

# Green fingers?

**I**t's about a year since the erstwhile DTI established the Technology Strategy Board to work at 'arm's length' from the Government.

According to chief executive Iain Gray, the organisation has come a long way in that year. "Before that," he said, "we were an advisory body; 12 high profile people with limited authority and no ability to change things. Now, the TSB has the authority to bring initiatives under one roof and to develop a coherent strategy for the exploitation of UK innovation."

The advantage of independence, said Gray, means it can operate in a broader landscape. "Not only technology sectors," he noted, "but also within the service sectors, creative industries, finance sector and so on."

Importantly, the TSB has been given a budget – £1 billion over the next three years. "Our remit," he added, "is about developing collaboration and partnerships to benefit the UK."

The TSB has three guiding principles. "Challenge led innovation, technology led innovation and the innovation climate," said Gray. "The challenge led approach is a fundamental part of our strategy." Innovation platforms – cross cutting approaches to challenges – are the most exciting, said Gray. "These will be a framework that we can use to engage with business and academia to come up with ideas to solve challenges such as transport, network security and assisted living – more independence for the elderly."

Leading the TSB's effort within the electronics, photonics and electrical systems (EPES) sector is Nick Appleyard. He said the TSB's effort was grouped around key technology areas, of which EPES was one. "These horizontal technology

*How does the Technology Strategy Board expect to nurture the green shoots of UK innovation?*

*By Graham Pitcher.*

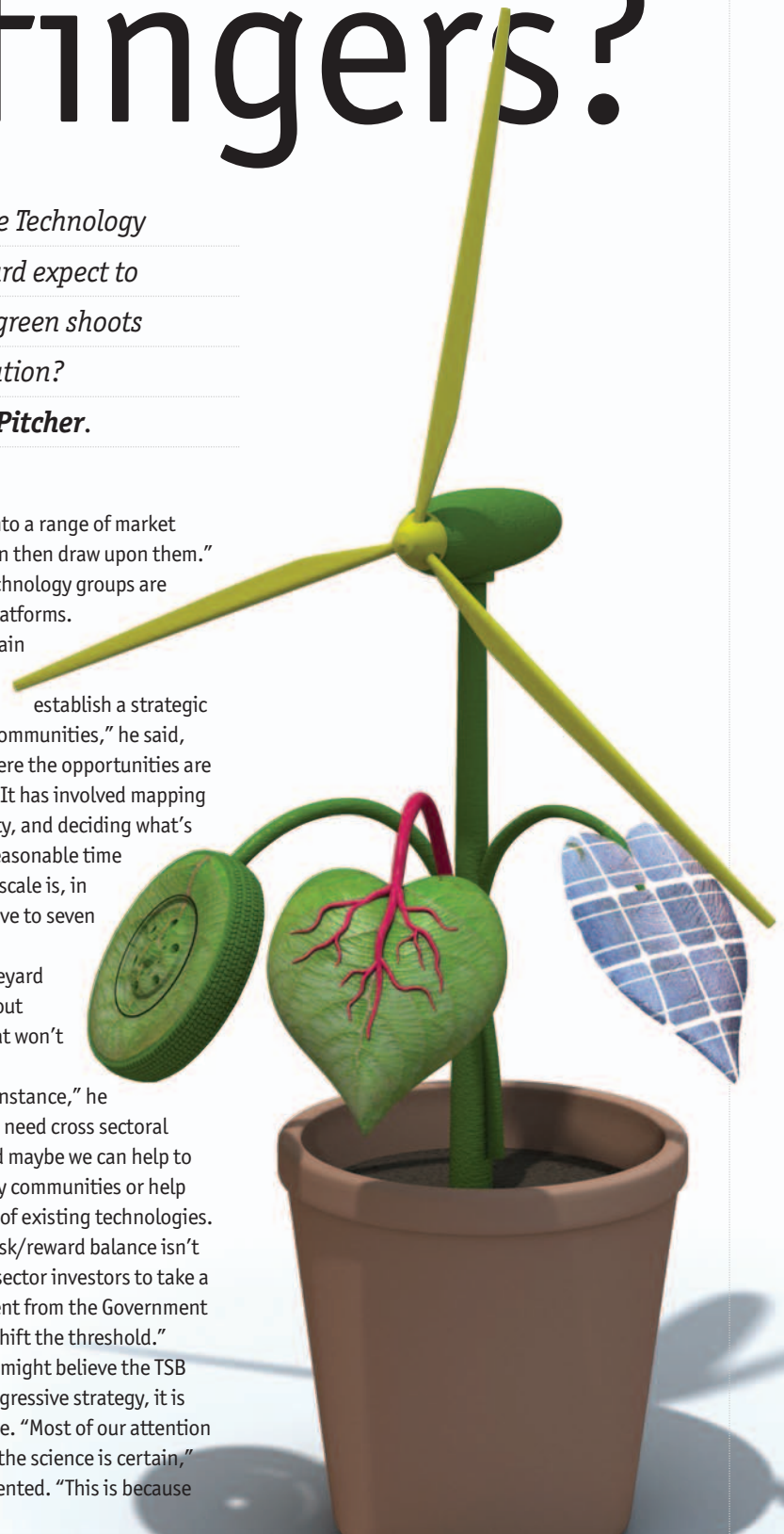
groupings feed into a range of market sectors, which can then draw upon them." Alongside the technology groups are the innovation platforms.

"One of our main tasks has been to

establish a strategic vision for these communities," he said, "determining where the opportunities are to create wealth. It has involved mapping the UK's capability, and deciding what's achievable in a reasonable time scale." That time scale is, in general, within five to seven years.

Broadly, Appleyard wants to hear about opportunities that won't happen without assistance. "For instance," he noted, "they may need cross sectoral collaboration and maybe we can help to link the necessary communities or help with the transfer of existing technologies. However, if the risk/reward balance isn't right for private sector investors to take a chance, investment from the Government side can help to shift the threshold."

Although you might believe the TSB would have an aggressive strategy, it is more conservative. "Most of our attention is focused where the science is certain," Appleyard commented. "This is because





we'll be investing several hundred million pounds; we're talking about things where the technology is already under development, which have moved out of the science base and into industry."

One of the questions which TSB asks itself and the organisations with which it works is 'how do you turn science into something that's practicable and usable'?



*"Everything we do is about collaboration; it's about bringing people with common interests together."* **Nick Appleyard, Technology Strategy Board**

"We have to be active across the spectrum," said Appleyard, "linking companies. Everything we do is about collaboration; it's about bringing people with common interests together."

And the Knowledge Transfer Networks (KTNs) are the first port of call, he said. "Their raison d'être is linking communities – business to academia to government and so on. Beyond that, we can have more focused interventions; research project funding is one example. But the bottom line is getting organisations working together that haven't done so before, with knowledge being transferred where it wouldn't have before."

This approach, at least in the TSB's opinion, will have a better chance of success. "It's going to have more success than trying to push an idea forward in isolation," Appleyard opined.

It's not a one way street, however. "The KTNs feed back into the TSB, telling us what's going on, where there are barriers, updating road maps and so on," said Appleyard. "All this funnels back into our strategic vision."

The TSB wants a sharper focus in the future. "R&D needs to be targeted to opportunities," Appleyard contended. "Do it the wrong way round and there's a higher failure rate. That's the difference between the TSB's thinking and that of previous organisations. We're about answering challenges set by the market, rather than developing technology and finding outlets."

Whilst the focus is five to seven years out, there is a view beyond. "Our emerging technologies desk is charged specifically with the long term vision, determining what will be the key technology application areas in 15 or 20 years."

Does Appleyard think progress has been

made? "Real progress," he claimed, "but it's still work in progress. We have more people to bring into our conversations. There is a need for something wider than local interest groups; something which allows people to talk to others."



He admits the problems become harder at higher levels. "Issues are complex in different sectors, so solutions are different and company sizes are different, as are methodologies. There's not one answer, but we can look at each problem and see how we can make things happen."

Embedded systems is a particular target, being addressed, in part, via the Artemis project. "We need to bring the hardware and software industries together, getting them to collaborate and feed the results into embedded systems markets," said Appleyard.

TSB will be investing €3million this year in Artemis related projects. "Artemis hits a lot of our 'hot buttons'," Appleyard claimed. "It's cross community and, if problems are solved for Europe, everyone benefits."

Another theme is keeping tabs on regulatory requirements. "Not only regulations, but also standards and environmental issues," Appleyard explained. "Every time regulations change, there's an opportunity for early movers to take advantage. By making sure that companies are informed about these opportunities, we ensure they are well placed to take advantage."

Is the UK as bad at innovation as some claim? Gray disagrees. "I don't accept the criticism that says we don't do anything in the UK. Good things happen here and it hasn't all gone overseas. Can we do more? That's what the TSB is about. We want to help UK business and help companies to come to the UK."

Gray is firmly of the opinion that 'business as usual' will not achieve the TSB's vision. "But we welcome the challenge. There's willingness from business and enthusiasm from Government," Gray concluded. "We've been set up at the right time and have the ingredients needed to make a difference." ■

**Gray:** "Business as usual" will not achieve the Technology Strategy Board's vision.

1985: The first .com domain name, symbolics.com, is registered by Symbolics. Microsoft releases Windows 1.0. Acorn develops first RISC processor.

1986: Intel launches the 386 microprocessor.