

WINNING SALES OVERSEAS

**ALSO INSIDE****FULL BOARD**

Building a strong and balanced board for global business

SHOPPING FOR A UK PRESENCE AND CUSTOMER BASE

Increasing numbers of Irish companies on the acquisition trail in the UK

COMING UP TRUMPS FOR CONSTRUCTION

Irish opportunities in a bullish US construction market

DO FOUNDERS MAKE THE BEST CEOs?

Should founders continue as CEO when the company targets serious growth?

ON THE MONEY

Fintech entrepreneur Noel Moran on business, banking and building innovative products

THE MARKET

BALANCING FOOTPRINT AND FOCUS





THE EXPERTS' EXPERT

We are Actavo, an engineering solutions company with global reach. We operate in diverse and demanding markets, offering a breadth of services, from energy to events, business support to building solutions, communications to construction. We manage, maintain and mobilise the vital infrastructure that everyone depends on.

We always look to innovate, to perform better and to think smarter.

We are the experts' expert.

Going Beyond



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THE MARKET

Enterprise Ireland

The Plaza
East Point Business Park
Dublin 3
T: +353 1 727 2954/2000

CORPORATE MARKETING & COMMUNICATIONS MANAGER

Conor O'Donovan
E: conor.odonovan@enterprise-ireland.com

EDITOR

Mary Sweetman
E: mary.sweetman@enterprise-ireland.com

PROOFREADER

Mary McCauley

DESIGN & PRODUCTION

Boyle Design Group

PRINTED BY

Turner Print Group

Readers may email comments and suggestions to the.market@enterprise-ireland.com

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New 3-year strategy focuses on ambition and scale

Enterprise Ireland's 2017 to 2020 Strategy – Build Scale, Expand Reach – was launched this January, with targets for 60,000 new jobs over the next three years and an increase in exports of €5bn per annum by client companies.

The new strategy will be supported by an increasing use of diagnostics and toolkits to help companies identify where their greatest needs and best opportunities lie, together with a new model for client engagement that targets supports based on agreed needs and scaling milestones.

“Enterprise Ireland has set ambitious targets in its new 2017 to 2020 strategy, which aims to support more Irish companies with global ambition to achieve greater scale and expand their global footprint,” said Enterprise Ireland Chief Executive Julie Sinnamon. “This new strategy aims to increase client company exports to €26 billion per annum by the end of 2020, with an ambitious target to grow the level of exports to over two-thirds outside the UK over the period.”

A key pillar of the strategy centres on increasing reach into new markets and targeting a 50 per cent increase in exports to the Eurozone. This will be supported through an increase in Enterprise Ireland Eurozone in-market expertise; an improved range of supports and services to help clients capitalise on Eurozone export opportunities and increased sectoral and one-to-one client engagements to drive export opportunities in the Eurozone.

There will also be an increased focus on tapping into and building scale in emerging international sectors through increased development and sharing of market intelligence and new connectivity initiatives to promote increased cluster formation and peer-to-peer networking. In addition, since companies that plan before they move make better decisions, Enterprise Ireland is introducing



JULIE SINNAMON, CEO, ENTERPRISE IRELAND
ANNOUNCING THE AGENCY'S END-OF-YEAR
RESULTS FOR 2016 AND LAUNCHING THE NEW
2017 TO 2020 STRATEGY.



Exports
+€5bn to €26bn p.a.
67% outside UK



Spend in economy
+€4bn to €27bn p.a.



Jobs
+60,000 new jobs
Sustain existing jobs



Research & Development
+50% in R&D spend to
€1.25bn p.a.

a strategic market review process to help companies identify the new markets where they have the best opportunities for success.

At the same time, the new plan responds to Brexit by seeking to help clients maintain and embed their market positions in the UK, with initiatives such as a new UK Market Development Plan, focussing on growth opportunities, and tailored, sector-by-sector and one-to-one client engagements.

A second central pillar of Enterprise Ireland's 2017 to 2020 Strategy is to drive innovation in Irish enterprise to reach €1.25bn in R&D expenditure per annum by 2020. The plan introduces new innovation supports for the development of novel products and services. It also seeks to improve access to Irish public sector procurement opportunities through the Small Business Research Innovation Fund, and it introduces an Innovation Toolkit to help clients identify innovation opportunities with the best potential return on investment.

In addition, the strategy seeks to drive productivity and operational efficiencies within companies through increased access to competitiveness and lean programmes; capital, innovation and skills funding; and targeted direct and indirect investment to drive company scale.

There is a focus on skills and leadership development with a new Skills Needs Analysis Toolkit to help companies identify skills gaps; increased access to leadership and management development programmes and increased availability of graduate programmes for SMEs.

In the areas of entrepreneurship, the strategy seeks to support new and existing start-ups to achieve scale; to increase the level of entrepreneurship regionally by 25 per cent; and to increase participation in start-ups from under-represented groups, including female entrepreneurs and spin-outs from higher education institutions.



Employment in Enterprise Ireland-supported companies now exceeds 200,000



Exceeded
200,000
Enterprise Ireland
supported jobs for the
first time

.....

2014-2016
**highest level of
employment**
over any three-year period



.....



Jobs
45,592
full-time jobs created
(target 40,000)

Anouncing Enterprise Ireland's end-of-year results for 2016 this January, CEO Julie Sinnamon noted that a total of 19,244 new jobs (full and part-time) were created during the year in Enterprise Ireland supported businesses. When job losses are taken into account, this translates to a net increase of 9,117 jobs for 2016, bringing the total number of people employed by Enterprise Ireland supported companies to 201,108 – a record high for the agency.

Almost two-thirds of the new jobs were outside Dublin, and all regions recorded increases in employment. Digital technology, construction and fintech were among the top performing sectors for new jobs creation.

New campaign promotes global ambition

Enterprise Ireland's #Global Ambition marketing campaign is aimed at inspiring companies to have the ambition to scale-up and reach international markets by showcasing the global ambition of eight 'emerging stars' of Irish business drawn from a diverse range of sectors.

Launched at International Markets Weeks in October 2016, it is running across broadcast, print and online media; PR and events. It also features a media partnership with The Irish Times and a dedicated website resource – ambition.enterprise-ireland.com

The campaign highlights Enterprise Ireland's support available at three major steps for business: start, innovate and scale and centres on the idea of shared success between client companies, Enterprise Ireland and the Irish economy.



**Asavie wanted to
simplify connectivity.**

**We helped them meet
the right people.**

Asavie had the ambition to innovate with the Internet of Things before most people had even heard the term. Partnering with Enterprise Ireland gave them the access to similarly brave people and the support to grow from a tech start-up, to a tech grown-up.

If your business has the ambition,
we'll help you take it global.
Go to ambition.enterprise-ireland.com

#GlobalAmbition



**ENTERPRISE
IRELAND**



Feedpods debuts at Singapore Zoo

Feedpods has debuted in the elephant and baboon enclosures at Singapore Zoo. Formerly known as FarmFeeder, the installation began in 2009 as a solar-powered, robotic feeding machine, spun-out from Galway-Mayo Institute of Technology. The Feedpods' product evolution now sees the company catering not just for agriculture, but for a variety of sectors such as the equestrian and zoo markets.

Other zoological clients include Miami, San Francisco, San Diego, Chester, Dublin and Belfast zoos, where it enables keepers to use an automatic timer to feed animals throughout the day and night; feed remotely from a mobile phone or landline; feed smaller amounts more often, and adjust feeding schedules quickly in cold weather. Benefits for the animals include precise portion control, which as well as saving on feed costs, can reduce obesity. Moreover, the disassociation of humans from feeding reduces begging.



CADET FOUNDER DICK ANDERSON AND NEW CEO HUTCH JOHNSON

Glen Dimplex acquires Vancouver-headquartered Cadet Manufacturing

County Laois-headquartered global electric heating player Glen Dimplex has acquired Cadet Manufacturing, a Canadian heating products company founded in 1957.

Founded and wholly owned by the Naughton family, Glen Dimplex has operations and manufacturing bases in Ireland, the United Kingdom, Europe, North America, Australasia and Asia. It was established in 1973 as a manufacturer of oil-filled radiators, with seven employees. Today, the company owns more

than 30 companies, with upwards of 10,000 employees.

Fergal Naughton, Glen Dimplex CEO. Naughton noted that adding Cadet to the Glen Dimplex roster will allow the global company to expand its service well beyond its current scope. Glen Dimplex currently owns another electric heat manufacturer, Dimplex North America, based in Cambridge, Ontario, which manufactures many additional products that Cadet will take to market.



Capitalflow promises €300m funding for Irish SMEs

Independent finance provider Capitalflow has promised to commit €300m in finance to Irish SMEs. The company has said it will finance small and medium sized businesses through a variety of financial products, including asset finance, invoice finance and asset-based lending, providing SMEs immediate access to finance for working capital management, day-to-day expenses, sales and business growth.

Capitalflow was established by former Close Brothers managing director, Harry Parkinson and former Bibby Financial Services managing director, Ronan Horgan, in November 2015 and began operating in April 2016. The company is

headquartered in Dublin with offices in Belfast.

Backed by London-based private equity firm Pollen Street Capital, Capitalflow has provided €50 million in the past six months to over 230 Irish SMEs.

"This is a clear indication of the need and demand for finance among Irish SMEs," said managing director of Capitalflow Ronan Horgan. "We see particular demand across the construction, transport, manufacturing and tourism sectors.

"We process funding applications and make a decision on financing in days, rather than leaving SMEs waiting weeks for a response," he added.

A woman with dark hair, wearing a black patterned top, stands with her hands on her hips in front of large red agricultural machinery. The word 'ABBEY' is visible on the machinery in white capital letters.

**Abbey Machinery wanted
to sell worldwide.**

**We helped make them a
global name in their field.**

Abbey Machinery had the ambition to be one of the world's leading manufacturers of agricultural machinery. Partnering with Enterprise Ireland gave them access to buyers in Europe, Australia and New Zealand, enabling them to sell their highly-specialised equipment to international markets.

If your business has the ambition,
we'll help you take it global.
Go to ambition.enterprise-ireland.com

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START



INNOVATE



SCALE

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Shimmer enters deal with Indian company Essen Technologies

Shimmer has entered into a joint-venture with Indian Essen Technologies, which will see the Dublin company's sensor platform incorporated in Essen's wearable Electro Cardiogram monitor Heartwear product.

Almost 68 per cent of India's population live in rural areas, where only 2 per cent of doctors are working, making physical access to clinics and medical expertise extremely difficult and inaccessible for most of the population.

The joint venture will form a new company called EsMedtek, which will produce a novel wearable electro cardiogram (ECG) monitor, designed to allow a clinician to monitor a patient's ECG from a remote location outside of a hospital setting, for example in their home, or a care home. The venture is projected to be worth more than €3.5m over three years to Shimmer and is expected to create 15 jobs.

It was officially announced during Enterprise Ireland's trade mission to India. Thirteen Irish companies from the aviation, financial services, pharmaceuticals and health, ICT and education sectors travelled on the mission to Mumbai, Bengaluru and New Delhi.

US-based Legacy Lifestyles chooses Oneview Healthcare for senior housing

Legacy Lifestyles has signed a contract with Oneview Healthcare that will see the Irish company's technology deployed in senior housing units in the USA. With offices in Florida, Arizona and Ontario, Canada, Legacy Lifestyles is a fully integrated company for the development, construction and long-term management/ownership of senior housing communities in North America. The company has acquired six development properties to date with construction having commenced on the first community and an additional five communities due to break ground by mid-2017.

The Oneview software will benefit patients by tracking and monitoring any ailments or sickness they may have. In addition, residents will be able to exchange messages with medical personnel, nursing staff, access a wide range of information and entertainment via the internet, view live free to air and cable TV and stay connected to family and friends via live video streaming services such as Skype.

In 2016, Oneview Healthcare listed on the Australian Stock Exchange, signed a multi-year contact with New York University's Langone Medical Center and announced the establishment of its Northern American Headquarters in Chicago. The company says that by the end of 2017, its platform will be live in a minimum of 20 healthcare facilities worldwide, including six of the fifteen top ranked hospitals in the US. On the back of this, Oneview plans to employ 50 new staff in Dublin and a further 50 across its international offices.

Actavo's Scottish deal promises benefits for consumers and utilities

Irish-headquartered engineering solutions company Actavo has commenced a five-year partnership with ScottishPower to help deliver the majority of a smart energy metering installation programme to 1.5 million homes in Scotland.

The UK government requires smart energy meters – which automatically send gas and electricity usage readings back to the energy supplier – to be installed in every UK home by 2020, bringing an end to estimated billing.

From the perspective of climate change mitigation and future planning, smart meters will provide utilities and policy makers with data and infrastructure needed to deliver a new energy system for the UK.

Moreover, with their free-of-charge meters, customers should find it easier to control and manage how they use energy at home, empowering them to identify cost savings and make informed behaviour changes.

The contract will see Actavo supply in the region of 780,000 meters to homes across Scotland's central belt, incorporating Glasgow, Edinburgh and Fife. It also includes a training programme designed to upskill a team of 200 metering operatives.

"There is a real scarcity of smart meter installers across Scotland," explained TJ Malone, CEO of Actavo's Network & In-Home Division. "This training programme comprises a novel partnership between Actavo, three colleges – City of Glasgow College, Fife College and South Lanarkshire College – and Energy Skills Partnership (ESP)."

ACTAVO AND CITY OF GLASGOW COLLEGE STAFF, DISCUSSING THE SMART METER TRAINING PROGRAMME





KAYMED NAMED UK OF BED MANUFACTURER OF THE YEAR

UK bounce for Irish bed maker

Best known to Irish consumers as the manufacturer of King Koil and Odearest mattresses, Irish company Kaymed has received a significant bounce in the UK market, winning the top prize of Bed Manufacturer of The Year 2016/17 at the UK National Bed Federation annual gala.

In its sixth year, the award is contested by the leading lights of the industry, with 60 entries submitted by UK and Irish manufacturers. This is the first time an Irish company has won. In selecting Kaymed, the judges referenced the company's winning strategy of product innovation, substantial marketing investment and impressive sales results across a range of retail customers over the past year.

New, dynamic guide helps companies access Middle East markets

Enterprise Ireland's Market Access Guide for the Gulf States has been transformed from a static publication to a dynamic, interactive website. The combination of four key elements – an Interactive Map, Market Readiness Assessment, Market Access Guide, and Growth Sectors – aims to help Irish companies determine how to do business in the Gulf region and strategically identify market opportunities.

See <http://bit.ly/2hFxYXH> or at www.enterprise-ireland.com, by following the links from Export-Assistance and International-Office-Network to Access Gulf-States.

Mainstream to build wind farms worth \$2.2bn in Vietnam

Irish wind and solar firm Mainstream Renewable Power has agreed to build and operate wind projects in Vietnam worth a total of over \$2.2 billion, as the country looks for new energy sources to meet soaring demand.

The announcement came on the sidelines of President Michael Higgins' visit to the Southeast Asian nation. It expands upon, and adds a price tag to, an agreement back in September.

Vietnam's electricity demand is expected to grow 10.6 per cent annually in the next five years, according to its trade ministry. The three wind farms would generate an annual total of 940 megawatts (MW) of power, Mainstream said in a statement.

It added that it would partner with GE Energy Financial Services and local firm Phu Cuong Group in its main Vietnam project, an 800 MW wind farm worth \$2 billion. The first phase of the project, for 150–200 MW, is expected to reach financial close in 2018.

Mainstream will separately partner with Vietnam's Pacific Corporation in two other projects in the southern province of Binh Thuan, with a combined 138 MW in capacity and \$200 million in investment, the statement said. The first phase of these projects is also likely to reach a financial close in 2018.



Irish company makes it into Forbes Fintech 50

Aztec Exchange has been named on Forbes second-annual Fintech 50. The list features companies that use technology to disrupt “the way we save, invest, spend and borrow.”

The Dublin-headquartered company, with operations in Los Angeles and Miami, was selected from a group of 300 companies and was one of just 22 new companies to join the ranks.

Aztec Exchange's flagship service is PayMe. With PayMe, suppliers sell their invoices and receive working capital within days rather than weeks or even months. It is available as a white-label service and can be integrated into e-invoicing networks.

“Our customers are typically paid within 24 hours for invoices they select for early payment,” explains CEO of Aztec Exchange, Edwin Hagan-Emmin. “For corporate debtors, it enhances their relationships with suppliers as well as provides options to extend trade payable days without putting suppliers at risk.”



CurrencyFair saw
the market.

We helped them
capture it.

CurrencyFair had the ambition to give ordinary customers and businesses access to the preferential exchange rates normally reserved for banks. Partnering with Enterprise Ireland gave them the expertise and support to scale quickly and become a global player in the consumer fintech sector.

If your business has the ambition,
we'll help you take it global.
Go to ambition.enterprise-ireland.com

#GlobalAmbition



START



INNOVATE



SCALE



ENTERPRISE
IRELAND



Grafton Architects scoops first ever RIBA International Prize

The Universidad de Ingeniería y Tecnología (UTEC) in Lima, designed by Grafton Architects, has won the first ever RIBA International Prize from the Royal Institute of British Architects.

The Irish architecture firm Grafton Architects, in collaboration with local partners, Shell Arquitectos has created a new campus building for Lima's specialist engineering university, established to give young Peruvians access to qualifications, professional opportunities and to encourage social mobility.

Speaking about the building, the RIBA jury said: "UTEC is an exceptional example of civil architecture – a building designed with people at its heart. Grafton Architects has

created a new way to think about a university campus, with a distinctive 'vertical campus' structure responding to the temperate climatic conditions and referencing Peru's terrain and heritage... To its close neighbours, it is a series of landscaped terraces with clefts, overhangs and grottos, a modern day Machu Picchu."

RIBA President Jane Duncan added: "UTEC is an exceptional addition to the city of Lima, and a project that will inspire other architects and universities all over the world...It stood out from all other entries from around the world, clearly demonstrating its understanding, engagement with and concern for those who are lucky enough to live near, visit, teach and learn in it."

DPS to design €100m manufacturing plant in US

Irish engineering group DPS has won a major contract to provide architectural, engineering and project management services for a new €100m manufacturing facility in Massachusetts, United States for biotechnology company Moderna Therapeutics.

The new facility in Norwood, designed by DPS Group, will enable the manufacture and supply of clinical grade messenger RNA (mRNA) therapies and vaccines and will

carry out all manufacturing activities – from raw materials to active pharmaceutical ingredients, formulation, filling and finish. Moderna plans to open the Norwood facility by early 2018.

DPS, and its US architectural partner TRIA, are providing full architectural and engineering design for the Norwood, Massachusetts facility and are also providing construction, management oversight, qualification and validation services.

Mott MacDonald to develop hydro-related climate resilience guidelines for World Bank

The Irish engineering practice Mott MacDonald has been appointed by the World Bank to develop technical guidelines to improve climate resilience for the hydropower and dams development community. The guidelines will be a practical set of methods and insights that enable projects to be resilient to future climate change risks as they proceed to completion.

The new guidelines will be produced over the next 12 months and will clearly map out a workable process for incorporating climate change and disaster risk management into the project appraisal, design and operation of hydropower developments, a key component of low carbon energy.

"This is a very high profile appointment, which further enhances both our working relationship with the World Bank and our credentials in sustainable hydropower," said, Mike McWilliams, Mott MacDonald's head of hydropower. "This assignment will also give us another opportunity to work closely with other international financial institutions and agencies, the International Hydropower Association (IHA), members of the International Commission on Large Dams (ICOLD) and key industry stakeholders."

The project builds on the Irish company's recent World Bank commission in the water and sanitation sector.



Facebook's Oculus acquires Cork-based InfiniLED

Facebook-owned virtual reality (VR) firm Oculus has acquired InfiniLED, a Cork based spin-out from the Tyndall National Institute.

InfiniLED specialises in inorganic LED (ILED) that it claims is only one-tenth the size of human hair. Inorganic, micro-LEDs can be driven at higher brightness and typically have longer lifetimes than their organic counterparts.

Oculus VR, which was acquired by Facebook in 2014 for \$2 billion, is best known for the Oculus Rift, which provides next-generation virtual-reality solutions for gaming, immersive movies and educational experiences. InfiniLED's technology has potential to help Oculus increase the efficiency of its VR headsets and bring down costs.

Solvotrin Therapeutics to commercialise patented 'active iron' technology

Solvotrin Therapeutics is to begin the immediate commercialisation of Active Iron, a 'next-generation' iron supplement technology, designed to maximise the health benefits of iron. This advance is the culmination of collaborative research and scientific investigation by Solvotrin Therapeutics and scientists at Trinity College Dublin.

Dietary iron deficiency is the most common and widespread nutritional disorder worldwide. Up to one-quarter of the world's population are anaemic, many due to dietary iron deficiency.

Chiefly, this is because traditional iron supplements are notoriously tough on the stomach and bowels, causing a host of problems including stomach cramps, nausea and constipation. In addition, traditional iron tablets are often poorly absorbed by the body, putting the

consumer to expense and potential distress for no gain.

Solvotrin's patent-protected Active Iron technology addresses one of the biggest obstacles in managing iron deficiency – patient compliance resulting from intolerance and adverse reactions on the digestive tract. It has been shown in clinical studies to be gastroprotective and deliver superior bioavailability to conventional iron supplements.

"The imminent launch of Active Iron presents a major scientific breakthrough for combatting iron deficiency with an over-the-counter iron supplement," explained Solvotrin CEO Pat O'Flynn. "The scale of the opportunity for Active Iron is truly enormous. Iron deficiency is a public health condition of epidemic proportions and is one of the biggest causative factors for ill-health."

Ireland secures €336.7m from EU for research and innovation

The latest results on participation in Horizon 2020, the EU's €75 billion programme for research and innovation, reveal that Ireland has won €336.7m in competitive funding up to the end of September 2016. This figure is an increase of €85m, from the previous result of €251 million up to November 2015.

Higher education institutes accounted for €198m or 59 per cent of the total. Companies won €104m or 31 per cent, with €74m of this going to SMEs.

The just-published European Commission's annual monitoring report for 2015 also reveals that Ireland recorded the second highest success rate in 2015 for applications to Horizon 2020 (13.1 per cent), along with Belgium (also 13.1 per cent). The best performer was Austria (13.9 per cent).

SiriusXT to use €3m funding to commercialise innovative microscope

SiriusXT, a spin-out from UCD's School of Physics, has secured €3 million in the latest round of Horizon 2020 SME Instrument Phase 2 funding.

The company was co-founded in 2015 by Dr Kenneth Fahy, Dr Fergal O'Reilly and Dr Paul Sheridan following 10 years of research developing technology that underpins a novel soft X-ray tomography (SXT) microscope, which is now being commercialised by SiriusXT.

This is the first commercial lab-scale SXT microscope of its kind in the world, allowing researchers to illuminate whole single cells or tissue samples and produce 3D images that cannot be produced in any other way.

The company plans to use this funding to take its technology from a current prototype to a first product with a pilot system being trialled by an early adopter in the UK in 2017.



NURITAS FOUNDER DR NORA KHALIDI

Nuritas gains funding and investors to fight global diabetes epidemic

Irish-based biotech and R&D company Nuritas has received over €3m from the European Union's Horizon 2020 fund to support the final stage of its research and the commercialisation of what would be a world-first development in diabetes prevention.

This will include a series of Irish-based clinical trials being rolled out over the next 18 months. Pending regulatory approval, Nuritas hopes to have its new peptide integrated into functional food products and available on the market as early as 2020.

Separately, Nuritas confirmed U2 band members Bono and The Edge as investors in the company, as it announced plans to triple its workforce in Ireland to over 60 in 2017. Other high-profile investors in Nuritas include Salesforce Founder and CEO Marc Benioff, tech entrepreneur Ali Partovi and New Protein Capital, a Singapore-based institutional investor.

Nuritas says the additions to its workforce in Ireland will include roles across R&D, business development and other key support functions to drive global growth across many major health areas. The company also plans new hires and expansion of its US operations following on from the recent opening of its first US office in San Francisco in 2016.

Nualight launches new generation of cool LED lighting products

Building on the successful launch of the Orion product range, refrigeration lighting pioneer Nualight, whose customers include retail giants such as Sainsbury, Co-op, Tesco and Prodega, has now launched a range of LED tubes aimed squarely at the entry level LED and retrofit market.

Arctic, as the names suggests, is a specialist LED solution suitable for refrigeration and low temperature applications.

"With Orion, we were able to offer our OEM and retail partners with a price competitive and industry leading LED luminaire solution, which complemented our existing and more premium Pure and Perfino ranges. Now with Arctic, we have a range specifically designed for facility managers, installers, shopfitters and electricians who need a specialist LED lamp solution from stock to integrate into existing or even new build installations," says David Dawkins, SVP sales and marketing. "This means as Nualight, we can cover all requirements and all budgets, whether it is a refurbishment project, a new case build, retrofit or bespoke."



UL PRESIDENT DON BARRY AND TAOISEACH ENDA KENNY

€86m science and engineering research institute launched at UL

The Bernal Institute has been launched at the University of Limerick as an €86 million science and engineering research facility, comprising 20,000m² research space in the new science and engineering zone at UL.

The new institute is named for John Desmond Bernal, one of the most influential scientists of the 20th century, who was born in Nenagh, County Tipperary.

It incorporates UL's Materials and Surface Sciences Institute, the Stokes Research Institute and the Bernal Project into one unified flagship centre, hosting over 260 researchers working across research themes in advanced materials, manufacturing, processing engineering and fluid dynamics. A key aspect of the institute is the recruitment of world leading researchers as Bernal professors, with seven of a total of ten new professorial chairs filled.



€2m deal helps HBAN-backed Wicklow Wolf brew up 20 jobs

HBAN (Halo Business Angel Network), the all-island organisation responsible for the promotion of business angel investment is investing €2 million in craft beer company, Wicklow Wolf.

HBAN's Food Syndicate is one of the leading stakeholders in the deal, which is also supported by Enterprise Ireland and a number of private investors.

Wicklow Wolf's owners will use the investment to open a new, larger brewing site in Wicklow, which will enable a 15-fold boost in production capacity. This will support Wicklow Wolf's plans to expand domestically and into international markets including the US, Asia and Europe.

As it grows over the next five years, Wicklow Wolf aims to increase its staff base by 20, increasing its role in Ireland's burgeoning craft beer industry, which is expected to see a turnover of €58m in 2016 – up 48 per cent from the previous year.

Founded by Quincey Fennelly and Simon Lynch, the company started brewing in August 2014 and sold its first beer one month later to The Harbour Bar in Bray, Co. Wicklow. The business now supplies to 150 pubs and 550 off-licences across the island of Ireland.



CARRICK THERAPEUTICS CEO DR ELAINE SULLIVAN

Oncology start-up attracts \$95m funding

Carrick Therapeutics Ltd, a new Irish-based venture in cancer treatment, has secured \$95m in funding to bring together world-class cancer researchers and drug development experts, with the aim of building Europe's leading oncology company.

The \$95m funding round was led by ARCH Venture Partners and Woodford Investment Management with participation from Cambridge Enterprise Seed Funds, Cambridge Innovation Capital, Evotec AG, GV (Google Ventures), and Lightstone Ventures.

The company's vision is to target the molecular pathways that drive the most aggressive and resistant forms of cancer and build a portfolio of first-in-class treatments that are tailored to an individual patient's tumour.

Led by chief executive Dr Elaine Sullivan, a former Vice President for research and development functions at both Eli Lilly and AstraZeneca, the company links a network of clinicians and scientists in internationally leading research institutes and hospitals. Irish participants include Prof William Gallagher in Dublin and Professor Prof Michael O'Dwyer in Galway.

Energy start-up secures €30m funding from Swiss investors

Irish energy services company UrbanVolt has agreed a funding line of an initial €30 million with Swiss investment advisor, SUSI Partners. In the first agreement of its kind in Ireland, the SUSI Energy Efficiency Fund co-invests with UrbanVolt in energy efficiency projects being installed in SMEs across the country.

Established in 2015, UrbanVolt provides 'light as a service' for no capital investment from its client companies. UrbanVolt funds, fits and maintains LED lighting solutions for large commercial properties and shares the money saved by the business as a result.



Irish doll-maker Arklu signs book deal with Penguin

Having already become the first doll in space, visiting the International Space Station as part of the Principia mission, Donegal-based high-potential start-up Arklu's Lottie doll is now to become the subject of a series of Penguin books.

The Lottie doll line was launched in 2012 by Arklu cofounders Lucie Follett and Ian Harkin in response to parents' concerns that their daughters were growing up too fast and were too worried about body image. Lottie has won several industry awards based on her body being sculpted on the average measurements of a nine-year-old child, her clothes being age appropriate and her activities being typical of a nine-year old, such as having adventures and playing with her pet dog and pony, as opposed to being a pop star or shopping or nightclubbing. Lottie is now on sale in 30 countries.

In October 2016 Arklu agreed a three-year publishing contract with Penguin. The first books to be released under the partnership are due to launch in May 2017. The company says that the books will be an extension of the 'Lottie, Finn and friends collection', and will follow the adventures of three nine-year-old friends as they navigate family, friendship and childhood. Two books will be published, one a fiction title for young readers and one a sticker dressing-up book, which will be focused on stargazing and space. A further two titles, one fiction and one activity book, will then follow in September 2017.

Arklu managing director Ian Harkins said that following the deal, the firm will be introducing almost 20 new products in 2017, including playsets, storage units, playmats and buildings.



Kyckr raises €3.4m from Australian IPO

Kyckr, a fintech start-up founded by Irishman Rob Leslie, has raised AUSD\$5 million after listing on the Australian Securities Exchange (ASX) in Sydney. Immediately before listing, the company had acquired Global Business Register (GBR), which is based in the ArcLabs innovation centre in Waterford Institute of Technology.

Although Kyckr has listed on the ASX, Ireland will continue to be the global IP tech hub with the rest of the world supplying business development support, according to Leslie. Kyckr's cornerstone automation client is Bank of Ireland. Its venture into the Australia Pacific region is to support the needs of automation prospects currently at hand. The company is the second Irish business to float on the ASX in 2016, after Oneview Healthcare in March.

Following the IPO, Kyckr has announced the completion of phase one in the development of its corporate identity

blockchain service. The service, being built using the Credits the blockchain infrastructure provider, was recently awarded the first UK Government G-Cloud framework agreement for the supply of blockchain platform-as-a-service on the Digital Marketplace. The Credits platform is also used by the Isle of Man Government.

"Being able to provide authoritative corporate data that has been made immutable and secure through deployment on the Credits' blockchain platform will open up many new opportunities in financial services, controlling supply chains and other regulated industry sectors," Leslie said.

Separately, the company has been a winner in the blockchain category in both a recent Canadian Institute Fintech Challenge, aimed at matching six of the world's hottest fintech solutions with the top fintech priorities of some of Canada's leading financial institutions, and in the BankTech Asia FinFive Challenge.

€15m in funding for Irish medical start-up Inflazome

Dublin-based Inflazome has successfully closed a financing round worth up to €15 million. Two leading life sciences venture capital firms, Novartis Venture Funds and Fountain Healthcare Partners, co-led the financing.

Inflazome is currently developing oral drugs to treat inflammatory diseases by targeting inflammasomes – the innate immune system receptors and sensors thought to drive many chronic inflammatory conditions from Parkinson's disease to asthma.

"Considering the breadth and depth of possible applications, the commercial potential for a successful small molecule inhibitor of this key target is clearly in the billions of dollars range," said Dr Manus Rogan, co-founder and managing partner at Fountain Healthcare Partners.

Plan around those red-letter days for 2017

Calendar is a super, free online resource available at the popular world clock and international meeting planner website www.dateandtime.com. It can generate online and pdf calendars of the year ahead for almost any country in the world from Afghanistan to Zambia, with normal business days highlighted in black, typical non-working days in grey and public holidays in red.

You'll quickly see, for example, that Russians postpone their major winter celebrations to the first week in January, and Orthodox Christmas Day is on 7 January.

February 27 to March 1 is carnival time in Brazil, and, come September 7, businesses will be closed for the country's Independence Day.

Swedes will be shutting up shop for their national day on 6 June and don't expect many to be in town in Stockholm on June 23 when mid-summer's celebrations kick off.

Meanwhile, in Saudi Arabia, Eid al Fitr (end of Ramadan) celebrations start on June 26, and you can wish your Saudi business partners a happy Saudi National Day on 23 September.

See www.timeanddate.com/calendar

FEBRUARY

Aviation Festival Asia

February 20 to 24

V: Singapore

E: siewhwa.tan@enterprise-ireland.com

Benelux Pharmaceutical Conference & Networking Event

February 23

V: Belgium

E: david.corcoran@enterprise-ireland.com

GulFood 2017

February 26 to March 2

V: UAE

E: nick.marmion@enterprise-ireland.com

2017 North American Counsellor Tour

February 26 to March 3

Overseas education

V: Ireland

E: rory.odoherty@enterprise-ireland.com

Mobile World Congress

February 27 to March 2

V: Barcelona, Spain

E: robert.bushnell@enterprise-ireland.com

MARCH

MRO Russia & CIS 2017

March 2 to 3

Aviation maintenance, repair and operations conference

V: World Trade Centre, Moscow, Russia

E: Kate.Kostyunina@enterprise-ireland.com

Consortia Seminar 1

March 3

Public procurement infrastructure and construction event

V: Ireland

E: tonia.pollen-behrens@enterprise-ireland.com

PDAC Toronto 2017

March 5 to 8

Trade show and investors' exchange for mineral exploration and finance organisations

V: Toronto, Canada

E: dermot.reidy@enterprise-ireland.com

Meet the Buyer – Grangegorman

March 7

Public procurement infrastructure and construction event

V: Dublin

E: tonia.spollen-behrens@enterprise-ireland.com

CONEXPO-CON/AGG

March 7 to 11

International trade show for the construction industry

V: Las Vegas, USA

E: brendan.roberts@enterprise-ireland.com

China Pharmaceutical Association of Plant Engineering

March 8 to 10

Annual conference

V: Beijing, China

E: angela.zhang@enterprise-ireland.com

Australia/New Zealand St Patrick's Day Events

March 12 to 20

V: TBC by NC

E: mary.kinnane@enterprise-ireland.com

Iran ICT Market Study Visit

March 13 to 16

V: Islamic Republic of Iran

E: abdull.ali@enterprise-ireland.com

St Patrick's Day Business Receptions

March 13 to 18

V: United States

E: paul.burfield@enterprise-ireland.com

Volvo Suppliers Day

March 15 to 16

V: Sweden

E: victoria.boiko@enterprise-ireland.com

2017 London St Patrick's Day Reception

March 16

V: London, UK

E: gavin.mcwhirter@enterprise-ireland.com

BMI Higher Education Fair March 17 to 19

V: UAE

E: terry.mcparland@enterprise-ireland.com

Smart City Technologies - USA

March 20 to 24

At the California Association of Local Economic Development Conference

V: Sacramento, United States

E: fergal.omoore@enterprise-ireland.com

Digital Strategies for International Markets

March 23

V: Ireland

E: eoin.osiochru@enterprise-ireland.com

IEFT Higher Education Fair Turkey

March 25 to 27

V: Turkey

E: terry.mcparland@enterprise-ireland.com

Digital Healthcare Market Study Visit - USA

March 27 to 29

V: United States

E: donal.cummings@enterprise-ireland.com

Meet the Buyer - National Children's Hospital

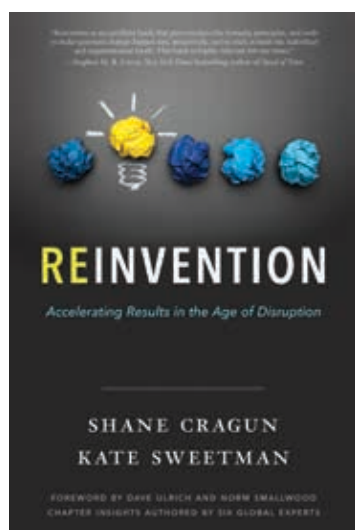
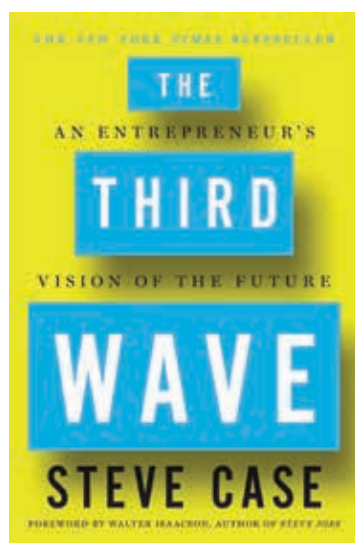
March 28

V: Dublin

E: tonia.spollen-behrens@enterprise-ireland.com

As 2017 begins, we asked Bookbuzz' Ron Immink to list his top business book picks for the year. But he came back with a better list: the best books from any year, for businesses right now.

Best business books, ever



Climate Change: What everyone needs to know by Joseph Romm is too important to ignore. If our planet heats up above 4°C, our children will not have children. At the Sustainability Gathering in November 2016, it was referred to as a potential “Syria on steroids”. Sustainability will become the new black, backed by heavy regulation, consumer demand and large multinationals setting new standards.

This brings us on to my next pick: *Leading From an Emerging Future* by Otto Scharmer and Katrin Kaufer. This book majors on businesses finding their “transformative purpose”. This is an issue that heavily resonates with our clients. When you tackle staff engagement, it eventually boils down to why you matter and why the company you work for matters.

Seeking to make future trends meaningful, *Augmented* by Brett King; *The Third Wave* by Steve Case; *The Inevitable* by Kevin Kelly; and *The Fourth Industrial Revolution* by Klaus Schwab all say the same. Change is coming. Change is coming fast. Moore’s law, Metcalfe’s law and the tech version of the Cambrian explosion are going to push AI, IoT, augmentation, robotics, health, 3D printing, computing, data, etc., to highs (or lows) we have never seen before.

The big trend we have seen in 2016 is about mindfulness. In my view *The Code of the Extraordinary Mind* by Vishen Lakhiani is a perfect antidote to deal with the onslaught of change coming our way. But for those with a fear of fluffiness, a more hard-nosed mindfulness read is *The Navy Seal Art of War* by Rob Roy.

Peter Hinssen’s *The Network Always Wins* touches on three core topics that our clients are struggling with right now: innovation and organisational structures and VUCA (volatility, uncertainty, complexity and ambiguity). The key message? The static structures of today will have to be reinvented for the age of fluidity. To deal with

VUCA, we will have to learn the aerodynamics of the era of networks. Companies will have to get in touch with their inner innovation networks, understand how to turn them fluid, and avoid becoming rigid corporate structures. If your market is a network, you need to become a network – fluid, networked, flat organisationally and agile.

Other books strong on innovation are the *The Business Model Innovation Factory: How to stay relevant when the world is changing* by Saul Kaplan; *The Science of Serendipity* by Matt Kingdon, or if you want a book from 2016, *Reinvention: Accelerating results in the age of disruption* by Shane Cragun and Kate Sweetman.

Then there is *Frugal Innovation*, which looks at how the current business practices do not work – not enough return, too slow, high failure rate, underused IP, too complex and most important, not delivering what the customer or your employees want.

If Joseph Romm’s *Climate Change* does not keep you awake, then *Future Crimes* by Mark Goodman, which reveals the dark side of technology, will. It will also heavily influence your technology shopping list.

The best book on productivity this year was *Working Clean* by Dan Charnas, which explains how to apply the techniques of a Master Chef to your work. This, incidentally, is not that different from how Navy Seals approach their work.

If all these titles are too much, we have some good news. When we prepared for our Bookbuzz MBA-in-a-day, we summarised hundreds of business books and came to the conclusion that all you need is to read Peter Drucker. Forget 2016. He wrote *The Practice of Management* in 1954. Combine that with a sense of exponential speed from Kevin Kelly’s *The Inevitable* and you will be ready for 2017.

Bookbuzz distils the best thinking from business books written by the best minds to advise organisations on strategy. See www.bookbuzz.biz



On the money

Noel Moran has founded two fintech businesses in less than a decade; one in the UK and the second in Ireland. For *The Market* readers, he gives Simon Cocking his two cents' worth on business, banking and building innovative products.

What's your background?

I'm from Navan, Ireland. I left school when I was 17 and worked for several Irish banks before moving to the UK to work for numerous banks and credit card companies, including MBNA, RBS, and the Co-op. I became fascinated with cards and the fact you could earn revenue passively from cardholder fees, globally!

I set up my own prepaid company in 2008. For the last four years, we have been listed in the Sunday Times Tech Track 100 as one of the fastest growing UK tech companies.

Our first office was my kitchen table, and my first employee was my girlfriend. The business grew, and we now have over 140 employees across the group. The girlfriend is now my wife, and our offices are in Westminster and Navan.

And the companies?

I established PFS (Prepaid Financial Services) in 2008 to provide prepaid card solutions to consumers and businesses. PFS is a UK-based prepaid provider,

e-money issuer and MasterCard provider. We are authorised and regulated as an e-money issuer by the Financial Conduct Authority (FCA) in the UK with an e-money license, covering 35 countries. PFS operates as an issuer, BIN sponsor, technology integrator and programme manager. This makes PFS unique in the prepaid and emerging payments space, as we are a genuine end-to-end prepaid services provider.

We are large enough to be considered as a major (rapidly growing) player in the industry but small enough to care and support our clients and their customers with a personalised bespoke service.

eCOMM was established in 2014 in Navan to provide online payment services to merchants/retailers. It's the acquiring division of Prepaid Financial Services Ltd. eCOMM Merchant Solutions targets online merchants. Outside of the banks we are the only regulated entity providing this service in Ireland. We are already servicing Irish clients such as One4all, 3Money and Cloud Payments.





On the money: new Irish fintech start-ups to watch

Ten new Irish fintech start-ups that received investment through Enterprise Ireland's Competitive Start Fund last year completed a three-month development and mentoring programme at Dogpatch Labs in the chq building, IFSC, Dublin, in December.

The companies, ranging from insurance to banking to wearables, include:

- id-Pal
- WeSavvy
- CyberRiskAware
- AssureHedge
- Martello Low Carbon Solutions
- Ciaran McGuckian
- UCompare
- Tucr
- Inship

Earlier in 2016, the companies were each awarded €50,000 in equity support through the Competitive Start Fund, as part of the Government's IFS2020 strategy. They received membership to Dogpatch Labs, in partnership with Ulster Bank and access to the Ulster Bank Innovation Solutions team.

As part of the programme, the ten companies also participated in a series of masterclasses provided by industry experts from the Fintech and Payments Association of Ireland (FPAI) and led by Ulster Bank and Citi on topics that included compliance, sales, partnering and fund raising.

**Tell us about the recent expansion of the Irish company**

eCOMM has quickly grown to the present headcount of 53 employees, and we will be hiring 30 more. To expand, we moved office to cater for larger numbers; made key hires in the Irish office; and filled senior positions in fraud, compliance, customer service, project delivery, IT, analysts, finance and business development.

Support from Enterprise Ireland's Jobs Expansion Fund enabled us to grow faster than anticipated. Our product offering is now ahead of schedule, allowing us to create more jobs for 2017.

Will you be impacted by Brexit?

Brexit impacts us greatly. We are UK-regulated and rely on passporting rights into Europe. We are applying for a license from the Irish regulator to reduce our business risk if the UK ends up without access to the Single Market.

We will never completely move the company back to Ireland, though. We will always need a presence in London, as the heart of the financial services and payments industry in Europe.

Can you offer any business tips?

Have good people around you. No good business is built by one individual. Also, provide the full value chain to your customers and have control of all elements within the value chain so no one else controls your fate. If not, you are only as good as your weakest third-party provider.

What challenges did you face?

Early on, no one would invest money into the company to grow it. I spent months trying to raise funds. I then gave up trying, as it was time consuming and detracted from running the business. It was the best decision I made. You don't always need money to build a successful business. Now we get four to five approaches weekly!

Regulation is another challenging area, and one that costs a lot of money to manage across countries.

The financial regulator in the UK is proactive about opening banking to non-bank entities like us. Open API access is coming, and this will change the landscape of banking.

We are the third largest issuer for MasterCard in Europe, and we are aiming to become number one in the next two to three years.

What would make life easier?

Open access to the clearing system would be good; we'd like the regulator to be more proactive and encourage similar access to the clearing system as is provided to banks. SEPA clearing currently takes one to two days. In the UK, it's done in real time.

How do you see fintech innovation evolving?

It will be smaller companies that succeed. They have more space to innovate, and it is easier for them than the banks. We can get companies live with our product in 12 weeks, delivering white label solutions far faster than a bank.

Cash will become less meaningful in future, but not money. It is a generational thing, and the next generation will bank on their phone and be more aware of non-standard bank offerings and providers.

The financial regulator in the UK is proactive about opening banking to non-bank entities like us. Open API (application programme interface or 'go between') access is coming, and this will change the landscape of banking. Our business is growing rapidly, and the whole industry too. As everything goes online, it's a good time to be a fintech innovator.

What's your ambition for the future?

I am very driven. We built this business with no external financing. As the second fastest growing financial services company in the UK, PFS is unique, achieving this growth organically, without external funding.

We are the third largest issuer for MasterCard in Europe, and we are aiming to become number one in the next two to three years. Our current license allows us to issue in 35 countries. I would like to obtain new licenses for five or six new countries next year and to expand our product offering into alternative payments, current accounts, SEPA payments, direct debits and faster payments in the UK. The business will grow for the foreseeable future, and there may also be some acquisitions.



Founders typically have passion, entrepreneurial bravery and creativity in bucket loads. But Marie Boran poses that sometimes-painful question: are they best positioned to continue as CEO when the company leaves the start-up phase and starts to target serious growth?



Do founders make the best CEOs?

“My role was to manage the chaos.” This is how Eric Schmidt has described his time as CEO of Google, the global technology giant that began life as a Stanford University start-up, founded by Larry Page and Sergey Brin when they were PhD students. While Google was incorporated in 1998, Schmidt came on as CEO in 2001, following the first round of funding but, crucially, before the initial public offering (IPO).

At 46 years of age, Schmidt was significantly older than the twentysomething web researchers and brought with him over 20 years of software development, management and marketing experience, having worked with Sun Microsystems, Bell Labs and Novell amongst others. Page and Brin, as founders, were the ideas people or the whizz kids; they were the ones who developed product while Schmidt, as he put it, “organise[d] the world around them”.

If we look to the Google model of success, then every start-up that dreams big would do well to headhunt the older, wiser CEO who can take them to the next level. On the other hand, there are plenty of successful founder/CEOs out there, and Mark Zuckerberg is surely the poster boy. Like Page and Brin, Zuckerberg’s start-up was an idea born in university settings, but Facebook never sought to hire an outside CEO because Zuckerberg took on this role himself and remains CEO.

It is worth noting, of course, that in the case of Google, Schmidt stepped down as CEO in 2011 when co-founder Page finally felt he was ready for the job himself. And being CEO of Facebook is certainly not a one-person job because as early on as 2008 Zuckerberg brought on Sheryl Sandberg as COO (chief operating officer), a role defined as second-in-command. Like most things in life, it’s not always a clear-cut issue.



DERMOT CASEY, VENTURE INVESTMENT
LEADER AT THE NDRC



STEPHEN McNULTY, CO-FOUNDER AND
CEO OF AMBISENSE



MARK ZUCKERBERG, FOUNDER, FACEBOOK



"While some founders may come from a professional business or marketing background themselves and readily adapt back to putting those structures in place, others don't or are simply not interested in this."

Nuanced decision

Someone who knows the nuances of these decisions only too well is Dermot Casey, venture investment leader at the NDRC (National Digital Research Centre) where his job involves mentoring start-ups and helping them grow. Casey also has many years of personal experience within startups: he was COO and CTO of social news agency Storyful and, working alongside journalist turned entrepreneur Mark Little, he helped grow the fledgling start-up from 2 to 35 people.

"Start-ups have to grow up to be successful, and this involves bringing in different skillsets at different phases, bringing in staff as it matures. Once a start-up reaches 15 to 20 people, it needs professional structures put in place," he says.

"While some founders may come from a professional business or marketing background themselves and readily adapt back to putting those structures in place,

others don't or are simply not interested in this. We would see companies coming in where the founder is somebody with deep expertise from a technology background and needs a commercial partner."

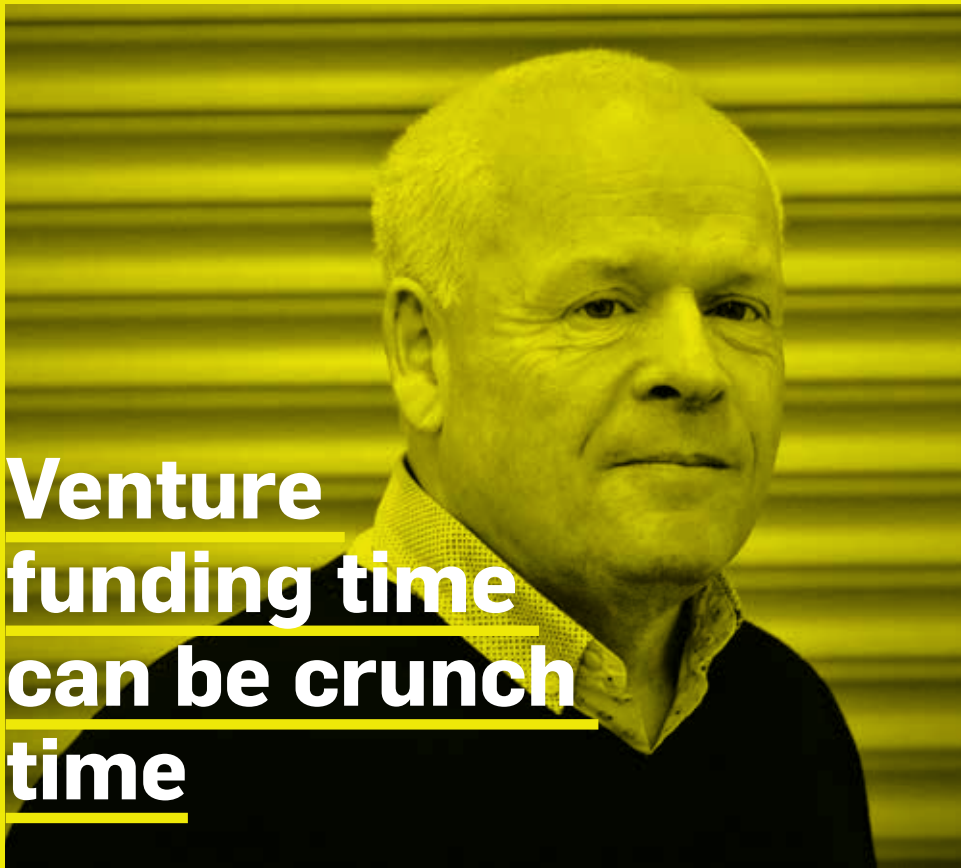
The early stages

Stephen McNulty is the co-founder and CEO of AmbiSense, a start-up designing and manufacturing smart sensors and networks for gas monitoring. McNulty is also a Dublin City University MBA graduate with a passion for all aspects of cultivating a successful start-up.

"Not surprisingly, as someone on the founding team at AmbiSense, I believe that a CEO should be someone from the founding team. The main reason I think this is that in the early stages of any business you are trying to find your place in the world. You have an idea that you are trying to articulate, and you probably need to go through a number of iterations of your business plan before you get it right."



Venture funding time can be crunch time



It is very much dependent on the individual situation and the strengths and experience of the founder.

STEPHEN MCDONALD, CEO, OPTRACE

It is often at the stage when seed funding has been acquired, and it is time to buckle down and look for serious VC funding that the pressure of being CEO becomes apparent.

Optrace, which makes serialised holographic labels for anti-counterfeiting and brand identification started as a spinout from the Dublin Institute of Technology with a research-based team and was established in 2013 by Stephen McDonnell who came on as CEO.

"I had been looking for something to spin out and saw that the team at DIT had developed a certain level of technology. I licensed and set up the company at the same time, and then we established ourselves within the NDRC," says McDonnell, who describes himself as a professional CEO with 20 years of experience in setting up and growing start-ups.

"The VCs and funders like to see somebody there with [business] experience who can lead or direct the project going forward and tend to be reluctant to leave it to founders [whose background is purely scientific or technological]. Having someone with prior experience on board makes it much easier to get the funding."

There are, of course, challenges to coming on board and joining a well-established start-up team: "Coming on as a CEO is an outside role. There is a group of scientists or technologists who are all close knit, and you have to win them

over and get them to understand what you're trying to do," he adds.

Gillian Buckley, investment manager at Western Development Commission, says she finds that this is very much dependent on "the individual situation and the strengths and experience of the founder(s)".

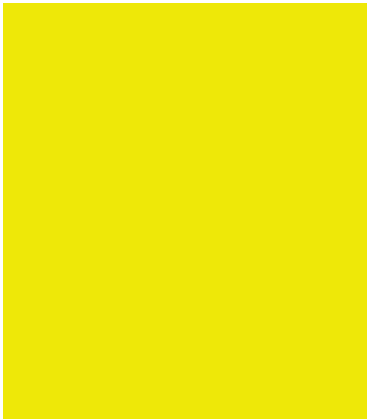
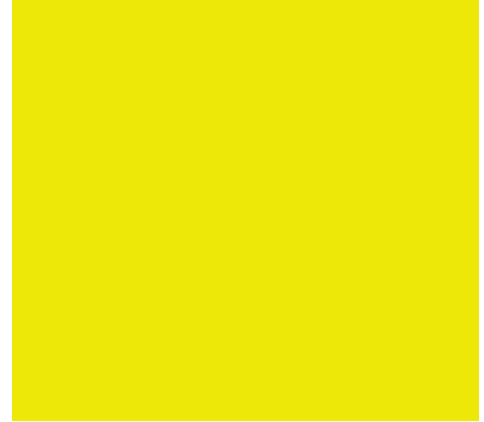
"It is often the case that the founders are very strong tech-wise but may lack broader commercial expertise and experience, and it may well be in the best interests of the company and the founder(s) to bring on board a 'professional' CEO to drive the business forward. As an investor, we would very much want to see founders open to bringing in an outside CEO if it was felt that this was the best way of developing and growing the business."

One Irish-founded company that chose to go with an outside CEO at this make-or-break stage was Movidius (recently acquired by Intel). Paul Thurk, managing director with Arch Venture Partners Europe, an investor in Movidius, indicates that at a certain point, bringing on an experienced CEO is very helpful: "It's critical to recruit an A-team to execute on the incredibly challenging task of launching novel technologies (often enabling new markets in the process).

"The best CEO is someone with proven leadership and industry experience, someone that's 'been-there-done-that' and 'knows-it-cold' and it certainly impacts our decision to invest."



LARRY PAGE, FOUNDER, GOOGLE

GILLIAN BUCKLEY, INVESTMENT MANAGER
AT WESTERN DEVELOPMENT COMMISSION

"Not everyone is comfortable with leading a team when a company grows to 40 or 50 people and it is at this stage that founders can sometimes feel the urge to move on or step aside."

Professional CEOs, says McNulty, don't do start-ups per se: they don't run two or ten person teams, they run 100-person teams. If you have "struck gold" and are on the path to becoming a very large entity, then you do have to re-evaluate your skillset and the skillsets of the people involved.

"You have to ask yourself: are we the right people to scale this, or do we need some help?" And this, perhaps, is the key to any start-up's CEO dilemma: know what it takes to scale and then you will know what kind of people it will take to get you there.

Traits of a good CEO

There is no one single ideal personality type suited to being the perfect CEO but there are certain traits, says Terence Bowden, community and business development manager for DCU Alpha, an innovation campus housing a mix of start-ups and established companies.

People talk about IQ, Bowden says, but EQ is equally important: "A good CEO needs to have high emotional intelligence."

"Not everyone is comfortable with leading a team when a company grows to 40 or 50 people and it is at this stage that founders can sometimes feel the urge to move on or step aside. This is the stage when the CEO can change: when it is scaled up and you need a different CEO to take it to the next level."

When it comes down to it, there is no perfect candidate and even the best CEO needs a good team around them. As the NDRC's Casey says: "There is a certain skillset involved. Denis Brosnan (founder of the Kerry Group) said that every successful management team needs three roles: a visionary, a doer, and a son of a bitch. It is possible to have one or two of these traits, but you rarely see all three rolled up into one person."



Why I moved aside to become CFO

Marie Boran asks Cathy McGennis, co-founder and current CFO of business analytics firm Presidion, about her decision to put ego aside, prioritise the best interests of her business and leverage her personal strength in finance and numbers.

When did Presidion decide to seek out an external CEO? Presidion is 20 years old. As a co-founder, I was also the CEO from 2007 to 2014. In 2013, as a result of expansion plans, we ended up doubling our turnover. At the time, we had further ambitious growth plans; whereas, for the previous 10 to 15 years we had just grown organically.

At this stage, we had also increased earnings to invest in the business. That same year, I participated in Enterprise Ireland's Leadership4Growth programme with Cambridge University. It was during the programme that I had time to step outside the business and evaluate.

How did this impact upon plans for Presidion's growth? On the one hand, we had ambitious growth plans, and on the other was our organically grown management team. We had to ask: is it structured correctly? Do we have the right CEO and management in place? As part of this process, we determined that we would benefit from having external expertise; somebody to put in place the structures needed to scale the business.

Can you describe the process of hiring a CEO? The first step was to decide that we needed an external person for the role of CEO. To be able to self-evaluate and ask 'Am I the right person to do this?' means you must put your ego aside. We looked at what our ambitions were and what qualities would match those.

The second step, of course, is deciding who that person should be. It was a long and

detailed process because we had to be sure it was the right person: someone who had similar values to us as well as the expertise and the energy. Just as importantly, trust was a crucial factor. We chose Pierre Baviera, and he has been on board for two years now.

During this second step, we brought external people on board to help us because it needed to be an independent process. It is easy to simply recruit someone that you like, but ultimately you must recruit someone who is right for your company and who can drive it forward.

Was it challenging to decide what role to transition to? My background was suited to CFO (chief financial officer): I am a numbers person; I studied Management Science in Trinity College Dublin. Also, since we started the business, it had always been my role to look after finances so this felt like the right fit. Aside from this, working alongside Pierre, I work on any projects that play to my strengths. My co-founder Barry McIntyre is director of innovation, which again, plays to his strengths.

Is there a settling-in period with a new CEO? One of the biggest challenges is to have clearly defined roles and not be tempted to get involved outside of your own role unless asked. It is an interesting and potentially challenging dynamic where we report to the CEO on a daily basis and he in turn reports to the board, on which we sit. This requires a high level of emotional intelligence, which we identified in Pierre during the recruitment process.



To be able to self-evaluate and ask 'Am I the right person to do this?' means you must put your ego aside. We looked at what our ambitions were and what qualities would match those.



Fulfilling global ambition requires focus coupled with realism and the conviction to sometimes say no, writes [Mary Sweetman](#).

Balancing footprint with focus

In sales, saying no can be the hardest thing. Sales people are simply not hardwired – nor generally incentivised – to turn down an order. But companies that want to achieve sustainable growth need to maintain a constant focus on margins and profits coupled with a realistic evaluation of operational capacity.

REJECTING LOWER MARGINS

Until recently, Waterford-based Keltech would have been classified as a sheet steel fabricator with an ‘If it’s metal, we’ll make it’ philosophy, admits Business Development Manager Seamus Lawlor.

“We basically pitched at every opportunity that came our way, from a bracket at 5c to high-value components. It was a fiercely competitive market. We had lots of competitors in the UK and were winning business based on price. A margin analysis showed it was simply not sustainable.”



"In the period 2013 to 2014, we made the decision that things needed to change. I was coming to the end of the International Selling Programme and becoming heavily involved in sales and identifying that classic sweet spot based on the recognition that not every opportunity could be for us."

That evaluation took the company to the point where it has slimmed down its offering to just four areas: acoustic enclosures with fuel integrated bases for OEM vehicle manufacturers; integrated fuel and hydraulic tanks; overhead guards and integrated cabins; and telecommunication enclosures.

At the same time, the company implemented lean strategies throughout the operation, with four manufacturing cells now mirroring the product offering.

The move might seem radical, but Lawlor says that the risks were calculated. "We weren't new in any of these areas. We had been working in the telecommunications area for 20 years and in the hydraulics areas for 15 years, but as part of a wider package of manufacturing services for clients."

Moreover, the strategy came largely from the customer base. "Spending increasing time on the road, doing pain diagnosis with existing customers, we found they all shared some commonality. They were all looking to increase output and to reduce stock levels."

In response, Keltech has sought to produce more of the supply chain fully integrated, plug and play, for its clients. For power generation customers, for example, Keltech supplies an integrated canopy, which reduces build time for the customer from between eight and 10 hours to just half an hour. "The customer had to procure 50 line items, now it's a one-line item, and Keltech manages all of the supply chain and the cash."

An additional pain point among heavy vehicle manufacturers was concern that higher fuel system operating pressures were leading to increasingly lower tolerances to residual contaminants in the fuel tank left over from the manufacturing process.

So Keltech has developed a post-painting, cleaning-station step. After that, Keltech performs the final fit out and seals the tank. The process provides OEMs a sufficient level of confidence to directly install the tank.

"This has gained a huge amount of traction. Our orders have grown from 150 tanks per week to a projected 550 tanks per week at the end of Q1, 2017."

As things stand, Lawlor admits to being a little apprehensive about Brexit. But he adds: "We would be dead in the water without this strategy. It's enabled us to turn a corner. Our pipeline is radically reduced, but the value is far greater."

IDEAL CUSTOMERS ONLY

Margin analysis might reveal you're wasting time on low-value products that add little to the bottom-line. But what about the time wasted trying to sell the right product to the wrong person?

John Beckett, who famously developed Ryanair's website at just 19, is now in his 30s, with a string of successful start-ups behind him. His current business, ChannelSight, aims to short cut the customer's buying journey – traditionally, a funnel-shaped model that started with an influencing event, usually an ad campaign at the top, and ended with a sale at the bottom. He describes the company as an 'e-commerce enabler'.

By putting 'buy now' buttons on all kinds of digital content, from Facebook posts and tweets to a video page or brand website, ChannelSight enables brands to sell their product online at the moment the customer first engages with it, as opposed to the old model where they saw something they liked and had to click elsewhere to buy it.

"I don't build anything until I have a customer," Beckett says. "ChannelSight's first client was Philips, and we got a commitment they wanted it before we built it. That gave us our reference and we could replicate it with other customers by asking: what problem does it solve and who else has that pain?"

For ChannelSight, signing up a new customer is a six-figure deal that follows a consultative sales process, which typically takes a year or more to close. So chasing a prospect that ultimately can't or won't buy is a massive waste of resources.

To keep the sales team on target, the company has developed four buyer personas. Prospects must fit one of these persona types if they are to qualify as a potential sales lead.

The case for sometimes saying no

Veterans on the Irish business scene understand the dilemma companies face when determining whether to stick to the core or go for more. Edward McCloskey, founder of Irish Breeze, has said that it has never been his ambition to "be in the maximum amount of countries worldwide", describing that kind of thinking as "vanity". Instead, he would prefer to pick the right markets and become a significant player in those markets. For WaterWipes, one of his relatively new products, the plan was to start in a few countries and not rush into anything, to "keep within our growth margins, because we're still a small company in a big market".

Likewise, Aran Candy founders Peter and Richard Cullen weren't afraid to say no to Wal-Mart, when the retail giant came to them with an order that would have pretty much absorbed all of their Jelly Bean Factory's capacity. Having learned from a previous business failure, Peter recalls not wanting any one single customer to 'own' him. Instead, they negotiated with Wal-Mart to take half the order and found a company in the Netherlands that could fulfil the other half. In 2014, Peter Cullen was still smiling, having sold the majority share in Aran Candy for a tasty €15.5m, while leaving his son Richard in place as MD and holding a minority share.





"If they don't fit the profile, we don't try to sell to them. Our sales guys don't have unlimited time, so we have to be very strict on that."

JOHN BECKETT



"We have sharpened our key account matrix, with different scoring systems to better identify the companies in our current base that we can grow from."

KATIE O'BRIEN

"If they don't fit, then we don't try to sell to them. Our 10 sales guys don't have unlimited time, so we have to be very strict on that," Beckett explains.

Some marketing gurus recommend depicting buyer personas with stock images or illustrations and giving them nicknames and hobbies of the type 'John is the CMO of a large multinational, he is a frequent flier and plays golf in his spare time...'

ChannelSight stops short of this. "We are not that fluffy," Beckett says. But his sales people have all four personas imprinted on their consciousness and are almost as familiar with them as they are with work colleagues. "We have their posters all over our walls," Beckett adds.

Once the sales team starts engaging with a qualified lead, they can quickly classify them based on one of the four personas, and this dictates the pitch that follows.

One of ChannelSight's personas, for example, is the CXO. This could be the CEO or the head of marketing or digital.

Another persona is the influencer; this might be an employee lower down the food chain, who can't make the sale happen independently, but can help the sales team build a relationship with someone who can.

The sales script is obviously different for the CXO than for the potential customer who has to sell the solution to their boss to get the deal across the line. "You need to give the influencer a value proposition that can help them to sell your product," Beckett explains.

For ChannelSight, developing the four personas – and, equally, the accompanying four pitches – involved lots of conversations within the sales team. But it also involved reaching outside the company through many interviews – with both customers and those who walked away – to explore why particular customers bought, what the specific clinch factors were, the objections and why certain deals were lost.

It's a continual work in progress, Beckett adds. "Existing assumptions have to be challenged to ensure they still hold true, the mix gets refined and sometimes we will uncover something new."

Ideally, companies should use this approach as part of a wider, structured sales process based on classical elements like lead

generation, qualification, opportunity pitching, CRM and email marketing, he adds. But even if they do nothing else, he insists that using personas will help. "People make the mistake that selling is a numbers game: the more people you try to sell to, the more sales you'll make. But that's an exhausting and counter-productive strategy. Instead of throwing a pitch out there and hoping something will stick, personas allow a laser-like accuracy."

SPREADING THE RISK

ChannelSight and Keltech operate focused businesses. But neither is putting all of its money on one horse. ChannelSight has a broad spread of customers – Mondelez, Phillips, BSH and PepsiCo among others – spanning over 37 countries.

Meanwhile, for Keltech, the move towards greater customer and product focus was a crucial enabler of geographic diversification. "When we were shipping 5c brackets, there was no value-add, and transport costs were 30 to 40 per cent of the item," Lawlor explains. "Shipping €1,000 to €5,000 items has reduced the contribution of logistics costs and opened up a huge range of geographic markets. In the last 10 months, we have added 10 new customers in the UK, moved into Europe and won business in Germany against two German companies and two European mainland companies."

COMBINING AMBITION AND FOCUS

Antaris Consulting's approach also shows that it's possible to combine global ambition with the conviction to reject off-target opportunities. The Limerick-headquartered company has three divisions: consulting, training and software solutions mainly in the areas of environment, health and safety and quality.

"Antaris's goal is to become a global provider," explains Business Development Manager Katie O'Brien. "One of the major focuses for internationalisation is assisting companies to achieve ISO certification and to enable their on-going compliance with management system standards, regulations and legislation. Our signature solution in this space is Pegasus – an online legal register, aimed at helping companies keep



up-to-date with legislative requirements. In addition to providing a database of all applicable legislation, Pegasus provides a customised interpretation of the legislation and an evaluation tool to allow companies to assess their level of compliance and identify opportunities for improvement.”

Antaris is the market leader in this sector in Ireland, and the company has also entered the UK market, followed by Europe, the Middle East, South Africa, Australia, USA and South America. Some of Antaris’s International clients include Primark, Kingspan and Peterson.

On occasion, Antaris has entered a new market in response to a request by a multinational client, often because the MNC has made an acquisition that has brought them into a new territory.

“When this happens, we need to ask ourselves: Is this something we really want to do? Providing a customised service, covering a range of information across industries, is very expensive in terms of time input. So before we invest in becoming established in a new country, we need to be sure we can get a ROI from it,” O’Brien explains.

Antaris explores these sorts of unsolicited opportunities using an account matrix. Factors considered include how long the company has been a client, how committed they are, how many other markets Antaris is serving on their behalf, and how many points of contacts they have in that company – several or just one – and, if it’s just one, how likely that contact is to remain with the company.

“There have been times we have said no, we would love to. But it’s something we cannot do right now,” she says.

Antaris is currently implementing strategic plans to grow in the German and Dutch markets. “The ideal target customer is a multinational with multiple sites across different countries, operating in a highly regulated environment. They are already certified to ISO and have a need to maintain certification,” O’Brien explains.

Both countries have a large number of companies that tick these boxes. “We also have partners in each country to help us develop really high-quality content,” she adds.

Antaris’s value proposition is to save

time and make life easier for the environmental health and safety officer – ultimately Pegasus’s end user. “But we also like to be in contact with their senior managers – the person who is signing off on the order – and the top guy who will be liable if something goes wrong.”

“Key account management has always been important for us,” she adds. “A lot of business comes from the current client base. But since participating in the International Selling Programme, we have sharpened our key account matrix, with different scoring systems to better identify the companies in our current base that we can grow from, since it’s cheaper to grow the business by selling more to existing clients than developing new clients.”

When a broad-based footprint is crucial for survival

Coming from a business that has just celebrated 30 years in operation, Sales Director Tommy Butler of Longford-based Butler Manufacturing Services (BMS) says that the biggest lesson his family has learned about business survival is “not to put all your eggs in one basket”.

The company’s Blivet wastewater treatment system for populations from four to five houses up to small towns or villages has sold in over 40 countries, operating from temperature extremes of 40°C in the Iraqi desert, where it was used in US Army bases, to below -20°C in Newfoundland, Canada.

The potential impact of Brexit has brought market diversification onto the agenda for a whole new generation of companies that heavily rely on trade with the UK. The recent return of sterling to relative stability could well just be the calm before the storm

of Article 50 being triggered, and any limitation on the free movement of people, money, goods and services could indeed take trade relations between Ireland and the UK into uncharted territory.

But Butler points out that Irish businesses leaders who have lasted the course have always had to deal with market shocks.

“On Black Wednesday, 16 September, 1992, when the UK was forced to crash out of the European Exchange Rate Mechanism, Irish contracts in sterling lost 20 per cent of their value overnight. Ireland was a very different place then: interest rates were a whopping 18 per cent and unemployment was also at 18 per cent.”

More recently, in 2010, the two currencies were at parity. Again, Ireland was in recession, and SMEs felt the pain. But, Butler points out, many adapted, survived and emerged wiser.

The UK is one of BMS’s most important markets, but the Longford company also felt a chill wind when the UK’s newly privatised water companies started buying and investing in its UK-based competitors.

BMS’s saviours at various points have been the Gulf States, Canada and, more recently, new customers won by a French distributor in France and French-speaking territories in Africa and the Caribbean.

BMS BLIVET LAUNCH IN 1991





The strength of the Swiss France (the CHF) is encouraging the alpine nation's medtech sector to look beyond Switzerland for suppliers and sources of competitive advantage. Anthony King looks at the possibilities that may arise from a planned Irish visit to Switzerland in spring 2017.

Alongside goat herds, muesli and milk chocolate, snow-capped mountains, flower-dotted meadows, discreet bankers and neutrality, Switzerland is famous for watchmaking. The timekeeping craft gathered momentum in 16th century Geneva, spreading on to Neuchatel, Berne and the Jura mountains, with an influx of Huguenots fleeing French persecution.

In an industry that has had as many peaks and valleys as the Alps themselves, today the Swiss once again reign supreme, literally on top of the world, in the business of luxury watch making.

More than that, the art of fine manufacturing has spawned a modern but equally valuable and precise industry, centred along the 200km Swiss Jura Arc, spanning from Geneva to Basel.

Switzerland hosts 1,350 medtech companies, with 54,000 employees and a turnover of CHF14bn (Swiss francs), some 90 per cent of which is for export. The world's top ten largest players are present, including Roche Diagnostics, Medtronic, Braun Medical and J&J. But in number terms, SMEs dominate, with 94 per cent of all companies having less than 250 employees.

The sector expects a healthy 8.6 per cent growth in sales for 2016, and there is a strong focus on innovation. Around 30 per cent of turnover is re-invested in R&D, with western Switzerland well equipped with world-class research centres, including the Swiss Federal Institute of Technology (EPFL, Lausanne) and ETH Zurich.

RESPECTIVE STRENGTHS

"The density of life sciences companies is what makes Switzerland different. It can't be compared to any other country. In western Switzerland, you will find 450 biotech companies, 350 medtech companies and more than 500 biomedical labs," says Marieke Hood, who leads Swiss Business Hub, UK & Ireland, part of Switzerland

Global Enterprise – the Swiss equivalent of IDA Ireland and Enterprise Ireland combined.

But equally, Ireland has its own unique medtech industry. This includes 18 of the world's top 25 medtech companies with a base in Ireland. Home-grown suppliers and spin-offs have also emerged around

multinationals such as Medtronic and Boston Scientific in Galway and Abbott in the northwest. Half of Ireland's 450 medtech companies are indigenous, and 50 per cent are in the business to business space.

Recognising the respective strengths of the two countries,

Switzerland hosts 1,350 medtech companies, with 54,000 employees and a turnover of CHF14bn.

Enterprise Ireland's German office is currently working with Hood's team at Swiss Business Hub to generate mutually beneficial B2B partnerships. As part of this, the two organisations are planning a visit by Irish companies to western Switzerland, scheduled for spring 2017.

From the Swiss side, Hood says she is especially interested in companies looking to establish R&D partnerships in Switzerland and in technology that can add value to the Swiss economy, particularly its manufacturing sector.

Meanwhile, Jane Greene at Enterprise Ireland's Dusseldorf office notes that the strong Swiss franc and competitive environment are forcing Swiss companies to purchase more inputs from beyond Switzerland and consider outsourcing options, both for manufacturing and business services. "We are starting to get more enquiries from Swiss medtech companies, even though they have a strong indigenous industry," she says. "There is a lot of respect for the Irish medtech industry."

Symetis, a medtech start-up, employing 250 people in the Lausanne area, is among the companies that have made contact with Enterprise Ireland.

Symetis makes replacement heart valves inserted in the heart through an artery via a small incision in the leg, eliminating the need for open-heart surgery. It brought



Sky high franc, turns Swiss attention to Irish medtech suppliers

WHY SWITZERLAND IS ON TOP OF THE WORLD

05

Less welcome for business, the Swiss Franc (CHF) has soared since it was unpegged from the euro in January 2015



01

Ranked first for competitiveness by the World Economic Forum



04

Zurich University and IMD Lausanne are among the world's leading universities and business schools



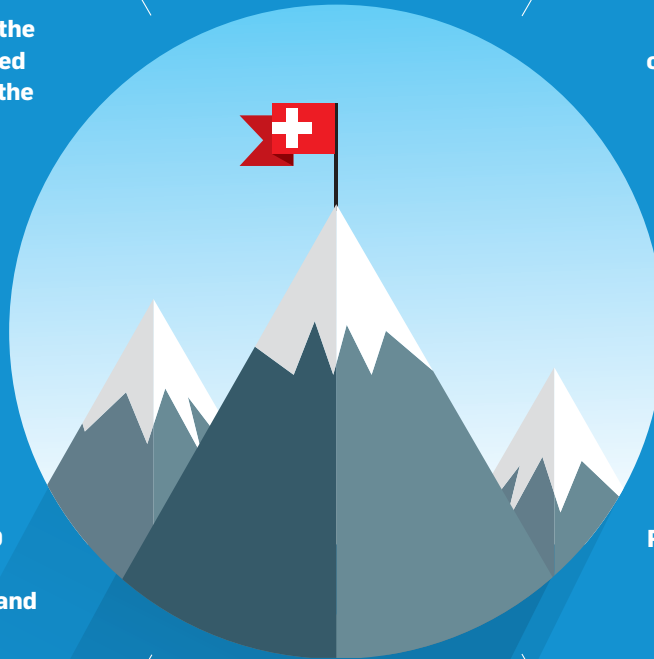
02

Ranked first for innovation by the EU in 2016



03

Tenth wealthiest nation based on GDP purchasing power parity per capita, 2015



OTHER SECTORS OF INTEREST TO IRISH COMPANIES

Switzerland is an attractive market for Irish companies because it is strong in areas where Ireland also has strength. As well as medical devices, these include pharmaceutical manufacturing, dairy and food ingredients, financial services and engineering.

Switzerland's financial sector, including its banks and insurance industry, provides some 6 per cent of all employment in Switzerland and a tenth of the economy's value-add.

Alongside major financial players – UBS, Credit Suisse and Zurich FS – Switzerland is home to global giants in pharmaceuticals and the food industry; for instance, Nestlé, Novartis and Roche.

Another thing shared with Ireland, neutrality has made Switzerland a unique player in international relations and a major base for UN agencies and other NGOs like the Red Cross, as well as the sports' governing bodies, including FIFA and UEFA.



out its first valve five years ago and another in 2014, working initially with local manufacturers and now having the delivery system manufactured in Brazil.

"One part of the journey with any new enterprise is to achieve really competitive cost performance. We decided that we wanted to deal with companies that were accessible to us and relatively easy to see and visit face to face," Irish-born COO Tim Starr explains.

"We are a relatively young company, and we didn't want to have to spend a huge amount of effort developing those relationships."

After Symetis contacted Enterprise Ireland's German office, the company short-listed three Irish candidates as vendor of choice for a range of components. One flight and a two-day visit later, a decision was made.

"The Irish companies were so fast out of the blocks," Starr says. "They were competing against German, French and Swiss suppliers, but the speed at which they met us and the levels of thought they put in before meeting us were impressive. One company came to us with a prototype of one of our components."

After some tough decision-making, the winning company was chosen on the basis of its quality system [ISO13485]; technical abilities, evidently honed through supplying other leading device manufacturers; and the team.

"From the moment they made their first visit to our office, they impressed us with their can-do attitude and responsiveness," says Starr.

The Irish supplier will provide around 30 individual components, mostly machined medical plastics for the products' delivery system.

"We need suppliers who will deliver best quality at the right cost, but who will also partner with us to explore next generational technologies to support our product pipeline," says Starr. "So, Symetis will be open to Irish businesses that can meet those expectations."

The strong Swiss franc and competitive environment are forcing Swiss companies to purchase more inputs from beyond Switzerland.

Speaking of the companies he met in October 2015 at MedInIreland, Enterprise Ireland's biennial showcase for the entire spectrum of the Irish medical technologies sector, he adds: "So many had a range of capabilities suitable for what we need today and for what we will need tomorrow. They are ahead of the curve in terms of where the industry is headed."

AGENDA

During the planned two-day visit to western Switzerland in spring 2017, Irish companies will spend most of their time between Lausanne and Geneva, at the heart of 'health valley'.

"The life sciences play an important role in trade between Ireland and Switzerland," notes Hood. "Switzerland is the eighth most important investor in Ireland, with major life sciences accounts, such as Novartis."

The Swiss medtech industry, she adds, wants to preserve its innovation capacity and optimise manufacturing – something Irish partners could assist with. "Swiss companies really appreciate if their partners show a very long lasting commitment to the partnership. Usually the first client is the most difficult. Once they have found and delivered the quality expected, then word of mouth travels quickly, and business development can be very effective."

Greene adds that the mission will allow Irish companies to visit world-class research centres and get inside Swiss companies to learn how they do business and what they are looking for. "We want it to be hands-on. There will be Swiss experts coming from companies to talk about what is expected from a supplier or partner entering the country. We will have a programme that looks at costs, tax issues, market entry strategies, challenges that they could face, but also opportunities," she says. "It will be a robust, honest view of the market, warts and all."



With new direct flights to Miami on the way, **Randy Bounds** in Enterprise Ireland's Houston office provides a topical, whistle-stop tour of opportunities for Irish businesses in Florida and other 'red' states that surround it.

Seeing red down south

Many of you would know that in the US, during election season, we have Republican red states and Democratic blue states. Because there were a lot more red states this time than blue, we Americans will be hosting Republican president elect Donald J. Trump in the White House for several years. Whether or not this is a good idea depends heavily on your worldview, of course, and is thankfully beyond the scope of this article!

Wherever you come down, though, it is a fact that since the election, the US dollar has made net gains, despite sustaining some losses since January 2017.

For potential Irish exporters into the US, this is good news as you just became more competitive relative to US domestic competition. And for those Irish companies with existing contracts in the US, you just saw the value of dollar denominated agreements increase.

If you are not currently in the US market, perhaps now could be a good time to take a look. So, let's begin with a few red states. I understand Aer Lingus is planning a direct flight from Dublin to Miami, and there are much worse places than Florida to spend the winter months, so let's begin there.

Regardless of your industry, there is a fair chance that America's fourth most populous



state has something for you. Ireland's aerospace firms are well aware of Florida's \$5.6 billion aerospace industry, which includes top global players such as ... well, everyone.

Boeing, NASA, SpaceX, Raytheon, Lockheed, Airbus, Honeywell, Blue Origin ... it would be easier to list who's not there. If life sciences are more your thing, you may know that Florida's cluster in this important industry includes 1,213 biotech, pharma and medical device firms. These industries are a strong match for Irish capability and many Irish businesses are already in Florida. In 2016, year Shannon-based Modular Automation established a footprint in the US, with a new subsidiary in Jacksonville, Florida, with help from Enterprise Ireland's Texas market advisor Brendan Roberts.

From Florida, you are pretty much surrounded by other red states, so take your pick. Georgia comes in at number five on CNBC's list of top states for doing business and boasts healthy sectors in telecoms/data centres, advanced manufacturing, aerospace, agribusiness, automotive and logistics. Atlanta alone has a population of over 5.5m and is a major telecoms hub hosting two of America's largest trunk lines with feeds to Europe, Asia and South America. Notable companies in Atlanta include Coca Cola, Delta Airlines, AT&T, Lockheed Martin, UPS and IBM among others.

Outside of Atlanta, little Savannah, Georgia, with a population of just 379,000,

is known primarily for tourism around its historic district. But underneath all of that are 251 manufacturing facilities in Chatham County, the largest of which is business jet manufacturer Gulfstream Aerospace, a subsidiary of General Dynamics. World Trade Center Savannah visited Ireland in October, with a high-level delegation of government and business leaders, and Enterprise Ireland's US team will be visiting Gulfstream and others in Savannah this December.

And then there's the largest red state of all ... Texas. Texas stands out as the southern state with the greatest concentration of industries that represent the best match for EI client capability. Texas has one of the largest and most rapidly growing economies in the US and is the twelfth largest economy in the world based on 2014 GDP figures. We currently gross more than \$100 billion a year in trade with other nations and have a developed and diversified industrial base, including agriculture, petrochemicals, energy, computers and electronics, aerospace, and biomedical sciences. We're home to 58 Fortune 500 companies, so it's probably better not to list them all here. Suffice it to say there are real growth opportunities and outsized purchasing power.

Currently grossing more than \$100bn a year in trade, Texas stands out as the southern state with the greatest concentration of industries that represent the best match the capability of Irish companies.



SCALE





Shopping for a UK presence and customer base

Undeterred by Brexit, increasing numbers of Irish companies are on the acquisition trail in the UK. John Stanley reports.

Over the last 12 months a growing number of Irish small to medium sized companies have begun targeting and acquiring UK companies, typically in the £2 million to £5 million turnover category.

While there are probably as many individual reasons behind these moves as there are companies involved, there are some common ingredients. These include recognition of the value of a common culture and a common language, the scale of the opportunities offered by the UK market and the far greater number of potential target companies available there.

UK M&A adviser Brian Murphy points out that the UK has a population of 60 million people. It is Ireland's closest neighbour, and travel between the two locations is almost as easy as it is between Cork and Dublin. Furthermore, the perceived political barriers that existed for so many years have dissipated in recent times.

He notes there are also large numbers of first and second-generation businesses, typically with annual sales of up to £5 million, that have not been brought to the market but are still available at reasonable prices – and at more attractive price/earnings multiples than their counterparts in many other European countries.

One of other factors supporting the resurgence in M&A activity, he says, even in the face of Brexit, is that the UK banks are lending again. “There have been a lot of distressed sales and a lot of cherry-picking of deals by the banks. We’re not back to where we were before the financial crisis, and, to be honest, we won’t be for a long time, but the banks are far more open now than they were just a year ago.”

John McGrane, director general of the British Irish Chamber of Commerce, also discerns an increase in the level of interest by Irish firms in buying UK businesses. “They are seeing the value that is to be got there. And firms that are viable are seeing good support from the banks now. Somewhat perversely perhaps, because of the low levels of business generally, Irish financial institutions are increasingly willing to support companies they see as ambitious – and with proven cash flows.”

Claire McCracken of Lindsays Solicitors in Glasgow says there’s far more certainty and less complexity in UK deals than in those done elsewhere in Europe. “I’ve worked recently on deals for one of the world’s largest retailers. When we’ve done acquisitions for them in Europe, there’s been a lot more regulatory consents required. Here in the UK you can definitely get more deals over the line in reasonable time and at less cost.”

Recent Irish acquisitions in the UK

Over the past 12 months there have been a number of deals to evidence the growing Irish interest in UK acquisitions.

This time last year for example, the sports technology firm **Teamer** acquired UK-based football club website provider Club Website in a cash and equity deal that increases significantly its digital media reach in UK.

Last February, **Grafton Group**, which operates the Woodie’s chain in Ireland, acquired a single outlet, £6 million turnover builders providers in Kent, Allsands Supplies, as a bolt-on acquisition to expand its existing branch network in the southeast of England.

The following month, the financial services firm **FEXCO** announced it had acquired London’s largest specialist retail foreign exchange company, Currency Exchange Corporation, to add 36 branches to its No.1 Currency retail foreign exchange operation. FEXCO said the acquisition was another “significant milestone” in the company’s UK expansion, noting that the UK foreign exchange market was the most attractive in the world with approximately £9 billion worth of foreign currency changed by FX operators annually on behalf of customers. FEXCO acquired Edinburgh headquartered No.1 Currency in 2012 and has added 39 new locations in the UK since.

In October 2016, growth-oriented **Panda Group** moved into the UK with the acquisition of five waste treatment facilities from New Earth Solutions. Panda became Ireland’s largest waste management company after taking over its largest competitor Greenstar, earlier in 2016 and creating PandaGreen as its main operating company. Panda says it intends “to continue its ambitious growth strategy” and that the acquisition will be used “as a UK growth platform”.



"We'd seen a number of companies adopt the 'fly over every week' kind of approach and we really didn't think that would work for us."

TRILOGY CEO, EDEL CREELY



"Our strategy is to buy niche consultancies. For us, it's about customer and talent acquisition and cross-selling of additional services."

VERSION 1 CEO, JUSTIN KEATINGE

TRILOGY TAKES THE PLUNGE

Having taken the plunge relatively recently, Trilogy Technologies, first considered selling its managed IT services into the UK from its Irish base. "But we'd seen a number of companies adopt the 'fly over every week' kind of approach and we really didn't think that would work for us," says CEO Edel Creely.

The company obtained grant support from Enterprise Ireland to research its market access options and took over six months to identify and acquire a target. "Because of the sheer scale of the UK market, there are plenty of companies to choose from," Creely says.

The attributes she was looking for included capability, a good existing customer base and the strength of the executive team. "Some companies are obviously stronger on some points than on others. We worked with a number of brokers and laid out clearly what we were looking for. They offered suitable matches for us to consider, and I would say from our experience, it is much better to work with a broker."

Trilogy acquired b2Lateral in early 2014 and immediately rebranded it. "For us, the big advantage in buying a UK business was acquiring a customer base and a team with local knowledge and local relationships," she says.

But Creely is under no illusions about differences between Ireland and the UK. "Even though it's our near neighbour, there are cultural differences, for sure. That's why you do need a local sales team on the ground."

SERIAL ACQUIRER

In a similar line of business, Irish company Version 1 has acquired no less than five UK companies, ranging in size from 20 to 100 employees, over the past three years.

A long-established managed services business started in 1996, it has taken a deliberate step up from organic growth to acquisition and now employs over 600 IT professionals in Ireland and the UK. "Our strategy is to buy niche consultancies. For us, it's about customer and talent acquisition and cross-selling of additional services," says co-founder and CEO Justin Keatinge.

For Keatinge, the UK was the obvious first port of call. "It's a big market and you'd want to have a very, very good reason to step

over it," he says. "It is culturally aligned to Ireland, certainly in terms of HR and legal matters, and it's 10 times the size, which means a lot of opportunity right on our doorstep."

Keatinge set about identifying acquisition targets himself using his extensive business network of contacts supplemented by desk research. Only recently has Version 1 hired a dedicated M&A manager. "We're now well known in the market as an acquirer, and companies come to us."

But patience is also a virtue, he notes. "Our most recent deal was with people I'd first met two years ago. You can have a relationship for several years before the time is right." That can often be because of competing desires within a company. "The type of companies we've bought have been owner/founder managed, and it's typical for one founder to want to move on and for one to want to stay. So we have offered equity in Version 1, particularly in a situation where one of the selling shareholders is keen to stay and grow value."

He is also clear about the importance of seeing acquisition as a normal process for the company. "We've done it seven times now, five times in the UK and twice in Ireland, and we have a defined process. Acquisition is part of what we do, and all our internal teams know that integration of acquisitions is a normal part of their work. Our first two in Ireland were opportunistic but it's actually much harder to do sporadic acquisitions."

Like Trilogy, when Version 1 first looked at expanding into the UK four years ago, it did consider taking an organic route but quickly came to the decision to grow through relatively small bolt-on acquisitions of companies about 15 per cent to 20 per cent its own size.

The integration challenges in each one have been different. "Some have been more open to change than others, and that's a case of building trust. Where a company might have under-invested in IT, there would be a need to prioritise that and give them the benefit of that needed upgrade. It could be about career planning or promotions. You really have to look at whatever they would have changed, anyway, and follow through on that."



ACQUISITION FOR SCALE

On the cusp of two first time UK acquisitions, Cork-based Anderco began life in 1976 and has focused on safety since 1993. It now has core competency in safety products, services, training and workwear, with about 2,000 customers across a wide spectrum of market sectors.

Managing director Alan Bruce says the company had been struggling to achieve the volumes it needed for its lower cost, high volume products and sought to generate them in the larger UK market, working initially with a UK-based customer with which it had a good relationship in Ireland.

"We had a bit of success and the question quickly became whether we should grow organically there or through acquisition. In our business, we're looking for customers within the contract cycle, which means there can be a long lead-in to generating revenues, even if you have a 'golden' salesman on the job. So getting scale by going the organic route can be slower and with a much stronger element of uncertainty. Acquisition can be more expensive, but there's much greater certainty," Bruce says.

For Anderco, the acquisition journey started about a year and a half ago, initially with profiling and then shortlisting targets. The company is now actively in talks with two firms, working with M&A advisor Brian Murphy. Bruce says a key part of the process was starting with the right corporate finance partner with access to good quality information. UK suppliers were also a rich

source of industry knowledge as were various market reports.

"We recognised that we wanted an acquisition that was the right size for us, something we could cut our teeth on first before moving on to something bigger," Bruce says. "We've gone through five companies. Two came close but we couldn't agree on price; we're very close to contract stage with another two. Any deal has to stack up on value for money, and that can be an education for sellers, too!"

Of the two that Anderco intends going ahead with, one is a smaller operation in North London, not that far from its existing base in Gatwick. But the larger one is in Scotland. "We would have preferred to start near our existing base there, but if you're serious about it, you have to go where the opportunity is," he says.

Bruce now freely admits that the first barrier to UK entry by acquisition was entirely psychological. "We saw it as a very significant move. But it's very much mind over matter, and, as we look back, we can see the real barriers were nothing like as significant as we had supposed."

Anderco is making its acquisition through a combination of upfront payment and earn-out, using sterling accessed through its Irish pillar banks. "They're quite nervous of Brexit, but they're supportive. The specialist finance houses have a little more risk appetite. There's some inherent value in the assets being acquired and we'll use invoice discounting and some term-based financing," he says.



"Here in the UK, you can definitely get more deals over the line in reasonable time and at less cost."

**LINDSAYS SOLICITORS PARTNER,
CLAIRE MCCRACKEN**

"We saw it as a very significant move. But it's very much mind over matter, and, as we look back, we can see the real barriers were nothing like as significant as we had supposed."

ANDERCO CEO, ALAN BRUCE

5 tips for buyers

1 In the UK more due diligence is done upfront than in Ireland, well ahead of creating the heads of terms agreement. It's also regarded as a confirmatory process rather than looking for issues that could stop the process. Irish buyers need to be aware of that, advises M&A expert Brian Murphy.

2 He also recommends getting lawyers involved at an early stage because, although it is very similar to Ireland's, it is still a different legal system.

3 There is merit in going the advisor-to-advisor route. It's an approach which advocates say enables a buyer to be taken more seriously, more

quickly. It is assumed that the advisor will have done his or her homework and have a good grasp of their client's seriousness of intent and their ability to execute a deal.

4 Make direct approaches to potential targets you are genuinely interested in, initially through your advisors, advises Anderco MD Alan Bruce. "I'd advise picking up the phone and talking directly, get an appointment and have a discussion."

5 Remember that the UK is very open to discussing positions and tends to be transparent. It is pretty much 'what it says on the tin' – direct, proper and very English.

The Brexit effect

UK acquirers tell John Stanley that Brexit is more an 'inconvenience' than an impediment to deals.

Brexit has dominated Irish/British business affairs since the result of the UK referendum was announced last June. But despite this, there's a strong consensus amongst Irish acquirers of UK businesses, and their advisers, that Brexit is more of an inconvenience right now than a serious impediment to doing deals.

Claire McCracken, corporate partner at Lindsays Solicitors in Glasgow says there is a strong historic trading relationship between Ireland and the UK and Brexit will not impact that in any huge way.

"We had a similar issues in 2014 when there was a lot of talk about Scotland leaving the UK," she says. "And more recently we've had expressions of concern about Scotland and Northern Ireland not wanting to leave the EU, with an initial panic about being forced to leave and the implications of that on inward investment. But in terms of M&A activity, we simply haven't found that to be the case."

"In the three or four months since the June vote, we've actually been involved in more M&A deals. We are seeing more companies marketed and more companies interested in acquiring. I think if there was going to be a downside we would have seen it by now."

M&A advisor Brian Murphy points out that it is always possible to capitalise on periods of uncertainty. "In relation to Brexit, that uncertainty has been manifested in a lower international value of sterling. The near 20 per cent reduction in the value of sterling at one point in late 2016 effectively

meant that a Stg£5 million deal was costing Stg£1m less in euro terms. In a fairly standard deal, where 20 per cent of the purchase price is equity, around 60 per cent self-financing and 20 per cent deferred, that represents a saving of the entire equity element."

The sterling devaluation resulting from the Brexit vote is not a particular concern for Trilogy, says CEO Edel Creely. "I'd be more concerned about the general uncertainty it

has created. But having a UK presence should help us get around any potential issues that may yet arise about where data is held, which is always an important issue in the IT market.

"We're hearing a message very clearly from the UK that there is a lack of confidence, and there may be a reduction in spend in

organisations. However, we're also hearing about companies looking to improve their productivity and do more with less, for which IT is an essential ingredient, and I would be confident that these will increasingly look to companies like ours for these solutions."

Alan Bruce, MD of Cork-based Anderco, regards Brexit as "a whole lot of bother".

"The big question for us is sustainability of revenue. The smaller UK company we're buying has a big client in the home renovations sector, which may well be affected by the expected drop in GDP in the UK."

But Bruce is also optimistic. "For us there's a huge market there, even if it is difficult for a period. We may have to work harder, but it's like a competition in which the fitter team will win."

"Having a UK presence should help us get around any potential issues that may yet arise about where data is held."

TRILOGY CEO, EDEL CREELY



B lame popular culture if you like, but the traditional image of the non-executive board – old, white, male and there to rubber-stamp the CEO's whims – doesn't quite fit with how many start-ups and fast-growing companies see themselves. Yet there are very good reasons to cast any such preconceptions aside and embrace a resource that may not only help ambitious companies grow, but can be particularly advantageous in periods of rapid expansion. The expertise and input of an experienced board can make all the difference between an SME making what later transpires to be the right move or an expensive misstep.

Touching success

Touchtech Payments is a Dublin-based start-up focused on online authentication technology. Founded in 2013, the company established its first board six months ago and has since attracted a number of high-profile business people as non-executive directors (NEDs). "Good governance is fundamental to the operation of any company, so the earlier you have a good, solid board in place, the more credibility you bring to your new entity," CEO John Powers observes. "One of the issues we faced as a start-up is that we had no history or track record. We had a good product but we had to build up our credibility with potential customers. One of the ways you do that is by having a very strong board in place."

Full board

Donal Nugent writes that a balanced board, with well thought-out appointments, is an essential asset for any ambitious, globally focused business.

The company has, to date, made NED appointments on a 'no foal, no fee basis', he explains. If the business becomes successful, it will look at issuing shares to board members and reward them accordingly. In return, the NEDs use their knowledge and contacts to develop the company.

Power points to the value of aiming high. "There are people out there who want to and are willing to help new start-ups. Use the talent that's out there, because they want to help drive your success."

When the right board has been assembled, he also believes there's an onus on management to use their skills sparingly and wisely. "We are currently looking at the US and, when we are ready, we know that our directors can help open doors with a phone call. When the time is right, we will use that experience and knowledge."

Many Irish start-ups are global in vision and, with that in mind, Power advises on embracing geographical diversity from the start. "Bringing international experience on your board is very valuable. From the start, think about getting someone who has the experience and credibility in the area and market you want to operate in."

Start small

Deirdre Smith of Green Point Consultancy has, among other roles, mentored Enterprise Ireland client companies and participants at the DCU Ryan Academy. A Chartered Director of the Institute of Directors, she led an Enterprise Ireland workshop on developing company boards in December 2016.

Smith says there is no right time for a business to establish or upgrade a board structure. "Companies go through different stages, and a board is an evolving tool of the business. You can start small with an informal advisory board before you develop a more formal board. You don't need to rush into it."



"Bringing international experience on your board is very valuable. From the start, think about getting someone who has the experience and credibility in the area and market you want to operate in."

**TOUCHTECH PAYMENTS CEO
JOHN POWERS**

Legal expectations and obligations around board membership have been codified by the recent Companies Act, and Smith recommends that new board members be familiarised with the changes, even if they are ostensibly well experienced in the field.

She also recommends a conversation around expectations from the start, so there is an understanding on both sides "of what you are trying to achieve and around time commitments. Are you looking for monthly conversations, or four-to-six meetings a year, with telephone conversations in-between? It's important both sides understand what the expectations are."

In terms of the background and profile of potential board members, industry figures with accounting or finance backgrounds tend to be in high demand. While valuing such skills, she cautions against a "tendency among some organisations to have too many accountants on their boards. A diversity of backgrounds is one of the most important considerations in the construction of a board".

Companies also need to give careful thought to their own pitch before approaching potential directors: "Growing a business is all about sales – whether you are selling to customers, clients or potential investors and directors. You need to be able to sell your vision and get them excited about your potential."

The right mix

Recently appointed chairman of Bank of Ireland Mortgage Bank, Harry Lorton, has held directorship and chairmanship roles across a range of businesses and organisations over the years, and he understands the complexities of getting the right mix of skills onto a board.

"The objective in bringing in new people must be to improve that body's overall effectiveness," he says. "A structured

**DEIRDRE SMITH OF GREEN POINT CONSULTANCY**

review of the skillsets needed by the company should be carried out, and this will, presumably, throw up the gaps that need to be filled by new appointees."

Finding the right people is not always easy, he adds, particularly given the increasingly onerous obligations of the non-executive director. With that in mind, "having NEDs who have worked in various industries or sectors, or who have had both NED and executive or even CEO roles, is particularly helpful".

As to the general traits of a good board member, experience has shown him that "balance, a passion for the job, the ability to ask tough and probing questions without causing offence, a degree of persistence and a degree of curiosity, are all vital characteristics of a good NED". Likening a good chairman to "the conductor of the orchestra or the captain of the team", he shares Smith's view on the need for diversity. He notes, however, that while it is possible to reduce the dreaded 'groupthink', "in the real world, it may not be possible to totally eliminate it."



How we did it: Voxpro

Set up in Cork six years ago, Voxpro provides customer and technical support services to major global brands. From an initial staff of six, it now employs 1,700 people with offices in Cork, Folsom and San Francisco.

Boards became a feature of the company relatively early on, when an external consultant advised CEO and co-founder Dan Kiely that the time had come to put one in place. "From a corporate governance point of view, you have to have a board, and I feel that it's never too early to establish one. For me it's all about strategy and understanding where the company is going," he told *The Market*.

In targeting potential members, he argues strongly that "the starting point is knowing what skill sets you are looking for. Identify the expertise, draw up a list and then use your network to see if you have a direct connection to the people you are targeting." He warns against being lured by "star power", noting that "one of the traps companies can fall into is targeting well-known names without identifying whether they have the right skills or experience to bring to the table."

That said, companies should not be afraid to be ambitious. "Don't have the view that 'he or she would never do it'. You'd be very surprised at who is interested in being part of your company, particularly if you are scaling and disrupting."

The idea of a non-executive board as being there to offer a critical counterweight to the executive is one he wholeheartedly endorses: "If I don't have a board that vigorously challenges me then, to my mind, it's not working effectively. If you, as CEO, are not prepared to be challenged or willing to do the preparatory work to persuade a board, then there's no point in having one."



US construction set to boom

As the result of the US election came in during the night and into the early morning of 9 November 2016, it became clear that shares in US construction companies would be one of the key winners. Despite uncertainty over the incoming administration's specific funding plans and priorities, the markets began banking Donald Trump's promises to spend trillions on infrastructure if he came to office.

The following morning, here in Ireland, Davy Stockbrokers analyst Robert Gardiner said that the numbers, if they came to pass, would be significant. *"Trump has talked in terms of spending trillions on US highways and bridges,"* he pointed out. *"This compares to the five-year, \$305bn FAST Act passed last November, and Clinton's \$500bn stimulus plan."*

Shares in the Irish building materials giant CRH soared almost 7 per cent. CRH, which generates 60 per cent of its revenue in the States, is the US's largest producer of asphalt and the third largest producer of construction aggregates.

Given the current market sentiment, we asked Caroline Donnelly about the highs and lows of the US construction market.

Where are the best opportunities for Irish businesses?

Even without the Trump card, this was already a robust market. Statistics from 2016 show construction spending for the year to November already at \$1,150 billion.

US construction projects that are appealing to Irish companies include data centres, healthcare and pharma facilities and retail/commercial developments. Moreover, construction technology, including project management software and building information modelling capability, is in demand topical.

Green and sustainable construction methods are also seeing real growth across the US, as design and construction firms are under more pressure from local building departments through codes and regulations to deliver projects that meet green standards. Methods such as LEED (Leadership in Energy and Environmental Design) and passive house design are

becoming increasingly approaches to signal a project as green and sustainable. To encourage green building, some state and local governments have set in place financial incentives, grants and tax exemptions for developments that achieve measurable and green building standards. Furthermore, building owners and developers are becoming more aware of the benefits of constructing a green building in terms of better living environment and comfort levels and significant cost saving over the lifetime of a building.

Irish companies APA Systems and Duggan Systems are working on projects in NYC, and software from Initiafy is being used by several large construction firms in the city.

Another Irish company, Linesight, which employs people in New York and on the west coast, has been involved in projects that include Primark's USA stores, while players such as Cylon, Kingspan and Dorteck are also gaining traction here.

**Where are our competitive advantages?**

Irish products can often be found superior in quality and innovation than products elsewhere in the market. US construction professionals acknowledge that design and construction standards in Europe can be far more advanced in terms of sustainable practices and innovation. This is a very strong positive for Irish companies looking to export to the US. In addition, Irish companies often deliver competitive lead times, which can be crucial for fast-paced construction environments in places like New York City.

Where are the biggest challenges?

The key challenge is that buyers will ask about reference sites in the US or even in their state, so obtaining those first few projects is difficult but essential.

Regulations can be another sticking point. A range of building and construction codes govern activity in the industry, including general building, residential, mechanical, plumbing, electric, fire, accessibility, zoning, state, local and ordinance codes. Rules and regulations for construction can also vary from state to state.

Thirdly, Irish companies will find established competitors across all areas of construction. Construction professionals can be reluctant to use products or services of new companies they are not familiar with or those without US reference sites. Therefore, obtaining reference sites and having a local presence in the market too is very important to building relationships and trust with local buyers.

What's different about the US market?

Companies looking to the market here should do their research to decide which region or state holds the most opportunity for their product or service.

Each of the 50 states offer different opportunities based on parameters such as

the local economy, established industries, the landscape and even weather. For example, after Hurricane Sandy in 2012, the city of New York began works to not just repair and rebuild and but also to strengthen existing buildings and infrastructure to lessen damage in the event of another hurricane.

Another difference is that the industry here uses the imperial rather than the metric system of units. Architects and engineers will expect drawings and product details to already be converted. Presenting information that has not been correctly adapted can be perceived negatively and will show a lack of understanding of the industry in the US.

Equally, it is important to ensure that marketing materials such as website and brochures have been adapted for the US market and that they mention US project examples. Buyers here are mostly interested in knowing what projects you have worked on not just in the US but their state/city!

What advice have you for companies targeting the market?

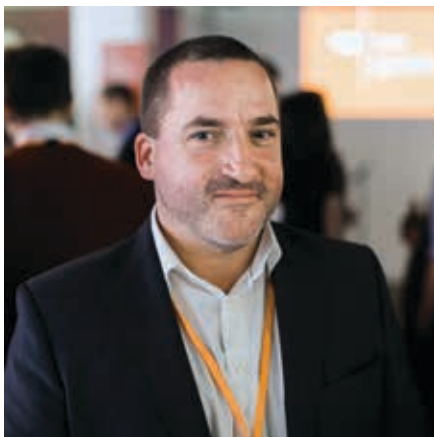
For companies in the construction products area, distributors and partners can act as gateways into construction and design firms.

As already mentioned, a very strong positive for Irish companies is the recognition by many US construction professionals that Irish and European design and construction standards can be far more advanced in terms of sustainable practices and innovation. In addition, Irish companies often deliver competitive lead times, crucial for fast-paced construction environments.

To succeed, however, companies will have to develop reference sites and a local presence in the market. US construction professionals like to know they can call someone if something is going wrong and like to build relationships with their suppliers to ensure trust and capability.



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.



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.



For global leaders, 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.



#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.



"The design brief called for a product that could be easily worn, so we developed a simple but innovative attachment method."



#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.

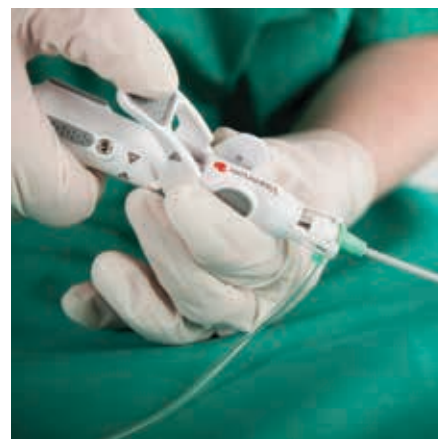
Sometimes the faster horse is exactly what the customer wants. But sometimes, McNulty says, more of a George Bernard Shaw approach is needed, as in "You see things, and you say 'Why?' But I dream things that never were, and I say 'Why not?'"

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?

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 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.



Building on innovation

Innovation is proving critical for Irish construction companies – whether looking to move up the value chain, increase their international footprint or win high-value projects to come from the UK government's massive infrastructure plans, including High Speed 2 (HS2). **Cian Molloy reports.**

“To deliver HS2, we will use new ways of working and draw on the expertise and skills from across all industry – not just the rail sector. It will demand that we employ new techniques like off-site manufacturing and make greater use of technology and data.”

These were the words of Beth West, the UK's High Speed 2 (HS2) commercial director, as she prepared to meet Irish companies this November. The supply chain team from HS2 were in Dublin on the invitation of Enterprise Ireland for a conference highlighting the work packages and procurement details for what is set to become Europe's largest transport infrastructure project.

HS2 is the UK's planned high-speed rail network from London to Birmingham, set to run up to 14 times per hour in each direction, carrying 400m-long trains with as many as 1,100 seats per train, and operating at speeds of up to 250mph – faster than any current operating speed in Europe. Phase one is to be followed by a second phase, branching out in a V-shape from Birmingham to Manchester and Leeds. In total, the project, estimated at a cost of £56bn, is intended to treble current capacity on the network between the four cities, delivering almost 15,000 seats per hour.

UK AND BEYOND

This is just one – albeit the biggest – of a series of projects within the UK's National Infrastructure Delivery Plan, which proposes investments of £483bn of over 600 infrastructure projects and programmes, in all sectors across the UK, to 2021 and beyond.

It is expected to be a major source of business for Irish companies, but from West's words, it is apparent that innovation will be expected as standard.

Attractive on their own, the UK's massive build plans open a second-tier opportunity for Irish companies too. UK construction buyers on business-as-usual projects are being warned to “mind the gap”, as HS2 and other high-profile projects mop up available capacity in the industry. Meeting capacity gaps may offer a second set of Irish companies the chance to move up the food chain in the UK market – provided they are ready to make that innovation jump.

As reported previously in *The Market*, many construction companies here are well positioned for the high-profile opportunities, having developed innovative positions in sustainable building, off site and modular fabrication, building innovation modelling (BIM), 3-D modelling and ‘big data’ over recent years.



There has been a similar revolution in the construction materials area, according to Robert Geraghty, a senior technologist with Enterprise Ireland, who has seen companies develop innovation projects right across the gamut from cement to precast concrete, timber to glass and plastics to ceramics.

"Among companies that have benefited from our R&D, capital and Innovation Partnership funding programmes in recent years, the trend is toward increasing competitiveness through product and process innovation," he told *The Market*. "Making things better with less manual labour, less waste and more automation/control is one aspect. Making better things – faster, easier to use, lighter/easier to transport and install – is another."

As well as the construction players with their eyes on the big prize, such as HS2, innovation is also on the agenda for companies seeing their UK margin being squeezed by the downward movement of sterling, or for businesses that want to build in some protection against future market shocks by developing an increased international footprint, he adds.

"For example, one approach is to make your product lighter. That will reduce your transport costs, and possibly your material costs, improving margin and potentially opening markets further afield. But in construction, it may also help your positioning as a premium product supplier because it will make onsite handling and installation so much easier for your customer."

LIGHTER, CHEAPER, BETTER

Such was the reasoning behind Kiernan Steel's decision to invest €3.5m in the company's Longford-based production facilities. The Kiernans started in business nearly 30 years ago, building sheds and farm buildings in a two-bay haybarn at the back of the family home, and marking out templates with chalk on the tarmac.

UK construction buyers on business-as-usual projects are being warned to 'mind the gap', as HS2 and other high-profile projects may mop up available capacity in the industry.

Now the company employs 150 people, and the factory stretches out over 125,000ft². Recent projects include two new sports stands in London: one at the Kia Oval cricket ground and one at London GAA's grounds in Ruislip.

In 2016, the family-owned business extended its factory, with a 43,000ft² paint shop and a high-speed plate cutting and drilling line with capital support from Enterprise Ireland. And in 2017, Kiernan will start manufacturing SIN beams – welded plate girders with sinusoidal corrugated webs, which are much lighter and stronger than traditional girders.

"SIN beams use 25 to 30 per cent less steel," explains the company's senior structural engineer John Kiernan. "Their use is design specific, but they could take tens of thousands of euros off the cost of a structure like a multi-storey car park."

Innovation also provides an important route to compete on issues beyond price. Irish companies working in areas like veneered woods or plastics for guttering have gone through an innovation process where they instead compete on superior performance, quality and/or aesthetics.

MOVING UP THE VALUE CHAIN

In Coolrain Sawmills, the number of employees has increased from 52 to 65 in the last two years on the back of innovation. The Laois-based company, founded in 1984, produces timber pallet and fencing material, 80 per cent of which is exported to the UK.

"Other sawmills would be using logs of 20cm or more in diameter for construction, but we have worked mainly with smaller logs, where the small-end diameter would be between 14cm and 20cm," says MD Declan Hutchinson. "We now have systems in place where we can work with even smaller logs, previously considered good for only pulpwood."



Logs of less than 14cm in diameter, or that are bent, are classed as pulpwood, because traditionally they would have been pulped to make paper and cardboard. However, in Ireland, most pulpwood is chipped and turned into MDF board or orientated strand board. In terms of value, pulpwood is worth about a third of the price of sawn wood, which is used to make timber, and half the price of pallet wood, which is used to make, well, pallets.

“With support from Enterprise Ireland, we saw an opportunity to develop our processes so that some of the Coillte crop, previously sold as pulpwood, could be processed by us and sold as pallet wood or sawn wood,” Hutchinson explains. “We’ve altered our systems, so that we can cross-cut curved logs before we start sawing them into boards.”

Normally, sawmills deal with logs that are about 3.6m in length – if the log is curved, you can’t cut a straight board from it. By cutting curved or defective logs in three, an innovation that requires specialist handling equipment, Coolrain is able to harvest 1.2m long boards from logs that would otherwise only be good for producing pallet wood or that would be pulped.

Sometimes it is possible to harvest boards from all three of the shorter sections, other times it is only possible to cut straight 1.2m boards from one or two of the shorter logs.

“It sounds simple, but we had to make a significant investment in our processes. As well as using 3D scanning equipment to ensure the cross-cutting is done as efficiently as possible, we have had to invest in more heavy duty plant and put in a new handling system.

“What it has enabled, though, is an increase in our output of higher value sawn wood. Previously, 50 per cent of our output would have gone into fencing, and 50 per cent into pallet wood. Now 80 per cent of

our output goes into fencing.”

Coolrain is currently exploring a further innovation project. “In the construction industry, things happen that require an immediate response,” Hutchinson says. “Research and development should be continuous. You should ideally be working on the next innovation project before your current project has ended.”

INNOVATION SUPPORT

Enterprise Ireland advises companies with in-house research and product development capability to appoint a senior manager to oversee and direct this continuous focus on innovation. Supports available may include the Key Manager grant and Innovation4Growth programme.

For others, collaboration is an option. For example, expertise can be accessed in the universities or, in the case of the 15 institutes of technology, through the Technology Gateway programme, and, again, support may be available through sources such as the Innovation Partnership fund.

Declan Hutchinson says that for Coolrain, getting the first project up and running required considerable “self-examination” to ensure it wouldn’t fail. This view is shared by Robert Geraghty, who says that companies should expect a product development project to take in the region of two years. “There is a lot of work involved in producing a design, drafting and engineering it, producing a prototype, then producing sample versions and testing that product with potential customers.

“We can help you find someone who will be able to help you scope out the project,” he says. “It is hard to find people who can hit the ground running, talk business and understand fully what you are trying to achieve and what you need to achieve. But it can be done. Many companies do it.”

All work is no good. In this issue, Simon Cocking looks at gadgets you'll want to bring home.

Cool play



Microsoft HoloLens

From €3,299

Self-contained holographic computer

The newly released Microsoft HoloLens is enough fun to bring home.

You may have already tried out various VR (virtual reality) headsets, and/or AR (augmented reality) ones. Think the visual display presented to Tony Stark in Iron Man.

With the HoloLens comes blended reality, with a pricetag in the luxury category.

Unless, that is, that you have a good business reason for purchasing it for work. As you can visualise the space around you and add various objects and then change and alter their location, size and colours, HoloLens could provide a smart working tool for designers, or an engagement tool providing experiences such as the 'Destination Mars' one offered to visitors to the NASA Kennedy Space Center.

Microsoft knows, however, that it is the success of the gaming applications that will make or break the product.

Sample games such as RoboRaid help give an idea of what you can expect. It's fun to see your own living room transformed into a battle zone with

microbots swarming towards you. You battle to destroy them, with laser explosions knocking virtual holes in your walls.

The Fragments element, meanwhile, offers interesting potential for 3D storytelling and quest adventures, which can relate to the objects and furniture in your home.

It's clear we are still at the early stage in terms of the range of games developed for this device. However, expect rapid progress in terms of creating a believable and engaging environment, within which to play and experience various forms of entertainment. This can, of course, include the 3D content you create yourself with devices like the Kaiser Baas X360 and the Canon G3 X.

If you're thinking your boss or accountant won't go for this, it might make sense to start by showing them what you can build using the HoloStudio. This enables users to design in 3D with holograms and then seamlessly hook these designs up to a 3D printer and print them off. It's a busy space, and there will be many developments to come.

If you are looking for something interesting and cool, but also arguably relevant to work use, this might just be something worth adding to the wish list, for you, and of course, the office.

Kaiser Baas X360

€269 to €415 (depending on store)

Dual Lens Virtual Reality (VR) Action Camcorder

Kaiser Baas is an up and coming company, creating smart photographic solutions in the action camera space. With the Kaiser Baas X360, you can take 360-degree images and view them via the virtual reality headset also available from Kaiser Baas or indeed any VR headset.

It might not be the first company that comes to mind in this space. However, having reviewed several Kaiser Baas products – and those of their more well-known competitors – I can confirm that the products do deliver in terms of price, functionality and the quality of the images they can capture.

First up, in terms of price there is a clear gap – often of a hundred euro or more – between their products and others on the market. Next, the user experience is intuitive. On this camera, it's really easy to toggle between taking stills and video.



Once you download an app, you can then view your footage almost instantly.

It's a product that's so new to the market, we probably haven't seen all the possible uses yet. The company has said that a waterproof casing will be coming very soon, which will further enhance the possibilities.

If you're looking for something a little different, without taking a big financial risk, then this could be a great stocking filler.

Canon PowerShot G3 X

€999

A photo and video powerhouse with a 25x zoom

I've reviewed a lot of different cameras recently, and this one is probably the best. I've used it for travelling to Moscow, Paris, Istanbul and Tel Aviv, as well as around Ireland, and found it's light and portable enough to carry in one hand when boarding planes.

At first, the lens seems limited, but as you use it, you realise it has a fantastic range, capable of capturing both extremely close-up images and those

that are a long, long way off. It also fires up quickly, enabling you to do a decent job of capturing a fleeting image.

It's also robust and fine with being dropped in and out of the bag repeatedly during the day.

Speaking with the owner of the well known and loved Conn's Cameras of Clarendon Street Dublin, Mike Conn said that a lot of professional photographers are using it as part of their kit for quick, quality shots to size up a potential shoot. For those of us who are busy and looking for one quality camera, this might well be the go-to name.



Bern



The Swiss constitution doesn't allow for a capital city, but as home to many of its government institutions, including the Swiss parliament, Bern could be regarded as the Alpine federation's de facto capital. Close to the centre of the Jura Arc, this small city packs in tonnes more character than larger neighbouring affluence-and-efficiency-oozing Geneva and Basel, the lynchpins of Switzerland's watchmaking industry – and today's biotech and medical device hub.

Bern has got affluence and efficiency in bucketloads too, but its Old Town, dating back to 1191, is a UNESCO World Heritage site, encircled by the Aare River and taking in the iconic Zytglogge Clock Tower; Käfigturm Prison Tower; sculptural fountains from the Renaissance; the Münster Cathedral, an impressive example of late gothic architecture, alongside well-kept sandstone facades. Along six kilometres of arcades, visitors can venture into bars and cultural venues in countless converted cellars alongside specialty shops, selling expensive Swiss watches and all kinds of interpretations of the ubiquitous cuckoo clock.

According to local folklore, founder Berchtold V, Duke of Zähringen, vowed to name the city after the first animal he met on the hunt, and which turned out to be a bear. If etymologists cast doubt on these origins, well frankly the Bernese don't care.

They have taken the bear warmly to heart as the heraldic animal of the seal and coat of arms of the city from at least the 1200s and have kept live bears in the Bärengraben since the 1400s.

GETTING THERE

There are no direct flights from Ireland to Bern, but the Swiss rail system is so efficient that it makes more sense to choose your flight to any of Switzerland's main airports (Zurich, Geneva and Basel) based on price and convenience, and then catch a train onwards to Bern.

SLEEP

The newly refurbished five-star Hotel Schweizerhof doesn't come cheap, but it's a benchmark of excellence for the business traveller: centrally located, just a step off the bustling street and into a world of luxury and efficiency.

Hotel Palace Bellevue is another centrally located five-star property, just a quick stroll from the railway station. It screams of old-world charm, but is essentially a luxury hotel aimed firmly at the business traveller – famously friendly and Swissly efficient.

Best Western Bern is a somewhat more affordable option, with a good and familiar standard of service and comfort, in a convenient location just five minutes walking distance from the train station and 130 metres from the city parking Metro.

EAT

Süder: Managed by Renate Fankhauser, this brasserie style restaurant, with a Swiss seasonal slant to an impressive international menu, is an ideal location for a relaxing meal or business meeting.

Klösterli Weincave: With an impressive list of international and ever improving Swiss wines and a good local beer offering, the impressive food at Klösterli completes the offering.

THREE THINGS TO DO IF YOU HAVE A FEW HOURS TO SPARE

Bear-watching: Visitors to Bern can observe live bears – Finn, Björk, and their daughter Ursina – right in the heart of the city. A pleasant 20-minute stroll along the main thoroughfare takes you to the BearPark, an idyllic habitat along the banks of the Aare where the city's three brown bears can climb, fish and play. (Note: during winter months, the bears will be hibernating and are only visible snoozing in their underground retreat via web-cam.)

Science and history: Albert Einstein lived in Bern from 1903 to 1905, during which time he developed the Theory of Relativity. The Einstein House provides visitors an opportunity to see where the great physicist completely revolutionised our understanding of space and time.

Art: Zentrum Paul Klee, a bold masterpiece in steel and glass, designed by Italian architect Renzo Piano and worth a visit for the building itself, is home to selected works, mainly drawings, from the world's largest collection of works by Paul Klee (1879–1940) as well as temporary exhibitions of further modern and contemporary artists.

Enterprise Ireland International Network

Head Office

| REGION/OFFICE | TELEPHONE | FACSIMILE | ADDRESS |
|---------------|-------------------|-----------|--|
| Dublin | +(353 1) 727 2000 | – | The Plaza, East Point Business Park, Dublin 3, Ireland |

Northern Europe

| | | | |
|------------------|--------------------|--------------------|---|
| Amsterdam | +(31 20) 676 3141 | +(31 20) 671 6895 | World Trade Center, Strawinskylaan 1351, 1077 XX Amsterdam, Netherlands |
| Brussels | +(32 2) 673 9866 | | Sablon Tower 14th floor, Rue Joseph Stevens 7, Jozef Stevensstraat, Bruxelles 1000, Brussels, Belgium |
| London | +(44 20) 7438 8700 | +(44 20) 7438 8749 | 2nd Floor, Shaftesbury House, 151 Shaftesbury Avenue, London WC2H 8AL, England |
| Paris | +(33 1) 5343 1200 | +(33 1) 4742 8476 | 33 rue de Miromesnil, 75008 Paris, France |
| Stockholm | +(46 8) 459 21 60 | +(46 8) 661 75 95 | Hovslagargatan 5, 4th floor, SE-111 48 Stockholm, Sweden |

Germany, Central and Eastern Europe and the Balkans

| | | | |
|-------------------|--------------------|--------------------|---|
| Budapest | +(36 1) 301 4950 | +(36 1) 301 4955 | Bank Centre, Szabadság tér 7, Budapest 1054, Hungary |
| Düsseldorf | +(49 211) 470 590 | +(49 211) 470 5932 | Derendorfer Allee 6, 40476 Düsseldorf, Germany |
| Moscow | +(7495) 937 5943 | +(7495) 680 5362 | c/o Commercial Section, Embassy of Ireland, Grokholski Pereulok 5, Moscow, Russia |
| Prague | +(420) 257 199 621 | +(420) 257 532 224 | Trziste 13, 118 00 Prague 1, Czech Republic |
| Warsaw | +(48 22) 583 1200 | +(48 22) 646 5015 | Mysia 5, 00-496 Warsaw, Poland |

Southern Europe, Middle East and Africa

| | | | |
|---------------------|--------------------|--------------------|---|
| Abu Dhabi | +971 2 495 8245 | – | Embassy of Ireland, Abu Dhabi, Road 19 off 32 Street, Al Bateen, PO Box 61581, Abu Dhabi, UAE |
| Doha | +974 4410 1735 | +974 4410 1500 | Office 825, 8th Floor, Al Fardan Office Tower, West Bay, PO Box 31316, Doha, Qatar |
| Dubai | +(971 4) 329 8384 | +(971 4) 329 8372 | 4th Floor, Number One Sheikh Zayed Road, PO Box 115425 Dubai, United Arab Emirates |
| Istanbul | +(90212) 809 11 58 | +(90545) 947 89 09 | Mecidiyekoy Yolu Cad., Trump Towers Kule 1, No:3104 Kat:31, 34387 Sisli, Istanbul, Turkey |
| Johannesburg | +(27) 115505440 | – | 24 Fricker Road, Illovo, Johannesburg South Africa |
| Madrid | +(34 91) 436 4086 | +(34 91) 435 6603 | Casa de Irlanda, Paseo de la Castellana 46 – 3, 28046 Madrid, Spain |
| Milan | +(39 02) 8800991 | +(39 02) 8690243 | Via de Amicis, 53-20123 Milano, Italy |
| Riyadh | +(966 1) 488 1383 | +(966 1) 488 1094 | c/o Embassy of Ireland, PO Box 94349, Riyadh 11693, Saudi Arabia |

The Americas

| | | | |
|-----------------------|--------------------|-------------------|---|
| Austin | +1 512 792 5499 | – | 515 Congress Avenue, Suite 1750, Austin, TX 78701 |
| Boston | +(1 617) 292 3001 | +(1 617) 292 3002 | 535 Boylston St, 5th Floor, Boston, 02116 MA, USA |
| New York | +(1 212) 371 3600 | +(1 212) 371 6398 | Ireland House, 345 Park Avenue, 17th Floor, New York, NY 10154-0037, USA |
| São Paulo | +(55 11) 3355 4800 | – | Rua Haddock Lobo, 1421 – Conj 51, Cerqueira César, São Paulo, 01414-003, SP, Brazil |
| Silicon Valley | +(650) 294 4081 | – | 800W, El Camino Real, Suite 420, Mountain View, CA 94040, USA |
| Toronto | +(1 416) 934 5033 | +(1 416) 928 6681 | 2 Bloor Street W, Suite 1501, Toronto, Ontario, M4W 3E2, Canada |

Asia-Pacific

| | | | |
|------------------|--------------------|--------------------|--|
| Beijing | +(86 10) 8448 8080 | +(86 10) 8448 4282 | Commercial Section, Embassy of Ireland, C612A Office Building, Beijing Lufthansa Ctr., No. 50 Liangmaqiao Road, Chaoyang District, Beijing 100125, China |
| Hong Kong | +(852) 2845 1118 | +(852) 2845 9240 | Room 504 (5/F), Tower 2 Lippo Centre, 89 Queensway, Admiralty, Hong Kong |
| New Delhi | +(91) 9920844760 | – | Commercial Section, Embassy of Ireland, C17 Malcha Marg, Chanakyapuri, New Delhi 110021, India |
| Perth | +61 8 9221 1263 | – | 1/100 Terrace Rd, East Perth, WA 6004, Australia |
| Seoul | +(82 2) 721 7250 | +(82 2) 757 3969 | Ireland House, 13th Floor Leema B/D, 146-1 Susong-Dong, Jongro-Ku, Seoul 110-755, Korea |
| Shanghai | +(86 21) 6010 1380 | +(86 21) 6279 7066 | Commercial Section, Consulate General of Ireland, Suite 700A, Shanghai Centre, 1376 Najing Road West, Shanghai 200040, China |
| Singapore | +(65) 6733 2180 | +(65) 6733 0291 | Ireland House, 541 Orchard Road #08-00, Liat Towers, Singapore 238881 |
| Sydney | +(61 2) 927 38514 | +(61 2) 926 49589 | Level 26, 1 Market Street, Sydney 2000, NSW, Australia |
| Tokyo | +(81 3) 3263 0611 | +(81 3) 3263 0614 | Ireland House, 2-10-7 Kojimachi, Chiyoda-ku, Tokyo, 102-0083, Japan |

For any markets not mentioned, contact Market Development Dublin. For further contact information, visit www.enterprise-ireland.com/contact



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