



Inside outsourcing

The 'where and when' of outsource manufacturing can pose important strategic decisions. By **Mike Richardson**.

Whilst the growth in offshore manufacturing may well have divided opinion on whether the UK continues to be an economical place in which to manufacture, oases of innovative companies still thrive by establishing niches in the burgeoning contract electronics manufacturing (cem) market. Demonstrating the ability to anticipate and respond to commercial and technological developments, today's UK cems can provide solid solutions to the conundrum of where and when to outsource manufacturing.

The right time and place for outsourcing requires the oem to understand what drives their business and what their core competences are. For some, sustaining the cost of an in house manufacturing facility can prove difficult if not impossible. Investment in manufacturing plant is expensive and the oem may find equipment utilisation can be low. It's the classic make or buy decision. Why expose your business to unnecessary risk when there are established cems demonstrating an expertise in managing the complete manufacturing infrastructure?

Shaun Ashmead, managing director of Axiom Manufacturing Services, believes companies outsource for numerous reasons, including reducing overall capital costs, increasing flexibility, economies of scale and accessing the lat-

est manufacturing technology.

"Depending on market conditions, outsourcing allows them to ramp up or scale down production at short notice. It also enables them to manage risk more effectively when moving into new markets. Some oems are hesitant to invest in developing the skills base when diversifying. By using an electronics manufacturing services (ems) provider, the work can be contracted out as and when needed, allowing the business to focus on core competencies."

ACW Technology's sales and marketing director Dave Taylor notes a recent common trend in electronics manufacturing to offshore to lower cost economies.

"Whilst this approach works well for companies with products that are well

established, high in volume and of low complexity, for many manufacturers the reality is not that simple," he cautioned. "In addition, many of those who moved their manufacturing abroad have realised that offshoring isn't necessarily the answer to their problems. Low wages aren't everything and the promised savings from manufacturing in places like Asia and Eastern Europe have, in many cases, not been fully realised when the inconvenience, lack of flexibility and IP risk are factored in."

For new product introductions and prototyping, the benefits of English speaking engineers, communicating in the same time zone and with lead times of days, rather than weeks, mean there will always be a niche for UK based manufacturing.

However, Taylor maintains that often,



there are only specific elements within a product that require the intricacies of UK based manufacture, citing Tandberg Television (TTV) as being a prime example.

"It was agreed that highly complex parts of TTV's products require intimate engineering knowledge and are more suited to UK manufacture," Taylor continued. "The variety of different products also makes wholesale offshoring unsuitable for TTV. However, a significant amount of its manufacturing requirements are mature, repeatable and common to a range of products. These are entirely suitable for production abroad."

This is where a UK based manufacturer with a wholly owned offshore manufacturing plant can really add value. ACW manufactures TTV's complex, lower volume parts, loads the software and completes final product configuration and test in its Southampton facility, whilst labour intensive, repeatable aspects are taken care of in China. "TTV gets the best of both worlds: the economies of scale achievable through offshoring, but without the typical risks and challenges of working with companies based abroad."

China in your hands

Whilst Chinese manufacturing quality standards have been called into question recently, the views of Components Bureau's commercial manager, Andrew Ferrier remain unchanged.

"Making sweeping generalisations about the quality of goods from China, just because one sector has had its problems, is ill informed. We're talking about a manufacturing capability from an area bigger than Europe. In parallel with higher labour costs in the UK, our experience has found that successful oems inevitably suffer from capacity problems. By taking advantage of low cost, quality controlled manufacturing, oems can free up time and money to focus on adding value to the end product to maintain a performance edge over the generic competition."

Ferrier claims that if you are looking to outsource, the most important things you need know about potential suitors are the kind of local representation they have, what guarantees they offer when it comes



to project management and the similar projects have they handled successfully.

"A relevant track record will determine if the project suits the capabilities of the cem," he claimed. "I also believe transparency is vital; we make our production facilities known and open to our customers. It's also important that the oem involves their cem partner at the earliest stage of the design process."

Ashmead agrees, suggesting that by bringing the cem in early, the oem benefits from gaining accurate advice on design for manufacture, procurement and test, which can result in time and cost savings.

"Collaboration at an early stage in the design process can prove beneficial. An ems will have a better understanding of its customer's requirements and can advise what will and won't work well in manufacturing terms. This can have a dramatic effect upon the efficiency of the supply chain in terms of flexibility and risk management. Establishing this relationship early between the project teams also helps by making it easier for the ems to make and test the product, ensure quality and achieve greater efficiency."

According to S2S Electronics' managing director Alan Dukinfield, selection of a suitable cem partner also encompasses the ability to look at whole life costs and environmental considerations. A raft of legislations now means that oems must consider these issues both at the product's end of life and more

importantly at the design stage.

"It's critical to involve the cem at an early stage," confirmed Dukinfield. "During product conception, a cem may offer practical advice on how to resolve costs and environmental impacts by making subtle changes to layouts or materials selected on either the circuit board or indeed on the whole product concept."

Taylor finishes by stating that, if done properly and applied in the right scenarios, offshoring will offer the lowest cost option – but only if managed correctly and for the right products. "A balance has to be struck between the savings of the Far East and the service, speed and a reliability that can only be achieved with a UK supplier."

Ferrier counters, endorsing what he calls China's 'valuable pool of manufacturing expertise'. "It is the 'added value' in the outsourcing equation," he concluded. "It is so much more than simply cheap labour, and if you don't appreciate that then maybe you're looking in the wrong place for your outsourcing." ☺

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Shaun Ashmead, **Axiom**

