pass strict environmental and child safety regulations.

### Solution

Northumbria University's team established a Knowledge Transfer Partnership (KTP) with Multichem that provided a mechanism to develop the new ink. This enabled Northumbria's department of applied science, led by Professor Justin Perry, to work with chemistry researcher Dr Tom Winstanley and the team at Multichem on the project. We secured funding for two thirds of the project cost from Innovate UK. The KTP enables businesses like Multichem to work with academic institutions to improve their competitiveness and productivity through the better use of knowledge, technology and skills.

### Impact

At the end of the two year project with Multichem, the business was able to launch a brand new product - PP200 - that delivered against the original specification. PP200 had a major commercial impact on the business within months of launch. It enabled Multichem to win new contracts in Latin America and Asia, including the largest contract in its history. New sales saw the amount of ink produced by Multichem each month rise by 20%. In the first year alone sales projections outstripped Multichem's five year projections. As a result of the close and highly successful collaboration achieved during the KTP project, Dr Tom Winstanley was appointed Product Development Manager at Multichem. Innovate UK has awarded the Northumbria and Multichem KTP a rating of 'outstanding', recognising the project's achievements and lasting impact.

### Organisation Overview

Multichem

Multichem is the UK's leading manufacturer of ink for marker pens. Multichem is a global brand, exporting inks from its manufacturing base in Hexham, Northumberland to more than 30 countries. Markets supplied include North and South America, Europe and Asia.



"This has enabled us to position Multichem as a leading supplier of sophisticated and environmentally friendly ink products. Thanks to this project we have significantly improved our in-house product development process which is now based on science-led, quantitative, robust, well-documented procedures using analytical chemistry, product performance and manufacturing considerations, and commercial insights."

**Michael Nelson, Managing Director, Multichem.**

