Giving technology

Myrddin Jones

Following R&D roles at Racal Research, Jones worked for Hitachi in Europe and Japan. From 2003, he was general manager of Hitachi's European display components business, delivering solutions for industrial, computer, automotive and telecoms markets. With more than 30 years industry experience, Jones is now Lead Technologist at the Technology Strategy Board, responsible for Electronics, Sensors and Photonics.

the right strategy

The Technology Strategy Board (TSB) has hundreds of success stories of all shapes and sizes. Myrddin Jones told **Tim Fryer** it is hungry for more.

The TSB is best known for funding collaborative R&D projects, but as the agency has developed since its formation in 2007, it has cemented its role as a vital cog in British industry, particularly when it comes to exploiting innovative ideas.

Lead technologist Myrddin Jones explained: "We are between the blue skies thinking and industrial development – we help companies with the bit in between." Help typically comes in the form of collaborative R&D projects that may, for example, link an SME with an innovative idea, a larger company, who might be the end customer, and a university which has the enabling technology in house, or the ability to develop it.

In 2011, an evaluation report, commissioned by the TSB and conducted by economic consultants PACEC, looked at the impact these projects were having. It showed that, since 2004 (the programme predated the TSB), the projects created 13,350 jobs at a cost of £36,000 per job. However, the additional revenue generated was in the region of £2.9billion. To look at it another way, each £1 of grant created £5.75 in value add.

Clearly, it is a successful system and, as a consequence, the TSB's budget for the 2013 financial year stood at £440million, with £300m of that aimed specifically at collaborative R&D projects. Jones added: "We are funded by the Department for Business, Innovation and Skills (BIS) and I guess that, in the three letter acronym, we are responsible for the Innovation bit and our primary focus is industry. EPSRC is responsible for funding academia; we are responsible for funding companies. Everything we run will be lead by a company, even if there is a university in the partnership. Our main focus is to exploit innovation that is coming out of industry, or to take great ideas that companies have had and which they want to take on to a higher level of technology readiness."

The starting point for a collaborative R&D project will be a competition, of which there have been 75 in the current financial year. "Usually, competitions are developed from the companies, the trade associations or the Knowledge Transfer Networks (KTNs) telling us we need to be doing something," said Jones. "Then we need to check, if we go ahead with something, whether there is a large global market for it. Is there a good know-how in academia to base this on? Does the UK have the ability to exploit the technology? Does the technology exist in the UK – if it doesn't, there is nothing to exploit. And is the time right to make the investment?"

The KTNs are an important way for the TSB to fulfil its remit; they provide a means to find suitable partners across the industrial and academic sectors. In fact, reverting to the PACEC report, 84% of participants believed one of the main benefits had been that it had 'strengthened collaborative activity'.

Amongst current competitions, there is one looking to support feasibility studies on 'emerging imaging technologies', which will cover 75% project costs up to a value of £150,000. Another competition – 'technology-inspired innovation' – is for smaller studies of up to four months and £33,000 in value. Jones pointed to another major competition, just getting underway. "The most important one for the electronics sector is 'manufacturing electronic systems of the future', helping companies to improve their manufacturing processes in electronics. It came out of last year's ESCO Report, which identified this need. It is a £4.75m project, so we hope to fund 15 to 20 projects of different sizes." All competitions will give examples of the potential projects – printed electronics and chip-on-chip techniques are quoted for the manufacturing competition – but they are not intended to be prescriptive. Companies or teams can come up with their own ideas within the objectives of the competition.

An additional type of project, particularly aimed at small and micro companies is SMART. "Through SMART, we can fund proof of market, proof of concept development and, in this case, we would fund 60% of the cost of the project. So we can make it happen for a company with a great new idea, but without the resources to fund the project. Funding this year for SMART is £40m and there have already been some great successes; it makes such a difference to smaller companies." One key aspect of SMART is that it is open all the time, companies don't need to wait for relevant competitions to be launched.

Does Jones believe there remains a huge amount of untapped potential, both in UK companies and in the academic base? "Absolutely. It is about connecting them, getting them to do important things and then exploit the outcome of those collaborations. I used to work for Hitachi and never realised how many amazing UK electronics companies there were – as a mainstream supplier, we dealt with the top few. I never realised the breadth and depth of what these amazing companies were doing in the UK – and those are the companies we help the most at the TSB."

For those who see the Technology Strategy Board as an organisation for big business, Jones concluded: "When the TSB was set up in 2007, 25% of funding went to SMEs. This year, it will cross the 50% threshold."

Photo: Steve Climpson