

Knowledge Transfer Partnerships

KTP BENEFITS

Knowledge Transfer Partnerships are designed to benefit everyone involved

- 🔄 Businesses will acquire new knowledge and expertise
- 🔄 KTP Associates will gain business-based experience and personal and professional development opportunities
- 🔄 Universities, colleges or research organisations will bring their experience to enhance the business relevance of their research and teaching

Knowledge Transfer Partnerships

Accelerating business innovation;
a Technology Strategy Board programme

<http://www.ktponline.org.uk>

CRANFIELD COLOURS LTD ARTISTIC INNOVATIONS

ABOUT THIS CASE STUDY

In this Knowledge Transfer Partnership (KTP), the Centre for Fine Print Research (CFPR) at the University of the West of England (UWE) collaborated with Cwmbran based ink manufacturer Cranfield Colours Ltd. The aim of the KTP was to develop a range of user-friendly artists' inks, designed to meet both the needs of artists and upcoming environmental legislation and to create a better understanding of how artists use the product.

ABOUT THE SPONSOR

The Technology Strategy Board is a business-led organisation established by the Government. Its mission is to accelerate research into, and development and exploitation of, technology and innovation for the benefit of UK business - building economic growth and quality of life.

FAST FACTS

- 🔄 Winner of Best Application of Knowledge Award at 2003 KTP Awards
- 🔄 Revival of old printing process
- 🔄 Improved product
- 🔄 Development of user-friendly artists' inks
- 🔄 Enhanced curriculum
- 🔄 Associate employed by host company

The Company



"When we embarked on this project our aim was pretty simple. There was a market out there, which we supplied in small part but we really knew nothing about it. Long term, we have now changed our strategy and it is far more profitable for us. As a third generation small business, we needed to innovate and this programme has given us a business strategy that exceeded all expectations."

Michael Craine, Managing Director of Cranfield Colours Ltd

Cranfield Colours is an independent, family owned company that has manufactured printing ink for commercial lithographic printers in the UK since 1975. Alongside this core ink business, Cranfield also manufactures a range of specialist inks for the fine art printmaker.

ABOUT THIS PROJECT

Breaking down language barriers was the key to the KTP. The chemistry experts at

Cranfield focussed on the low metamerism of the product, the five microns grind and the minimal flocculation. The academics would question how cleanly it wipes off the plate and if it was smooth or buttery. The KTP helped to bridge this language gap.

During the two-year programme, a new range of inks based on traditional ingredients that can be cleaned with soap and water rather than harmful volatile

compounds was designed to meet both the needs of artists and upcoming environmental legislation.

BENEFITS

A new product development process using a repeatable testing methodology and improved quality control was achieved. One of the resulting products, fine art ink called Safewash, was developed and successfully launched internationally.

A database and methodology was developed to include specific testing characteristics such as tack and viscosity when creating products for the fine arts sector. Cranfield utilised the academic's specialist marketing knowledge of this sector, which led to

improved product quality, increased market opportunities and a better understanding of customer requirements.

The KTP gave the company a better understanding of the end-uses artists make of their products and came up with methods for testing inks tailored to the specific needs of the fine art market. This opened up the lines of communication between the manufacturer and the end user to develop a new methodology for the testing, design and manufacture of innovative, commercially viable fine art inks.

Another significant development made during the programme included the

development of specific ink crucial to the development of collotype, a nineteenth century printing technique that has been revived by UWE.

RESULTS

- Development of new product ranges, including the non-toxic Safewash Ink
- Increase in profits
- New export markets in the US, Holland, Australia and France
- Opened communication between manufacture and end user
- Development of collotype printing process featured on BBC Radio 4's Material World programme

The Associate

“There is a gulf between hearing and understanding and language barriers exist – this partnership between the company, academic and me helped bridge those gaps.”

Angela Brown, KTP Associate, BSc in Engineering and Acoustics and Vibration

Associate Angela Brown developed scientific ink testing methods for characteristics such as viscosity, in order to enlarge the company's product range. Over her two years, she was involved in the development of Safewash Ink from the very early stages of its development right through to its successful launch on the international market.

BENEFITS

Angela's programme was given the top rating under the KTP scheme.

In addition to improving her management skills Angela also undertook several training opportunities that included fine art printmaking, IT training and a 'Train the Trainers' course to assist with staff training within the company.

She is now employed fulltime by the company as their Artists' Products Manager, where she is doing market research for artists' inks.

RESULTS

- Employed by host company
- Submitted MPhil and gained an NVQ Level Four in Management
- Development of wide range of personal and professional skills
- Unique opportunity to see revival of old printing process

The Academic Partner

BENEFITS

The Bristol School of Art, Media and Design has benefited greatly from its involvement in the company's research into ink development and testing. Many of their findings are used in student course materials.

During the course of the partnership, the team developed new collotype ink from old recipes as it was no longer manufactured. These inks could make collotype more commercially viable again in the future. This printing technique had been the main fine art reproduction process until the mid-twentieth century. This novel application not only ensures the survival of collotype in Europe but also has the potential to create reproductions of unparalleled accuracy and colour fidelity. It is hoped that this will lead to an exceptionally accurate and colour-faithful form of digital printing.

Professor Hoskins, lead academic supervisor at UWE's Bristol School of Art, Media and Design, has had a book published based on the findings generated from the work and several papers have been written and presented at conferences.

The Centre for Fine Print Research completed a KTP with John Purcell Paper of London that involved the creation of ink jet profiles specifically designed to suit a wide range of artist quality papers in 2003.

RESULTS

- Relevant course material
- Papers written and presented at conferences
- Book commissioned on findings of KTP
- Revival of collotype
- Involvement in other KTPs

