# Alive and **kicking!**

There's a lot of life left in the UK contract electronics manufacturers sector. By **Mike Richardson.**

At present, the electronics manufacturing sector remains challenging, but rather than stand still, many cems are focusing not only on the ways in which they can fight back against a backdrop of fierce global competition, but also on the opportunities that emerging markets bring.

And while offshore manufacturing may have polarised opinion on whether the UK is still economically viable, for low volume/high value new product introductions (npi) at least, cems have the opportunity to exploit many niche sectors.

Faced with the decision of when to outsource and where, oems must decide what drives their business and what their core competences are. Unless they have a business model that can sustain a fully fledged in house manufacturing facility and keep this investment up to speed, justifying the cost can be difficult – if not impossible.

Instem Technology Services' chairman and ceo Kerry Brown, below centre, begins: "The aim of the oem should be to concentrate on the sales and marketing and conceptual design of the products, leaving the cem to manage the 'sinusoidal wave of demand' affecting people, machinery and/or materials. Investment in manufacturing plant is expensive and the oem will find that the utilisation of this equipment can be low. It's the classic make versus buy decision."

## Spend wisely

According to Brown, the optimum time to outsource is at the npi stage and let the cem use their knowledge of manufacturing to ensure that at the design stage 'product assurance' and costs are taken into account. As to where to outsource, he says it depends on the technology, the volume and the management levels required to ensure the product is available in the marketplace at the right performance levels.

Proqual's business development manager Mike Nolan says UK cems offer an ideal solution for new businesses launching innovative products. "There is no point in raising vast sums of money to invest in expensive production equipment, which will be under used most of the time. Commissioning and running a manufacturing operation makes no economic sense when there are plenty of potential partners and capacity in the UK cem market. It's also a distraction for the management team, which should be concentrating on designing and selling new products."

"We are seeing more oems looking to cems to provide a vital link within their global offshoring strategies," claimed Exception's ceo Craig Wright. "Why expose the business to unnecessary risk when there are well established contract manufacturers that have the track record and expertise to manage the complete manufacturing infrastructure effectively? Many oems no longer see manufacturing as one of their core competences, preferring to work with cem partners to provide them with 'best in class' production values. The big question facing oems is: where do I invest? The answer is, increasingly, in product development and r&d."

G&B Electronics' sales representative Laura McBrown, below right, offers a different slant. "There are many reasons to outsource electronic assembly, the latest as a result of the RoHS legislation," she explained. "RoHS compliant solders now

require research, proven analyses and different techniques and assembly equipment from previous solders. Many companies do not manufacture in sufficient volume to warrant maintaining up to date assembly line and staff. There are numerous companies specialising in quality manufacturing and, unless you can keep a production line in operation full time, it would be wise to consider outsourcing."

When to outsource varies from company to company, says ACW Technology's sales and marketing director Dave Taylor bottom left on previous page). "Companies choose to outsource when it suits their business plan. If the customer decides to outsource based on a financial decision, it can concentrate efforts on product marketing, design and development. If the product requires a lot of engineering support, then it makes sense to work with a UK manufacturer."

Over the last few years, electronics design house Plextek has seen its design requirement change from simply providing initial upfront design and schematics to providing clients with a complete capability from design inception through to production. Plextek's director of engineering services, Tom Ross added: "We normally select a cem suitable for a particular project. All clients and projects are different: some projects are complex, require a lot of handholding and go straight to a UK cem, while others are high volume, so you know they will go offshore."

With 25 years of pcb design experience, G&B says outsourcing has become increasingly popular. "We believe the peak and trough nature of design requirements and excellent subcontract services are leading the market to work in this way," McBrown affirmed. "We send designers into our customers' offices with hardware and software so our clients can interact throughout the contract."

OEMs can enjoy the benefit of letting the cem work seamlessly in the background, but much depends on the relationship and the level of support required.

Taylor: "Many customers have competent design and development engineers, but don't manufacture products themselves; for npi, they rely on our production expertise. There's an overlap of expertise and if you are introducing new products with many change iterations in the design, these meetings of minds happen often."

To help reduce cost, cems must operate as lean as possible. Instem uses the lean across all its functions: jit, reduction in waste, cell layouts and ergonomically designed workstations. This ensures costs are eliminated where possible, but perhaps the largest impact on cost is ensuring the design has optimised the cost of manufacture before it leaves the drawing board.

Plextek's Ross suggests there are many reasons why UK contract manufacturing has a secure future: complexity of product, test requirements, approvals and clients' preference that the product is manufactured only in the UK. "I think people underestimate the advantages of being able to drive to the client to sort out problems."

Taylor reckons we're over the major industry shakeout. "Repetitive high volume products have transferred offshore. Long term, it doesn't necessarily follow that these areas will always be lower cost because of market economies. I believe there will always be markets in the UK demanding high levels of fast service and engineering support as well as those markets that, for security reasons, cannot put product outside the UK. Equally there are customers who feel the way to protect their IP is to keep it in the UK."

Nolan thinks UK cems will still have a role to play because small orders on short lead times are more important to the oem's business than unit price. "They have to be reactive to the volatile nature of the markets that they are in. They regularly make many different products and find it impossible to accurately predict demand."

Brown concluded: "There will always be a manufacturing sector although somewhat smaller than currently exists in the UK. Specialist low volume, high technology/complex products will be the future in the UK."


From the left, Craig Wright of Exception, and Geoff Brooks and Mike Nolan of Proqual.