



Dolmen Design has turned 25. Founder, chairman and director Sean McNulty and recently appointed CEO Chris Murphy share some of that quarter of a century experience about what product design is all about. In conversation with Mary Sweetman.

FOUNDER SEAN MCNULTY & CEO CHRIS MURPHY



The design advantage

#1 Global leaders create a continuous pipeline

Dolmen Design works with global players in Ireland's international medical device, ICT and indigenous drinks sectors. One of Dolmen's biggest customers is the Diageo Group, which includes the Guinness, Carlsberg and Smirnoff brands.

For these companies, product design is not ad hoc or stop-start; it's a continual process, ensuring there is always something at every point in the product development pipeline from concept to launch. Sometimes the IP and patents clients generated through their interaction with Dolmen will lead to new product releases; on other occasions, they could be used to block a competitor; and in other instances, it might be a case of the company tucking the design into its back pocket to launch at a later date – when the time is right, says founder Sean McNulty. The point is that they always have full IP store cupboards, with various projects at different points right through the product development pipeline.



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#2 But professional product design is not just for the big guys

Having lost a heifer and her calf due to a difficult calving back in 2010, Niall Austin was all too aware of the sleepless nights spent by farming families during the calving season – and the potential for significant financial loss.

He also had a simple but powerful idea. Having observed that cows' tails go to a specific angle when they're ready to calve, he figured out that a device to measure tail movement could predict the onset of calving. Using funding from one of Enterprise Ireland's €5,000 Innovation Vouchers, he worked on product development for about a year before he called on the team at Dolmen Design.

"During the discovery process, the Moocall design was radically overhauled, mainly due to rapid learning methods implemented on site, on the farm," Dolmen CEO Chris Murphy says. "This resulted in a complete form change to counter the cow's natural curiosity to eat, lick and crush the device."

"We helped to productise it, did the branding and advised on the business model, which centres on a once-off €220 payment for the device and a monthly subscription service, with advice by text."

The Moocall calving sensor launched commercially in January 2015. Since then, over 15,000 sensors have been sold in 30 different countries. The device has scored scores of design awards and was displayed by the British Design Museum, alongside the BMW i8, as a Design of the Year contender for 2015. You could say the rest is history. But that would be to ignore reality, because...

#3 Changing markets can render even great design irrelevant

Ash Technologies has specialised in low-vision magnifiers for nearly 20 years, working with Dolmen Design on five generations of electronic magnifiers to help those with visual impairments. The company's handheld magnifiers provide near magnification, enabling tasks such as reading, writing, crafts, sewing or playing an instrument, while its portable and desktop magnifiers, which come with integrated distance cameras, provide magnification for far-sight activities such as watching TV or sporting events.

In 2012, Ash Technologies' Crystal+ and Crystal XL devices won the prestigious Red Dot Design Award. Job done, you might think. But at that point, it was apparent a significant chunk of the company's business could be lost through the growth of smartphones and e-readers, coming with their own built-in magnification capabilities.

This led to a significant pivot. Working with Dolmen Design, Ash Technologies used its existing strengths to develop a series of products geared towards visual inspection in industry. The resulting digital microscope and measurements systems, offering improved quality assurance and failure diagnosis, open new markets for Ash Technologies in a wide range of industries from electronics and automotive to medical device manufacturing.



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#4 Customer empathy is central to good product design

The post-war and early baby-boomer generations might be getting old, but that doesn't mean they want to be old fashioned. When shown a product aimed at supporting independent living – but packaged as a white device, worn around the neck, with a big red alarm button on it – they recoiled in horror, asking why anyone would expect them to wear a badge that said 'I'm senile'.

A Red Dot Award winner in 2014, the CareClip was developed by Motech with help from Dolmen Design to identify the location of the wearer at any time and report on the user's activity level, a key factor in determining health and wellbeing of older people living on their own.

"The design brief called for a product that could be easily worn, so we developed a simple but innovative attachment method. It can be clipped easily onto clothing, belts or pockets," Murphy says. "The product's contemporary styling was influenced by lifestyle devices to remove the stigma often associated with personal alarm systems." The bottom line: the CareClip looks like a smart device, not a medical product, and users are happy to wear it.



#5 The consumer and the customer aren't always the same

Of course, the consumer and the customer aren't always the same. A player in the household alarms market, HKC supplied what could be regarded as a commodity product, pitched against industry giants like GE. Looking to create a differential to enter the UK market, HKC realised that unlike the Smeg refrigeration or the Aga cooker, to most householders, an anti-intruder alarm is a low-passion item, and they are usually happy to go with the recommendation of the installer.

Recognising this, HKC decided to centre differentiation on making life easier for the true customer – the installer. Its new intruder systems feature enhancements such as a built-in levelling aid, a concealed screw holder ready for action and no separate parts to frustrate the installer up the ladder. The result? HKC's new alarms are 30 per cent faster to install.

#6 The faster horse or the thing that never was?

Asking the customer what they want is essential, but sometimes it is not enough. As Henry Ford pointed out: "If I had asked people what they wanted, they would have said faster horses."

Dolmen Design has become an outsourced R&D department for many medical device companies operating in Ireland. Vasorum's Celt ACD (Arterial Closure Device) is used to deploy a biocompatible stainless steel plug to close an arterial incision following a catheter-based procedure such as the placement of an endovascular stent.

Having completed an initial phase of R&D, Vasorum brought Dolmen on board to shore up and reinforce their proposed patent claims by brainstorming and developing a pipeline of potential designs that could be used to achieve the same results. The ideation session generated a number of directions that Vasorum built into their patent claims to make the intellectual property more robust and difficult to design around.

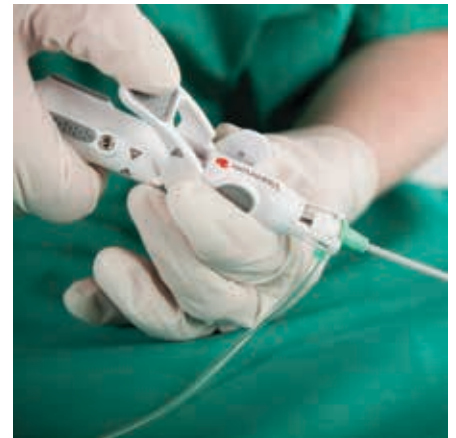
Sometimes the faster horse is exactly what the customer wants. But sometimes, McNulty says, more of a George Bernard Shaw approach is needed, as in "You see things, and you say 'Why?' But I dream things that never were, and I say 'Why not?'"

Product design is about sitting between marketing and R&D, interpreting customers pain points, developing manufacturing specifications, and being pragmatic about pricing and business

models, he says. But sometimes, it's also about doing what designers do best: dreaming, creating and re-imagining.

Dolmen Design recently developed an innovative tap marker for Carlsberg. Key to the design was the combination of the extruded iconic 'hop' silhouette and subtle lighting from within, ensuring that it stood out on bar counters when it debuted in spring 2016. Probably the best tap marker in the world, they quip. But if you had asked Carlsberg drinkers, how many would have figured out that was just what the customer needed?

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Dolmen redesigns itself for scale and UK growth

Dolmen Design has always had overseas customers. But in 2016, the company decided to enter the UK market in a strategic and structured way. Part of the preparation involved formalising a value proposition, whereby Dolmen adds value by becoming involved early in the ideation process rather than simply

making enhancements and providing product specifications for an existing prototype from the company's R&D department.

"Growth will centre on a three-stage process: discover and unearth insights, develop, and then deliver production specifications," Murphy explains. "When planning to scale, we really needed to think about infrastructure, HR and administration. Wide eyed ambition is great, but we had to ask ourselves 'what if we get that huge order?'" The company

currently employs 16 designers.

As the new CEO, Murphy will lead Dolmen Design into this phase. Meanwhile, founder and former CEO Sean McNulty will focus on formalising a process for clients to identify and select the problems or opportunities to focus on in order to create solutions their customers will want to buy.

"For companies the world over, innovation has traditionally been accompanied by high failure rates," McNulty explains. "This is about reducing the major risks

for our clients by testing ideas and assumptions very early in the process and creating the business case before the GO/KILL evaluation."

Having worked in design for 35 years, 25 of them with Dolmen, he says his passion and ambition continue to come from the objective on which the Kilkenny Workshops where he first worked were established: to help Irish businesses add value through the design. "It's a strategy that can still enable major leapfrogging in the market," he says.