



# Bank of Ireland Sectors Team Technology, Media and Telecoms (TMT) 2022 Insights and 2023 Outlook

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**Bank of  
Ireland**

Classification: **Green**

Ireland's TMT sector continued to perform strongly throughout 2022 as expansion of the digital economy continues to create opportunity and boost demand across each of the subsectors. Despite cost pressures and geopolitical uncertainty, shortage of skilled talent continued to present the greatest challenge for many businesses.

## TMT 2022 Review:

### Summary

#### Technology

Acceleration of technology and digitisation continued across every industry sector, boosting demand for many different technology solutions and services from various providers. For example, we have seen increasing demand from many retail businesses adopting an omni-channel business model. This has led to a requirement for solutions such as expanded ecommerce capabilities, automation and customer relationship management tools. On the supply side, shortage of available talent was again the most challenging aspect, with some customers resorting to hiring talent from Brazil and South Africa to help meet these demands.

#### Media

Ireland's creative sector also continued its strong performance of recent years. The independent film *An Cailín Ciúin*<sup>1</sup>, made history by being the first Irish-language film to be nominated for the Oscars® in the Best International Feature Film category. This multi-award-winning movie also grossed over €1 million at the box office, which is an extraordinary achievement for an independent film. *Banshees of Inisherin* too, having been filmed on Inis Mór and Achill Island is not only being tipped as a strong contender for the Oscars®, but is already causing a stir among fans wanting to visit the film locations, which will have wider benefits for the hospitality and tourism sector.

#### Telecoms

There was also good news for consumers following ComReg's<sup>2</sup> publication of the winners of the main stage of the Multi Band Spectrum Award (MBSA2) across four valuable spectrum bands. The significance of this announcement is that these bands are suitable for providing 5G and will support more widespread mobile connectivity, while increasing network capacity. The winning bidders were Eir, Imagine, Three and Vodafone. The licences are granted for 19 years, providing operators with the certainty in making long-term investment decisions to support the rollout of 5G services across Ireland. Overall, this is expected to lead to more competition in the market which is great news for consumers and the awarding of these licences was estimated to be worth circa €448 million to the exchequer, so good news all round.






### 2022 Key Sector Trends

**'Big-tech' job losses:** The spate of recent job losses over Q4 by 'big-tech' has served to create anxiety as to whether this can be seen as a correction or a collapse in the sector. It's important to state that these losses need to be seen in context. Many global software/technology firms sought to shore up their recruitment drive to boost their headcount at a time of unprecedented demand, largely created by the pandemic. This is now looking more like a correction, following many years of continuous growth. For the most part it may see these businesses being back to where they were at the beginning of 2022, in terms of total headcount and simply represents a 'levelling off'.

**Tech-enabled businesses becoming more ubiquitous:** Despite the job losses referred to above, indigenous businesses appear to be bucking the trend. Recent data published by Enterprise Ireland confirmed net jobs increased by 5% in 2022. The data showed an increase in employment across Ireland's indigenous Technology and Services sector grew by 8% last year. **'High-Tech'** construction and housing grew by 6%; **Digital Technology** (9%), Climate, Sustainability and **'Agritech'** by 13% and **'Fintech'**, Financial and Business Services by 6%. While one empathises with anyone that may have lost their job recently, many coming from a technology sector background will invariably have very transferrable skills, allowing them to assimilate into various different roles. Ryanair recently announced 150 technology roles, as well as EY who are seeking to hire 900, many of which are technology related roles. Further evidence is demonstrating, increasingly, how even traditional businesses are becoming more technology enabled.

**Customers demanding a 'one-stop-shop' from technology providers:** There was a noticeable increase in market demand over the course of last year to reduce the number of technology suppliers a business might have. Rather than having different suppliers for their outsourced information technology (IT) managed services and cyber-security protection as well as hardware, customers instead have been seeking to slim down the number of providers to just one or two suppliers. The aim of which was to reduce risk and to ensure they had more robust protection of their networks, systems and applications while limiting their potential exposure to cyber threats. Demand for one-stop-shop providers is also feeding into the recent consolidation trend where various managed service providers have sought to acquire operators with complementary service offerings to broaden their service suite.

### Sector Developments - Key Numbers

	<b>1<sup>st</sup></b> <sup>4</sup>	Buymie, named as the fastest growing technology company in Deloitte Technology Fast 50 Technology Awards for 2022.
	<b>34%</b> <sup>5</sup>	Increase in VC funding into Irish technology companies in Q3, 2022.
	<b>29%</b> <sup>6</sup>	TMT sector was the dominant sector, in terms of value, within the market of total Irish M&A during the first half of the year.
	<b>\$12.8m</b> <sup>7</sup>	Series A funding round closed by Vaultree; a Cork based provider of encryption software.
	<b>150</b> <sup>8</sup>	The number of technology roles being created by Ryanair to help deliver cutting edge projects, emerging technologies and driving digital transformation.

## Key activity in the Sector:

**Tech sector valuations:** as we moved through 2022, we began to see more realistic expectations emerging following several years of record valuations being achieved for many Irish businesses. Investors have become more focused on businesses that are EBITDA positive or can demonstrate a pathway to profitability. Growth for growth's sake is no longer seen as the barometer of success it once was, as access to capital has got tighter. Rather an established differentiated position with a realistic addressable market opportunity and recurring revenue are now in sharp focus as determinants of an investible proposition and a sustainable business.

**Expansion of film/tv studio infrastructure:** Tara Studios, slated to be developed at Borleagh Manor in County Wexford, was also given the go-ahead by An Bord Pleanála. This permission cleared the way for construction to commence on what is expected to be one of the largest film production facilities in Ireland, further boosting the country's growing screen industry infrastructure. It is also expected to have broader positive implications for the local economy in terms of employment, hospitality and potential tourism.

**Collapse of FTX and what it means for crypto:** the news in early November that Binance were pulling out of the deal to acquire FTX set in train a calamitous chain of events. It wiped out more than \$230 billion<sup>9</sup> value out of the crypto economy and shattered investor confidence in cryptocurrencies in the process. The crypto and indeed world-wide financial community has been left pondering how a cryptocurrency exchange platform that managed to rise to the top, (securing \$400m in investment and a valuation of \$32 billion), could unravel so spectacularly and slip to the bottom, all within three years of having been founded. As more evidence emerges of how FTX spent lots of the money it had raised, paying \$210m for a naming deal with the major esports brand TSM along with various others, it seems corporate governance practices were either not in place or not being adhered to. Total market capitalisation of the global cryptocurrency market peaked at \$2.9 trillion in November 2021. At the end of 2022, it stood at just \$798 billion<sup>10</sup>, recording a loss of over \$2.1 trillion. With little or no regulation or security for investors, it is perhaps no wonder that some have branded bitcoin and cryptocurrency "the biggest ponzi scheme in human history"<sup>11</sup>. Where to from here? It's probably high time that some rules were created for crypto, so that assets are properly regulated and protected.

## Recent investment in the sector:

Last year saw the announcement by Dublin-based Delta Partners that it had launched its new venture capital fund which aimed to invest into 30+ technology start-ups at seed and early-stage in Ireland. Bank of Ireland and Enterprise Ireland are cornerstone investors in this fund along with Fexco and several family offices. Investments so far include:

- **Eppione<sup>12</sup>:** a Dublin-based global provider of personalised and localised employee benefits, secured €2.5M of additional investment, led by Delta Partners.
- **ProMotion<sup>13</sup>:** a Dublin-based consumer rewards company closed a €725,000 pre-seed round with Laidlaw Scholars Venture and Delta Partners. ProMotion Rewards allows consumers to photograph their receipts, complete surveys and enter competitions via a dedicated app, earning points when they participate.
- **Dimply<sup>14</sup>:** a Dublin-based Fintech closed a seed round with participation from Delta Partners. Dimply have created a platform that empowers financial services customers to build an open banking and deliver rich, personalised experiences, based on actionable data insights.
- **NoFrixion<sup>15</sup>:** a Dublin-based Fintech that is revolutionising business payments, closed a €3.6 million funding round led by Delta Partners and Middlegame Ventures and were joined by Furthr VC. Their mission is to enable money to move instantly – to make it easy to pay and get paid using a proven process called "Experiential Payments".
- **LegitFit<sup>16</sup>:** a Cork-based provider of management software for gym providers and fitness studios, closed a €1 million seed round, led by Delta Partners. LegitFit are on a mission to empower fitness entrepreneurs.
- **VisionR<sup>17</sup>:** A Dublin-based retail insights company secured €1.5m in a funding round led by Delta Partners, with backing by Movidius co-founder Sean Mitchell, Amici Ventures and Vincent Nolan. The company aims to give 'online insights' to clients in the offline retail industry.
- **Gigable:** A Kerry- and Dublin-based closed a round of €1.5m led by Delta Partners. The company aims to supply gig workers to hospitality and security companies.



# TMT 2023 Outlook

Despite the geopolitical, inflation and energy crises over recent months we embark upon 2023 with an optimistic mood, with significant opportunity on the horizon. Digitisation will continue as ESG comes more into focus. Existing and new, emerging technologies will provide the tools for companies of every size and sector to transform their business models to become more efficient and embrace the green agenda.

## 2023 Key Numbers:



**\$1tn**<sup>18</sup>

Expected global spending on goods and services via social media platforms in 2023.



**€37.7m**<sup>19</sup>

Funding has been allocated to Screen Ireland for 2023.



**\$600bn**<sup>20</sup>

Gartner forecasted worldwide spend on public cloud end-user to reach in 2023.



**€1.6bn**<sup>21</sup>

Amount of funding announced by the European Commission for innovators and scientists in the EU to scale up breakthrough technologies and create new markets.

## Technology

Looking ahead for 2023, business customers across the sector remain optimistic for the year. While cognisant of a potential slowdown in the economy that could have a knock-on effect in terms of procurement/acquisition of software and IT services, the mood is positive. The impact of various shocks of recent years caused businesses to adopt a tighter cash flow position, coupled with lean principles. As demand increased significantly for various technologies and applications, they have tended to reap the benefits, borne out by strong cash balances for many companies. Much of the technologies now adopted in various sectors would not be seen as discretionary spend. Instead they are seen as critical to a business's operations and unlikely to be suspended/replaced in the event of a recession, insulating providers somewhat against a downturn.

From a regulatory standpoint, data privacy will strongly figure this year. May 25th will see the fifth anniversary since GDPR came into force. Businesses should be well informed by now regarding compliance measures and obligations. Large fines that have been imposed on 'big-tech' may well be interpreted as a warning to SME's too, to get their houses in order as we are likely to see more proactive activity regarding GDPR compliance coming from the Data Protection Commissioner's (DPC) office.

## Media

Advertising spending in the Irish market is expected to grow by around 6% to €1.7bn in 2023 according to Magna Global<sup>22</sup>. Digital advertising accounted for 70% of spend last year and is expected to grow by 15% this year, across various platforms such as YouTube and TikTok. Print media advertising was down 2% last year, continuing the trend of recent years and looking ever more ominous. Ireland's Screen industry continues to go from success to success, with increased government support and new funding to support gaming, animation and immersive storytelling subsectors to support the further growth of Ireland's creative industry.

## Telecoms

We may see cost of living pressure impacting on customers this year that could result in a change in attitudes towards spending on connectivity and content, which could lead to a significant increase in customers switching providers. As cyber threats are becoming more prolific, down to the level of the individual, customers will be looking to their service providers to do more to ensure safety and security of their networks to ensure cyber security is top of their agenda. Given the amount of consolidation that has taken place over recent years, we are probably going to see telecom providers taking a more proactive approach to new product development for enterprise customers in the areas of cloud services and the Internet of Things (IoT).

## Market

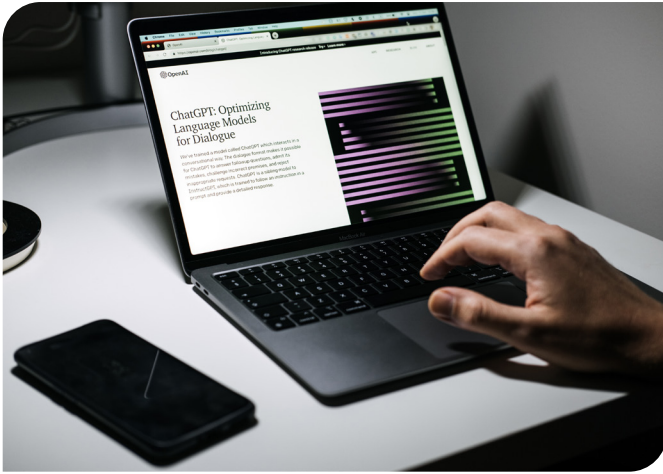
### ChatGPT – an in-depth review.

Having only been launched in late November, it is fair to say that the internet has 'lit up' in recent weeks with talk of this latest text-generating technology. Within a week of its launch, it had gathered over one million registered users. It is being heralded as an artificial intelligence (AI) revolution that could solve lots of our problems and answer many questions. Some are even going as far as suggesting that Google<sup>23</sup> could be put out of business. Why? The difference is Google will provide you with the lists of websites that match your inquiry, ChatGPT will answer your specific question and provide specific content, lists or even instructions on how-to complete a task.

**So, what is ChatGPT (v3.5) and how does it work?** It is a "chatbot" (short for chat robot) that has been trained to provide human-like answers to everyday questions and problems, by modelling previously established texts created by humans in order to guide the model towards future behaviour. It uses massive amounts of data and information taken from numerous sources from the internet, including internet forums and discussions, to help ChatGPT learn and attain a conversational/human style of responding about endless topics. In essence it has been trained to understand what humans mean when they ask questions.

It has a user-friendly interface, making it simple for someone to pose a question, using natural, everyday language and the chatbot will respond in a conversational style with the answer. Using machine learning, the chatbot then remembers the thread of the conversation and uses previous questions and answers to inform its next responses to inquiries and interactions as it evolves over time.

The purpose of its invention was to understand how humans ask questions and provide truthful and helpful, harmless answers. To this end, it has been programmed specifically to not provide answers to toxic/harmful questions. That said, the creators of this technology, OpenAI (co-founded by Elon Musk), acknowledge that it will sometimes respond to harmful instructions or display biased behaviour. They have deployed the Moderation API to try and defend against certain types of unsafe content, however given it is still in its infancy they concede that they expect to have some false negatives and positives for the moment.



**How could businesses potentially use ChatGPT and what for?** It can be used in any number of ways where human conversations take place, offering potentially infinite uses for the technology, e.g., hiring and training staff, personalised shopping/customer experiences and even streamlining of processes. Some instances of its use include:

- **Customer care:** conversational type, automated responses, where one receives a more personalised reply to their inquiry.
- **Journalism:** creation of content for news articles, reports and research.
- **Branding and marketing:** creation of personalised, engaging content, harnessing market research, tailored to specific market niches and segments.
- **Personal fitness nutrition:** creation of weekly training programs, including exercises, reps, sets and specific advice on when to warm up and cool down and associated meal plans based on the individual.

**Caveat:** the capabilities and potential of this technology can perhaps appear scary, as it is giving rise to the fear that this will lead to job roles being redefined/lost much sooner. While this is revolutionary technology, it does have limitations as it can only provide answers based on the data it has been trained on. OpenAI acknowledge the technology has limited knowledge of events after 2021. Similarly, it cannot handle nuanced, complex, or sensitive inquiries and does not have the ability to think or act creatively. There are lots of potential ethical implications too as it could result in the spread of fake news or could potentially be used to generate false or misleading information. Academics too recently tested the technology and produced responses to exam questions they say would have resulted in full marks if they were submitted by an undergraduate.

This current model was trained on text. Future models will likely be trained on data from other means, such as images, video and even audio recordings and will enable other broader and diverse capabilities and even greater opportunities. Thus, we could see different versions of ChatGPT trained with data from various different business verticals, providing answers nuanced to different industry problems. The potential is frightening and exciting in equal measure and one wonders, could this be the beginning of the commoditisation of AI for the masses?

For now, the technology is free, however it has been well documented that its creators have referred to the 'eye-watering' computing costs, with some estimates of up to \$3 million per day. Inevitably, enterprise customers will be charged for this before too long.

## Cyber Hygiene

Looking ahead, given the proliferation of attacks, there is a need for SMEs and organisations of every kind to adopt a step-change in terms of focus on cyber-security training and protection. Businesses will need to take a more proactive approach, where appropriate, to enhancing the security of their supply-chain. More than 85% of attacks start with a human error, thus requiring continuous, ongoing training by employers. According to TechTarget<sup>24</sup> we will see an increase in investment to improve enterprise security posture. This will likely provide further growth opportunities for cybersecurity managed services providers as business seek to shore up security and most importantly have robust security to guard company and customer data.

## ESG and Digitisation

As more clarity begins to emerge in relation to Sustainable Development Goals, it is inevitable that digitisation will play a central role in helping all industry sectors meet these goals. Technologies such as AI, Machine Learning and Internet of Things, will become more essential in the day-to-day operations of many industry sectors, specifically in relation to the optimisation of operations. Digital transformation will also be used to mitigate problems, such as, helping with monitoring, and associated attempts to reduce carbon emissions. Digital transformation could also provide solutions around the health and safety of employees. Data and the management of same will come into sharp focus as manual processes are no longer fit for purpose. Businesses will need to ensure they are digitising all of their data, enabling transformation to a more efficient, accurate, and consistent system that reduces human error, or a single point of failure. Operational costs can be reduced through digitisation, while removing information silos as data is moved to cloud instead of traditional storage. Having the appropriate technology will help businesses in how they gather ESG data and associated reporting requirements in the time ahead.



## Funding activity

Digital transformation continued across every sector in 2022 and we expect it will continue to provide growth and expansion opportunities for our technology customers servicing those markets. We look forward to supporting these established businesses as they look to consolidate, grow scale and increase their market position. Over the last year there has been a marked increase in activity. Businesses that have matured in recent years are now seeking to refinance from alternative lenders to reduce their cost of capital and we look forward to working with other similar businesses through the coming year. Likewise, we have supported both existing and new customers investing in their businesses to adequately resource their operations in order to capitalise on new opportunities and grow new markets.

## Bank of Ireland

In Bank of Ireland, we recognise that we have a unique opportunity to support our customers, help enable Irish businesses and support the communities we jointly serve to thrive. Our understanding and comprehensive sector expertise provide us with a strong platform to meet the funding requirements of Irish Technology, Media, and Telecoms companies. We have an appreciation of the different types of businesses, revenue and growth models. We are delighted to continue to provide various facilities to some of Ireland's best-known TMT brands. By having a designated TMT team, we can deliver on our ambition to support Ireland's indigenous Technology Sector, with the experience, the knowledge and most of all an understanding of your business.

**Talk to our Technology, Media & Telecoms Team today, to see how we can help you grow your business.**  
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Paul joined Bank of Ireland in 2019 as Head of Technology. He has a background in technology transfer having previously worked at the ADAPT Centre at Trinity College, Dublin, and the Walton Institute at Southeast Technology University where he led commercialisation activities, while also mentoring and supporting new venture creation and spinouts. He managed the Consumer Technology portfolio for IDA Ireland across New England and Eastern Canada. He also led corporate business development activity for Eishtec (an Irish start-up acquired by Infosys) across the North American market. He holds a Master of Business in International Management from Southeast Technology University.

#### Sources:

- <sup>1</sup> Screen Ireland – October 2022
- <sup>2</sup> ComReg – December 2022
- <sup>3</sup> Enterprise Ireland – January 2023
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- <sup>5</sup> IVCA – November 2022
- <sup>6</sup> William Fry, M&A Review Half-Year 2022
- <sup>7</sup> Vaultree – December 2022
- <sup>8</sup> Ryanair – November 2022
- <sup>9</sup> Bitcoin – November 2022
- <sup>10</sup> Forbes – January 2023
- <sup>11</sup> Forbes – July 2022
- <sup>12</sup> Delta Partners – November 2022

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- <sup>23</sup> <https://finance.yahoo.com/news/google-done-world-most-powerful-192948570.html>
- <sup>24</sup> TechTarget – Enterprise Strategy Group's (ESG) "2023 Technology Spending Intentions Survey"

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