



Bank of Ireland Sectors Team Manufacturing 2021 Insights and 2022 Outlook

January 2022



**Bank of
Ireland**

Classification: **Green**

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

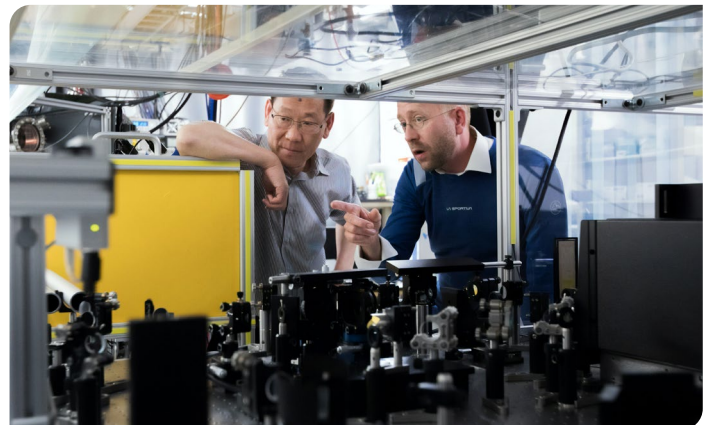
through a combination great talent, stock building, in-house technology transfer, supply chain reconfiguration, acceleration of technology and embracing the green agenda. With a mind-set akin, to Friedrich Nietzsche's, Aphorism "What doesn't kill you makes you stronger" Irish Manufacturing has taken 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 CO₂e (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.



Manufacturing Activity

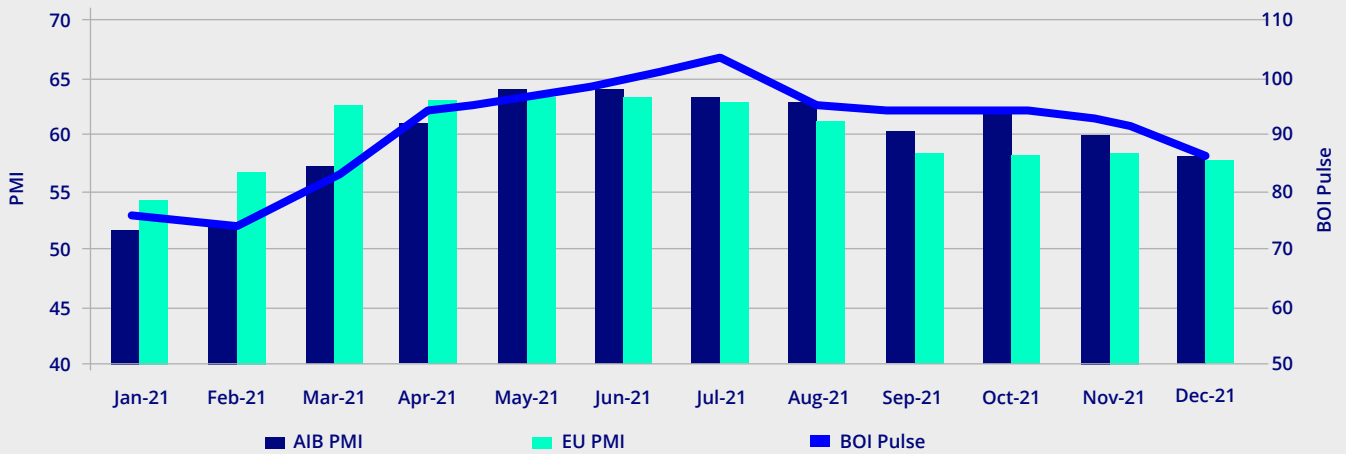


Table 1: Sources: BOI/AIB/HIS Markit

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

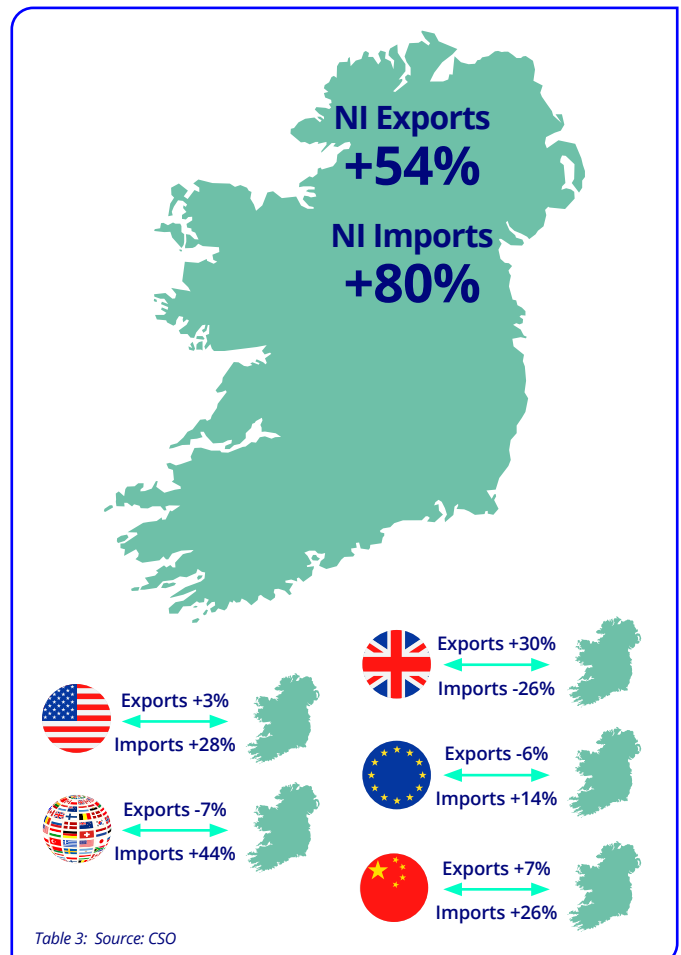
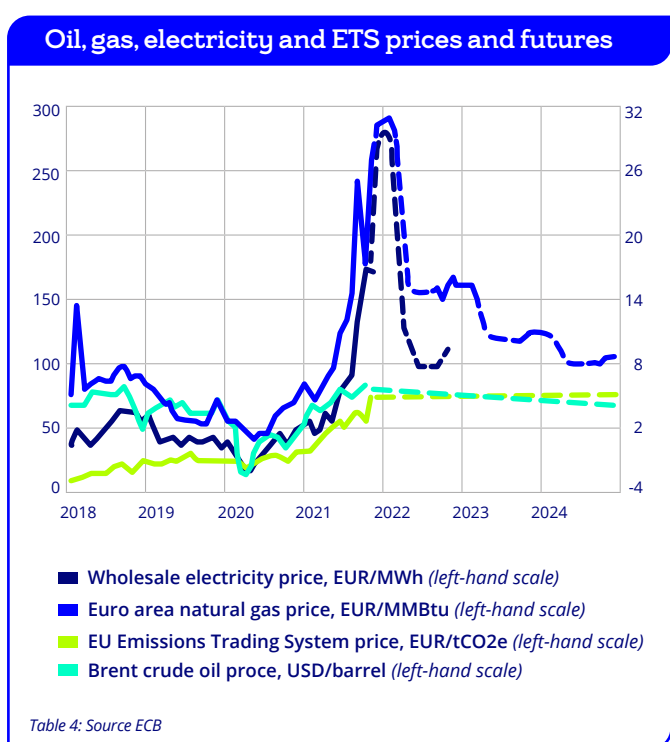


Table 3: Source: CSO

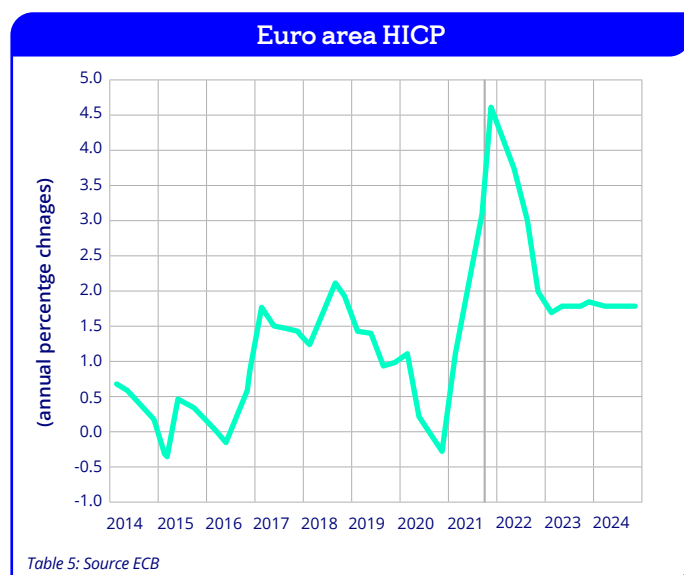
Headwinds of Supply Chain Shortages and Input Price Inflation with spikes in Energy

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.

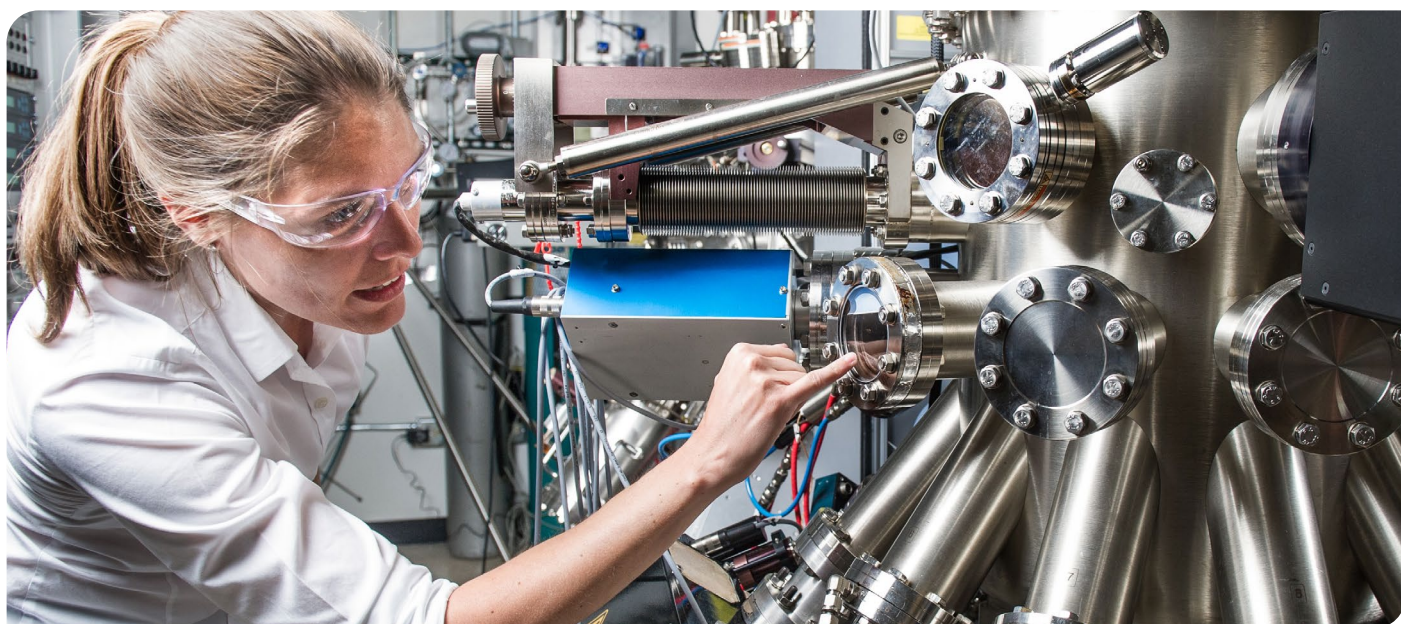


While the latter is more than double the key target of 2% and earlier H1 forecasts, it is still forecast to moderate in 2022 as per table 5 below. Manufacturing have been passing on increases to customers and where possible bulk buying components minimise inflation impacts.



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.



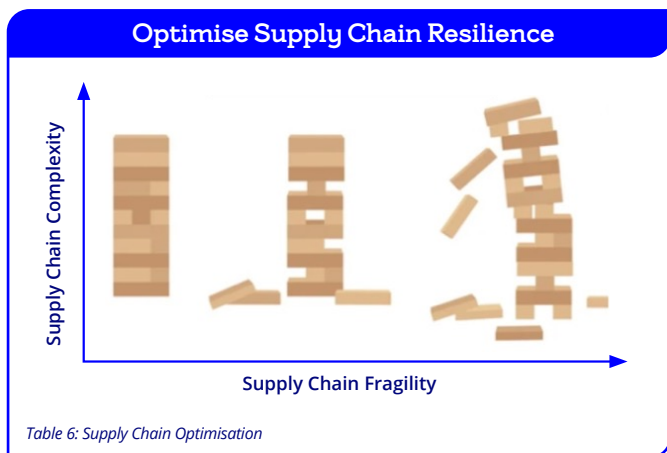
Manufacturing 2022 Outlook – Optimism, Unpredictability and Continued Growth

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.



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.

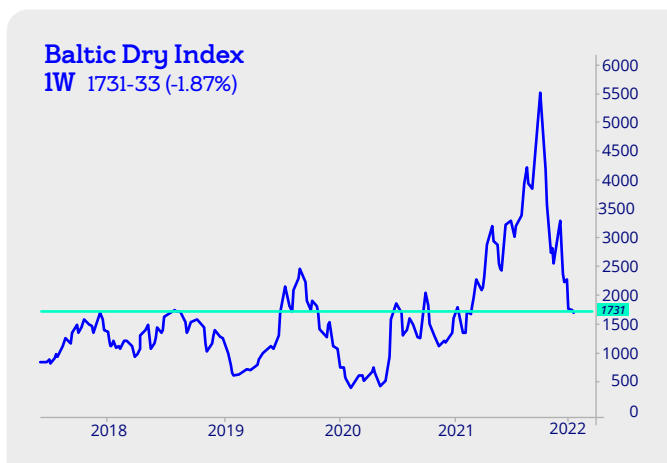
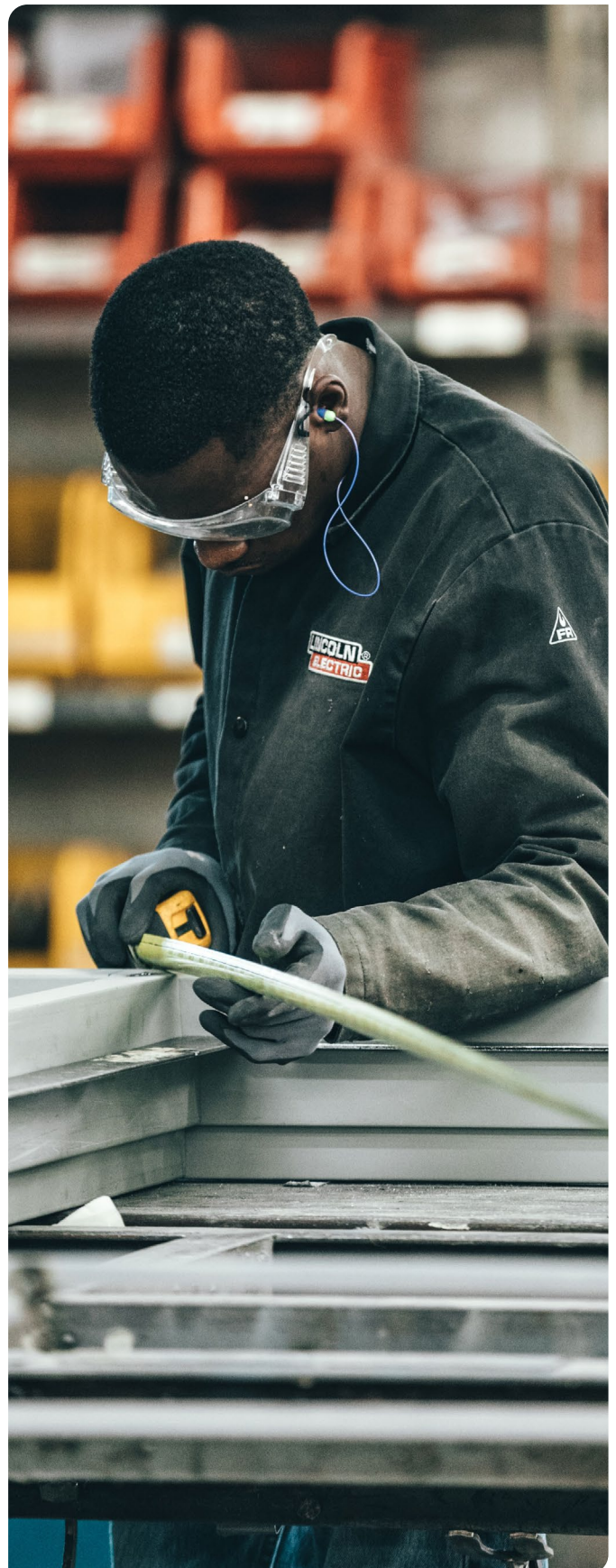


Table 7: Source: Trading economics.com



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.

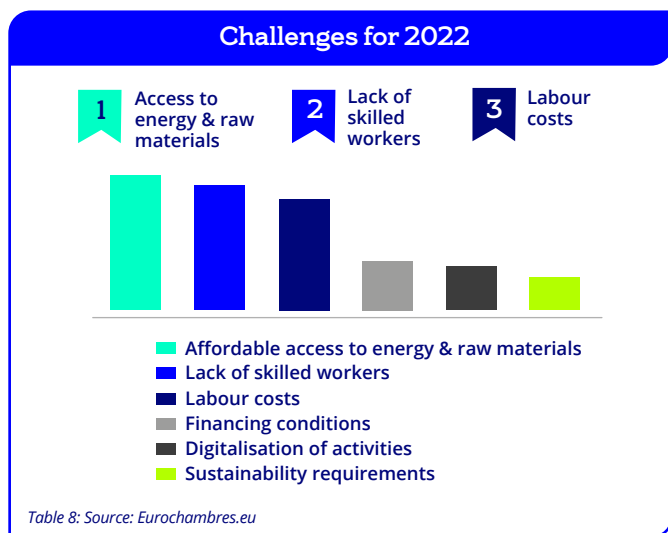


Table 8: Source: Eurochambres.eu

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.

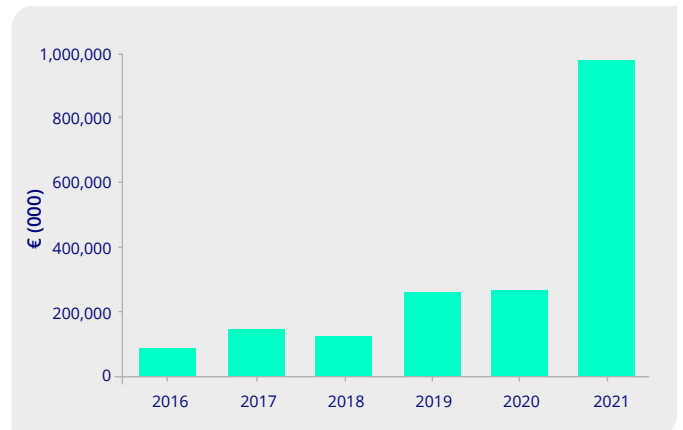


Table 9: Source: CBRE

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 transitional 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

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