

Huawei Digital Business Index

Q4 2024





How is business?

Ireland stands at a crossroads concerning the future direction of its economy. Over the past 30 years and more, Ireland has benefited from economic development based on Foreign Direct Investment (FDI) which has delivered growth, employment and a high standard of living. But all that is changing due to global, European and domestic trends affecting taxation, energy, competition and a range of other factors.

In this, the first edition of the **Huawei Digital Business Index**, we look at how businesses operating in Ireland are responding to the challenges and opportunities posed by changing trends, focusing on both short-term dynamics measuring business performance, as well as medium-term factors such as the digitalisation of business practices and processes. We also explore the longer-term contribution of artificial intelligence (AI) to finding a new way forward for our economic development.

There are three parts to this report:

Part 1

The Business
Economy

Part 2

Digital Growth
Drivers

Part 3

Pathways to
AI Success

In September 2024, Amárach surveyed 350 decision makers, from a cross-section of SMEs and larger businesses throughout Ireland, to capture the mood of business owners, managers and directors as we enter the final quarter of 2024 and look ahead to prospects for 2025 and beyond.

We will revisit these and other themes in future issues of the **Huawei Digital Business Index**.

Part 1

The Business Economy

Year End Outlook

Every business faces the same set of challenges every day: growing turnover and profits, keeping and acquiring new customers, managing employees and controlling costs. It doesn't matter what sector you operate in, whether you are an exporter or not, the simple facts of business economics require us to pay attention to the top line, the bottom line, and the cost lines in between.

So how are businesses doing? On balance, the picture from our survey is quite positive:

Turnover: a third of businesses expect turnover to be better over the next three months – taking us towards the year end – versus the past three months, only 13% expect things to be worse.

Customers: though most expect customer acquisition and retention to remain the same versus the past three months, about one in four expect both to improve in the quarter ahead.

Employees: our 'full employment' economy continues to put pressure on employers, with slightly more (17%) expecting employee retention to worsen in the next three months versus 14% who expect an improvement, 69% expect no change.

Costs: inflationary pressures in the supply chain (and labour market) mean that almost half (49%) of Irish businesses expect costs to deteriorate over the next three months versus just 8% who expect an improvement.

Profits: given the above configuration of trends, there are slightly more businesses expecting profitability to improve over the rest of 2024 (31%) than expecting a decline (25%), with only 45% expecting no change in the months ahead.

Business Prospects for the next three months	Better	Same	Worse
Turnover	34%	52%	13%
Profits	31%	45%	25%
Customer acquisition	26%	61%	12%
Customer retention	22%	70%	8%
Employee retention	14%	69%	17%
Costs	8%	44%	49%

If we combine the answers for each of these variables (net 'better' minus 'worse' for turnover, costs, profits etc) then we get a measure of the direction of momentum in the Irish business economy (a positive score is net positive for the next quarter, a negative score is net negative). On balance, the answers are net positive across all the variables we measure, indicating at positive business outlook for the rest of 2024.

But there are differences. For example, we see in the survey that:

- Micro firms (under 10 employees) are the most negative about their outlook over the rest of 2024.
- Small firms (10-49 employees) are the most positive, with lower positivity among larger firms.
- Those firms that are foreign-owned, exporting and mostly in the B2B space are also significantly more likely to be positive about the near-term outlook.

Overall, the outlook bodes well for not just year-end prospects but also for business momentum going into 2025.

Part 2

Digital Growth Drivers

Spending Boost

While businesses are on balance positive about the next few months, they do not assume that growth will ‘simply happen’. Indeed, many are investing in a range of digital and related technologies, with large minorities budgeting for a net increase in spending across most, though not all, of the seven categories we have measured.

Spending Intentions – next three months vs past three months	More	Same	Less
IT software (including cloud services)	28%	60%	11%
IT hardware (including servers, desktop PCs, laptops etc)	27%	58%	15%
IT training	25%	60%	16%
Sustainability (investment related, supplier related, work processes etc)	25%	62%	13%
Smart energy (solar, heat pumps, wind turbines etc)	24%	58%	17%
Connectivity (broadband, mobile etc)	17%	75%	9%
Electric transport (EVs, ebikes, hybrid vehicles, electric vans etc)	17%	64%	20%

There is particularly strong spending momentum for IT software. The only area with net negative trends is electric transport – we have seen similar trends in the consumer sector (e.g. falling EV sales) so something similar may be happening in the business community.

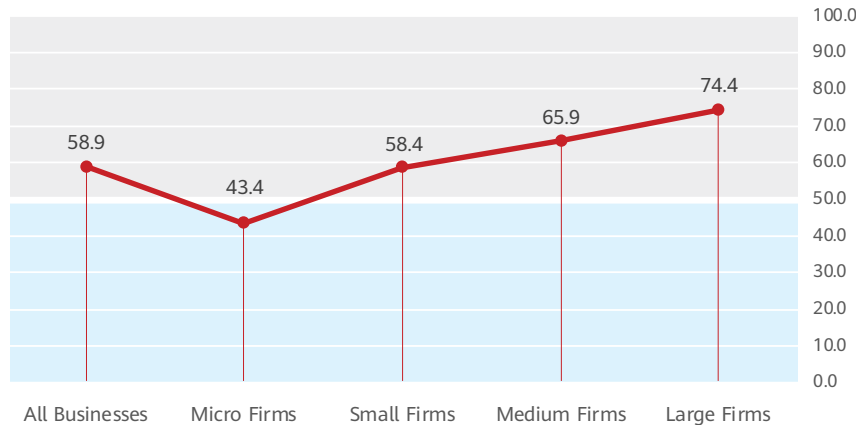
We created the Huawei Digital Business Index by looking at how businesses plan to spend on digital investments. We asked them if they expect to spend more or less in seven different areas. We calculate an average by taking the percentage of businesses saying they’ll spend more and subtracting the percentage saying they’ll spend less.

To make it easy to understand, we set the index score at 50 when there’s no change—meaning the same number of businesses plan to spend more as those planning to spend less. If the score is above 50, it means more businesses plan to spend more (positive outlook). If it’s below 50, it means more businesses plan to spend less (negative outlook).

Currently, the overall score is positive at 58.9, which is good. However, for very small businesses (with fewer than 10 employees), the score is only 43.4, indicating a negative outlook for their digital spending. In contrast, larger companies are doing well with a score of 74.4. This is a concern because digital investment is crucial for the growth of small Irish businesses.

The chart on the following page shows the Huawei Digital Business Index for Q4 2024 by size of firm.

Huawei Digital Business Index – Q4 2024



The next edition of this report will report on trends in the Huawei Digital Business Index for Ireland and whether the situation has improved or not, especially for smaller firms.

Once again, we find that there are marked differences in digital investment intentions by size of company (larger corporates are investing more), but it is business-to-consumer (B2C) rather than business-to-business (B2B) companies that are more committed to digital investment over the rest of the year, despite a less positive outlook in terms of business momentum noted previously.

There are, of course, financial and affordability considerations when it comes to investing in digital initiatives, but there are also psychological drivers. In fact, one of the key findings in our research for Huawei is the role of business confidence in driving digital investment.

Digital Confidence

We measured the level of business leader confidence when it comes to digital strategy using a series of statements which respondents score on a scale of 0-10, with a score of 7-10 considered to be 'confident'. Though in some instances about half of decision makers scored confident about certain skills and tasks, only a minority were confident about other tasks influencing the digital direction of their businesses.

Confidence in relation to digital strategy and investment	% Confident
Knowing the right skill mix among employees	51%
Understanding customer preferences in terms of interacting and transacting digitally with your business	51%
Identifying the key internal functions and processes that can be improved through targeted digital investment	50%
Choosing which suppliers/partners to work with to achieve your digital ambitions	47%
Understanding the current and future regulations that impact your sector	47%
Knowing the right skill mix among contractors to deliver your digital strategy	46%
Prioritising the right mix and level of digital technologies to deliver future growth	44%

There are large differences between sectors and sizes of firms, for example:

- While 44% of business leaders are confident about 'prioritising the right mix and level of digital technologies to deliver future growth', this falls to just 38% of medium-sized firms (50-249 employees).
- Foreign-owned firms tend to be more confident about prioritising for future growth (59% vs 42% of Irish owned firms), while B2B focused firms are more confident than to B2C firms (56% vs 40%).

We see similar patterns in response to other statements exploring confidence about digital strategies and priorities. What this tells us in the wider context of business momentum and digital investment plans is that the mindset of Irish business decision makers is on balance supportive, and positive, about the part digital transformation will play in their future success going into 2025.

Getting Support

No matter how large the business, we all need support and inputs from external sources from time-to-time. This is especially true of digital planning and decision-making. Most businesses in Ireland, regardless of size, avail of one or more supports when it comes to planning their digital future. Both State and private sector players have key roles.

Which of the following agencies and organisations is most helpful to you when it comes to planning the digital future of your business?	All Businesses Any Mentions:
Enterprise Ireland	44%
Eir	43%
Your business bank	40%
Vodafone	28%
IDA	26%
Chambers of Commerce	12%

For firms in the key 'small firm' category (10-49 employees), sources of support such as Enterprise Ireland are key to most of these firms (63%). Business banks also play an important role across sectors and sizes, especially for micro firms (fewer than 10 employees) at 48%.

Digital Economics

While confidence plays a key role in encouraging digital investment and future strategy, bottom line (and top line) considerations provide the primary rationale for decision makers at present. For example, when asked ‘what are the main benefits of digitalisation to your company’, the top answer is ‘reducing costs’ – hardly surprising given our finding earlier about the cost pressures firms are facing right now and in months ahead.

What are the main benefits of digitalisation to your company?	All Businesses
Reducing costs	64%
Responding to changing customer behaviours	45%
Becoming more energy efficient	45%
Future proofing our business model	44%
Dealing with regulation	38%
Growing revenues	34%
Helping lower carbon emissions	31%
Compete in new customer segments or verticals	20%
Other	3%

Most of the benefits are ‘reactive’ in nature – responding to customers, regulations etc – while growing revenues is well down the list. Larger firms and those that are foreign owned are much more focused on reducing costs than others. Though cost reduction is equally important to exporters and non-exporters, B2B firms are more likely to identify regulation as a driver of digitalisation than B2C firms.

Given such obvious benefits, what would hold back firms from pursuing an aggressive digital strategy? Not surprisingly, lack of budget or financial resources tops the list, and just 3% of firms say there is no barrier.

What are the main barriers to digital investment in your company?	All Businesses
Lack of budget or financial resources	43%
Insufficient internal expertise or knowledge	35%
Complexity of integrating sustainable technologies with existing systems	34%
Uncertainty about return on investment (ROI)	32%
Lack of incentives or support from government bodies	29%
Uncertainty about regulatory requirements	25%
Lack of support or resistance to change within the organisation	24%
Limited availability of sustainable technology solutions in the market	21%
Other	1%
None	3%

There is less of a gap between SMEs and larger corporates when it comes to financial constraints (high for both types of firms), though foreign-owned firms are more likely to say uncertainty about the return on investment in digital is a constraint than financial resources.

However, the second largest constraint is that of skills, which indicates that the 'war for talent' remains just as intense as before for those businesses ambitious to expand their digital capabilities but impatient with their existing, in-house human resources as employees struggle to keep up with rapid change.

Digital Capabilities

Digital transformation depends on more than having the right finance and plan in place. Back in 2020, we asked a similar sample of business decision makers about what they thought would be the key enablers for their organisation's digital transformation over the next five years. Nearly five years later, we have revisited this question to see how opinions have changed – or not – in the intervening period.

The results are fascinating, and point to the ways in which business experiences of digital transformation post-pandemic and then during a cost-of-living crisis have shifted significantly.

What capability do you believe will be the key enabler for your organisation's digital transformation in the next five years?

	2020	2024
Talent and culture – building talent and culture as a source of digital advantage	37%	56%
Systems and technology – Level of technology infrastructure e.g. mobile checkouts, buy online and pick up in store	49%	49%
Data and analytics – identifying sources of new business and determining how data can deliver them	53%	46%
Operating models and partnerships – an operating model that accelerates digital progress	31%	33%
Other	1%	1%
Don't know	19%	9%

The most obvious shift has been in relation to talent and culture. This ranked third as an enabling capability four years ago and is now the top consideration. We see this especially among large corporates (66%), foreign-owned firms (63%) and exporters (59%), as well as B2B firms (58%). This tells us that there is growing confidence in what technologies to use (though still room for improvement) but a much greater focus on who is going to use them and how.

Related to this finding is the wider trend among tech companies and others requiring staff to ‘return to the office’ on a more regular (or even fulltime) basis. Despite the many benefits of digital flexibility (especially evident during pandemic mandated lockdowns in 2020), many firms realise that delivering digital transformation is better done face-to-face in some instances.

Also, we are seeing a maturing of digital practices in businesses: data and analytics is a key competency still, but four years of embedding such practices now means that managers can focus elsewhere (though systems and technology remain just as important in 2024 as in 2020).

Digitalising Ireland

In our 2020 survey we also asked business decision makers to rank the technology applications that they thought would be key to business and economic growth in Ireland over the next five years. Again, with the advantage of looking back four years later, it is fascinating to see how opinions have changed, though not completely.

Rate how unimportant or important you believe each will be for business and economic growth in Ireland over the next 5 years. (See definitions in the appendix).	2020 % Important	2024 % Important
Smart energy grids	69%	56%
Smart buildings	49%	49%
Business process automation technology	46%	44%
Next-generation Artificial Intelligence (AI)	45%	41%
Next-generation Internet of Things (IoT)	42%	41%
Multiple connected devices	37%	34%
Next-generation Industrial robots	28%	31%
Robots for commercial use	18%	27%
Delivery drones and robotic deliveries	30%	25%

Again, some of the shifts in opinions we see are the result of changes that have happened since 2020: including continued investment in Ireland's energy system (especially renewables) and the widespread implementation of solutions such as delivery drones (though it is still early days).

There are some significant differences in 2024 between sectors and sizes of firms, for example in relation to business process automation technology (enabling the automation functions such as marketing and customer support, analytics and project management), we find that there is relatively little difference by size of firm, but B2B firms are more focused on this (52%) than B2C firms (41%).

Overall, our findings reinforce the earlier comments about business momentum in Q4 2024 – Irish firms are, on balance, ready to invest in the right mix of technologies and skills to drive their digital strategies forward, though all face common headwinds and have aligned on similar priorities, particularly those relating to skills and training to enable digital transformation.

We turn now to explore how AI will potentially accelerate the trends we are seeing, as well as solving some of the problems and barriers identified in our survey of business decision makers.

Part 3

Pathways to AI Success

We are at a very early stage in Ireland's AI journey, but already we can begin to see how it might evolve in the months and years ahead. Our survey contrasts experiences of using AI in the past three months with intentions for using AI in the next three months.

The bottom line is that over one in three (35%) firms in our survey do not utilise generative AI in any aspect of their business, and similar proportion don't intend using it. This rises to half (52%) of micro firms (fewer than 10 employees).

A similar proportion use AI experimentally, but it isn't business critical yet: small firms (10-49 employees) are more likely to be minimal users (43%), as are exporters curiously enough (41%). The proportions who are more advanced in their use of generative AI technologies fall quite sharply: one in five are moderate users (so integrated into some aspects of their business) – foreign-owned businesses are more likely at this stage.

Then there are those using AI to a significant or even extensive degree – they make up about one in 10 businesses right now. B2B firms are more likely to be in the more advanced cohort, but even here just 13% consider themselves advanced.

In the past quarter/next quarter, to what extent has/will your company utilised/utilise generative AI technologies in its operations?	Past Quarter	Next Quarter
Not at all - Our company has not/will not utilised generative AI technologies.	35%	34%
Minimal - Our company has/will experiment with or used generative AI technologies in a very limited capacity	36%	39%
Moderate - Our company has/will integrate generative AI technologies into some of our operations	19%	14%
Significant - Our company has/will broadly integrate generative AI technologies across multiple operations	9%	8%
Extensive - Our company relies/will rely heavily on generative AI technologies for core operations and strategic initiatives	2%	4%

Looking ahead, 12% expect to be in an expansion or strategic integration phase over the rest of the year – rising to 22% of large corporates and 35% of those generating most of their revenues from outside of Ireland.

Given the speed of change in AI adoption and usage, we have captured information about near-term, next-quarter intentions in relation to AI's role. Again, the table shows that for one in three there is not expectation that things will change (especially among micro firms at 53%), while the majority will remain in the exploratory or initial implementation stages over the rest of 2024.

If we exclude those not using AI at all, then among those using AI (experimentally or more comprehensively) the primary application in the past quarter has been in relation to data analysis and insights, followed by customer service. Larger corporates (250+ employees) are ahead in this regard (57%), although medium-sized firms (50-249) are more likely than other small firms to use AI in relation to customer service (45%) as are B2C firms (47%).

Similarly, we can see from the table what usage will be made of AI in the next three months, with data analysis continuing to dominate but a big shift from content creation to product design and development over the rest of the year.

If your company has utilised/will utilise generative AI technologies in the past quarter/next quarter, what specific areas have seen/will see the most significant impact?	Past Quarter	Next Quarter
Data analysis and insights	48%	54%
Customer service (e.g., chatbots, automated support)	41%	43%
Internal operations (e.g., workflow automation)	32%	30%
Content creation (e.g., marketing materials, reports)	30%	25%
Product design and development	28%	35%
Other	2%	1%

The main users of AI for product design will be medium-sized firms (50-149 employees) at 38%, while larger corporates will be pushing ahead with the application of AI to internal operations (47%).

The findings from the **Huawei Digital Business Index** survey illustrate the scale and speed of change in relation to AI, one that mirrors the changes we saw in relation to digital transformation in the previous section.

Conclusions

We are at a pivotal moment in Ireland's economic development over the rest of the 2020s. A combination of factors outside our control are confronting businesses in Ireland with unprecedented challenges and opportunities. This, the first edition of the Huawei Digital Business Index highlights how Irish businesses are adapting to change in the short- and medium- term.

There are several key themes emerging from our study:

Positive Business Momentum: despite various economic pressures such as inflation and supply chain disruptions, not to mention international uncertainties, the overall outlook for Irish businesses remains cautiously optimistic, with evidence that growth is expected to continue despite cost headwinds.

Investing for Transformation: Irish businesses are recognising the value of digital investment as a driver of future success both at micro and a macro levels, with larger organisations leading the charge by leveraging digital technologies to enhance operations, even amid economic headwinds.

Rising Digital Confidence: our research has found that confidence in digital strategies and investment is growing among Irish business leaders, especially in areas such as understanding customer preferences and optimising internal processes, fuelling further investment in digital capabilities and a solid foundation for long-term digital transformation.

Key Digital Enablers: four years on, the report highlights the continuing, critical role of talent and organisational culture in driving successful digital transformation, including evidence of a shift toward cultivating the right skill sets and fostering a digital-first mindset among employees.

AI Adoption for Success: while the adoption of AI technologies in Ireland is still at an early stage for many businesses, there is growing interest in integrating AI into business processes, particularly in data analysis, customer service, and product development, all of which will multiply the impact of digital investments.

Barriers to Digital Investment: despite the positive findings about investment intentions, financial constraints and the complexity of integrating new technologies remain key barriers to digital adoption, suggesting a growing role for government support and external partnerships (such as with Enterprise Ireland and business banks) to provide essential resources.

Looking Ahead

Our intention is to use the **Huawei Digital Business Index** to anticipate and track trends affecting Irish businesses on a regular basis. Ultimately, we want our research to equip customers with insights into short-term and medium-term trends that create opportunities for growth.

Based on this, our first edition, we can predict that Irish businesses will invest in the digital technologies and people to use them more aggressively in the months ahead. This, in turn, will mean that Ireland's economy will continue to benefit from digitalisation as Ireland navigates the challenges and uncertainties that lie ahead.

Appendix

Definitions for each technology shared with respondents to the Huawei survey:

Smart energy grids (an electrical grid with automation, communication and IT systems – this will enable better energy management as Ireland moves toward relying on renewables for energy supply)

Smart buildings (a building equipped with lighting, heating, and electronic devices that can be monitored and controlled remotely by smartphone or computer - enabling more efficient energy management)

Business process automation technology (enabling the automation functions such as marketing and customer support, analytics and project management)

Next-generation Artificial Intelligence (AI) (Artificial intelligence is the ability of a computer program or a machine to think and learn)

Next-generation Internet of Things (IoT) (everyday objects that feature Internet connectivity)

Multiple connected devices (e.g. Amazon Echo; Nest; Smart lighting)

Next-generation Industrial robots (robots that perform automated tasks that could improve efficiency and workplace safety)

Robots for commercial use (robots that perform useful tasks for humans beyond the workplace)

Delivery drones and robotic deliveries (an autonomous vehicle or robot, used to transport packages, food or other goods)

About Huawei Ireland

Huawei is a leading global provider of information and communications technology (ICT) infrastructure and smart devices. With integrated solutions across four key domains – telecom networks, IT, smart devices, and cloud services – Huawei is committed to bringing digital to every person, home, and organisation for a fully connected, intelligent world. Huawei employs over 207,000 people in 170 countries across the globe.

Since its arrival in 2004, Huawei's activities in Ireland have developed from supplying mobile phones, building Ireland's first national fixed wireless network, providing fibre optic broadband technologies, to being at the forefront of the current 5G digital transformation. Huawei's activities globally, and in Ireland, are underpinned by a core focus on R&D. Indeed, the EU ranks Huawei among the top five investors in R&D in the world³. Annually Huawei spends 10%-15% of its global sales revenue on R&D, in 2023 its total R&D spending reached €21.2 billion, representing 23.4% of total revenue. In Ireland, Huawei has invested over €250 million in its Irish R&D efforts between 2019-2023. Along with the positive impact of Huawei's R&D activities, Ireland's economy derives significant economic benefits from Huawei's operational expenditure and exchequer contributions, with a total annualised economic contribution of over €800 million and will contribute €4.5 billion in economic value to Ireland between now and 2030 according to a recent Amárach report. Huawei's Irish operations employ 543 individuals and support the employment of a further 6,100 individuals through indirect and induced effects from its activities.

Huawei works with several Irish third-level institutions, including Trinity College Dublin, Dublin City University, TU Dublin, University of Limerick, University College Dublin, and University College Cork, funding vital Irish research into video, artificial intelligence, and cloud computing. The company also partners key Science Foundation Ireland centres such as Connect, Insight, Adapt and Lero.

About Amárach

Amárach is an independent research consultancy, measuring the business implications of consumer and business trends in Ireland and abroad.