

Imagineering

Ben Hargreaves visits a company that uses some unconventional techniques to release the creative energies of its staff

Led Zeppelin blares from the speakers, drowning out the hum of a CNC machine in the corner. At a table, a youngish designer is mounting images of a futuristic-looking bar scene on cardboard backing. IMechE member Chris Thomason, who is showing me around "innovation consultancy" PDD's base in Hammersmith, west London, stops, and asks him: "What's the difference between engineers and designers?" The young man grins: "Designers are better."

But the designer hurriedly insists that he is only joking. "In actual fact, there's a lot of crossover between engineering and design," he says. "I have a basic knowledge of how the thing gets made, and the engineer has a basic idea of how it should look."

This view fits well with the ethos of the company. Rather than seeing engineering and design as separate functions, Thomason, who trained as a mechanical engineer but rejoices in the title of chief business imagineer at PDD, makes it clear that he does not view design and engineering as distinct disciplines.

"I look at design and engineering as a continuum," he says. "Where one starts and the other stops is uncertain – it's a blurred approach. We actually encourage our people to move up and down the scale. I sometimes think that by giving ourselves the title 'engineer', or 'designer', we build our own box. Why shouldn't an engineer work on the creative side? They can think just as creatively as anyone else."

Creativity, says Thomason, is highly prized at PDD, which develops and designs products in a variety of sectors, offering services from industrial design to brand development and engineering and simulation – and often, he suggests, it's about taking the road less travelled. He compares most management thinking on

how to solve problems with the route map on an airline's in-flight magazine, with direct lines from point A to point B. But asking unusual questions can lead to a different kind of journey. It is by going off at a tangent that we sometimes produce the most interesting results, Thomason says.

"It's about a mental and physical process of exploration – like the voyages of Captain Cook," he says, drawing a squiggly line on paper. "Sometimes the wind would blow him this way or that way, and when you explore you discover new stuff. You hear about the useful things he brought back, such as the potato and tobacco, but for those there were probably lots of useless things too. The point is that, for every 10 things he brought back, there would be one interesting item. And that's kind of like what we do."

Techniques used at PDD to spur on the creative journey include "brain calming", in which participants are encouraged to sit in silence, responding to triggers given by a facilitator and following their own paths to their conclusion. "If you allow people to make their own connections in their head, rather than brainstorming, which leads a group from one thing to the next, you get a better quantity and quality of ideas," Thomason says.

Such ideas can be fed into the company's concept of "intelligent design", in which research into a customer's needs, sometimes through focus groups, forms the bedrock of developing a product. "It's the opposite of just bashing out products and hoping they will find a market. Intelligent design means understanding your customer beforehand."

Design, Thomason states, is the "link between an idea and a solution," and it covers more areas than we might perhaps imagine. "If you're creating a new human resources policy, or even a budget, that's design," he says. "There are no laws when

it comes to creative thinking. It's possible to outsmart the competition in any area – whether it's the products you sell, or how you manufacture them, or how you design them."

According to PDD, only 45% of ideas that make it to market come from within a company, so it's worth looking at the entire "business pyramid", such as relationships with suppliers and customers, in the quest to innovate. "They can produce as many valid ideas as your own staff," Thomason says.

He believes that design has a crucial role to play as UK manufacturing looks to thrive in the face of competition. He estimates that there are 200,000 industrial designers currently training in China. "They may not be as good as our people, but they are cheaper, so we have to be on our toes. Sometimes it's necessary to ask difficult questions, like do we actually deserve the right to be manufacturing in the UK, what can we do that the cheaper countries can't, and how do we leverage that?"

At PDD, engineers – and, of course, designers – will continue to strive to provide answers to the dilemmas of modern manufacturing.



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