Sector Developments

Insights 2021 & Outlook 2022

Bank of Ireland

Classification: Green

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Welcome to our latest Insight and Outlook publication from our Sectors team. Recruited directly from industry, our team of sector specialists are recognised leaders within their respective areas. Their extensive contact networks of industry players and stakeholders have resulted in a unique set of insights into the challenges and opportunities facing Irish businesses this year. We start off this knowledge share with our Sectors team outlining the latest developments across 7 key Irish SME Sectors; Agriculture, Food & Drink, Hospitality, Manufacturing, Motor, Retail Convenience and Technology.

As we emerge from a challenging year that has impacted every sector and region in Ireland, 2022 brings with it a feeling of renewed hope and optimism. Irish businesses are resilient and adaptable and are pivoting to the 'new normal' in a number of innovative ways. A number of central themes stand out across all sectors:

- **Whilst the overall impact of Brexit is still evolving**, the estimated direct impact of Brexit during 2021 has been highly asymmetric. Reduced imports from the UK have delivered a boost to Irish suppliers in some sectors, and Irish exports continue to perform well - albeit full border controls have not yet been implemented on the UK side.
- **Strong consumer demand is building up to pre-pandemic levels** across a number of sectors, with some markets particularly hindered by supply chain delays and workforce challenges.
- **The acceleration of technology and automation** is driving ongoing investment projects across all industries. Businesses are particularly keen to invest in automation and solutions that can mitigate the impact of labour shortages experienced over the last year.
- **Rising commodity, freight and energy prices are impacting supply chains across all sectors** placing pressure on margins. Businesses are reviewing costs across their supply chain, negotiating price increases with both suppliers and customers and forging new strategies by diversifying their business models in order to address their impact.
- **A renewed focus on the green / sustainability agenda is emerging strongly as a business priority**, which is creating a wave of innovative start-up businesses and driving investment in environmental improvements and integrated solutions that are focused on energy saving and efficiency.

Our focus is on building strong, sustainable relationships with our customers and we look forward to meeting more in person this year. Throughout 2022 we will continue to deliver regular insightful content developed specifically for business owners and their advisors, trading in this fast-moving environment.

If you would like further information or to engage directly with one of our Sectors team, please feel free to contact me at **Jillian.Clarkin@boi.com**. The contact details for all of our sector specialists are also outlined within the individual sector updates contained within.

Wishing you and your business every success for 2022 and into the future.

Jillian Clarkin

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Agriculture

2021 Review: Despite the ongoing pandemic, the agri sector performed strongly in 2021. Farm incomes increased 20% in 2021 compared to 2020 driven by good weather, low input costs and decade high agri commodity prices. Brexit has had little impact with the UK still remaining the largest market for agri exports. Sentiment and investment appetite is up and farmers are coming into 2022 in a relatively strong state.

Key points

Decade high commodity prices	Supply/demand balances have driven agri commodities higher leading to higher farm output prices across dairy, beef, tillage and sheep farms
Rising costs	The cost of key farm inputs such as fertiliser and feed began to rise in the second half of the year. Fertiliser prices increased 10% during the year, while feed prices increased 16% on the back of strong grain prices. Fuel and energy prices also increased during the year by 29% and 16% respectively. (Teagasc).
Farm incomes up	Average farm incomes have increased 20% in 2021 v. 2020. This has been driven by high farm gate prices, good grass growth and crop yields due to favourable weather, coupled with relatively low input costs.
Continued expansion	There was continued growth in agrifood exports- up 4% to €13.5bn- Irish milk production increased 6% to reach 8.8bn litres in 2021.

Sector Developments – 2021 Key Numbers

Food & Drink exports (Bord Bia): up
4%
to €13.5bn v 2020

Average Farm incomes (Teagasc): up
20%
to c. €31,000

Milk production (CSO): up
6%
to 8.8bn litres

Fertiliser prices (Teagasc): up
10%
on 2020 level

Milk price (CSO): up
20%
or 7c/l to 41c/l

Beef Price (Teagasc): up
12%
to €4.07/kg

Grain price: up **33%** (€50/t) to €200/t (Green Barley)

Snapshot of 2021

- **Decade high agri commodity prices**

  The FAO Food Price Index (a measure of the change in international prices of a basket of agrifood commodities) reached a 10 year high in 2021, rising 23% over the year. For 2021, the FAO Cereal Price Index rose 27% from 2020 and is the highest annual average registered since 2012. In 2021, maize and wheat prices were 44% and 31% higher than their respective 2020 averages, mostly on strong demand and tighter supplies, especially among major wheat exporters. The FAO Dairy Price Index rose 17% in 2021, reflecting sustained import demand throughout the year, especially from Asia, and tight exportable supplies from the leading producing regions. The FAO Meat Price Index rose 13% in 2021 with sheep meat registering the sharpest increase in prices, followed by beef and poultry, while pig meat prices fell marginally.

  On the back of rising and decade high global agri commodity prices, domestic farm output prices increased with milk prices up 20% to €0.41/L, beef prices up 12% to average €4.01/kg, lamb prices up 30%, barley prices up 33%, and wheat prices up 21%. Pig prices fell 8% in 2021 as a result of local conditions (slaughtering capacity) and global factors (African Swine Flu in Germany and China).

- **Rising costs on farm**

  Total production costs increased in 2021 due to higher feed, fertiliser and fuel prices. Input usage volumes also increased in some systems. The main drivers of increased production costs included fertiliser, feed and fuel. Feed prices increased 16% on the back of strong grain prices. Fertiliser prices increased significantly as a result of rising energy costs in the last quarter and were up 10% in 2021 v. 2020. Despite the rising costs, margins expanded across all farm systems (except for pigs) as a result of the rising global agri commodity prices that boosted farm gate prices.

- **Farmers continue to deleverage**

  The most recent data from the Central Bank shows that Irish farmers reduced their overall debt by 12% or €392m in the 12 months between September 2020 and September 2021. Outstanding debt on Irish farms now stands at €2.8bn - its lowest level in over 10 years. At the same time, new lending to agri increased 15% or €100m in the 12 months period September 2020 to September 2021. That means that the debt on farms is getting younger and farmers are paying off debt at a faster rate than taking on new debt.

- **Strong sentiment on farm**

  Sentiment and mood is positive on farm. High prices, and relatively low costs have delivered strong cashflows with farm incomes up in 2021 v 2020. This is reflected in some key financial metrics. Bank of Ireland agri deposits have increased 10% over the past 12 months, and are now 42% higher than at the start of Covid (March 2020) understandable given that farming was deemed an essential service throughout the pandemic and was little impacted directly by Covid. Similarly, the utilization rate on overdrafts is down 10% in the past 12 months to its lowest level in 4 years.

- **Increased investment appetite**

  Land: Given the improved profitability and strong sentiment the appetite to invest on farm and in land has increased in 2021. There was a significant improvement in the land market with more farms coming on the market in 2021. In 2020 vendors held back due to the pandemic. Indications are that the average price of land (€10,000 per acre) has increased in 2021 with some parcels where competition is high, making prices in the range €15,000-€20,000 per acre. The increase has been driven by an increase in demand, commodity prices, farm incomes, sentiment, and investors.

  Renewed Farm development: Due to the postponement of building work in 2020 as a result of Covid, farm development activity increased in 2021, driven mainly by dairy investment, along with some increases in development on tillage farms. Like other sectors of the economy, the cost of building works has increased significantly since the onset of Covid.

- **Little immediate impact from Brexit**

  One year on from the Brexit trade deal, strong commodity prices have insulated farmers from the full impact of Brexit. Beef was always expected to be the sector that would be most impacted and especially over the longer term. Given that the UK is only 75% self-sufficient in beef, its future trade policy with countries outside the EU will likely provide major exporters of meat access to its lucrative retail market. It already has concluded trade agreements with Australia and New Zealand, both major exporters of beef and sheep meat who now have enhanced access to the UK market, creating additional competition for Irish beef.

2022 Outlook:
The sector continues to prove its resilience and overall, the long term outlook remains positive due to continued population growth and our ability to produce high quality premium products that are globally competitive.

Key numbers

2%-3%
Projected rise in food prices (USDA) in 2022

9bn L
Domestic milk supply in 2022

22%-30%
2030 target emissions cut under Climate Action Plan

40c/L
Average milk price in 2022 (Teagasc)

120%
Rise in average price of fertiliser in 2022 (Teagasc)

33%
Number of farmers over age of 65 (CSO)

The factors that will define agriculture in 2022

Input price Inflation: Input costs (such as feed and fertiliser) are set to rise further in 2022 over 2021 levels, driven by increasing energy and freight costs and strong harvest 2021 grain prices. While fertiliser prices should normalise in the medium term, they are expected to peak in 2022. It is expected that fertiliser volumes will reduce 20% nationally but will be sector specific. As a result higher volumes of feed may be used.

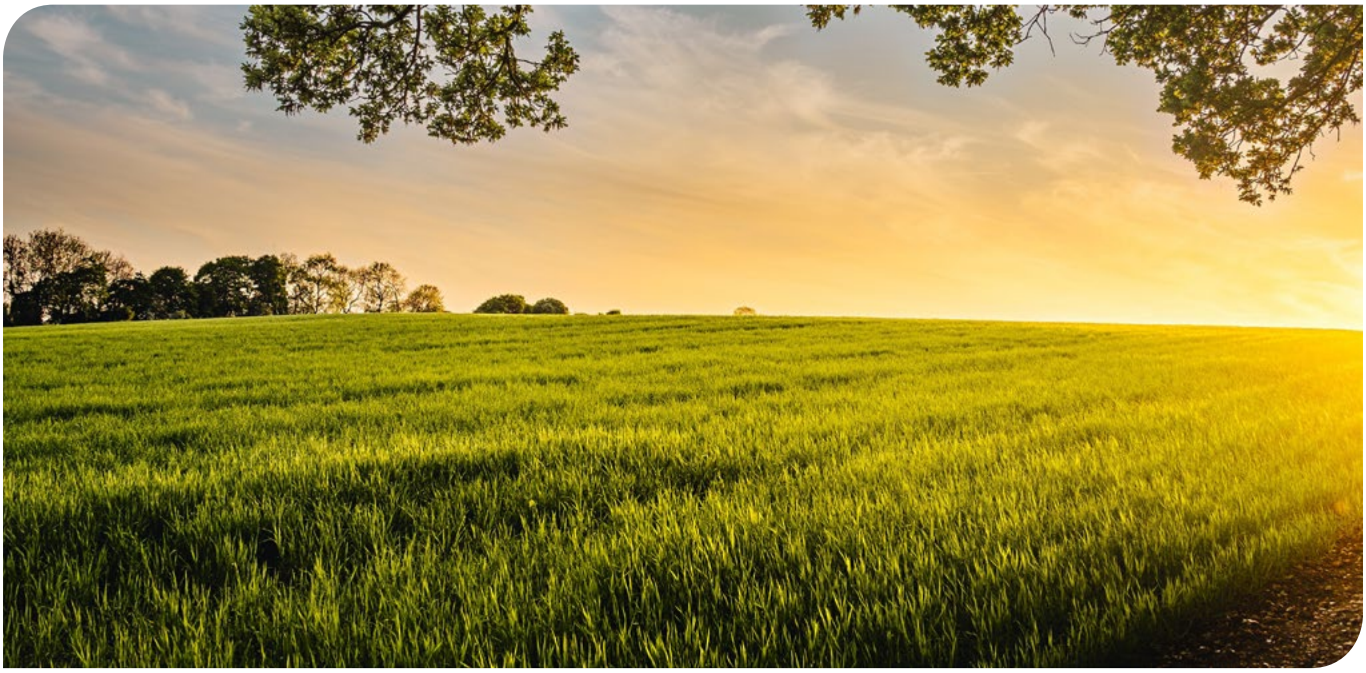
Stable agri commodity prices: Agri commodity (grain, milk, beef, sheep) prices are currently at decade highs and it is forecast that they will remain stable through the first half of 2022. The high grain prices globally should support the prices of other agri commodities such as milk and meat. Food inflation may impact demand across meat and dairy products. The high prices should support the affordability of increased input costs on many farms.

Pressure on Profits: In 2022, some farmers will require additional working capital to manage the increased costs and while this will squeeze margins, it is expected that farm profits will still be ahead of 2019 and 2020 figures but expected to be 20% lower on average than 2021.

Climate Action: The Government's Climate Action plan targets a 22-30% cut in emissions from agriculture by 2030, with budgets due to be finalised in March 2022. While this is a significant reduction, the industry is confident this is achievable with minimal impact to farm output. Teagasc have stated that no cut to the national herd is needed to meet Ireland's targets once new technologies are adopted on farms to drive efficiencies. While there will be reductions in the amount of fertiliser use permitted, there will be an increased focus on grassland management, animal breeding and organic farming practices. Additional investment such as additional slurry storage, animal housing and farm equipment will be required on farms to meet the targets.

Evolution of the Common Agricultural Policy (CAP): The Government submitted its CAP strategic plan to the European Commission in December 2021. Further detailed engagement will take place with the Commission in the first half of 2022, with the plan expected to come into effect on 1st January 2023. Eco-payments, convergence, and limiting the maximum level of payments look set to impact every farmer. It is expected that some farmers will gain, while others will lose out as the EU aims for a fairer distribution of funds.

Increasing role of technology on farms: Given the labour challenge on farms, there will be increased investment in technology such as automation and robotics to drive efficiency and productivity. This will also allow for improved decisions by the farmer and benefit quality of life. Technology is rapidly moving forward with advances in science driving productivity. Given the climate challenge that lies ahead technology will play a key role in addressing that challenge.



Dairy

- Production volumes are expected to increase 2-3% in 2022 due to increased cow numbers and yields.
- Current indications are that international dairy prices will remain at current levels in the short term but will decrease gradually as 2022 progresses. The outlook for 2022 is that milk prices will average c. 41c/l (Incl. VAT).
- Increased costs (feed and fertiliser) will impact margins in 2022, however incomes should remain in line with 2020 levels.

Beef

- Cattle prices will continue to be influenced to a large degree by the demand for Irish beef in the UK. The UK beef supply is expected to be unchanged in 2022.
- The EU beef supply is forecast to decline in 2022 which should help average Irish finished cattle prices in 2022 remain unchanged to the 2021 level of around €4/kg.
- Input expenditures in 2022 are forecast to increase on 2021 levels due to higher feed, fertiliser and energy prices.

Tillage

- While stocks to use ratios are variable across wheat, barley and maize, there remains a lot of uncertainty around grain markets. Based on current futures markets, it is expected that 2022 harvest prices may be slightly higher than those that prevailed at harvest 2021.
- Direct costs of production on cereal farms are expected to increase significantly in 2022, with key inputs such as fertiliser and seed expected to increase.
- Winter cereal area for harvest 2022 are estimated to be slightly up on 2021. Crops have been planted in good conditions.
- Boortmalt has offered grain growers a forward price of €250/t (€50/t more than January 2021) for harvest 2022.

Pigs

- While the pig sector is volatile driven by supply and demand in international markets, over the commodity price cycle and in the longer term, this sector is highly efficient, productive and profitable
- Local conditions (slaughtering capacity) and global factors (African Swine Flu in Germany and China) continue to impact the pig price.
- however it is expected that the pig price will improve in Q2 2022 due to a combination of reduced pig meat supply on the EU market and increased exports to China.
- The av. full year pig price for 2022 is expected to be higher than 2021 and feed prices are expected to reduce later in the year.

Bank of Ireland

- As a key Bank to the sector, we recognise that we have a unique opportunity to support our customers and to enable Irish farmers and rural communities to thrive.
- Our stability, proven track record and investment in people with agricultural expertise, provide us with a strong platform to meet the needs of Irish farmers and agri-businesses.
- We understand the farming cycle, agri commodity price volatility and the regular need to invest to maintain growth and profitability in this dynamic sector. We have a strong appetite to support progressive, innovative and efficient farmers.
- For more information please visit: **bankofireland.com/agri**

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Eoin joined Bank of Ireland in 2020 as Head of Agri, from the Irish Farmers Journal, where he served as Agribusiness Editor upon joining the paper in 2014 and served as Deputy Editor from 2017 until his departure. He also has extensive experience in Irish and international Agri business, including 5 years as Managing Director of Target Fertilisers. Eoin holds a Masters in Agricultural Science from UCD along with MBA from Smurfit School of Business.

Sources: CSO, Department of Agriculture (DAFM), Bord Bia, Euromonitor, European Commission, IBEQ, MATIF, LIFFE, IMF, World Bank, FAO, Central Bank (Credit Advanced to Irish Resident SMEs), USDA, Teagasc National Farm Survey, Teagasc Review and Outlook 2022.

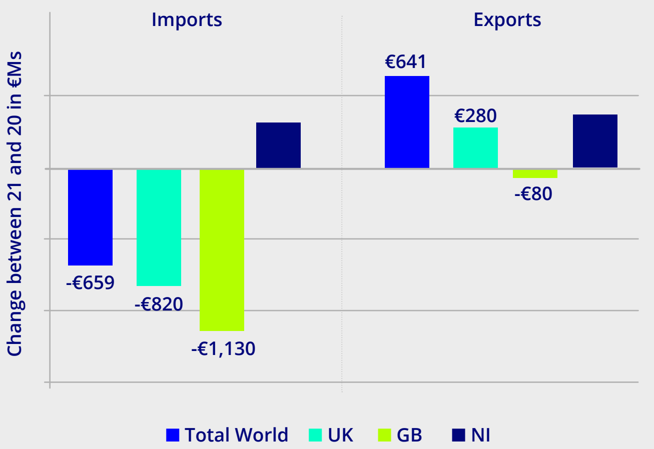
Food & Drink

2021 Insights: While 2021 was a turbulent period for the food & drink industry with Brexit related adjustments, rolling COVID-19 lockdowns and rising commodity prices, the majority of food & drink businesses coped well and took advantage of the foodservice recovery and the increased opportunities for Brexit related import substitutions to grow both sales and cash margin.

Summary

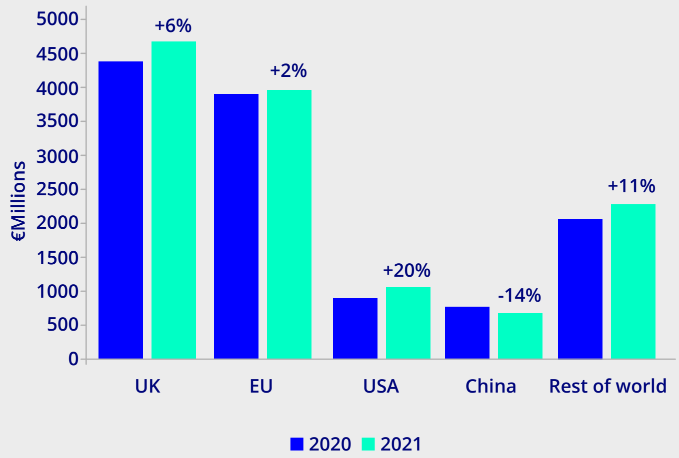
2021 saw a significant positive change (€1.3bn from Jan -Nov[1]) in the balance of trade in the sector. While exports increased, imports decreased significantly, largely driven by the impact of Brexit. Retailers and foodservice operators increasingly turned to local Irish producers in order to avoid the significant level of administration and extra costs that food from Britain now attracts. While COVID-19 continued to provide plenty of challenges - in terms of labour availability, health and safety and forecasting difficulties - the majority of businesses in the sector have adapted well to its challenges. As the year continued, the sector's main focus was around adjustment to supply chain difficulties and commodity increases, as businesses struggled to pass on the full effects of the cost increases to their customers in a timely manner. Although this impacted percentage gross margins, the overall effect was mitigated by growth in topline sales.

Fig 1: Change in Food and Drink Balance of Trade (Exports vs imports) Jan-Nov 2021 vs same period in 2020



Source: CSO "Food & Live Animal" and "Beverages & Tobacco"

Fig 2: Irish Food and Drink Exports 2021 vs 2020 (Jan -Nov)



Source: CSO "Food & Live Animal" and "Beverages & Tobacco"

Irish Food & Drink Export Sales by Sector

	2019 €M	2020 €M	2021 €M	% ch vs 2020	% ch vs 2019
Dairy	5,044	5,093	5,041	-1%	0%
Meat & livestock	3,316	3,415	3,544	4%	7%
- Beef inc. offal	2,125	2,126	2,236	5%	5%
- Pigmeat	517	561	542	-3%	5%
- Sheep	319	364	420	15%	31%
- Poultry	158	151	128	-15%	-19%
- Other Meat	14	12	3	-75%	-78%
- Live Animals	183	202	214	6%	17%
Seafood	487	457	484	6%	-1%
Horticulture	206	238	271	14%	32%
Prepared Consumer Foods	2,597	2,460	2,526	3%	-3%
Drinks	1,602	1,364	1,620	19%	1%
Total	**13,252**	**13,028**	**13,486**	**4%**	**2%**

Source Bord Bia

Key Sector Trends in 2021

- **Brexit Impacts Evolving:** While firms have adjusted well to Brexit, it has had a significant influence on both domestic and external trade in 2021. Despite the Trade & Cooperation Agreement, Brexit has led to additional complexity, uncertainty and cost, which have particularly affected the food and drink industry due to the interlinked nature of UK and Irish food chains. 90% of businesses surveyed by Bord Bia stated that Brexit had increased their cost base[2]. However, the UK remains our single biggest export destination *(see figure2)* and the Republic of Ireland is the number one destination for food and drink exports[3] from the UK.

  As the UK delayed full border control, exports have generally flowed freely (+6%[4]) and additional non-tariff related costs have been offset by stronger sterling. Brexit related challenges in the UK supply chain, around labour and HGV driver shortages, have created opportunities for Irish suppliers to win new business in the UK.

  The decision by the UK government to delay full implementation of border control on Irish exports, due to challenges around ensuring "unfettered access" for Northern Irish exporters, have given a temporary but welcomed boost to Irish suppliers compared to their continental competitors, who are now subject to increasing border controls when accessing the British market. Irish operators are also picking up additional business on the continent, where British operators have been struggling to cope with the additional customs paperwork and attendant delays.

  In contrast, imports from the UK are down by 21%[5], resulting in opportunities for import substitution, particularly in the SME sector, where local operators may have been previously uncompetitive against UK product. However, in the case of some imports such as specific ingredients or machine parts, British suppliers have been more difficult to replace, causing increased input costs and delays for affected manufacturers.

  Trade with Northern Ireland has also increased. Exports to Northern Ireland are up by 39% and imports are up by 37%[6]. This reflects the way in which the Single Market for goods is now operating on the island of Ireland as a result of the Northern Ireland Protocol, but it also may reflect operators' perception on relative ease of transit via Northern Ireland compared to the Republic, particularly in the case of imports from Britain.

- **COVID-19 Impact on Foodservice:** While not as severe as in 2020, rolling restrictions on foodservice outlets have been challenging for sectors that are most dependent on out of home consumption. Domestically, Bord Bia estimates that Island of Ireland foodservice food and drink purchases were 14.6% up on 2020 but were still 41% behind 2019 numbers[7]. From an export perspective, the picture has been more positive with seafood and whiskey (both categories that had been very impacted by Covid shutdowns) showing strong recovery on exports.

- **Commodity & Freight Increases:** Agricultural commodities reached their highest level in a decade in 2021, with a 23%[8] year on year increase in the UN FAO (Food & Agricultural Organisation) index reported in December. Other key inputs such as freight, energy, labour and packaging also rose significantly. Input cost increases of almost 30% were reported by Irish SMEs in a survey by Love Irish Food[9]. Initially producers tried to absorb the cost increases, however as the year went on most opened pricing discussions with key customers.

  The challenge in passing on the price increases to retail customers can be seen in the fact that food and drink prices as measured by the CPI only began increasing at the last quarter of 2021, with December's prices only up by 1.6% on a year on year basis. This had the effect of reducing producer gross margin percentages as the year went on. This was reflected in static deposit balances for the sector towards the year end, in comparison to strong growth earlier in the year.

Key Sector Activity 2021

While appetite for investment has been strong in the industry, high cash balances at the start of 2021 saw developments being increasingly funded from cash reserves.

Investments relating to warehousing development, both on and off the home site, were a significant feature. Due to Brexit, using warehouses in Britain for 'just in time' deliveries to Ireland is no longer feasible. Supply chain delays are forcing operators to hold more stock. This has increased the cost and reduced the availability of third party warehousing, so increasingly, food operators are extending their warehousing capacity on site.

Supply related uncertainty has put pressure on cash flow, due to forecasting challenges and the need to carry more stock. Companies are increasingly looking to build resilience into their operating models by incorporating flexible sources of working capital, for example invoice discounting.

Due to the growth of the industry over the last decade, equity investments – particularly state sponsored investments such as those by Enterprise Ireland or the EIIS schemes – have become a prevalent feature. As companies become more established we are increasingly seeing refinancing of this equity by debt as established companies seek to take advantage of low interest rates.

At a sub-sectoral level, credit demand continues strongly in the whiskey sector as established operators look to lay down additional stock for maturation, consequently demand for whiskey warehouse space continues to grow.

2022 Outlook: The 2022 outlook is broadly positive. Bord Bia research indicates 82% of businesses are optimistic about future trading prospects[10]. Despite initial wariness and increased complexity, in broad terms the initial effects of Brexit have delivered a boost to Irish suppliers. Exports are performing well and a growing global population continues to value the high quality of product that Ireland supplies. The intellectual capital that exists in the Irish food industry and its ability to innovate and take advantage of a strong state supported research and development ecosystem, means that it is well placed to capitalise on opportunities.

Key Trends 2022

- **Continued Brexit Impacts:** Irish exporters are yet to feel the impact of full Brexit controls on exports into Britain, following moves by the UK government to push back deadlines on their implementation. July 2022 is the current deadline for implementation. There are significant efforts in place by state agencies to prepare for this change, through training and increased personnel, however the quantum of documentation due to relative importance of the UK for our market could be challenging. It is also likely to have a significant impact on groupage, which may affect smaller SMEs that rely on mixed loads for frequent delivery.

- **Sustainability Focus:** Carbon reduction budgets are due to be finalised in March 2022. The sector will be watching closely the final decision on the reduction attached to agriculture from the current range of 22% to 30%. The industry is confident that it can reach an 18% reduction in emissions without any negative impact on farm output. Regardless of the final number, what is clear, is the industry focus needs to be on added value and innovation. Added value development is likely to drive significant investment in research and development and ultimately processing facilities. The focus at present is very much around the twin pillars of carbon reduction and reducing packaging waste, however potential impacts of an enhanced green agenda extend to all areas of the supply chain. For example, we have seen recent focus on ensuring animal feed in the meat supply chain is not contributing to Amazon deforestation, this is leading to new innovations, particularly in the area of growing insects for animal feed. Key retail customers have set science based targets[11]. Increasingly data capture of a company's climate based impacts by product will be necessary when seeking product listings with major retail customers. The move towards increasing the amount of plant based food in consumers' diet is set to continue.

- **Development of Fisheries & Marine Resources:** The focus of the Irish food industry has long been on meat and dairy, however Brexit has been a catalyst to review the opportunities presented by our marine based economy. A specific task force was commissioned to look at the impact of the loss of fishing quota (c15% by 2026[12]) due to Brexit and to make recommendations to develop the industry given potential investment from the Brexit Adjustment Reserve. The range of stakeholders involved resulted in a wide ranging and potentially transformative report for the industry. It recommended overall funding of €423M[13] primarily via the Brexit Adjustment Reserve. €145M of this is to be allocated for decommissioning and other short term measures to allow for adjustment to post Brexit conditions. However, €277M will be allocated to focus on longer term growth initiatives to the sector. It is these initiatives, in particular, that have the potential to transform the sector in 2022 and beyond. The initiatives include support for aquaculture, development of added value processing capabilities, improved coastal infrastructure and marine enterprise development. This development will also be supported by the streamlining of the marine licensing process as part of the recently passed Maritime Planning Bill.[14]

- **Commodity Prices & Food Inflation:** The effect of price increases negotiated by industry suppliers with key customers in 2021 will begin to be seen more significantly in 2022. However, it is likely that producers may have to negotiate additional increases in 2022 as many of 2021's price increases did not capture some of the input increases that occurred towards the back end of the year and there are strong prospects for supply inputs to continue increasing in cost in 2022.

Bank of Ireland

Bank of Ireland is committed to its role as a key partner for Ireland's largest indigenous Industry. This is amply demonstrated by our ongoing support of the Blas Na hEireann food quality awards and our deep sectoral knowledge. COVID-19 has highlighted the necessity for companies to have an in market, long term, stable, finance partner that can offer timely support, dedicated relationship managers and an understanding of the cyclical nature of the various sub sectors.

[1] *CSO Jan- November 2021 vs 2020 for "Food & Live Animal" and "Beverages & Tobacco"*
[2] *https://www.bordbia.ie/globalassets/bordbia.ie/industry/readiness-radar/readiness-radar_report_webversion.pdf*
[3] *https://www.fdf.org.uk/fdf/business-insights-and-economics/facts-and-stats/*
[4] *CSO Jan- November 2021 vs 2020 for "Food & Live Animal" and "Beverages & Tobacco"*
[5] *CSO Jan- November 2021 vs 2020 for "Food & Live Animal" and "Beverages & Tobacco"*
[6] *CSO Jan- November 2021 vs 2020 for "Food & Live Animal" and "Beverages & Tobacco"*
[7] *Bord Bia 2021 Foodservice Report*
[8] *Global food prices dip in December (fao.org)*
[9] *RTE The Business: Food firms being hit with price rises of up to 30% (loveirishfood.ie)*
[10] *Bord Bia 2021 Readiness Radar*
[11] *https://www.tescoplc.com/sustainability/taking-action/environment/climate-change/*
[12] *Quotas cut by 15%, and a €1 billion industry on the brink: The confusing figures fuelling fishers' anger (thejournal.ie)*
[13] *Government taskforce recommends €423m for fishing industry to help tackle Brexit losses (irishexaminer.com)*
[14] *gov.ie - Maritime Area Planning Bill 2021 passes through all stages of the Oireachtas (www.gov.ie)*

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Roisin joined Bank of Ireland in 2019 as Head of the Food & Drink Sector, in order to support the Bank's business in this strong, indigenous industry. She brings an in depth understanding of the Food & Drink sector to the role due to her wealth of experience in both Ireland and the UK, across a number of companies and product categories. She has held senior commercial positions in both indigenous and multinational consumer goods companies including PepsiCo, Valeo Foods, Carbery, Boyne Valley and Robert Roberts Ltd. Her knowledge base spans end to end product development, from procurement and new product development, to branding, marketing and sales achievement. Her most recent role was in the Sports Nutrition Industry. Roisin holds an undergraduate Law Degree from UCC, an MBA from Warwick Business School and Post Graduate qualifications in Digital Business and Digital Marketing.

Hotels

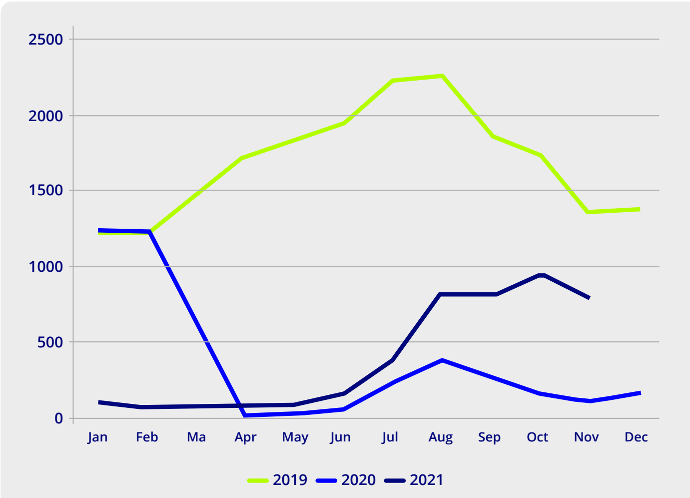
2021 H2 Insights

Irish accommodation providers outside Dublin reported a strong bounce back in demand for the second half of 2021. Healthy occupancy levels and robust room rates were reported by regional operators until mid-November when the government implemented tighter regulations to curb the alarming rise in the number of new COVID-19 cases; the RevPAR recovery was also encouraging in Dublin although limited by softer average room rate trends. Despite the relative success of the vaccination strategy further restrictions were introduced on Dec 20th which further dampened business sentiment in the tourism and hospitality sector. Whilst many properties are provisionally reporting record Earnings Before Interest, Tax, Depreciation and Amortization (EBITDA) levels for 2021, some others, including a number of wedding venues and some Dublin hotels are less enthusiastic about last year's outcome.

Hotel sector key activity and trends H2 2021

- **Staffing:** Workforce shortages are currently the sector's biggest challenge with operators across the country actively seeking to recruit positions across housekeeping, kitchen, reception and administration. The shortage has forced many hoteliers to review pay scales and look for talent abroad as they prepare for the 2022 season.
- **Inflation:** Rising prices of food, drink, utilities and other expenses continue to escalate putting additional pressure on margins. The CSO reported that prices on average, 'as measured by the CPI', were 5.5% higher in December 2021 compared with December 2020. Food and Non-alcoholic beverages were among the largest contributors to the index. The sector works on tight margins and the combination of increased wages and cost of goods sold could ultimately make some smaller businesses unviable.
- **Overseas travel showed encouraging recovery** although there is still a long way to go to reach the 2019 levels. November 2021 visitor numbers to Ireland were over 40% lower than November 2019 . *(Table 1)*
- **Strong average room rate:** Shortened lead in time for bookings, a low volume of discounted business (tours, groups) and a drop in hospitality VAT all contributed to record breaking average room rates for regional hotels. However lower average occupancy associated with restrictions and uncertainty diluted the benefits for RevPAR recovery. *(Table 2)*
- **Strong cash balances:** The combination of strong domestic market performance, government supports and subsidies, warehousing of VAT as well as payment breaks negotiated by some properties with their finance partners supported a sizeable increase in credit and deposit balances for the sector that has been fuelling refurbishment projects across multiple locations.
- **Hotel openings:** CBRE estimates that 1,128 new bedrooms entered the accommodation market in Dublin during 2021 with a further 3.4k expected to open during 2022. Regionally only Cork city reported 'material' growth with the opening of two new properties: The Dean Cork and Cork's first micro-sleeper the REZz Cork, providing a combined 186 additional bedrooms to the city.
- Further **growth of 4 star hotel segment** in Ireland with an additional 7 hotels properties added to the 2021 register bringing the total to 359 hotels which account for 43% of registered hotels and 60% of hotel bedrooms on offer. Meanwhile the number of properties registered under Fáilte Ireland's 'Welcome standard' also continues to grow and now boasts 555 registrations offering 11,837 rooms which include properties like the newly opened 'Wren' in Dublin city.

Table 1: Overseas visitor numbers 2019 to 2021 trend



Source: SCO Stats

Table 2: Accommodation sales KPIS

Accomodation KPIs Year end December	Occ %			AHR €			RevPAR €			RevPAR Var. 2021 vs	
Location	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020
Dublin All (STR)	82	31	38	142	103	113	117	31	42	-64%	35%
Dublin city centre (STR)	83	26	32	167	125	134	140	33	43	-69%	32%
Galway (Trending)	77	48	58	111	100	129	85	48	75	-12%	55%
Cork (Trending)	80	46	50	113	100	128	90	46	65	-28%	42%
Cork (STR)	78	39	48	113	102	126	88	40	60	-32%	50%
Limerick (Trending)	75	40	40	88	73	91	65	29	37	-44%	27%
Kilkenny (STR)		38	44		120	158		45	69		51%
Regional (Trending)	78	46	52	100	87	110	77	40	57	-26%	43%

Source: STR & Trending.ie

Hotel sector key performance metrics H1 2021

- **Galway city** lead the recovery table with an average 55% increase in RevPAR reported to year end Dec 2021. A strong average room rate of €129 was reported for the period as well as 58% occupancy (7.4% ahead of Cork). The RevPAR for year end Dec 2021 was only 12% down on 2019.
- **Kilkenny** hotels reported an average room rate ahead of any other Irish city at €157.50 which was 18% ahead of Dublin city centre figures, albeit at a slightly lower occupancy than Cork or Galway. Year end Dec 2021 RevPAR was only second to Galway.
- **Cork city** showed a similar bounce in rate to Galway city, reporting €128 average rate for year end Dec 2021 although just a 50% occupancy. Note that occupancy growth for the city would have been impacted by the opening of the 'Dean Cork' and 'The Rezz' which increased the city's bedroom stock by 186 rooms (8%).
- **Dublin** reported an average rate of €113 for year end Dec 2021 which was 29% down on 2019 with an occupancy of 38% which represents a 7% climb on 2020 figures.

Government supports 2021

- Generous government supports and subsidies rolled out from the onset of the pandemic supported hotel cash flows during the lockdown. The sustained availability of these supports after the lifting of restrictions allowed hotel sector deposit balances to rise significantly during 2021.
- The easing of restrictions corresponds with the phase-out of government supports which should see deposit balances unwind in the near future:

- Warehousing of revenue obligations will cease on April 2022 (12 months C&I moratorium up until April 2023 on warehoused liabilities)
- Businesses availing of EWSS that were directly impacted by public health regulations implemented on December 2021 can benefit from enhanced supports to the end of February 2022 and continue to claim this to the end of May 2022.
- The 2022 budget included a number of measures that were welcomed by the hospitality sector, however the hospitality VAT rate is expected to return to 13.5% by August 2022.

The Environmental, Social, and Governance (ESG) agenda

The green agenda continues it's upwards trajectory on the list of strategic business priorities across all industries including tourism and hospitality. Operators are increasingly aware of their carbon footprint and the role this may play in the customer's decision making process in the coming years.

Over the course of last year hotel owners and operators have been progressively investing or considering investment in solar panels, heat pumps, electric vehicle charging stations and energy audits. However larger/more expensive projects like retrofits are less common as some businesses are waiting for the rollout of more robust government supports and subsidies.

Transaction & Hotel Group activity

- The volume of hotel properties transacting during 2021 was softer than investors anticipated as there was relatively little distress in the market thanks to government supports. Tom Barret from Savills indicated a total of 18 hotels transacted in Ireland during 2021 for an estimated €414m; the top 6 accounted for 80%-90% of the total value.
- The much anticipated end of the pandemic could encourage a higher volume of transactions in 2022; a number of hotel owners, operators and investors are actively seeking opportunities for expansion in Dublin and regionally.
- Fortress Investment Group LLC acquired a majority stake of Prem Group last December. The Irish group which currently operates 38 hotels and apartments has indicated that it is currently looking to expand the size and geographical reach of their portfolio.

2022 Outlook

Hotel operators are mostly optimistic about 2022, not only has the WHO forecasted that the pandemic will end this year but many countries including Ireland have already lifted most restrictions or are in the process of doing so. Staff recruitment and retention will be a key issue faced by hotel managers in the coming months at the risk of being unable to cater for their clientele as demand slowly builds up to pre-pandemic levels. Bord Bia estimates a 75% bounce back in the Hotel and Accommodation foodservice sales during 2022 year bringing the total to about 86% of 2019 levels *(Table 3)*. Positive trends in air capacity, visitor numbers, and corporate demand are expected as COVID-19 fades away, and should support improved business sentiment and renewed investor interest in the sector

Table 3: Irish Food service market size and trend

							Variance YOY Growth / Decline %				Index of Recovery
Ireland's Foodservice Market	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2019**	**2020**	**2021**	**2022**	**2019 = 100**
Limited Service Restaurants	2624	2715	2856	2995	2002	2330	5.0%	-33.2%	16.4%	29.4%	100.5
Hotels and Accommodation	1344	1353	1386	1531	654	746	5.8%	-32.0%	14.0%	75.7%	85.5
Pubs	1274	1343	1455	1415	501	517	2.0%	-64.6%	3.1%	119.8%	80.2
Full Service Restaurants	913	943	994	1039	458	564	4.7%	-56.0%	23.3%	68.3%	91.4
Coffee Shops and Cafes	397	424	456	482	328	397	6.1%	-57.3%	20.9%	24.2%	102.2
Other Commercial	276	291	311	330	101	143	6.3%	-69.3%	41.3%	111.9%	91.9
Institutional	712	717	738	763	445	448	3.5%	-41.7%	0.6%	47.0%	86.2
Total	**€7.5bn**	**€7.8bn**	**€8.2bn**	**€8.55bn**	**€4.5bn**	**€5.1bn**	**4.6%**	**-47.6%**	**14.6%**	**52.9%**	**91.9**

Source: Bord Bia

Bank of Ireland lending activity

Demand for credit facilities from banks and other institutions was down during 2021 mainly due to a decline in business sentiment derived from the uncertainty associated with trade restrictions. Strong credit balances also played a part, as they allowed many businesses to complete projects out of cash flow rather than availing of working capital supports.

Increased lending activity is anticipated for 2022 associated with the recovery of international travel and the return of more meaningful corporate and event driven demand.

Trends

- The lifting of almost all COVID-19 related restrictions announced by the government on Jan 21st was a crucially important step in the route to recovery for all economic sectors. Businesses across the hospitality sector can now plan ahead for unfettered trade.
- The strong bounce back in average room rate reported for year end Dec 2021 took centre stage in the 2022 budgeting process for hotels across the country. Mangers, owners and operators are keen to maintain the ground gained in terms of average room rate, particularly because some of the gains were associated with product improvement. It is worth noting that pressure from inflation and escalating wage costs will also impact this trend.
- The phased removal of government supports (currently expected to be fully phased out by the end of May) will require close attention to be paid to cash flows and deposit balances as normal cash cycles will eventually resume. Over the course of next year it is anticipated that cash balances will also begin to unwind.
- The sector was dealing with a chronic shortage of staff before the pandemic. The various lockdowns led to a sizeable amount of hospitality professionals to consider alternative employment, not only in Ireland but across the globe so we can expect overseas recruitment programmes to be slightly less productive that they were before the pandemic. Already last year a number of hotels had to restrict trading hours/capacity and reduce services, these issues may continue to have a negative impact in the medium to short term.
- Full EBITDA recovery (to the 2019 level) for the average hotel is not expected until 2024 or 2025. However the strong performance reported by some hotels in 2021, healthy levels of business on the books and robust voucher sales in December combined with staffing restructures/ redevelopment, property investment/ upgrades has prompted many hotels to budget a very positive outlook for 2022.
- Wedding and event venues are reporting record levels of business on the books for 2022 and 2023 driven by postponed/delayed weddings and social events/gatherings. Capacity issues on well-established venues should provide additional opportunities for venues not traditionally focused on this lucrative market.

- Aparthotels and hotels geared for long stay customers maintained slightly stronger demand during the lockdowns, so an increase in 'hybrid' models offering short and long stay accommodation options is expected.
- Significant increase is anticipated in transaction activity. In its 2022 Market update CBRE indicated it has "visibility on over €500 million of hotel trades that are expected to transact in 2022."

Hotel development

A sizeable amount of hotel refurbishments as well as the development of additional facilities (primarily leisure), are currently underway in hotels across the country as operators look to 'wow' their returning customers and appeal to new ones who are yet to experience their venues. The pandemic has been a catalyst for many hotels to reposition themselves and go after different markets.

Corporate demand

Much has been speculated about the long term impact of COVID-19 on corporate demand following the wide-spread adoption of remote working, virtual meeting tools like Zoom and MS teams and the escalating emphasis of the carbon footprint associated with air travel. However a significant portion of commercial/corporate demand is relatively impervious to these changes including project/construction work, hospital staff and travelling salespeople among others; it is only demand from large corporates for accommodation and large conferences that has remained relatively muted for the last two years.

As companies look to recruit and maintain staff following the 'great resignation' experts agree that this demand will eventually resume and travellers may further embrace 'working holidays' blurring the line between remote working and work nomads.

Bank of Ireland

Bank of Ireland is a keen supporter of the Irish Hotel Industry as a pillar of the economy. Our proven appetite, combined with our comprehensive sectoral expertise provides us with a strong platform to meet the funding requirements of both hotel operators and Investors.

Gerardo Larios Rizo
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Sources: CBRE Market Outlook 2022, Central Statisctics Office (Unemployment, Consumer Price Index, Air and Sea Travel Stats), Fáilte Ireland Q4 2021 Statutory & Non-Statutory Accommodation Listings, Tom Barret – Savills, Servicedapartmentnews.com, Independent.ie BPO/Trending.ie, STR CoStar.

Manufacturing

2021 - A year of growth and turbulence

After a sluggish start on the back of the post-Christmas lockdown, and what was always going to be a sub optimal Brexit deal, 2021 was marked by a massive surge in manufacturing activity which peaked mid-year. Order intake and output performance soared, driven by high demand as economies reopened. Notwithstanding record growth and activity indicators, the year was dominated by a tsunami of headwinds, and a colourful lexicon of terminology to match. Irish Manufacturing proved its outstanding resilience against, Covid 19, Brexit, supply chain pain, container dislocation, the shortage economy, global transport disruption and double digit inflation.

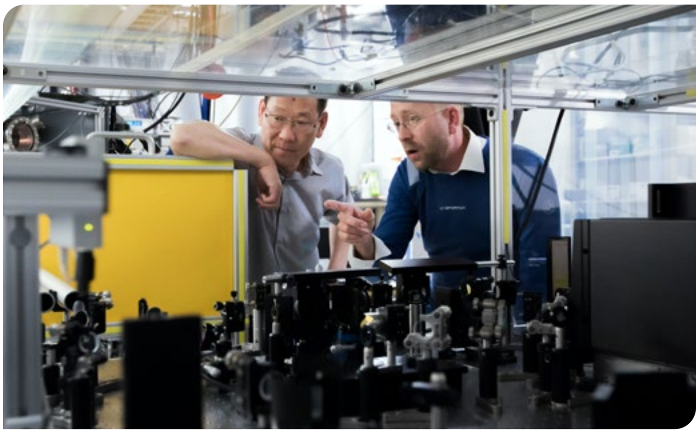
Manufacturing saw its business models upended from lean to a lot less lean, from just in time (JIT) to just in case (JIC), from certain lead times to uncertainty, from stable prices to double digit inflation, from labour supply to labour shortages and from road & sea transport to expensive air freight. Following mid-year peaks in Pulse and Purchasing Managers' Index (PMI) data, activity did ease back but remained in robust growth mode. Everyone became much more versed on the interdependency and fragility of global supply chains as new surprise bottlenecks emerged on a weekly basis. Irish Manufacturing successfully navigated the never ending challenges through a combination great talent, stock building, in-house technology transfer, supply chain reconfiguration, acceleration of technology and embracing the green agenda. With a mind-set akin, to Friedrich Nietzche's, Aphorism "What doesn't kill you makes you stronger" Irish Manufacturing has taken away significant learning dividends from the shocks of 2021 and can emerge stronger than before the pandemic. In an unintended and very positive way Covid-19 has resulted in a greater focus and awareness on the green and digital agendas both of which are the keystone drivers of success for this decade.

The great success of Manufacturing in 2021 despite the shocks cannot be overstated.

- PMI data hit a record 64.1
- Industrial production is up 27% YOY (+24% Modern +3.5% Traditional)
- GDP is likely to come in at +15% YOY (Manufacturing contributes about a third of Irish GDP)
- Government tax receipts surged to €68.4Bn of which €15.3BN came from MNCs
- Net job creation in the SME sectors supported by Enterprise Ireland was a record 11911

Summary of Key Impacts

- **Covid-19 Pandemic:** COVID-19 has affected every company in a very individual manner. While the recent shock of Omicron still lingers, the good news is that economies are now talking up an easing of restrictions in the hope of returning to something akin to pre pandemic times. Manufacturing will continue to double down on employee safety and wellbeing, antigen testing, workplace cleanliness in a bid to minimise absenteeism and protect operations.
- **Factory Operations:** Compared to pre COVID-19 levels, operations have without doubt experienced drops in productivity with the rules of COVID-19 such as social distancing, testing, and remote working all impacting the "cut and thrust" and "problem solving " nature of manufacturing operations. Manufacturing has proven time and time again to be agile and creative in its response. Part of the solution has been the acceleration of the digital agenda and in particular higher levels of automation which also supports ongoing labour shortages.
- **Brexit:** Depending on the level of UK exposure, businesses have been impacted to different degrees. Many have benefited from new EU customers, technology transfers and unexpected higher sales volumes with the UK. The latter stems from former EU suppliers unwillingness to endure the paperwork burden and so Irish SMEs have been the beneficiaries. The most recent CSO data reveal a dramatic shift in trading patterns for Ireland with imports from the UK down YOY by 26% and up from the EU by 14%. Cross border trade with NI has been the big winner with imports from NI up 80% and exports to NI up 54% YOY. Logistics and transportation have irreversibly changed with land bridge traffic down 60% and manufacturers have simply prioritised direct and secure routes from EU over pre Brexit lower cost and faster land bridge alternatives.
- **Green Agenda:** The Irish government approved a Landmark Climate bill in March 2021 followed by Climate Action Plan November 2021 with sector targets for an overall 51% reduction of greenhouse gases (GHG) by 2030. Manufacturing accounts for ca. 12% of GHG emissions and must reduce these by 40% from 9MT CO_2e (Million tonnes carbon dioxide equivalent) to 5 by 2030. A key part of this reduction will be adoption of Circular Economy strategies and a Whole of Government circular economy strategy was published December 2021.
- **Digital Agenda:** COVID-19 has acted as an accelerant for adoption of digital technologies as companies adapt to data driven ways of working, enhance their online presence and increase levels of automation which can also help to offset labour shortages. Enterprise Ireland have launched a €9K digital voucher to allow SMEs to establish their digital potential using a Smart Industry Readiness Index (SIRI) methodology provided by the IMR or alternatively the Digital Operations Maturity Assessment (DOMA) provided by PWC. The bottom line according to Accenture research is that technology adoption leaders are growing at rate 5 times that of adoption laggards.
- **Supply Chain:** 2021 will be remembered as the year when everyone became experts on supply chain. Supply chain resilience is the new mantra and topic of senior leadership teams and boardrooms alike. Given the choices between best cost source and secure supply, and JIT versus JIC, secure supply and JIC respectively win out.
- **Inflation:** Massive price hikes with double and triple digit Inflation of input costs of components, energy and transport have dominated 2021. In December 2021 Irish inflation and EU inflation hit 5.5% and 5% respectively double that of forecasts. The debate between transitory and longer lasting inflation rumbles on with this writer believing a mix will emerge depending on the commodity.



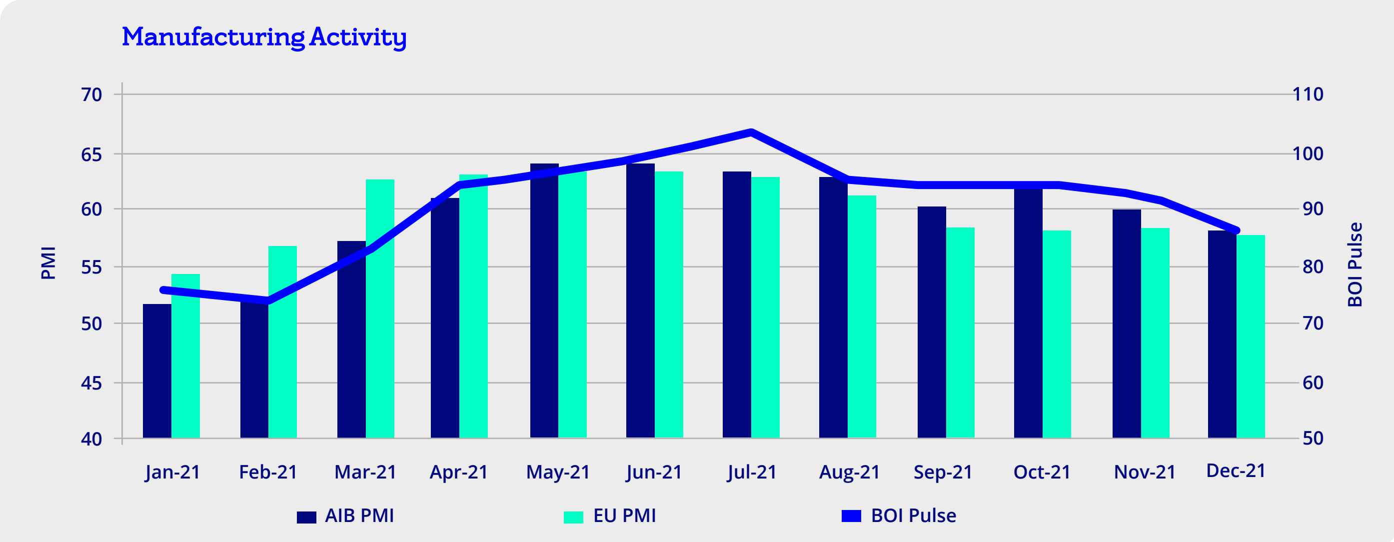


Table 1: Sources: BOI/AIB/HIS Markit

Key Trends and Metrics for Irish Manufacturing Sector

Both PMI and Pulse data show a similar pattern of positive expansion activity for manufacturing in 2021. A slow start in January peaking mid-year and then easing in Q4 as supply chain disruption extended delays to end customers.

Bank of Ireland Economic Pulse

BOI Industry Pulse, a survey of 300 companies measured a near record of 100 in June reflecting strong orders and output and growth in employment in the sector as vaccines rolled out and global economies return to pre pandemic expansion mode.

Irish Manufacturing Purchase Managers' Index PMI

PMI is a survey of 250 manufacturing companies and a result greater than 50 represents expansion. A record result of 64.1 was achieved in May representing very strong growth and mirrors the strong global manufacturing performance with EU PMI peaking at 63.4 in June.

Both Pulse and PMI moderated in H2 reflecting the adverse impacts of supply chain disruption as companies struggled to land in components on time and contend with high volumes of unfinished goods.

Industrial Output, Turnover and Imports and Exports

As per table 2 Industry output and turnover shows YOY growth reflecting the boom in manufacturing but concentrated in the modern sectors of Pharmaceutical, Medical Devices and ICT.

Imports and exports performance are summarised in graphic (Table 3) for period Jan – Nov 2021. In totality imports were up YOY by 18% while exports are YOY flat. This asymmetric result reflects the combination of stockpiling at one end and unfinished stock at the other, both as a result of supply chain bottlenecks. On an individual Geography basis, the headline numbers show a dramatic drop in imports from the UK since Brexit (-26%) with a parallel increase from the EU (+14%) driven in part by import substitution. The big winner from Brexit has been cross border (NI/ROI) trade, which is significantly up in both directions.

	Jan - Nov 2021
Manufacturing, Production & Turnover	**Annual % change**
Production	24.0%
Modern	27.0%
Traditional	3.5%
Turnover	12.0%

Table 2 Source: CSO

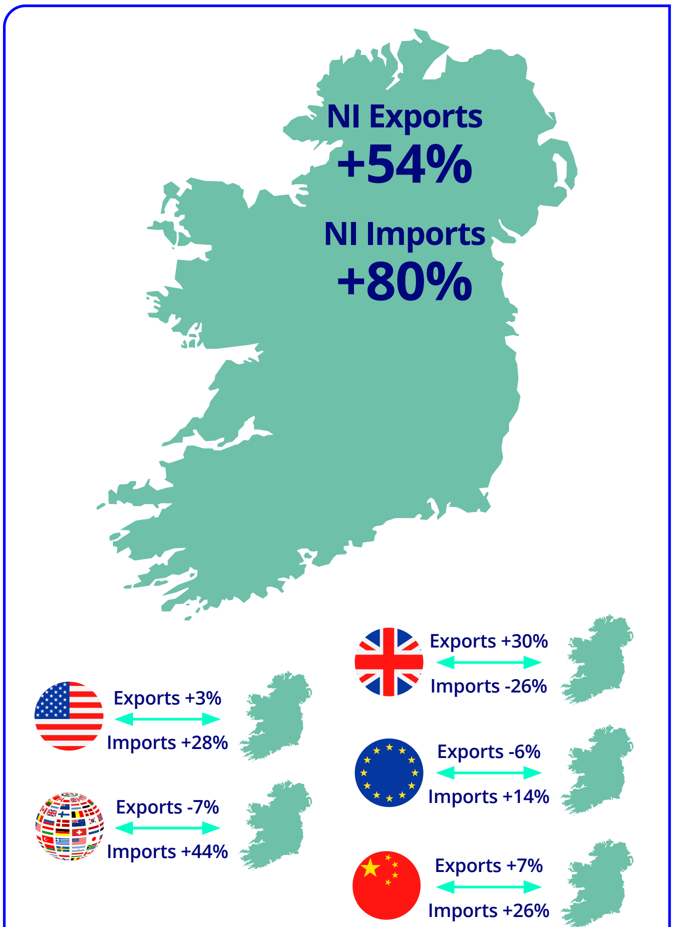


Table 3: Source: CSO

Headwinds of Supply Chain Shortages and Input Price Inflation with spikes in Energy

Notwithstanding the booming performance of manufacturing in 2021, manufacturers continue to be heavily impacted by supply chain shortages. The perfect storm of COVID-19, Brexit, container shortages, high demand, transport bottlenecks all drove lead times and input prices in one direction. Inflation rates have accelerated successively over 2021. In H2 the headline inflation numbers were dominated by dramatic gas price increases driven by a combination of high demand, reduced supply and taking coal off the grid. These drivers have been further exacerbated by colder temperatures and less wind for renewable sources. Supply of Gas from Russia via the Nord Stream pipelines also faces further disruption as geopolitical tensions mount.

As table 4 below shows expect energy prices to stay elevated into 2022 before easing back. Inflation in Ireland hit 5.5%, and across EU it was at 5.0% in December 2021.

Oil, gas, electricity and ETS prices and futures

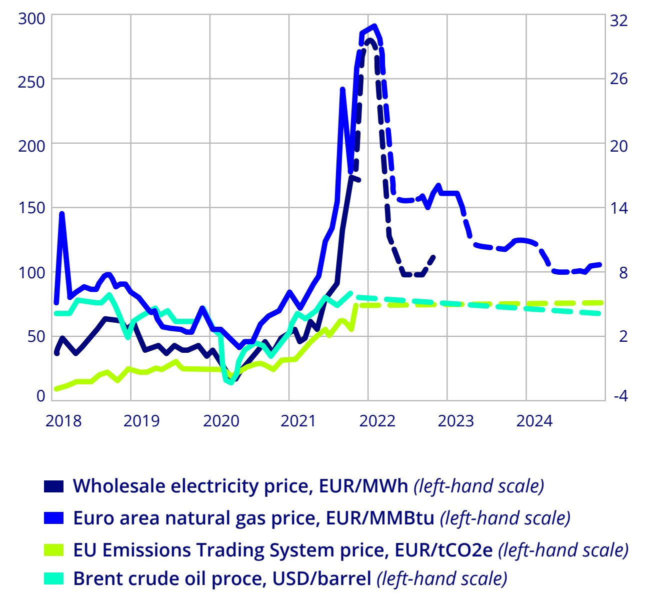


Table 4: Source ECB

While the latter is more than double the key target of 2% and earlier H1 forecasts, it is still forecast to moderate in 2022 as per table 5 below. Manufacturing have been passing on increases to customers and where possible bulk buying components minimise inflation impacts.

Euro area HICP

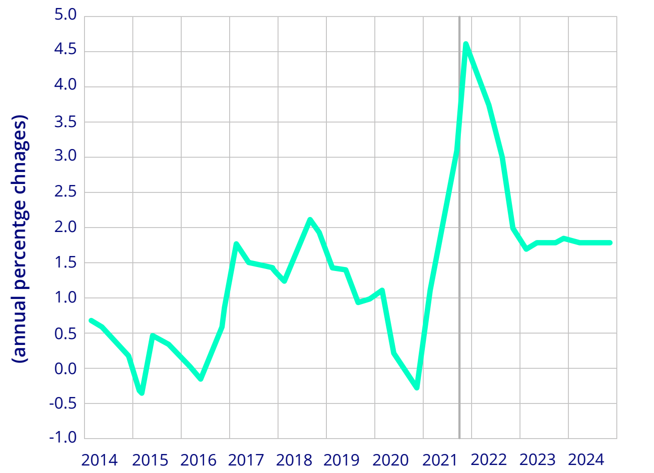
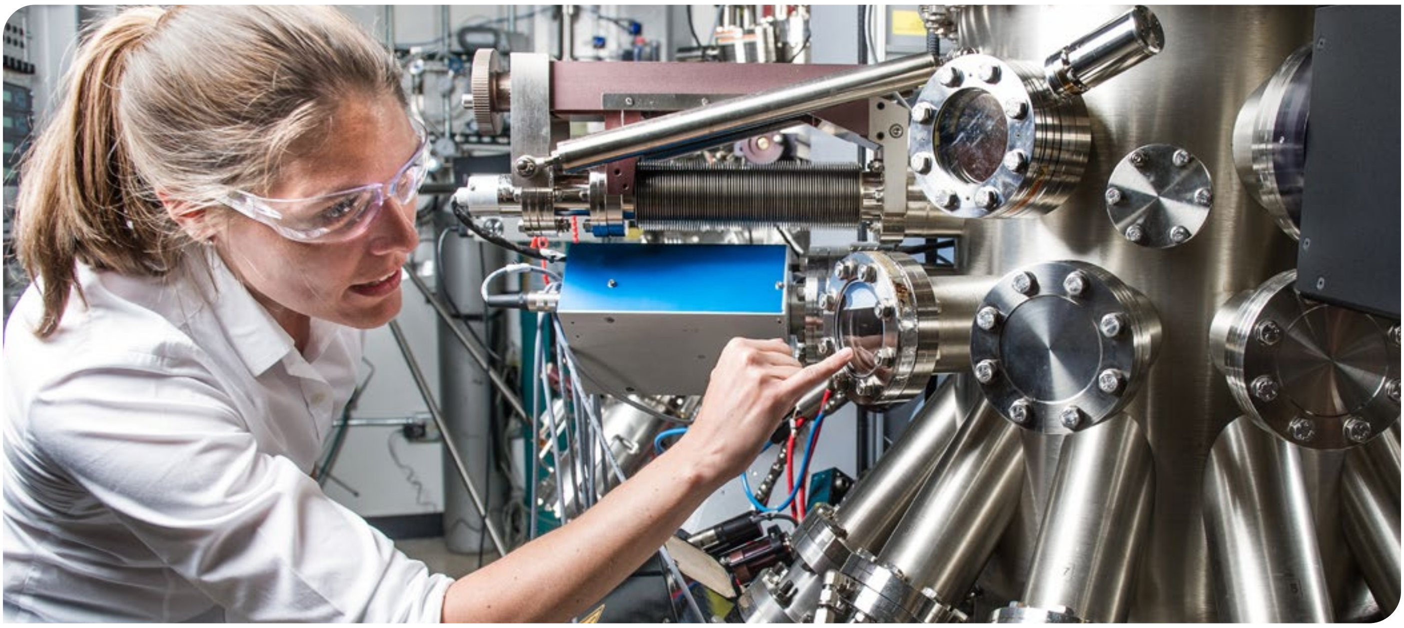


Table 5: Source ECB

Funding Activity in the Sector

- Bank of Ireland Business Banking 2021 drawdowns are ahead of 2020 levels reflecting the buoyant activity.
- Funding was dominated by working capital followed by M&A, MBO transactions and capital expenditure.
- With longer end to end cash conversion cycles due to extended supply chain lead times, businesses are in need of higher working capital requirements. BOI have supported a number of such cases with stocking loans where enterprises have no choice but to move from JIT models to JIC ones to safeguard continuity of supply and mitigate inflation risks.
- In subsectors, we saw positive developments in green related transactions, medical devices, pharma and technology.
- Strong sales, cash generation, have seen deposits rise. This combined with Negative Interest Rates (NIR) on deposits, has seen a lower appetite for funding across SMEs. Demand for funding is down 5 points (25% to 20% of firms) YOY according to a 1500 SME survey.



Manufacturing 2022 Outlook – Optimism, Unpredictability and Continued Growth

The outlook for 2022 continues to be positive but unpredictable. The new normal of stability we have been yearning for remains elusive. An era of predictable unpredictability and being comfortable with the uncomfortable will continue. Many supply chain constraints, in particular semi-conductor chips and inflation pressures are unlikely to moderate before H2. In short term higher Covid-19 related absenteeism and Omicron waves will continue to amplify delays.

Notwithstanding these challenges Irish manufacturing fundamentals are strongly underlined with optimism for growth and higher outputs in 2022. Both the digital and green agendas will be embraced as opportunities, as a growing awareness of their strategic importance to long term viability takes hold.

Supply Chain Resilience – Reasons for Optimism in 2022

The supply chain disruption of 2021 might be compared to a game of Jenga and both its complexity and fragility visualised as per graphic (Table 6) below.

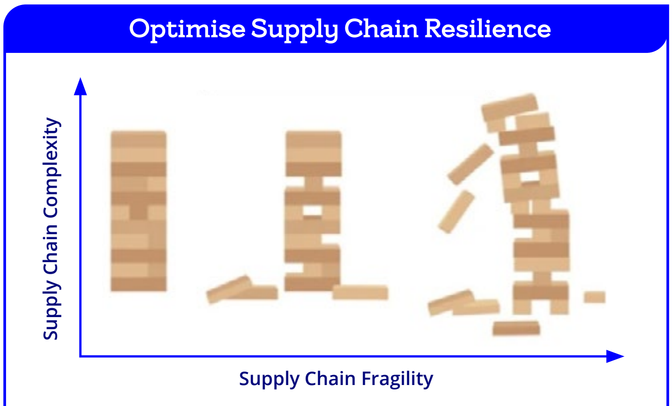


Table 6: Supply Chain Optimisation

On the left is a robust and resilient supply chain, the right amount of suppliers, a manageable level of complexity, and a solid supply and logistics infrastructure. In the middle is what all manufacturing experiences from time to time, namely some component shortages/delays which can be addressed with air freight. On the right we are in tsunami territory, multiple parts and containers fall simultaneously out of the supply chain, the usual mitigation measures are not adequate, the trusted just in time supply chain structure collapses and we have to reconfigure from scratch.

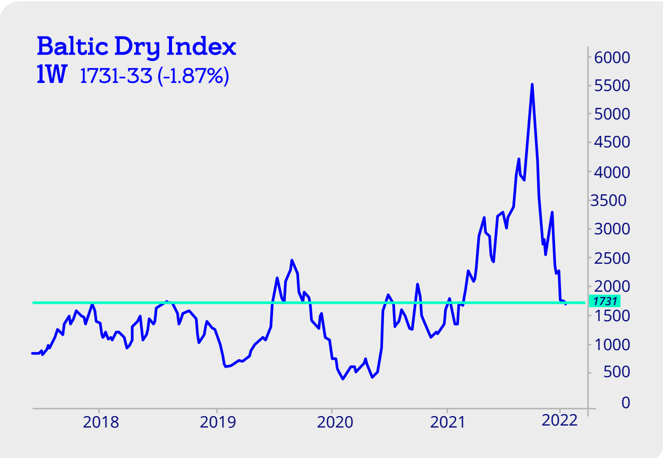
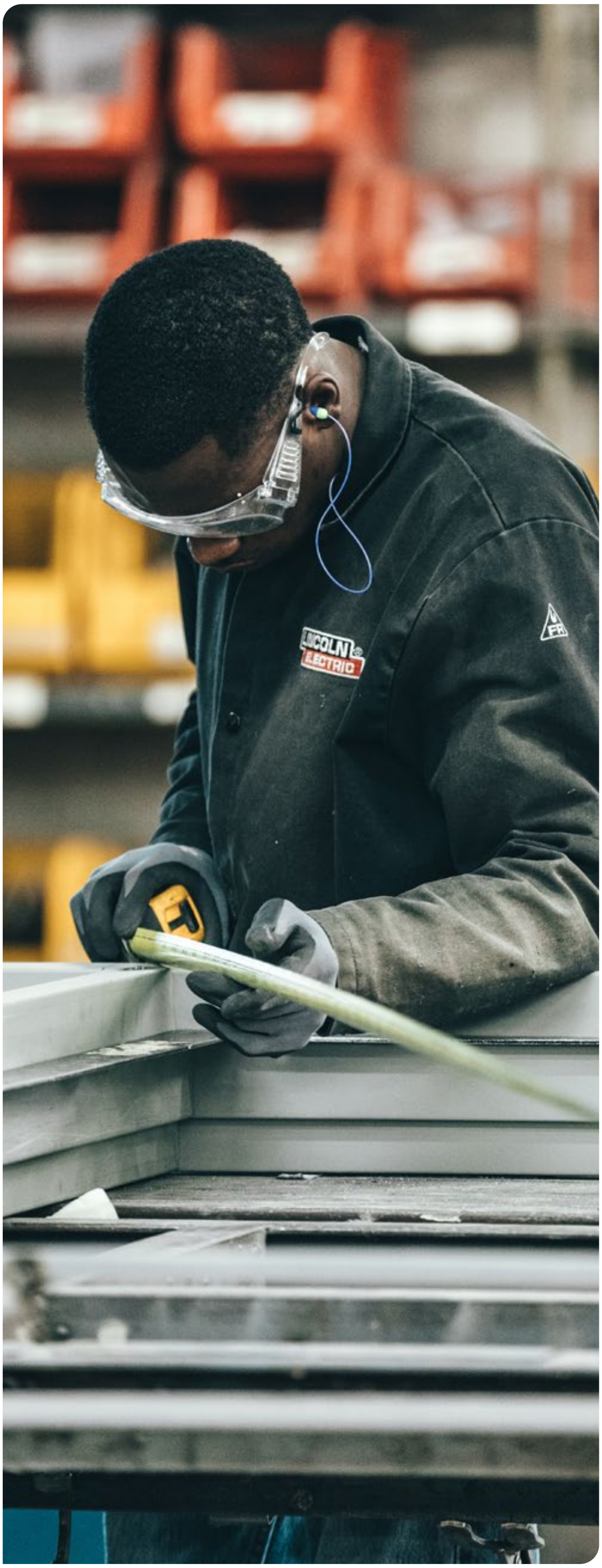


Table 7: Source: Trading economics.com



The good news is to expect some relief in 2022 as investments in capacity takes effect, and additional transport capacity indicated by the Baltic Dry Index (BADI) below.

BADI which measures cost of maritime transport continues to fall although still elevated above pre pandemic levels of 500. This suggests shipping capacity and costs will ease in 2022.

Survey Roundup – 2022 Growth Outlook sentiment is positive.

Despite a turbulent 2021, PWC's annual CEO 2022 survey reports a 10 year high in optimism. Key findings are:

- 77% predict a stronger global economy in 2022. Only 15% expect a weaker outcome
- 91% of Irish CEOs are upbeat about Ireland's economy in 2022
- Risks and threats for 2022 are similar to global peers and include supply chain, cyber threats, health risks, macroeconomic volatility, talent shortage, inflation and climate change
- Fundamentals for the Irish economy and manufacturing are strong and well positioned to deal with these headwinds

Eurochambres the association of European Chambers of Commerce and Industry published its survey EES2022 of 52,000 companies and while general optimism for 2022 prevails, the top 3 challenges remain around supply chain, energy and labour.

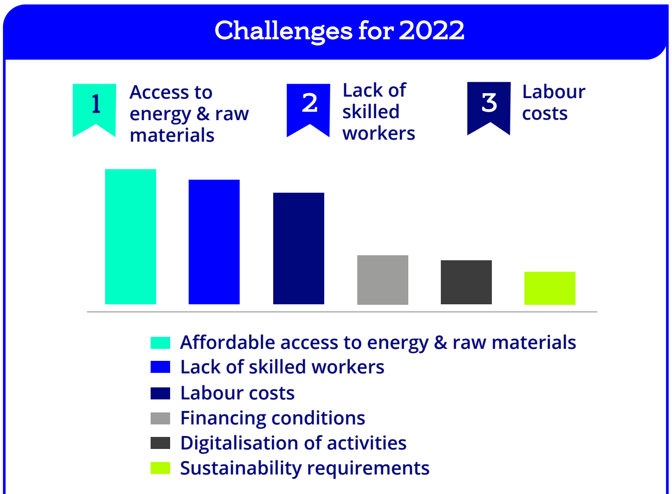


Table 8: Source: Eurochambres.eu

In summary, the 2022 outlook is positive, will be better than 2021 but still tough. Difference is that firms have learnt greater resilience to deal with the never ending unexpected.

Industrial Property Demand

CBRE in its latest research, reported a bumper record year in 2021 for Industrial and Logistics property at €982m driven by demand, the need for higher inventories and a buoyant outlook for 2022 and beyond.

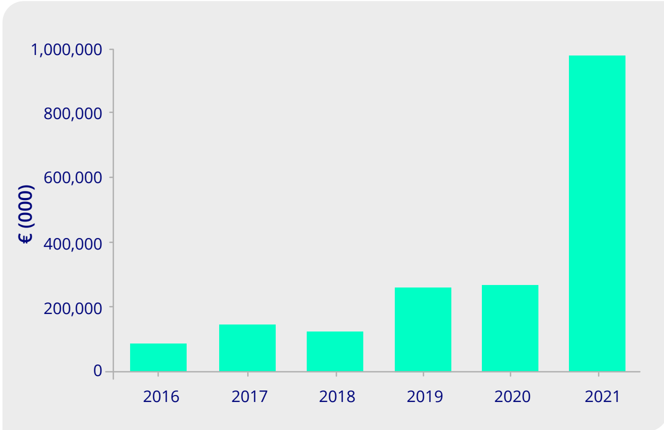


Table 9: Source: CBRE

Tailwinds 2022

- Strong demand, healthy order books, high output levels all support continued growth across the manufacturing landscape
- 2022 GDP outlook ranges from 6% to 7% with EU forecast at 4.2%
- Sentiment across manufacturers continues positive and green shoots of improvement in supply chain bottlenecks are emerging.
- The shocks of COVID-19 and Brexit have triggered and accelerated many positive changes, including remote working, acceleration of digital and green, supplier substitution, new customers and technology transfers. All of these positives which can be developed further in 2022
- Some inflation impacts are being successfully negotiated with customers
- Embrace green agenda as a positive challenge to build the business

Headwinds 2022

- Supply chain pain is likely to continue through H1 2022 driven by Omicron absenteeism and annual leave associated with Chinese New Year. This will moderate in second half as added capacity comes on stream, some bottlenecks may turn to gluts and additional freight capacity comes on stream.
- Inflation of manufacturing inputs will also continue in 2022. Perhaps transitionary for some commodities, many elevated input prices will be "sticky" and inputs like energy and semi-conductor chips will remain elevated.
- Labour inflation and competition for talent will continue in 2022 as the immediate priority will be customer orders fulfilment. Solutions such as automation and remote working talent will evolve.
- Freight costs and HGV driver shortage are likely to continue until additional capacity gathers momentum
- Cyber-attacks are growing in frequency and sophistication and must be integral to risk strategy
- Manufacturing SMEs are likely to be very busy again in 2022 but hopefully with more bandwidth to spend on important green and digital agendas.

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Conor joined Bank of Ireland in 2021. He is an accomplished senior executive and brings with him significant business and manufacturing experience gained both In Ireland and internationally. He has a strong track record of business plan delivery, scaling and turnaround and is an expert practitioner in Lean thinking, supply chain best practice and cost management in the Manufacturing sector.

Conor held various senior positions in Cargotec, a global manufacturer of Industrial Equipment for Cargo handling and transport having worked in Ireland, China and Finland.

Prior to Cargotec, Conor worked in the automotive sector with Iralco Automotive and Magna Donnelly in Ireland and Opel AG in Germany. He holds an MBA from Michael Smurfit School of Business, a Mechanical Engineering Degree from UCD, and a Diploma in Business Coaching from Smurfit Executive Development.

Sources: CSO, Gov.ie, IBEC, Bank of Ireland, The Economist, IHS Markit, AIB, Guardian, Eurochambres, PWC, Accenture, CBRE, Gartner, tradingeconomics, ECB, Euronews Enterprise Ireland, Irish Manufacturing Research

Motor

2021 in Review

Level 5 COVID restrictions were in place for the first 4.5 months of 2021. Motor dealers continued to open for vehicle aftersales, an essential service, and consumers could visit dealers to have maintenance carried out.

For new and used vehicle sales, dealers engaged with customers remotely and operated a "click and deliver" service. By the end of H1 2021, combined sales of new cars and vans were ahead 27% compared to H1 2020 and 16% behind H1 2019. Considering the restrictions in place, this was a phenomenal performance by the Irish motor sector.

Some consumers postponed taking delivery of new vehicles until restrictions were lifted and this led to a strong start to the second half. For the first time, registrations of new passenger cars in July exceeded registrations in January of the same year highlighting a release of pent up demand in the month. Encouragingly, new car registrations in the month of July were c. 7% higher than in July 2019 (pre-pandemic).

International travel resumed in July and rental car companies began to increase their fleets again. Fleets for the hire drive market were substantially reduced during the pandemic as car rental operators sold cars in order to increase liquidity and maintain viability.

In July, hire drive registrations represented c. 15% of new car sales in the month. This is line with historic trends as hire drive sales typically account for about 15% of annual new car sales. Overall in 2021, the hire drive channel accounted for 7.6% of new car registrations (v. 3.3% in 2020).

New vehicle supply issues, caused by global supply chain challenges, started to bite in the second half of the year. Nonetheless, by year end, new passenger car registrations increased almost 19% year on year to 105k units. Compared to pre-pandemic levels, new car sales were 10.4% lower than sales in 2019 (117k units). New car sales in the UK increased 1% but declined 2.4% in the EU with supply challenges particularly impacting the second half of 2021.

Light commercial vehicle registrations (LCV) increased by 32.3% year on year to 28.7k units. New van sales were 13.4% higher when compared to 2019 and highlights strong demand for commercial vehicles throughout the pandemic.

Used Supply Tightening

It has been widely reported that used car values increased in 2021 due to a shortage in supply. In their Q4 2021 report, DoneDeal reported "used car prices are now 56% higher on average since the onset of Covid-19 in early 2020". This is as result of a number of factors including; increased taxation relating to and lower volumes of used imports, high levels of consumer demand, increased vehicle registration tax (VRT) for new cars and a lower new car market due to COVID.

These factors have led to tighter used car supply and pushed up used car prices over the course of the year. This is not just an Irish phenomenon but is replicated around the world due to a shortage of used cars. Motor Trade Publishers Ltd provides an example in their January 2022 editorial highlighting a 2019 car has approximately the same value in January 2022 as it did in January 2021.

Post-Brexit, dealers continue to import used vehicles where value is present, however rising residual values in the UK and tighter supply there have significantly impacted volumes imported to Ireland. In 2021, used car imports declined 20.5% year on year to 63.6k units and were 44% lower when compared to peak levels in 2019. This reflects the impact of Brexit, changes to VRT for used imports and tightened supply in the UK.

Historically 95% of used imported cars were sourced from the UK, however the share imported from the UK fell to 74% in 2021. Used cars sourced from Japan doubled by volume and share increased to c. 15% of total used car imports in 2021. The run rate increased to c. 30% in the last 3 months of 2021 as dealers seek out alternative sources for used vehicle supply.

	FY 2021	FY 2020	FY '21 v. FY '20	**FY 2019**	**FY '21 v. FY '19**
New Cars	**104,932**	88,325	+18.8%	**117,109**	**-10.4%**
New Vans	**28,741**	21,732	+32.3%	**25,336**	**+13.4%**
Combined Sales[1]	**133,673**	110,057	+21.5%	**142,445**	**-6.2%**
[1]thereof, Hire Drive	***9,076***	*3,791*	*+139.4%*	***19,118***	***-52.5%***
Used Imports	**63,617**	79,969	-20.5%	**113,926**	**-44.2%**

Budget 2022 Outcome

A revised vehicle registration tax (VRT) structure, for new cars and used imports, was introduced in Budget 2021. VRT is based on C02 emissions and the revised VRT structure resulted in higher VRT/retail prices for Irish consumers. Government introduced the new 20-band tiered structure with rates ranging from 7% to 37% effective from 1st January 2021.

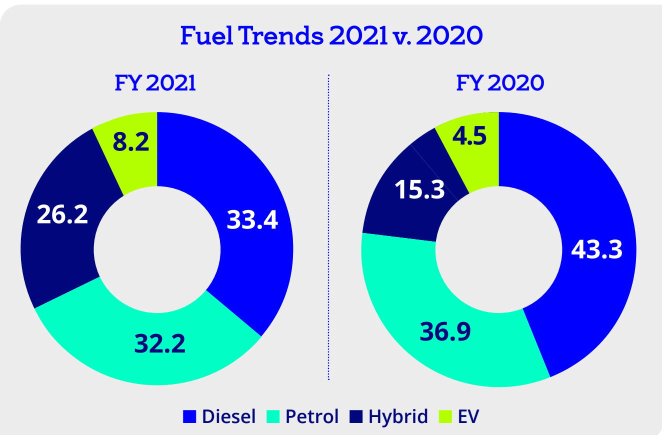
After just 12 months in operation, further amendments to the new VRT system were introduced in Budget 2022. VRT rates increased between 1% and 4% for bands 9 – 20, though the majority will endure a VRT increase of 1%. Rates did not change for vehicles that fall into VRT bands 1 – 8. The revised structure will see VRT rates ranging from 7% to 41% and is effective from 1st January 2022.

The motor sector was vocal in expressing its disappointment and frustration with these tax changes arguing that increased retail prices will hamper growth in new car sales and the goal to remove older more polluting cars from our roads. VRT increases brought about by the Minister over the last two years provides an insight into government direction and potential future policy changes. Encouragingly, VRT relief for battery electric vehicles (BEV's) was extended for an additional two years to the end of December 2023. The SEAI purchase grant for BEV's also continues. The SEAI purchase grant for plug-in hybrid vehicles was unfortunately discontinued on 31/12/2021 and no further reliefs are available for these models.

The government announced its intention to invest €35bn into Transport over the course of the next decade. It will need to lead by example by replacing State fleets with new electric vehicles. In doing so, it will help reduce vehicle emissions but will also provide a source of used electric vehicles to meet growing demand by consumers when EV's owned by the State are resold in the years ahead.

Accelerating EV Demand

In 2015, the combined share of electric vehicles and hybrids was less than 2% of new car sales in Ireland. By 2020, this share had increased to almost 20%. The take up of these engines further accelerated last year with the combined share of EV's and hybrids representing over 34% of new car sales in 2021. Although the share of diesel cars has fallen each year since 2015, its popularity remains strong in Ireland. Ireland has the highest share of new diesel cars sold in the EU at c. 33%; this compares to c. 9% in the UK and c. 21% in the EU for the period Q1-Q3 2021.



Sales of electrically chargeable vehicles (ECV = BEV² + PHEV³) ticked up across the EU this year. Attractive consumer incentives offered by governments, principally in Western Europe, coupled with greater choice of vehicles have further accelerated consumer demand for electrically chargeable vehicles.

The share of new ECV's registered in Ireland has more than doubled in the space of a year to 15.7% in 2021 and is predicted to grow to in excess of 20% in 2022 depending on supply.

	2021		2020	
Engine Type	**EU***	**ROI**	**EU**	**ROI**
²BEV (battery only)	7.6%	8.2%	5.4%	4.5%
³PHEV (plug-in chargeable hybrid)	8.6%	7.5%	5.1%	2.8%
Total ECV (total electrically chargeable)	16.2%	15.7%	10.5%	7.3%

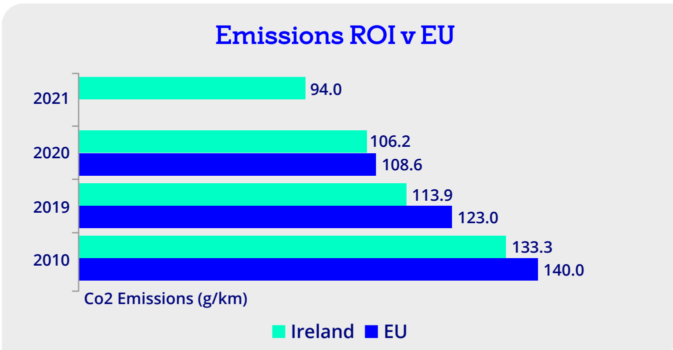
*ACEA EU data Q1-Q3 2021. (ROI Full Year 2021)

Ambitious EV Targets

In Q4 last year, the Irish government published the Climate Bill and refreshed the Climate Action Plan (CAP) first published in 2019. In the latest CAP, the 2030 target for electric cars was increased by 5k to 845,000 – a minor change but a significant and ambitious target increasing from c. 45,000 on Irish roads today. The state is also targeting a further 95,000 eVans by 2030. The SEAI predicts that if these EV targets are met, it will amount to a 50% reduction in C02 emissions for all of Transport in Ireland.

Transport accounts for c. 20% of Ireland's Greenhouse Gas Emissions and cars account for about half of this figure (i.e. 10%). Car manufacturers must also meet a revised C02 emission target of 95g/km per vehicle sold; this revised baseline was set in 2021 and will reduce again in 2025. A proposal was tabled by the European Commission last July to reduce the 2021 baseline by 55% in 2030 and to legislate for a ban on the sale of new cars with internal combustion engines by 2035.

C02 Emissions (New Cars Registered)



The Irish government has previously indicated that Ireland would ban the sale of new cars with internal combustion engines by 2030, however, if EC legislation passes as proposed, it is more likely that we will be bound by this legislation. Nonetheless, it is the current ambition of government is to increase BEV's on our roads and ban new registrations of internal combustion engines by 2030.

The proposed ban applies to new cars registered and that vehicles currently licenced can continue to be driven. There are c. 2.2m cars licenced on Irish roads today and replacing the entire fleet will take time. In the meantime, the sector continues its transition offering greater choice of new low and zero emission vehicles. New cars with petrol, diesel and hybrid engines will be sold alongside electric vehicles until at least the end of this decade.

Market Growth Needed

In order to achieve EV targets set out in the 2021 CAP, the new car market needs to grow. The state can support this transition by offering improved consumer incentives to accelerate BEV sales and bridge the price gap until retail prices of BEV's align with the internal combustion engine (ICE).

Charging Infrastructure Improving

The ESB recently addressed an Oireachtas Committee on the Environment and Climate Action in December. They advised that Ireland now has about 1,350 charging points managed by a variety of providers. The ESB is currently upgrading its charging network with €10m funding provided from the Climate Action Fund. They explained that 264 legacy 22kw chargers have already been replaced or upgraded.

These chargers are geo located so that EV drivers are within 35kms of the nearest charger. Many new electric cars currently on the market in 2022 are capable of a range of 400-500kms. This will help mitigate against range anxiety previously expressed by consumers shopping for a new car. Coupled with longer ranges, the national infrastructure will benefit from fast-charger upgrades this year. Fifty-two 50kw fast-chargers will be upgraded with completion expected during Q1 this year. These will provide an 80% charge in 45 minutes.

The ESB will also provide fifty-six 150kw high powered hubs that can charge multiple vehicles at once and will provide 100kms of range in 6 minutes. 17 of the high powered hubs will be complete in Q1 this year with the balance due for completion by 2023. The ESB advised that all faulty chargers have been replaced and the network now operates at 98% reliability. Going forward we can expect further investment by the State in the charging network as announced in the 2021 CAP.

Most charging will happen at home and the ESB estimates that c. 80% of electric vehicles are charged at home. This is fine if you have your own driveway.

Government now intends to address charging points in apartments, on street charging and the workplace to ensure all citizens have access to charging points.

Outlook

The motor outlook remains optimistic and we continue to support this important sector. In 2021 new car retail sales were almost on a par with 2019 levels if we exclude the hire drive sales channel. Hire Drive companies are now actively replacing fleets and this will be supportive to the overall car market in 2022.

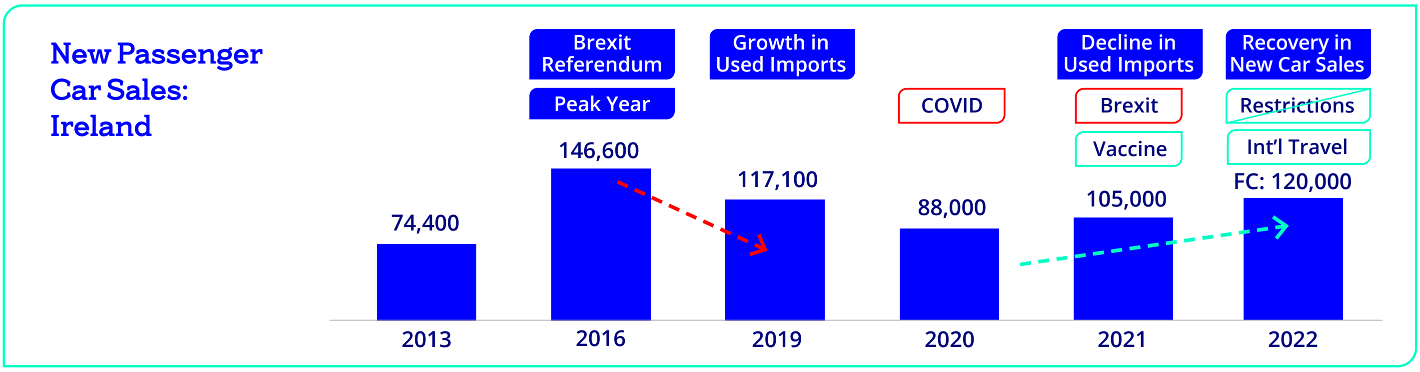
Demand for electric vehicles continues to rise and ECV sales could be in excess of 20% of new car sales in 2022 subject to supply being available to meet consumer demand. New van sales continue to be strong, with high demand for delivery vehicles.

New vehicle supply issues will likely impact volumes in Q1 2022, however global supply is expected to improve from Q2 onward. The Irish market experiences a second peak in July each year, and improved supply in Q2 could bring about a stronger Q3 than seen in recent years. Market seasonality is likely to differ this year as a result of these supply constraints. Nonetheless the sector is predicting growth in new car sales, potentially back to pre-pandemic levels, to circa 120,000 new cars in 2022.

Supporting our Customers

The sector is transitioning to low emission and electric vehicles over the course of the next decade and we fully support our partners as the sector continues its transition. Bank of Ireland Finance (BIF) is partnered with 15 motor franchises and these franchises represent c. 44% of annual new vehicle sales. We note increased activity in motor dealer acquisitions in 2021.

Consolidation of single operators into larger dealer groups is likely to continue in 2022 and may accelerate. Refinance opportunities will present themselves from time to time and we welcome the opportunity to discuss these needs with both current and new customers.



Stephen Healy
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Stephen joined Bank of Ireland in 2018 and brings over 20 years Motor Sector experience developed in both Retail and National Distributor positions. He comes to us direct from industry having previously been employed as General Manager for a multi-franchised retail motor group for 7 years. In addition to a first class honours BA in Business Studies (Hons) from Griffith College Dublin, Stephen holds a Certificate in Transport Engineering from Dublin Institute of Technology.

Sources: Society of the Irish Motor Industry (SIMI), European Automobile Manufacturers' Association (ACEA), Sustainable Energy Authority of Ireland (SEAI), Motor Trade Publishers Ltd, Climate Action Plan 2021, Automotive News Europe, DoneDeal Q4 2021 & 2022 Outlook.

Retail Convenience

Grocery & Convenience sector continues to perform strongly with progressive operators proactively investing for the future.

Retail Convenience: 2021 Review

Summary

- **Robust performance:** Robust performance delivered by the sector in 2021. Shopping behaviour and frequency patterns returned to more normalised trends linked to the vaccine roll-out.
- **Investment:** Store purchase and revamp/refurbishment activity has been strong in 2021 and this trend is expected to continue in 2022. Bank of Ireland continues to actively engage and support grocery retailers with their investment plans.
- **Consolidation:** Increased consolidation became a feature of the market with larger grocery/fuel operators expanding their store network and diversifying their sales mix.

2021 Key Trends

- Strong growth in take-home grocery sales continued. Growth of 10%+ delivered in 2021 v pre-pandemic performance in 2019 per Kantar Grocery market share.[1]
- Supervalu and Dunnes continued to compete strongly for the no. 1 spot in grocery market share; Supervalu benefiting from its extensive community focused store network and online capability and Dunnes delivering a strong performance in the Dublin region. Aldi and Lidl continue to solidify their strong foothold in the Irish market.
- COVID-19 has driven a large divergence in performance amongst convenience focused operators. Neighbourhood stores (Centra & Eurospar) have reported a strong performance whereas many city-centre stores have seen a significant deterioration in footfall linked to increased working from home practices, reduction in tourism/sports events etc. Forecourt stores have delivered an improved performance with many acting as regional top-up stores.
- The Irish consumer now expects a frictionless/accessible shopping experience with strong investment in click & collect services being noteworthy across all leading brands. The provenance/origin of products continues to inform/guide shopping trends and behaviour.

Margin growth and preservation have become an imperative for retailers linked to an increased cost framework driven by personnel, insurance and energy overheads

Sector Developments – 2021 Key Numbers

€4.5bn

Musgrave group sales for year ended December 2020.[2]

10

Number of stores acquired by Tesco from Joyce Group.[3]

€25m

Amount committed by BWG in a 4 year sustainability strategy.[4]

€3.1bn

Total Irish grocery sales in the 12 weeks to 26 December 2021.

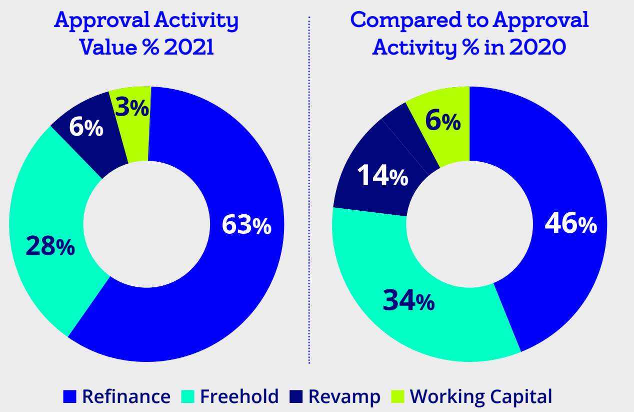
£7bn

Purchase price paid by private equity firm CD&R for Morrisons Group in the UK.[5]

Key Activity in the Sector in 2021

- Shopping patterns have reverted to more normalised frequency trends linked to the vaccine roll-out. Whilst in-store remains the preferred channel by the vast majority – the level of online grocery sales continues to increase annually.
- Retailers are continuing to implement pragmatic succession planning structures to ensure that appropriate long-term value is delivered from their business. COVID-19 has been a catalyst for some retailers to investigate future options in respect of both ownership and operational models.
- A strong pipeline of store revamps and purchase activity has been generated in 2021. Progressive retailers continue to recognise that in-store investment is necessary to maintain customer engagement and loyalty.

Approval Activity Value %



Bank of Ireland business banking data

Sector Developments: Investment and Consolidation

- Supervalu, Lidl, Aldi, Tesco and Dunnes outlined plans for new store openings in 2021 across all regions with a noteworthy focus on satellite towns of Dublin, Cork and Galway.
- A number of noteworthy transactions were announced during 2021: Corrib Oil purchased the H2 group increasing their presence in Munster & Leinster. Circle K acquired a portfolio of Dublin city-centre stores from the Griffin Group and Tesco agreed terms with the Joyce group in Galway. Further consolidation expected within the sector in 2022.
- The £6.8bn acquisition of Asda and the £7bn purchase of Morrison's by TDR capital and CD&R respectively reflects the renewed interest from private equity in the sector globally. Could this act as a catalyst for new entrants/ owners into the Irish market in 2022?
- Buymie, led by Devan Hughes has partnered with selected Dunnes, Lidl and Tesco stores to provide same-day grocery deliveries to consumers in Dublin, Galway and Cork. The current low levels (under 5% of total grocery sales) conducted via online demonstrate that a real growth opportunity is available if a frictionless, efficient, reliable service can be delivered. It will be interesting to see if further partnership models develop via Ocado, Deliveroo, Just-Eat or internal 'dark stores'.

[1] Kantar Grocery market share – 09/01/22
[2] Musgrave Group annual report – November 2021
[3] Tesco press release – November 2021
[4] BWG press release – March 2021
[5] Morrisons press release – September 21

Market activity focused on store investment and consolidation within the sector. Margin preservation and environmentally friendly practices key linked to changes in consumer behaviour.

Retail Convenience 2022 Outlook

2022 Key Numbers

€8m

Investment from Donnybrook Fair in flagship outlet in Dundrum shopping centre & preparation facility in Clondalkin.[6]

2.5million

The volume of in-store contactless payments recorded per day as consumers move away from cash based transactions.[8]

30

The number of new stores that Aldi Ireland has targeted in a multi-year investment of €250m.[7]

€10.50

New minimum wage effective from 1st January 2022 representing a €0.30 increase on previous rate.[9]

2022 Retail Convenience Sector Outlook

- **Robust Outlook:** Overall a resilient sector to economic shocks; Strong sales performance to continue but increased focus on margin preservation and cost management required.
- **Funding Activity:** Strong active pipeline of store purchase and revamp proposals– retailers recognise that customer experience/ excellent standards will be key to attract and retain market share.
- **Investment/Consolidation:** Increased investment in partnership agreements and further consolidation of the market (especially forecourt sub-sector) expected in 2022.

Market

- Significant revamp programme will be rolled out in 2022 nationwide by leading grocery operators as the ever more discerning consumer seeks excellence in store standards.
- Detailed analysis pre and post revamp will be an imperative to ensure that a maximum return on investment is delivered via sales mix improvement, margin growth and cost saving. The "localisation" trend will continue with store revamps taking a more bespoke, community focused approach.
- In a competitive labour market – sourcing and retaining the best people is vital to sustain a retail business. A structured employee development plan that incorporates role variety, up-skill opportunities and competitive remuneration needs to be embedded within the culture of the business. The smart use of digital/automation tools can deliver efficiencies within the business which will support this employee focused model.
- City centre stores will need to proactively assess all aspects of their business plan: target customer demographic, margin development, shrinkage, cost base, property costs etc. They will need to focus more on city centre dwellers as opposed to city centre employees – partner with foodservice/restaurants and provide effective delivery options etc to engage a new recurring customer base.
- Corporate social responsibility linked to sustainable and environmentally friendly in-store activities will be a key area of focus for all retailers – energy efficient equipment, elimination of single-use plastic, improved recycling facilities and reduction of food waste. This will enable an improved cost base whilst meeting consumer expectations in respect of ethical trading. The proposed roll-out of the deposit return scheme in H2 2022 will be monitored with interest.
- Increased consolidation expected in the market with larger grocery/convenience and fuel operators expanding their store network and diversifying their income streams.

[6] Musgrave Group press release – Nov 21
[7] Aldi Ireland press release Nov 2021
[8] Banking & Payments Federation of Ireland
[9] Budget 2022 – Department of Finance

Funding Activity

- Revamp funding to continue linked to a proactive investment strategy from progressive retailers nationwide.
- Store purchase strategies will continue to develop in 2022. COVID-19 has been the catalyst for increased levels of succession planning/retirement which is driving this activity.
- Refinance activity projected in the sector in 2022 linked to exiting banks and loan book purchasers seeking to deleverage.

Bank of Ireland

- In Bank of Ireland we recognise that we have a unique opportunity to support our customers and to enable Irish businesses and the communities we jointly serve to thrive.
- Our proven financial capabilities and appetite, combined with comprehensive sector expertise, provide us with a strong platform to meet the funding requirements of Irish retailers.
- We understand the investment cycle, including the need for regular expenditure to maintain growth and profitability in this dynamic sector, and we have a strong appetite to support progressive, innovative retailers in the further development of their businesses in 2022.

Owen Clifford

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Owen Clifford is Head of Retail Convenience within Bank of Ireland since 2015. Owen is responsible for the continuing development of the Bank's strategy in this key area and has actively supported leading retailers and stakeholders in the sector nationwide to grow and develop their business in a progressive manner.

Owen brings extensive industry knowledge and experience to this role, having worked in the retail sector with Musgrave Retail Partners Ireland where his role involved supporting independent retailers to maximise their profitability and to develop long-term, sustainable business models.

Owen holds a first class honours degree in Law and Accounting from the University of Limerick and is a Fellow of the Institute of Chartered Accountants Ireland and an Associate of the Irish Taxation Institute.

Technology, Media and Telecoms (TMT)

The TMT sector continues to play a leading role in enabling the digital transformation of every sector. We will continue to see further disruption over the medium term as customers demand tech-enabled products and services, that provide an enhanced, seamless customer experience.

TMT 2021 Review

Summary

Technology: Ireland's technology sector continued to perform strongly through 2021 with LetsGetChecked and Fenergo joining the ranks of Ireland's growing list of 'unicorns*'. Both businesses secured strong support from international investors, a further endorsement of the strength and reputation of Ireland's indigenous technology sector. TechIreland.org also published its Software as a Service (SaaS) report for 2021, capturing the continued growth of the sector with over 400 Irish technology companies classified as SaaS, creating solutions in artificial intelligence (AI), talenttech (recruitment), customer relationship management (CRM) and internet of things (IoT). The report highlighted data on activity for Irish SaaS companies during 2021 that saw 33 companies being acquired while three companies completed initial public offerings (IPO), see Fig. 1. below.

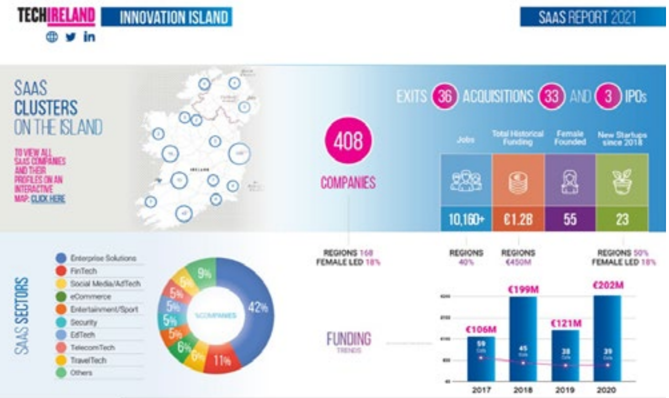


Fig 1: TechIreland.org - SaaS Report 2021.

Media: We continue to see further evidence of content providers moving to subscription-based models with content now placed behind a paywall, to position these businesses on a more sustainable model, as sales and advertising revenues continue to decline. Silicon Republic introduced its paywall last October following other titles such as the Irish Independent, The Business Post, The Examiner and The Irish Times that have rolled out similar models in recent years. In most cases, readers can still access free articles before having to pay for content.

However, the hope among content providers is that over time, readers will buy into the new model, and add another subscription to their ever-growing list, that already comprises of gym membership, access to software, music, and entertainment.

Telecoms: There was further consolidation in the sector during the period with Viatel Group continuing on their acquisition trail of recent years with the acquisition of Skytel Networks, a Wexford based provider of connectivity and voice services to both consumer and business customers across Ireland in October. This was their fourth acquisition in twelve months, further expanding their presence in the Irish market and internationally. The roll out of the national broadband plan continues despite having lost some ground owing to COVID-19 in the first half of the year.

Commercial providers such as Eir, SIRO and Virgin Media also announced plans to expand and/or upgrade their fibre networks and offer high-speed products to customers across the country, representing an investment of more than €1.8 billion.

Key trends

HR (Human Resources) tech: as new ways of working continued, centralised HR systems became critical for businesses. Productivity, culture, employee engagement, communication, and employee development amplified the need for effective technology solutions to help manage the challenges associated with remote working, which has driven an increase in demand for these types of solutions.

Influencer/Social media marketing: over the course of the pandemic, we have seen an increase in SME's creating content of their own such as men's/ladies fashion, pubs/restaurants and even construction businesses producing content to showcase their offerings to try and drive sales while the country entered various stages of lockdown. People's shyness or reservations about being videoed seems to have been well and truly overcome as more and more businesses saw the potential benefits of social channels. In many cases businesses are now using social media influencers to endorse products and services among their followers to drive sales by engaging customers through unique and differentiated content.

Digital transformation continues: many SMEs sought to either explore how they could replace outdated technology with more robust digital tools in order to support and maintain productivity or with a view to keeping up with competition and trying to stay relevant to existing customers while attracting new ones. As markets continued to shift, customers demanded enhanced, digitally enabled, experiences. Many of these tools (customer relationship management/project management/content management) that could assist businesses to exceed customers' expectations are available off the shelf with limited customisation required.

Key activity in the sector

Throughout 2021 the Irish Venture Capital Association published a positive outlook for start-ups and early-stage companies. Venture capital funding for the third quarter of 2021 into Irish SMEs increased by 19% to €231m, compared to €193m in 2020. Funding for the first nine months of 2021, which went mostly into technology businesses, reached €872m, up 11% from €786m 2020. The uncertainty caused by the pandemic had a particularly negative impact on funding into early stage and start-up businesses in 2020, with many funders focusing on their existing portfolios instead of new investments. The uplift and recovery in investment through 2021 is welcome and put the sector on a stronger footing heading into the end of 2021 and the new year.

There was further good news in the Budget in October when the government announced their intention to create an Innovation Equity Fund to increase private equity investment in indigenous, innovation-led businesses, to support early-stage businesses.

* A unicorn is a privately held start-up company valued at over $1 billion.

The €90million fund will consist of equal contributions of €30m from the Ireland Strategic Investment Fund (ISIF), the European Innovation Fund (EIF), and the Department of Enterprise, Trade and Employment.

Lending Activity

As the demand for digital solutions continued throughout the year, we saw significant increase in deposit account balances, driven by significant growth in sales for technology solutions, software, and cyber security.

The trend of consolidation of the Managed Services space that we have seen in recent years, continued through 2021 with the bank supporting some of our customers in making further acquisitions, boosting both their service offering and increasing their customer base.

Over the last year we have also seen an increase in the availability of capital from non-bank lenders. Ireland's global reputation as being a location of choice to scale a business has brought increased attention from alternative lenders seeking investment opportunities. In particular there has been a marked increase from US private equity and venture capital firms setting up offices in Ireland with a view to investing in Ireland's burgeoning tech sector.

Sector Developments – Some Key Numbers

No1

LetsGetChecked takes top spot in Deloitte 2021 Technology Fast 50 Awards

€5.5

funding for the establishment of a new Media Commission

100

new jobs to be created by Cork-based Altada that develop AI solutions.

$19.7bn

amount Microsoft paid for acquisition of Nuance Communications.

5000

the milestone number of industry projects completed so far by the Technology Gateway Network (partnership between Enterprise Ireland and comprising 16 gateways across the country, based at various Institutes of Technology/ Technological Universities.)

M&A

- **SilverCloud Health:** The Dublin-based company, that has developed a market leading digital mental health platform was acquired as part of a deal that also included Conversa Health (a leader in automated virtual healthcare), by American Well (Amwell) for an aggregate purchase price of approximately $320 million.
- **StitcherAds:** The Waterford based online advertising software company was acquired by Kargo, a US based leader in digital high-impact advertising, in a deal worth $64 million. StitcherAds were a recipient of Bank of Ireland Seed and Early-Stage Equity Fund, managed by Delta Partners.
- **Swiftqueue:** The Kildare-based, online appointment and scheduling solution provider for hospitals, was acquired by Italian company Dedalus. Swiftqueue were a recipient of Bank of Ireland Seed and Early-Stage Equity Fund, managed by Kernel Capital.

Fundraising

- **Content Llama:** The Donegal-based technology company that automates the collection, configuration, and delivery of product content for e-commerce retailers has raised €2.5m. The funding is aimed at supporting further growth and expansion with plans for 20 new hires over the course of 2022.
- **Kitman Labs:** The Dublin-based, sports technology and analytics company announced the close of a $52M investment round led by Guggenheim Investments. The funding will be used to scale the company faster and accelerate ongoing innovation.
- **Vaultree:** The Cork-based provider of Encryption-as-a-Service, raised $3.3m in seed funding for its enhanced data security solution. This latest funding will help the company develop a scalable and easy to use, market-ready product, to provide customers with a fully end-to-end encrypted data protection solution.

TMT 2022 Outlook

Technology: Looking ahead, Ireland's technology sector is expected to expand further over the course of 2022. It was recently announced that Flipdish, the food-ordering platform, founded by brothers James and Conor McCarthy have raised $100m in new funding, giving the business a valuation of $1.25 billion, making them Ireland's latest 'unicorn'. The business also plans to hire 700 new staff in 2022.

These will not all be hired in Ireland, as Flipdish and other similar businesses may find it increasingly challenging to acquire talent. While it was flagged that 2021 would be a difficult year to hire with restrictions on mobility creating a smaller pool to hire from, all indicators suggest this coming year presents unprecedented challenges. According to Morgan McKinley's 2022 Irish Salary Guide, the "Great Resignation" is proving a significant threat. The most in demand roles this year will be data analysts/engineers/scientists, with demand for software engineers continuing unabated. Likewise, those with cybersecurity skills will also be highly sought after.

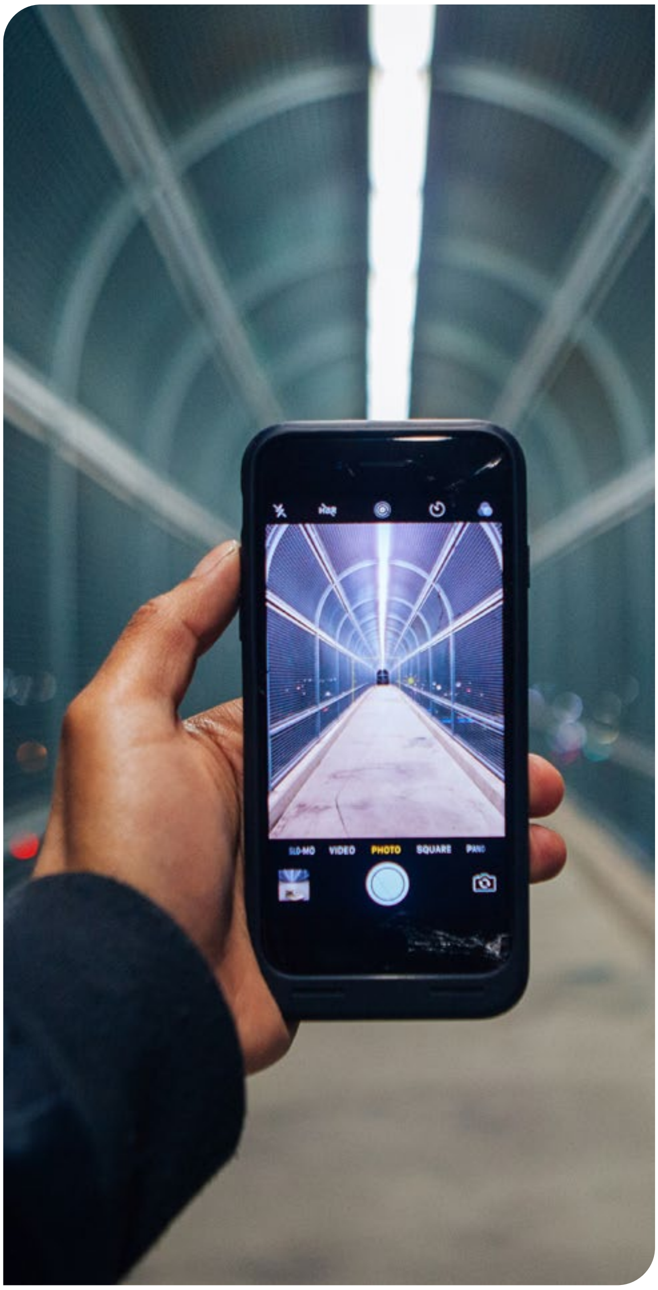
Media: Screen Ireland received an increase in budget funding of 22% for 2022 and confirmation of a new tax credit for digital gaming development companies. The increased funding will help support Ireland's growing film, TV and animation industry and enable significant potential for further growth as both a domestic employer and revenue generator. The industry has gone from strength to strength in recent years on the back of long-term investment in the creation of talent. It is no secret that Ireland's reputation, can-do approach and excellent producers, crews and creative ability puts the industry in a good place to benefit from the continued growth in demand from streaming channels for both live-action and animation content in the time ahead.

Telecoms: While the roll out of 5G has been talked about a lot over the last 18 months, 2022 is likely to be the year when we actually see progress in terms of widespread connectivity. 5G is the fifth generation of cellular networks. It is up to 100 times faster than 4G and it creates enormous opportunities for both business and ordinary consumers. In short, it is all about reliable connectivity; connecting things without lag, so we can engage, process, and execute actions in real time.

Businesses will now benefit from greater data-driven insights, making decisions in real-time. Connectivity among supply chain partners will also enable better interaction, improved efficiencies, and ability to alter/amend decisions reducing errors and associated costs.

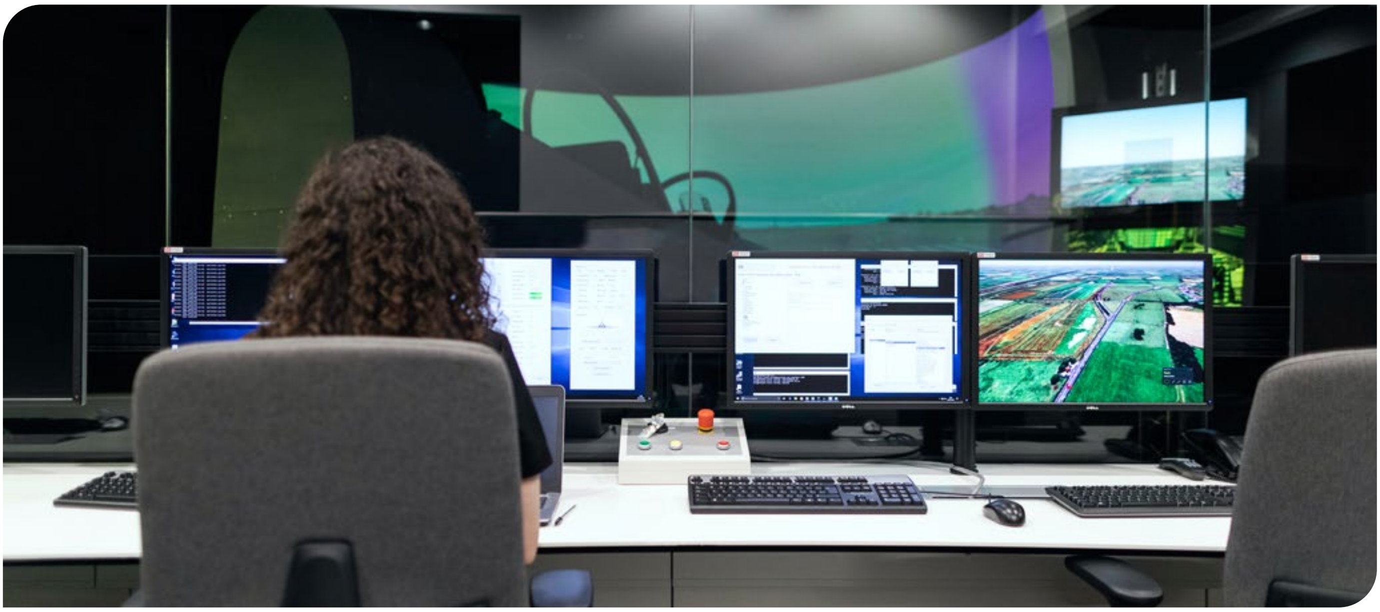
Market: Looking ahead, as the worst of the pandemic appears to be behind us, we are seeing governments across the world rolling back on the various restrictions that have been in place over the end of 2021. There is now palpable optimism and business minds are focusing on recovery, renewal and growth for the year ahead. With that in mind, below are some thoughts on what the year ahead might look like.

Cybersecurity: According to a recent report by Grant Thornton, the economic cost of cyber-crime to Ireland in 2020 was estimated to be €9.6 billion. Ransomware attacks are on the rise and businesses and organisations of every kind need to be vigilant to do all they can to protect against an attack.



Some steps that The Garda National Cyber Crime bureau advise businesses to take to prevent an attack include:

- **Scan for infected attachments and websites:** apply patches and anti-virus updates as well as scanning for infections.
- **Disable unused ports and services:** engage experts if needs be to assess your system to see what you require and what can be disabled.
- **Use trusted software and system updates:** it is important to keep your system up to date and always ensure you are installing trusted updates.
- **Backup essential files:** have a secure off system back up that you can restore your files in the event of an attack.
- **Engage with Cyber Security partners:** security experts will ensure that you are protected from threats to your system.
- **Report attacks, and do not engage:** in the event of a ransomware attack, report it to An Garda Síochána immediately.



Expansion of Low-code, No-code development platforms given the continued shortage of software engineers, we are likely seeing an expansion in the use of these platforms, with citizen developers (employees who create application capabilities for internal consumption, either in their own jobs or for others in their organisation, that can be developed in weeks, rather than months) becoming more commonplace. Low-code, no-code development platforms facilitate the building of software applications by employees/frontline workers, without needing deep technical knowledge. In short, it enables people, regardless of their role, to solve the problems that are right there in front of them. They can constantly innovate and iterate on their processes as the conditions in their business change, adapting their software to new processes and move faster than if they had to go through a team of developers or an IT department.

Blockchain: the lack of use cases of this technology was widely mentioned in recent years as a reason for some of the scepticism as to its applicability and scalability. Today, according to Forbes, eight of the world's largest publicly traded companies are building various products incorporating this technology. We are now seeing broader use cases emerging across luxury goods (tracking products and fighting counterfeiting), music rights (managing copyrighting and royalty payments), legal (smart contracts), supply chain (holistic view - point of origin, track, and trace) and healthcare (incorruptible patient records and data).

Financial services and the banking sector continue to receive the lion's share of investment in blockchain technology, particularly in the area of payments, but now expanding further into areas of wealth and asset management and credit scoring. While blockchain and cryptocurrency are used interchangeably, cryptocurrency is just one of many potential uses of the blockchain. Yet it continues to generate enormous interest given its ability to enable parties to exchange value, without the need of a third party.

The global cryptocurrency market cap reached $3 trillion, which was an all-time high at the end of 2021. China outlawed all crypto-related transactions last Autumn and is only one of many countries and jurisdictions that have either banned cryptocurrencies outright or severely restricted it over the past few years.

ESG and TMT: an increasing focus on sustainability will feature more prominently this year with businesses looking to technology companies to create and deliver tools that integrate data and provide insights on everything from the environment, social and governance issues to support decision making.

The TMT sector itself accounts for significant emissions (estimated to be somewhere between 1.4% of global emissions across devices, networks, and data centres and 3.6% of electricity consumption), while also contributing to the world's supply chain carbon footprint. Companies across the TMT sector need to proactively invest in renewable energy and services to decarbonise and offset emissions being created by cloud, Telco's, and various technology platforms.

On a broader level, the TMT sector needs to take a leadership role in creating technologies and innovate to find ways for applications to support sustainability, while also leading by example in transforming organisational sustainability strategies into actionable roadmaps and proactively delivering on them.

Funding activity

We continue to see an expansion in acceleration of digital technologies and expect this to continue as more businesses expand their digital footprint and transform their organisations. We look forward to supporting both existing and new customers investing in their businesses to adequately resource their operations to capitalise on those opportunities.

Consolidation of the Managed Service Provider (MSP) space continues at pace as businesses seek to gain critical mass through acquisition and leverage new cloud-based models where a broad suite of technology products, hardware (devices) and services are bundled to enable customers to move to a recurring revenue model. We are delighted to continue our support of customers as they grow revenue and their geographical footprint.

We also look forward to continuing our support for customers delivering on Ireland's ambition roll out of the National Broadband Plan, delivering services and supporting connectivity of customers and families throughout the country.

Bank of Ireland

As one of Ireland's pillar business banks, we recognise that we have a unique opportunity to support our customers and help to enable Irish businesses and 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 are delighted to continue to provide various facilities to some of Ireland's best-known TMT brands. By having a designated Technology 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 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 Waterford Institute of Technology 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 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 Waterford Institute of Technology.

Sources: *Amwell, Deloitte, Screen Ireland, Microsoft, Enterprise Ireland, Altada, Enea, Tech.eu, StitcherAds, Bizplus, Kitman Labs, gov.ie, Forbes, TechIreland.org, Technology Ireland, WEF, Fortune, europarl.europa.eu, Viatel, Gartner, Morgan McKinley, Venturebeat, Harvard.edu, HFSResearch.*

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