Under the pressures of the pandemic, businesses around the world had to pivot to implement new strategies and technologies to provide products and services digitally. While this new norm of business is built upon new technology, at its core it’s about people and meeting the changed demands of customers and employees.

“By delivering world-class talent and creativity alongside a highly collaborative approach, Irish companies are perfectly set for leading the new business environment,” says Sean Davis, director of Enterprise Ireland North America. “Throughout the difficult pandemic experience, we’ve seen talented Irish industry leaders and their teams step up with innovation to make a positive impact on business communities around the globe, and this effort is not slowing down.”

Redefining interactions
After nearly two years of working remotely, employees are increasingly expecting technology-driven initiatives from their employers, particularly around how to stay connected and how they work with others. Today, a large cluster of Irish HR and TalentTech firms are helping companies attract and retain employees, enhance performance management, and expand diversity and inclusion in their business.

WorkHuman, for example, is on a mission to make work more personal for millions of people and organizations worldwide. Through its cloud suite of products, companies can strengthen employee performance and connect people on a more positive and emotional level—in tune with how work gets done.

Another Irish company with the mission of improving employee communications is Workvivo. The company developed an employee communication platform to excite, engage and connect entire companies. Its unique approach combines a social network with an easy-to-use employee app.

Diversity, equality, inclusion
In addition to significant shifts in workplace connectivity, current and potential employees now expect to come into organizations where diversity and inclusion are key priorities. In 2020, Enterprise Ireland, the Irish government’s trade and innovation agency, launched a new Women in Business Action Plan. This initiative offers a wide-ranging set of actions to support the scaling of women-led businesses, increase startup rates among women, support the recruitment of women as senior managers, and highlight role models and good practices.

Addressing equality issues in the banking sector, Irish companies are providing innovative payment solutions to the unbanked and underbanked. PiP iT Global has devised a secure and private online payment platform that helps customers spend cash digitally. In particular, it facilitates migrants living and working around the world, who may not have full access to banking facilities, to send money and pay bills internationally, at low cost and in a secure way.

Irish company AID:Tech enables entitlements such as aid, welfare and donations to be digitized, delivered and tracked using blockchain technology, including the distribution of international aid to refugee camps. This solution enables, for the first time, the ability to track a payment from the donation to the recipient. One of its partners, Women’s World Banking, uses AID:Tech to deliver their Caregiver microinsurance at scale, ensuring claims are paid simply, quickly and transparently. Women’s World Banking is committed to making affordable health insurance schemes available to low-income women in developing markets.

With more banking now being conducted online, transaction monitoring, high-quality risk controls and proactive cyber security are ever more critical. Irish company Daon helped invent many of the mobile device authentication systems in use today, and Fenergo’s award-winning digital client lifecycle and regulatory compliance solutions enable financial institutions to create a truly frictionless customer experience.

Internet of Everything
The new business norm not only brings with it new tools and services for employees and customers, but it also brings into businesses a level of insights and actionable data that was simply not possible within the old-school, all-analog world. Today’s devices and sensors generate very valuable data at a rate we could have never predicted. Smartphones, smartwatches, tablets and all manner of IoT-connected products, from refrigerators to health monitors,
have become globally ubiquitous. Combined with the ready availability of the cloud, we are now a very connected world—and Irish innovation is at the forefront of this connectivity.

Ireland-based Teleck, a developer of tank monitoring devices, has been at the forefront of this connectivity. Solutions from patientMpower ensure that specialist healthcare teams can remotely monitor patients with respiratory conditions without the need for providers to attend the hospital. The Salaso Health platform is a HIPAA-compliant and secure telemedicine service that allows healthcare providers to continue patient-centered care remotely, including secure video consultations and live exercise demonstrations.

In agriculture—a sector very dear to Irish culture—EquiTrace creates data management solutions for food farms and traceability solutions for the specialty organzations. Hendricken is working to simplify agribusiness by helping farms eliminate paperwork and make better decisions. Apit Protect brings ground-breaking technology to commercial beekeeping. Lamas is an artificial intelligence (AI) and robotics company that uses machine learning to turn virtual, environmental and biometric bird and farm information into actionable data for poultry producers, and Peeper Systems uses advanced automation and data technology to improve milk collection, loading and sampling.

### Partnership: The catalyst for growth

Today’s complex marketplace requires collaboration with a range of partners to provide the best combined solutions for customers. Cloud technologies, advanced analytics and a proliferation of IoT devices are driving technology integrations across all business sectors. “Around the globe, Ireland is highly regarded for its leading software development in AI, data analytics, augmented and virtual realities, cognitive cloud computing, IoT technology and more,” says Davis. “Irish tech companies are forward thinking, success driven and work with a global mindset.”

As the world’s largest venture capital entity by deal count, Enterprise Ireland works with Irish startups to help them start, grow, innovate and win export sales in global markets. Enterprise Ireland partners with entrepreneurs, Irish businesses, and the research and investment communities to create mutually advantageous partnerships between Irish and international companies.

Organisations today are being called upon to navigate increasingly complex social, environmental and technological challenges that they can’t solve alone. The shared expertise and knowledge of a well-designed partnership can spark innovation and unlock new opportunities and networks—and Irish businesses are ready to develop the solutions and build the relationships that will help us all succeed in the new world norm.

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**2021: The sector agnostic evolution of healthcare**

Irish companies are partnering with global manufacturing firms and healthcare providers to deliver ground-breaking innovations.

The past 18 months have been extraordinary difficult with significant cost to both societies and economies around the world, and indeed an unprecedented time for the healthcare industry globally. Never before has global health-care experienced such significant demands and such critical change in such a short space of time. New solutions were needed fast to deal with competing demands—from increased supply of PPE to lifesaving equipment and medicines.

It has also been a period of intense transformation, with healthcare providers adopting new technologies and business methods to surmount the hurdles and restart the race to roll out new vaccines and manage a surge in telemedicine.

In early 2020, digital telemedicine was utilized by roughly 11 percent of patients and clinicians—that more than quadrupled to 46 percent by the end of the year. In the last three quarters of 2020, over $3 billion of venture capital was invested into digital health, illustrating an enormous pivot around health and technology.

With the growth of virtual solutions in healthcare came the need to ensure robust cybersecurity measures to protect patients’ confidential data. Cybersecurity within healthcare is becoming an increasingly important topic for public and private healthcare systems globally. As organizations look to bring electronic health records (EHRs) online and upload data to cloud-based systems, information will be accessible by virtually any provider, anywhere, at any time. The solution to protecting this data is investing in real-time threat monitoring product portfolios is used by many of the world’s top medical device manufacturers.

“There’s no denying that cybersecurity has now become intrinsically intertwined with healthcare,” states David Corcoran, head of life sciences, Enterprise Ireland USA. “But it’s also fascinating how the rapid shift to developing virtual solutions for patients—whether it be for appointments, clinical trials or post-treatment monitoring—has led to a more secure, patient-oriented healthcare system as a whole.”

The advent of the pandemic was a catalyst for virtualization and digitization. What began as a potential threat to EHRs has turned into a critical leap pad in the overall implementation of digital healthcare.

Irish company HealthBeacon understood that virtual and digital patient monitoring was a growing concern during the pandemic and ensured that they were offering patients and healthcare providers adequate solutions for this. They struck at the right time and have been able to grow rapidly in the last few years. Through their partnership with home appliance giant Hamilton Beach, HealthBeacon was able to deliver a smart injection care management system to provide medication management reminders and track adherence in a secure way. This system includes a new Smart Sharps Box, the world’s first and only smart sharps bin cleared by the United States Food and Drug Administration for the safe and convenient disposal of used sharps through the U.S. Postal Service’s approved mail-back program.

“Irish innovation is uniquely positioned to remedy the risks to supply chain disruptions we experienced at a global level this last year.”

David Corcoran, Head of Life Sciences, Enterprise Ireland USA

“Patients need to trust that the platforms they are engaging with are secure,” says Corcoran. “We’re seeing a crossover between various sectors to ensure that this happens. Irish advancements in artificial intelligence (AI) have enabled real-time, accurate monitoring and analysis while telecommunications have come into play as the infrastructure provider for these engagements to occur in a secure, trustworthy manner.”
Understand the intricacies of American companies’ strengths and weaknesses. Historically strong cultural ties to the United States allows our clients to unchain disruptions we experienced at a global level this last year,” states... From colleagues to partners. The healthcare industry is continually evolving, but the last 18 months have taken that evolution to another level. Healthcare has become digitally integrated with medical technology, patient care, and pharmaceutical companies working together with cybersecurity, digital technology and telecommunications companies to maximize provider efficiency and patient outcomes.

“Irish businesses are at the very center of solution development to meet the toughest challenges the world faces today.”

David Corcoran, Head of Life Sciences, Enterprise Ireland USA

As a result, innovation needs to permeate throughout every industry—and partnerships have proven to be the most effective way to do this. Enterprise Ireland’s strengths lie in just that—developing the necessary partnerships for companies to innovate together. Across the world, Irish medtech companies are partnering with global manufacturing companies and healthcare providers to deliver the next ground-breaking innovations. As a trusted source of innovation, Ireland’s medtech industry has attracted the attention of leading U.S. and U.K. healthcare partners, such as Northwell Health, AdventHealth, Beth Israel Lahey Health and the NHS. In addition, global medical device companies such as Medtronic, Boston Scientific and Liva Nova are working closely with many Irish companies. These renowned global partners have been impressed by Irish talent, and they look to Ireland to co-develop and commercialize future healthcare solutions.

“Ireland’s vibrant entrepreneurial spirit has made it a critical partner for North American businesses,” says Corcoran. “Irish businesses are at the very center of solution development to meet the toughest challenges the world faces today.”

Leading New York-based healthcare provider Northwell Health has announced a new strategic agreement with Enterprise Ireland them—it is now about being proactive and not reactive. Irish companies are developing new fail-safes to prevent medical supply chain issues from happening again by leveraging their strengths and focusing on innovation and readiness. Global brands such as Microsoft, BMW, Coca-Cola and many global pharmaceutical companies are using Irish AI-driven supply chain software from Keelvar to take the complexity out of supplier sourcing. Keelvar is the leading global provider of intelligent sourcing optimization.

Climate change is a threat to all of us. It’s a global problem in need of a global solution. But the last year has taught us that when human will and scientific ingenuity come together—no challenge is insurmountable. Irish green innovators are playing a big part in the race to reach zero emissions by solving complex technical challenges and delivering sustainable and low carbon solutions to make renewable energy viable and reduce energy waste in our cities with smart technology; reduce agricultural waste and make construction cleaner.

Clean technology is sector agnostic and offers opportunities for many industries to minimize their environmental impact. From agriculture to construction, waste management and offshore renewables, Ireland is fast becoming an international clean technology hub. Always future-focused, Irish companies, with the support of the Irish government, are hard at work developing innovations to tackle some of the world’s most important sustainability challenges. “Countries and organizations around the globe are setting ambitious sustainability goals to become more energy efficient and reduce their carbon footprint,” says Sean Davis, director of Enterprise Ireland North America. “Irish companies offer a distinctive blend of tech innovation and expertise. With these skills and knowledge they can make a real difference in the world.” The rise in green stimulus packages globally and green public procurement targets within the European Union have incentivized companies to partake in a ‘Green Revolution’. Governments aren’t the only ones investing in cleantech, venture capital investment in cleantech is no new trend, in the first half of 2021, cleantech funding reached €64 billion—over $10 billion more than was invested in the period from 2006-2011.

Ireland is now at an essential role in contributing to a sustainable world and ranks fifth in the MIT Technology Review Green Future Index 2021, an index of 76 countries rated according to their progress towards building a low-carbon future. As a strategic objective, Enterprise Ireland seeks to strengthen Ireland’s role as a global carbon footprint and capitalize on opportunities emerging from the low-carbon transition. To promote cleantech advancement, Enterprise Ireland provides companies with The Green Offer to prepare them for a transition to the low-carbon economy of the future. This program allows companies to receive tailored funding and training services in order to enhance their sustainability practices. Further to this, Enterprise Ireland bridges the transatlantic gap between Irish and North American companies to help ensure mutual collaboration and sustainable growth.

Over the last few years, the environmental impact of the agriculture sector has come to the forefront. EASYFIX, a family owned company for the last 25 years, aims to support farmers with their need to minimize their carbon footprint. By engaging with research institutions and universities around the world, EASYFIX has developed a mantra technology that has been proven to reduce ammonia emissions by 51 percent while increasing the nutrient necessary for fertilizers such as nitrogen, phosphorus and potassium. As a result, farmers save in artificial fertilizers and reduce their carbon footprint, resulting in higher farm profitability. Typically, when cleantech is mentioned, the first thing that comes to mind is renewable energy alternatives. While wind energy is the most prevalent renewable energy source in Ireland, Irish company OceanEnergy believes the most valuable renewable energy resource is yet to be harnessed: waves.

OceanEnergy’s wave energy device captures and converts wave energy into electricity by extracting the power from the water’s motion and turning it into electrical energy. Each device produces enough electricity to power 1,000 homes and has the potential to be sent back to the grid or used in other applications. Another renewable energy source that Irish companies have been able to harness is offshore wind. This sector is anticipated to grow from 22 gigawatts (GW) in 2018 to 177 GW by 2050, with global investment in the industry quadrupling in the first half of 2020. In 2017, XCEDEIE developed unmanned technology and systems to collect the ocean data necessary such as seabed mapping and inspecting subsea assets like cables and foundations to build offshore wind farms. In the last four years, this Irish company has developed partnerships with companies around the world and now operates globally. Its mission: transform ocean data collection by bridging the knowledge gap that lies in 95 percent of the world’s oceans that are unmapped to support the sustainable and economic growth of our oceans.

“Green innovation should not be sequestered to one region,” states Davis. “By developing partnerships with the research and innovation ecosystem, international companies and governments, Irish companies are ensuring that their expertise permeates at a global scale enabling industries such as agriculture, construction and transport be more sustainable, making buildings greener, curtailing pollution and supporting renewable energy production.”
Investing in a strong pipeline of Irish innovation

Leo Clancy, CEO, Enterprise Ireland, describes why the country’s companies are thriving in a fast-moving global environment.

As global economies rebound, what is Ireland’s outlook for the future and how are Irish businesses responding to COVID-19?

COVID-19 created unprecedented challenges for everyone. However, one positive aspect was that it proved the resilience of Irish companies in the face of extremely difficult circumstances. The onset of the pandemic also coincided with the new U.K.-European Union (EU) trading relationship, which presented new challenges for Irish businesses in how they traded with one of our nearest and most significant trading partners. Yet despite these circumstances, Irish businesses met these challenges with resilience and innovation, and this reflected in our exporting performance in 2020, which remained steady and strong. In 2020, Ireland was the only economy in the EU to grow, with a growth rate of 3 percent, despite the pandemic and widespread shutdowns.

While it has been a very difficult year for companies, many exporting Irish businesses responded to the pandemic by pivoting to meet new demand in response to emerging market needs in areas such as life sciences, digital health and consumer retail. Ireland was ranked fifth in the world for global exports of COVID-19-related goods and services, according to the Organisation for Economic Co-operation and Development. Some examples of innovative Irish COVID-19 responses are:

- NearForm: an Irish software development and consultancy firm, built the data quality and integrity in the evolving pandemic environment.
- ICON: provided clinical trial services for COVID vaccine programs.
- AgraTech: an agri-technology platform to measure and manage carbon emissions at farm level.
- CitySwift: a delivery company that uses data to strategically improve public transit, making the most sustainable modes of transport more efficient and user-friendly.
- OceanEnergy: capturing and converting the power of waves into electricity through advanced technology.

Leo Clancy, CEO, Enterprise Ireland

“The opportunity for U.S. firms to leverage innovative Irish startups that understand U.S. business and culture has never been higher.”

Our strategy is to invest in the most innovative Irish companies through all stages of their growth. We also drive collaboration and commercialisation of state-funded research to accelerate development of the innovation pipeline.

Through Enterprise Ireland, over the past few decades Irish governments have ensured that Ireland has a robust overall funding ecosystem that fosters innovative indigenous Irish companies. We have committed over half a billion euros in seed and venture capital schemes. This has been crucial in developing a strong pipeline of high-growth, high-potential companies throughout their growth and export journeys.

We have seen the benefits of supporting this pipeline of startups, particularly in areas such as finance, cybersecurity, digital health and agri-tech. We have also been focused on women-led startups, and are extremely proud that we support two to three times the global average of women-led businesses.

The pandemic has fast-tracked digitalisation across many sectors and businesses; meanwhile, calls for climate action have grown and with greater urgency. How are Irish businesses approaching these challenges?

As we emerge from COVID-19, a key priority for Enterprise Ireland for 2021 and beyond is the transformational change within our client base and, in particular, to help more Irish small and medium-sized enterprises (SMEs) to adapt their business models and invest in research and development, increase adoption of digital technologies, and respond to climate change and carbon-reduction opportunities for future business growth.

Driving capability in the field of digitalisation, research and innovation, and maximising research and innovation collaboration nationally and regionally, including through the disruptive technologies funding programs, technology centers, and regional technology clusters are all key areas of focus for us.

The Irish government has recently agreed legislation that commits Ireland to halving our greenhouse-gas emissions by 2030 and reaching net zero before 2050. This presents significant challenges for all industries but also presents opportunities for Irish businesses in a wide range of areas. Some examples of Irish companies leading on sustainability include:

- CitySwift: a delivery company that uses data to strategically improve public transit, making the most sustainable modes of transport more efficient and user-friendly.
- OceanEnergy: capturing and converting the power of waves into electricity through advanced technology.

www.country-reports.net
As the world adapts to the new normal, Irish companies are leading the way, helping global industries respond to their most pressing challenges. And as the world’s number one VC, Enterprise Ireland is investing in the most cutting-edge Irish companies.

Across the US, our network of advisors are connecting American businesses with innovative Irish partners. Talk to us and get the power of Irish innovation behind your business.

IrishAdvantage.us

*PitchBook 2020 Annual League Tables