

Companies unite to deliver product within year

by Sam Fountain

Two Cambridge companies have forged an alliance to overcome the fuzziness of the front end of innovation, resulting in the rapid formation of an entirely new product, from concept to manufacture in less than a year.

The companies managed to undertake the whole process, including development, manufacture and launch of a novel continuous flow reactor, a system designed to speed up the drug discovery process, offering an affordable solution for the chemical laboratory.

Specialist supplier of organic synthesis apparatus, Asynt, has teamed up with manufacturer and supplier of scientific, Life Sciences and data acquisition products,

Grant Instruments to design and build the continuous flow reactor – the Uniqsis FlowSyn – resulting in the unexpected formation of an entirely new company, Uniqsis.

Isleham-based Asynt needed to find a local design and manufacturing partner that had the flexibility to take on a clean-sheet design project, develop a one-off prototype and then scale up to volume production.

The company also said that it was vital that the chosen partner had in-depth knowledge of heating and cooling techniques as temperatures and pressures would have to be very accurately controlled in the proposed flow reactor.

"We selected Grant due to its reputation for producing high quality, reliable scientific products, its extensive knowledge of

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heating and cooling systems, and its considerable manufacturing expertise," said Asynt's MD, Martyn Fordham.

"Grant has lived up to our high expectations by delivering a solution from concept design and first prototype phases through to beta trial systems for pilot customers and now to the manufacture of fully standards-tested production models all in less than 12 months."

The FlowSyn, which has just started shipping to customers, is

the first commercial system to fully integrate all the essential elements for continuous flow chemistry into a single, easy to use package.

The unit is simple to operate and offers safe, unattended operation for tasks such as synthesis, reaction optimisation and scale up experiments, in quantities from milligrams to hundreds of grams.

Synthesis in micro-reactors has many advantages over batch processing, including better re-

producibility and scalability, improved yields and safe handling of unstable intermediates or highly exothermic reactions.

"Engaging with Grant at the very start of the design cycle has minimised the risk of costly mistakes, speeded up time to market and ensured that we ended up with a cost-effective and highly marketable solution," continued Fordham.

"Moreover, we have a knowledgeable partner that has been designing and manufacturing scientific equipment for over 50 years and that can service and support our products on a global basis."

Shepreth-based Grant Technologies designs and manufactures custom scientific and industrial equipment to meet its customers' application-specific

requirements.

The division specialises in the design and manufacture of equipment for a wide range of clinical and industrial applications.

"We have utilised the considerable knowledge and expertise of our engineering team, as well as scientists and flow chemists from the pharmaceutical industry, to develop this novel flow chemistry platform," said head of Grant Technologies, Paul Pergande.

"The success of the partnership has resulted in the formation of a new company called Uniqsis, an alliance between Asynt and Grant, to further develop innovative microreaction technology products for academic and industrial pharmaceutical research."



At the cutting edge: Louisa Fordham (financial director, Asynt), Paul Pergande (head of Grant Technologies), Samantha Dunnage (product manager, Asynt), and Martyn Fordham (managing director, Asynt).

Royston firm takes technology around globe

A Royston company is taking ground-breaking East of England microfluidics technology around the world after securing a distribution agreement with a Singaporean firm.

Lab-on-a-chip specialist, Dolomite has appointed Insta BioAnalytik in Singapore to take its cutting edge microfluidics technology into the growing Asian biotech region with the aim of developing greater customer relations in the area.

"This appointment reflects the increasing level of interest that we are experiencing around the world from customers interested in working with us to help

develop a whole new generation of instruments based on microfluidic technology," said Dolomite's commercial director, Gillian Davis.

Dolomite has grown to become a world leader in the field of microfluidics, technology which enables instrument manufacturers to develop smaller, more cost-effective and more powerful analysis systems using very small-scale fluid control.

Using its expertise in microfabrication and microfluidics, Dolomite has recently developed its Micro Mixer chip, a device which enables the rapid and real-time analysis of fluids.

Originally developed for dilution of samples prior to UV analysis, it has also been supplied to customers for nanoparticle synthesis where rapid mixing is important to achieve uniform size or surface properties of nanoparticles, and Dolomite is using its flagship technology to make headway into the emerging Singaporean market.

The company uses a number of futuristic techniques, including photolithography, micro-drilling of fluid ports, and thermal bonding in its microfabrication techniques, capable of creating microchannels

and complex structures in the glass. Its technology enables providers in fields as diverse as environmental monitoring, drug discovery and forensic science to deliver microfluidic systems to the market place, which it sees expanding into SE Asia.

"We aim to introduce the latest technologies to the scientific community in Singapore," said Judy Lim, managing director of Insta BioAnalytik.

"Forming this partnership with Dolomite, a market leader in microfluidic technologies, has allowed us to become an active participant in advancing microfluidic development."

Ford deal for CSR

Tailgating its recent announcement involving the use of CSR technology in Ford's in-car communication system, the Cambridge-based Bluetooth pioneer has now seen its silicon used in Toyota's new telematics and navigation devices.

Toyota's new CSR BlueCore5-powered G-BOOK mX and G-BOOK mX Pro telematics and navigation devices allow users to stream audio to their car stereo system wirelessly from mobile phones, MP3 players and personal media devices, while also providing hands-free capability.

The deal follows CSR's recent collaboration with Ford to power

its hands free system, as the automotive industry moves increasingly toward the inclusion of such systems as standard.

It is estimated that the proportion of cars produced with factory fitted Bluetooth devices will more than treble during the next five years, affording CSR the opportunity to branch out of its dominated mobile handset market.

"CSR is committed to developing solutions for the automotive market and working with top tier companies such as Toyota further highlights the competency and intelligence of our products," said the VP of CSR's Automotive Business Unit, Rafik Jallad.