International Innovation Barometer

2025

ayming INSTITUTE

6th annual edition

Find out how your local and international peers maximise their innovation funding to create value.

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Contents & Foreword

Innovation can feel like a bit of buzzword these days. It is littered through government announcements, as well as marketing collateral from businesses. After all, everyone wants to be deemed 'innovative'.

But buzzword or not, innovation is a process that leads to scientific and technological progress – and one that both businesses and governments are getting better at every year.

There's a reason that the world economy feels like it's moving faster, with new business models and technologies constantly springing up, and it's ultimately because of the work of R&D teams. What was once an overlooked, modest function is now an integral part of every business across all sectors. And as more companies invest in R&D, others will have to follow suit just to keep up, creating the innovation growth cycle that we are witnessing today.

This is why we do this research every year. How businesses are innovating has such enormous consequences for our future and there's much to learn from the methods and strategies that companies are using to improve results.

Last year, our revolving third section looked into sustainable innovation. This year, we take our research in a new direction. Technology and R&D are increasingly symbiotic, so we have added CTOs into this year's research and taken a deeper look at the budding relationship between artificial intelligence and R&D.

That said, the last year has not been without its challenges. Most companies are facing extreme cost pressures and have been forced to find ways of maintaining their R&D activity. At the same time, there has been considerable turbulence in R&D tax credit schemes, affecting major economies, including France, the USA, and UK.

With R&D tax credits unstable, grants have taken on a newfound status as a more reliable source of funding. Their potential to provide both cash in this high-cost environment as well as prestige means they are becoming a growing priority for companies and their board members. Our third section therefore takes a deep dive into the complex world of grant funding.

There's also likely to be further reform ahead considering we're in the largest election year in history. Any new governments will inevitably be looking to put their stamp on the economy, and innovation is high up the agenda. I'm excited to see where things go.

I hope you find this report a useful and informative read.

Hervé Amar

President, Ayming Group

Methodology

This report – the sixth annual International Innovation Barometer – builds on our analysis of R&D over the last five years. In June 2024, we surveyed 1,227 R&D and innovation directors, chief financial officers, chief executive officers, and this year we have expanded the panel to include chief technology officers, who are increasingly involved in R&D processes.

As part of ongoing efforts to ensure each edition of the Barometer improves upon the last, certain survey questions have been updated and we have added in new questions to reflect the evolving challenges facing innovation teams. It is explicitly stated in-text where updated language may have impacted year on year comparisons.

Analysis is split into three sections. The first sets the scene, looking at the growth of innovation and the barriers faced, the second looks at the way businesses can maximise innovation output, whilst the third examines the growth of grants as a source of funding.

The data has been analysed by five of Ayming's international innovation experts:

Lauren Fortner
Manager Innovation
Ayming USA

Njy Rios
Director - R&D Tax Incentives
Ayming UK

Laurie Pilo
Head of Grant Funding
Ayming Group

Agnieszka Hrynkiewicz-Sudnik
Consulting Director
Ayming Poland

Claire Untereiner
Manager, Development Division,
Finance & Innovation Performance
Ayming France

Respondents were sourced from the 17 countries listed below and were evenly split between seven sectors: automotive, construction, finance, manufacturing, energy, pharma and technology, as well as between large and small businesses.

Belgium

Canada

China

Czech Republic

France

Germany

Ireland

Italy

Hungary

The Netherlands

Poland

Portugal

Singapore

Slovakia

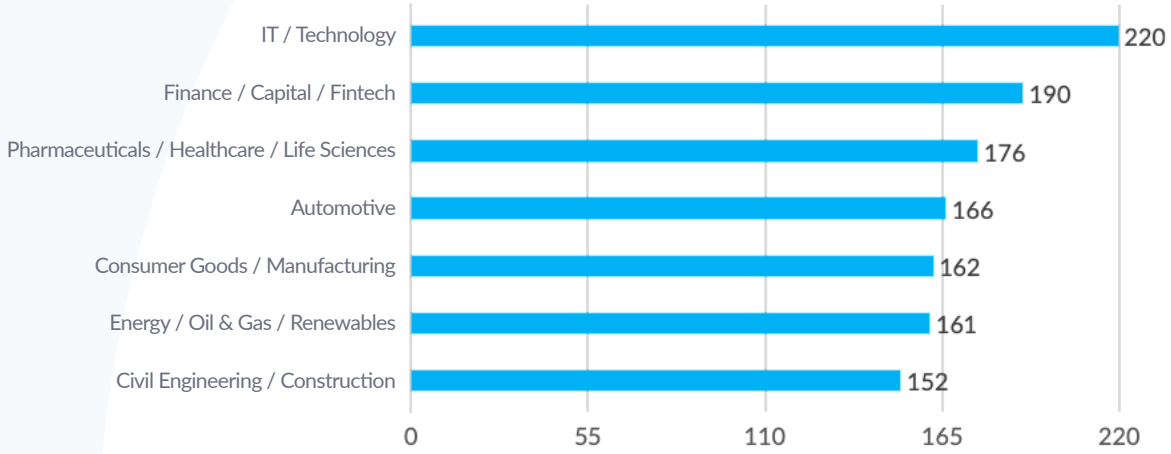
Spain

United Kingdom

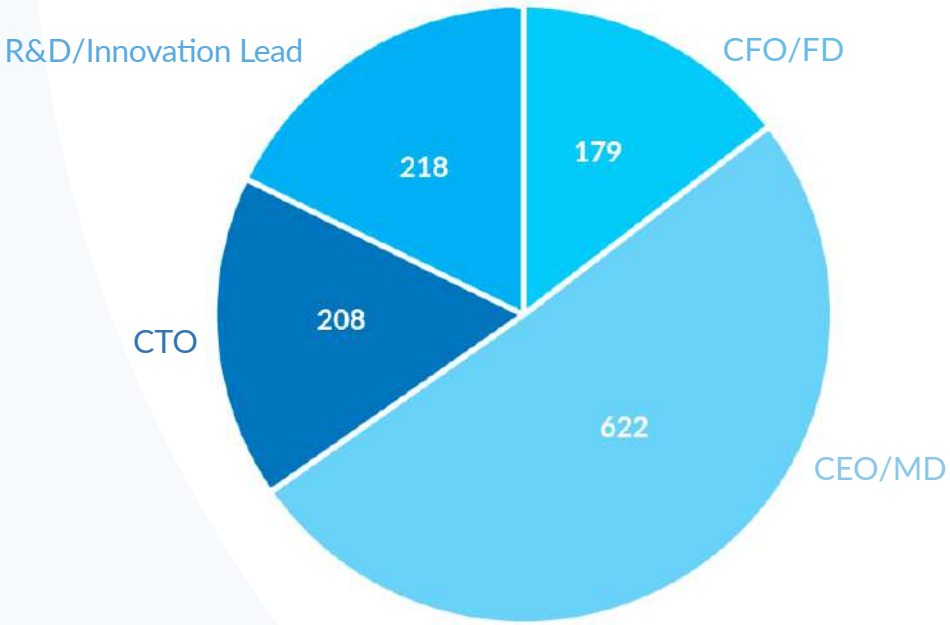
United States

In terms of demographics, our panel breaks down as follows:

Sector demographics



Job role demographics



Summary of key findings

Innovation through adversity

- **Cost reduction overtakes innovation as business priority:** 'Driving innovation' remains a top priority however is down on last year and has been supplanted by 'cost reduction', which is now the most popular priority.
- **Resilience in innovation budgets:** R&D budgets have increased slightly on last year from 6.4% to 6.6%. More than a third of businesses spend 8% or more. 73% of firms are expecting budget increases next year, with 22% expecting the increase to be significant. Only 3% of firms are expecting decreases.
- **Technology increasingly dominating innovation priorities:** 'Implementing new tools and technology' is once again the top innovation priority for businesses, at 32%. In addition, 'implementing artificial intelligence' has also jumped several places and is now the joint second priority, at 29%.
- **Innovation facing challenging backdrop:** Not only are businesses facing extreme cost pressures, but there has been considerable volatility in government funding schemes, especially tax credits. The use of R&D tax credits is down from 37% to 31% this year.
- **Cost pressures feeding into innovation strategies:** The biggest barrier is 'short term pressure and focus on immediate results', suggesting business are prioritising short term, incremental innovation due to cost pressures.

Maximising innovation output

- **Downwards trend in R&D measurement:** The most popular method of measurement is tracking sales / revenue, with more than half of firms doing this at 52%, yet down from 59% last year, followed by measuring the percentage of successful R&D projects, at 43%.
- **Smaller firms lagging on innovation strategies:** 81% of businesses have an innovation strategy and roadmap in place, but 18% of firms do not, which is predominantly the case among smaller firms.
- **Notable decline in offshoring:** 77% of firms are innovating in their own country, up from 72% last year. And whereas 44% of businesses were offshoring in at least one country last year, 41% are this year.
- **USA and Germany retain offshoring top spots:** The USA and Germany, have both retained their places at first and second in the international ranking respectively, but both have declined on last year. The USA is down from 33% to 24% while Germany is down from 26% to 22%. Offshoring to China is down from 14% to 8%.
- **Firms offshoring R&D to be near new customers:** Whereas the most popular reason for offshoring last year was 'access to R&D talent', this has fallen several places to 4th. In contrast, 'proximity to new markets and customers' has jumped up several places from 3rd place to a comfortable 1st.
- **Almost three quarters of firms collaborating:** 72% of firms are currently collaborating in some capacity. On the other hand, outsourcing is down from 43% to 39%. As firms have faced higher costs, they have reviewed external relationships and will have reduced spending where they can.
- **Clear need for diversity in innovation teams:** 68% of innovation leaders are male. In terms of innovation team structure, 93% have at least one woman, 64% have representation from different ethnicities, 19% have disabled representation, and 15% have neurodivergent representation.
- **IP theft and need for protections:** In the last five years, 29% of businesses have had competitors copy their products, 27% have had innovations covered by competitors, and 25% have had ideas leaked.
- **Analysing data most common use of AI:** 53% using AI to analyse data in R&D process, followed by predictive analytics, at 43%. However, as AI grows in sophistication, it will be used for more complex and creative tasks.
- **Widespread R&D spending on AI:** The vast majority (86%) of businesses now have an allocated budget for R&D into AI, with most allocating less than 20% of their innovation budget into AI. Only 5% of businesses have no budget allocated for AI.
- **Three quarters of firms using AI in R&D process:** 75% of firms are currently using AI to support their R&D activities in some capacity. 35% of firms claim to have something bespoke in place. 22% of firms are not using AI for innovation.
- **Most believe AI is supporting innovation:** 84% of firms say AI is having a positive impact on their innovation and only 3% have a negative perspective.

Navigating grant funding

- **The growing status of grants:** 37% of businesses are using innovation grants, making them joint second most popular source of funding and significantly ahead of tax credits at 31%. Only 9% of companies say they have not considered grant funding.
- **Grants winning favour over R&D tax credits:** While the consensus has historically been that tax credits are superior, volatility in R&D tax credit schemes means grants are now viewed as a more secure and reliable form of funding.
- **Conflicting perspectives on grant use:** 41% of innovation leaders say they are using grants whereas only 33% of CEOs/MD have the same view, indicating there may be a lack of awareness about grant use at the CEO level.
- **Businesses struggling to navigate complex grants landscape:** The biggest barrier to grant funding is 'identifying the right opportunities', at 39%. There are thousands of grant schemes available, all with different requirements so it's no surprise that it can be difficult to find the right fit. The second largest barrier is 'meeting eligibility criteria'.
- **Four in five mapping out grant opportunities:** 82% of firms say they do include grant opportunities in their innovation strategy while 15% say they don't do this 'at all'. However, there is a large range in the scale and breadth of plans.
- **National grants most popular:** 68% of those with grant funding won a national grant, significantly ahead regional grants, at 47%, and international grants, at 39%.
- **Decline in external support to access funding:** To access funding, the use of accountants is down considerably from 57% to 38% and use of specialist consultancies is down from 42% to 26%. Meanwhile, use of internal resources is up from 19% to 23%.

Section 1

Innovation through adversity

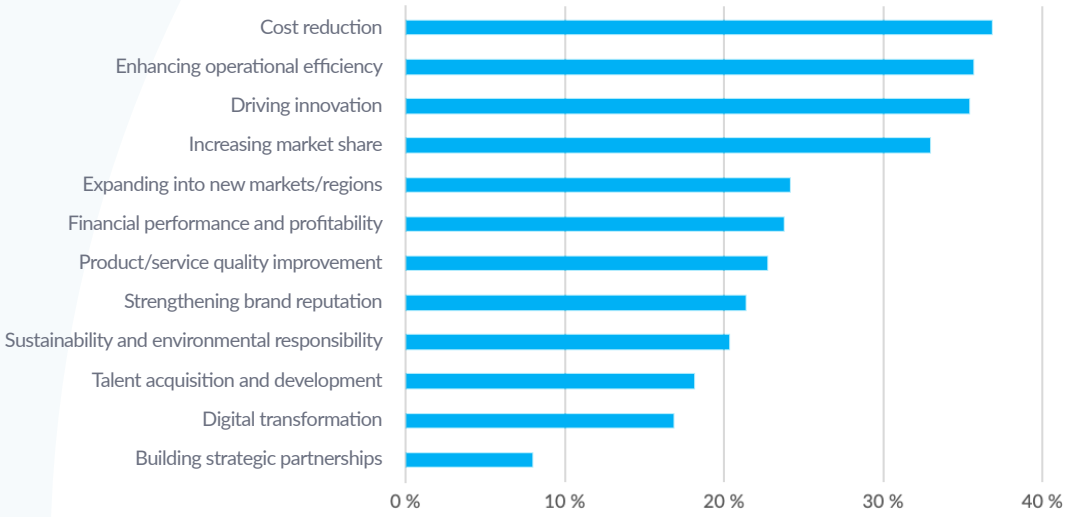
Innovation departments face a challenging backdrop. The global economy is still navigating complex issues and many businesses are experiencing cost pressures that are feeding into their innovation strategies.

Yet despite this, innovation continues to play a vital role across the global economy and companies are finding ways around these problems to ensure they keep innovating.

The necessity of innovation

When asked their overall business priorities, the results follow a similar pattern to last year's findings. 'Driving innovation' remains a top priority however is down one place and is now the third most popular priority among businesses.

Business priorities



Instead, cost reduction has jumped up several places and is now the most popular priority. The last few years have seen drastic rises in the cost of doing business so it's no surprise this has worked its way up the list.

Claire Untereiner, Manager – Finance and Innovation Performance at Ayming France, says,

> "Some expenses related to raw materials or energy have increased fourfold, with serious consequences on the financial stability of the companies. However, businesses must be cautious with cost cutting as it can bring a lot of risk if you start slashing innovation budgets, which is sometimes seen as expensive and is at risk if it's not built into the culture or linked to strategic projects such as those related to sustainable development or competitiveness."

Not only has innovation slipped as a priority, but some important statistics have also declined on last year. The percentage of businesses who say they are innovating has declined from 99% to 94%, the number of businesses with defined budgets is down from 97% to 93%, while those with dedicated innovation teams is down from 89% to 79%.

These stats can be partially explained by the inclusion of micro businesses (1-9 people) into the panel, which are less mature naturally in their innovation structure. In fact, excluding microbusinesses, these numbers rise to 96% innovating, 96% having defined budgets, and 83% having innovation teams. Still a decline on last year, but less significant.

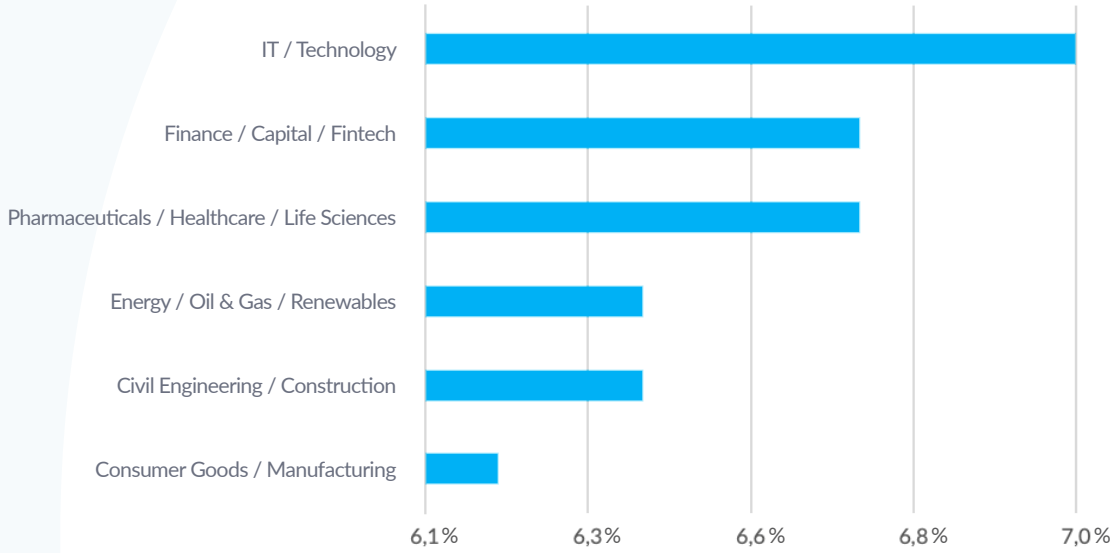
Agnieszka Hrynkiewicz-Sudnik, Consulting Director at Ayming Poland, says,

> “Smaller firms may be struggling with innovation due to limited resources, both financial and human. They might also be more risk-averse, particularly in uncertain economic climates. This highlights the need for better support mechanisms for small businesses, such as access to funding, mentorship, and innovation ecosystems that can help them overcome barriers to innovation.”

Spending ticking upwards

Despite the challenging economic climate and inflation, businesses are still finding ways to innovate. R&D budgets have increased slightly on last year, up from 6.4% to 6.6%. More than a third of businesses spend 8% or more.

Innovation spending



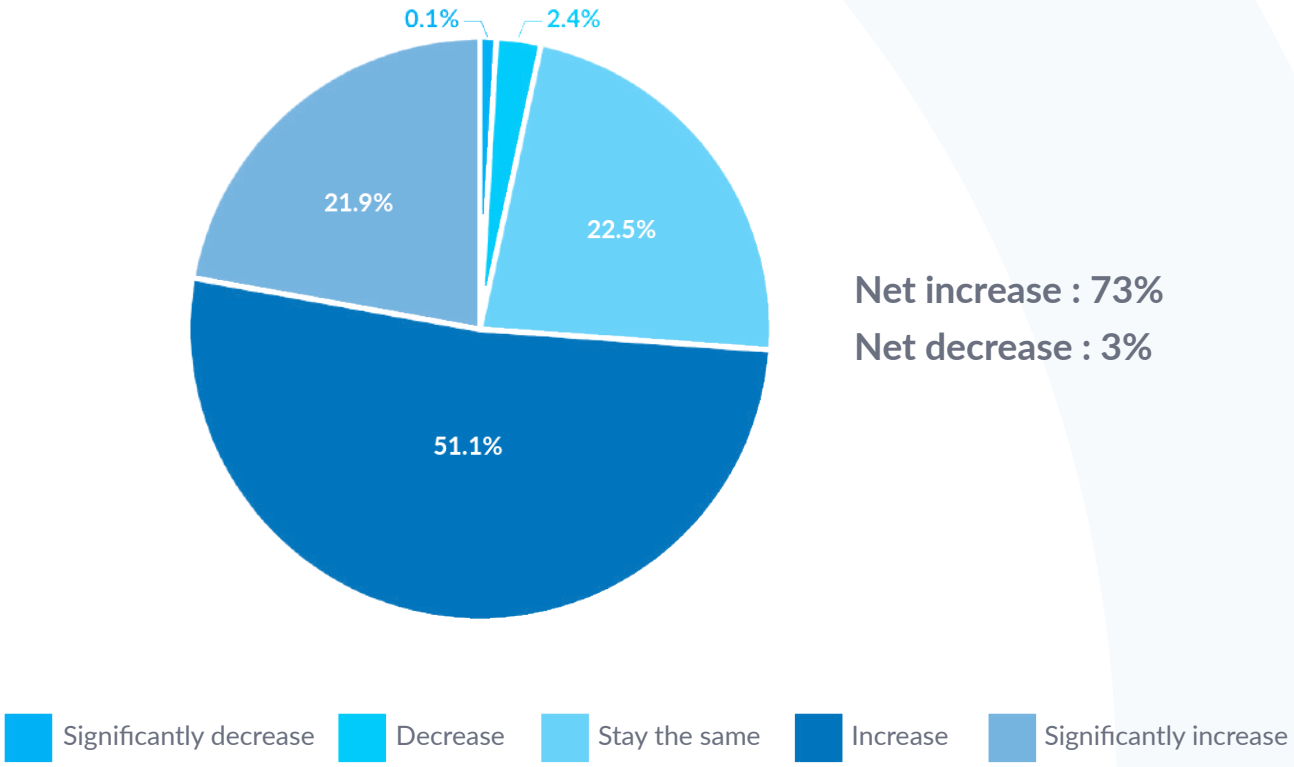
Njy Rios, Partner – R&D Incentives at Ayming UK, says,

> “We’re in the midst of a shift where most businesses have realised that they need to keep spending because it positively impacts the bottom line. Innovation is now integrated with the day to day and there’s more of a focus on how teams can make that investment go further.”

Large businesses are spending marginally more than their small business counterparts, with an average spending of 6.7% of revenue compared to 6.4%. Smaller firms are also more likely not to have a defined budget.

Rios, says, “While smaller firms spend comparably on innovation, this is done more from necessity, with start-ups, particularly market disruptors, typically investing more as they establish themselves as a player in their field. Large firms on the other hand tend to have clearly defined budgets and targets as they face more pressure to innovate, especially when they’re public. Shareholders now regularly scrutinise how much a company is spending on R&D and often demands they spend more. This top-down pressure from investors shows how R&D is now seen as critical to growth.”

Budget predictions



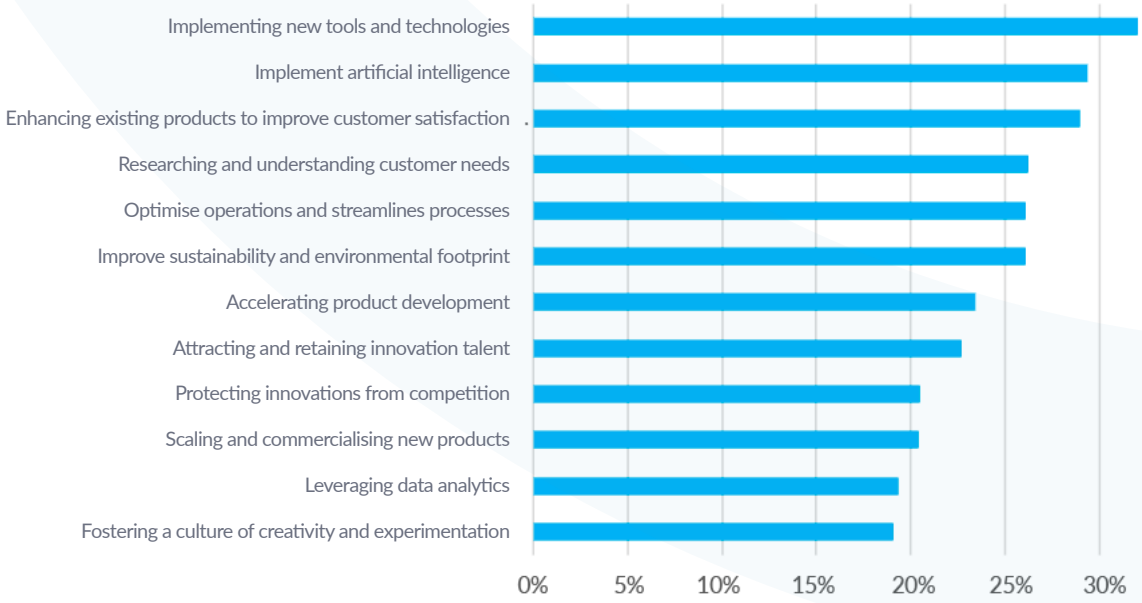
The increase in spending looks set to continue, with firms optimistic about budget increases. 73% of firms are expecting budget increases next year, with 22% expecting the increase to be significant. Only 3% of firms are expecting decreases.

Although optimistic, spending has generally increased year on year as a percentage of revenue and there is a growing sentiment that we might be emerging into a new period of prosperity. Inflation is returning to normal levels and many national stock markets have recently hit all-time highs, including the UK's FTSE, the Dow in the US, NSEI in India, and Nikkei in Japan.

Innovation objectives

In terms of where these budgets are going, 'implementing new tools and technology' is once again the top priority for businesses, at 32%.

Innovation priorities



Technology continues to be a dominant theme in R&D. As discussed in last year's report, there is an increasingly symbiotic relationship between technology and R&D. However, Lauren Fortner: Innovation Manager at Ayming USA, draws a connection between cost pressures and technology adoption. She says,

> "The reason it's been such an innovation focus is because the barrier to entry is lower. What's going to have the biggest impact with the smallest amount of money? It's low cost and you don't have to develop new technology, you can use existing technology, adapt it, and implement it into your workflow."

There is of course one particular technology that is exploding across the globe: artificial intelligence. This has jumped up several places this year and 'implementing artificial intelligence' is now a top priority, which we will explore in more detail in Section Two.

Alongside AI, the joint-second largest priority is 'enhancing existing products', which has jumped up considerably on last year from 5th place. This mirrors the findings on barriers that businesses face pressure to focus on the short term and the driver of this being cost-cutting. Fortner says, "It's a shorter life cycle and cheaper than creating a brand-new product. It's about spending less to take existing products a little bit further. There's less risk involved."

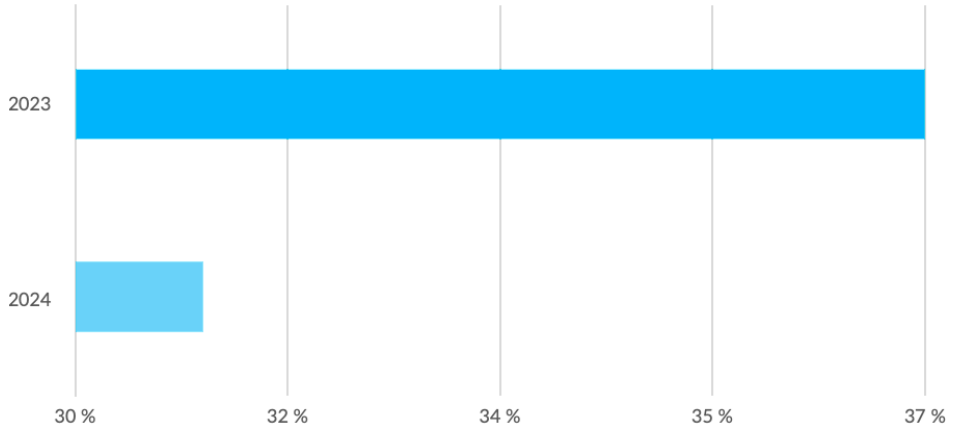
A challenging backdrop

The steady growth of innovation budgets is even more impressive given the backdrop. Not only are businesses facing extreme cost pressures, but the turbulent economic landscape has brought volatility to government funding schemes.

Among others, the R&D tax schemes of the USA, UK, and France have all experienced significant instability over the last couple of years that have had a serious effect on the use of R&D tax credits as a funding mechanism, which is down from 37% to 31% this year.

Government departments have been distracted or preoccupied and incentive schemes have suffered as a result. Instead, firms are more likely to be self-funded this year, which is up from 40% to 47%, and is now the most popular source of funding, suggesting that people are having to find the budgets internally despite the cost pressures.

Use of R&D tax credits for innovation funding



From an internal standpoint, the biggest barrier according to our survey is 'short term pressure and focus on immediate results', which mirrors the findings of last year. This is a symptom of the cost pressures previously mentioned. Rios says,

> "Companies must have two avenues to innovation arms: one that is incremental and focuses on short-term improvements and one that is more greenfield. It's critical that leaders give their R&D teams the capacity for both."

Internal barriers to innovation

As ever, lack of skills and talent is also a leading barrier, at 37%. However, Fortner predicts that this is likely to become less of a barrier. She say, "People are finding ways around any talent shortages by either outsourcing parts of their R&D, offshoring, or tapping into new technology, including AI. These are often more cost-effective and less risky than hiring that extra person."

Conclusion

Businesses are innovating despite some challenging circumstances, reinforcing the fact that innovation is recognised as indispensable.

That said, cost pressures are spilling into strategies and triggering businesses to both find cost cutting solutions in technology and focus on short-term incremental innovation.

Section 2

Maximising innovation output

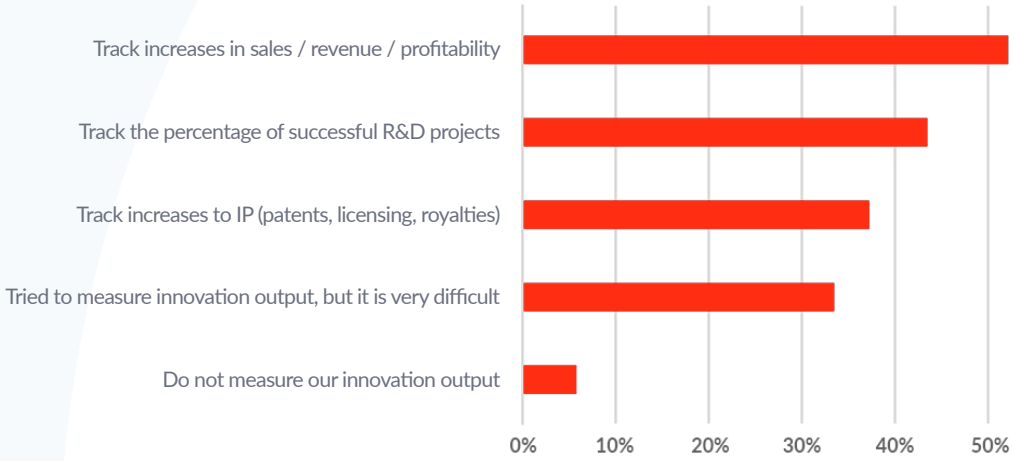
With businesses caught between the need to innovate and external pressures, it's more important than ever that budgets are stretched as far as possible.

There is no perfect formula for innovation, but companies can deploy plenty of tools and tactics to make their R&D activity have a greater impact.

Methods of measurement

Although measuring innovation is always difficult, it's critical to understand what is working in order to improve results.

Innovation measurement



There has been an overall downwards trend in measurement. All the figures are down on last year, including how many firms say 'they have tried to measure innovation, but it's difficult'.

The most popular method of measurement is tracking sales / revenue, with more than half of firms doing this at 52%. This has retained its spot as the most popular method, but it's down from 59% last year. Rios says,

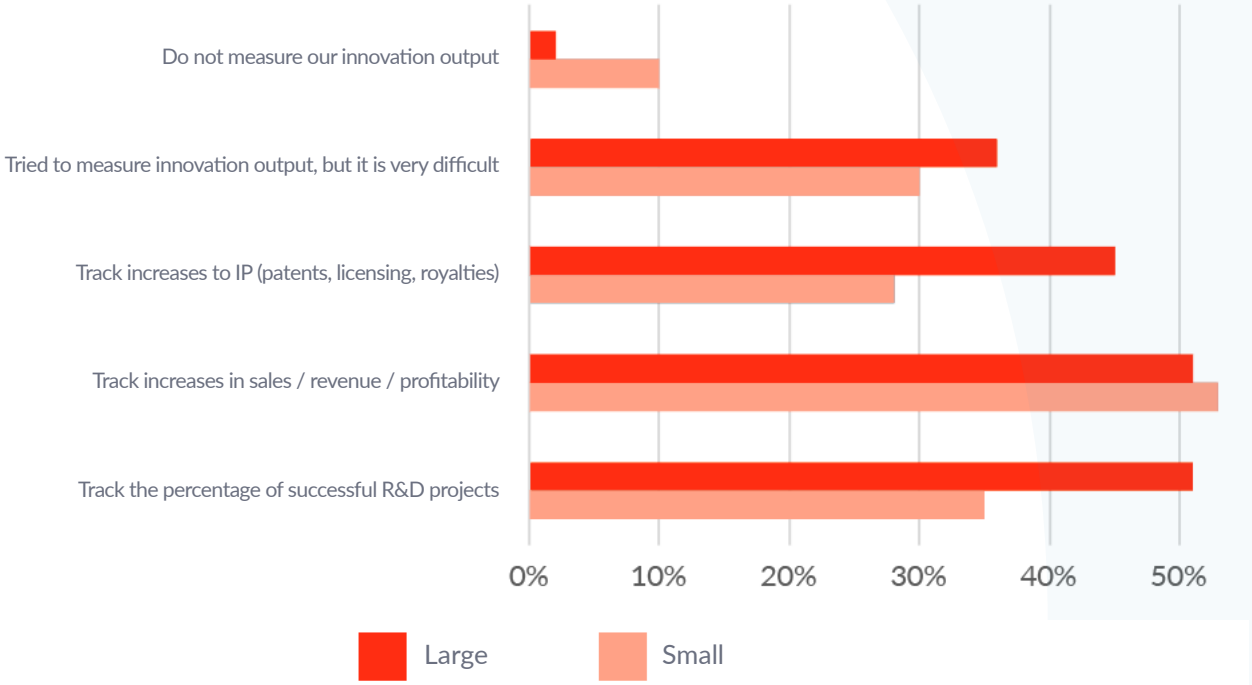
> "Tracking innovation with revenue isn't really an effective measurement, as it doesn't provide a holistic picture of its impact to businesses. There's lots that contributes to sales and revenue, such as marketing and market conditions. Each innovation project is different in its goal, so more tailored metrics are better."

The second most popular method for measuring is tracking the percentage of successful R&D projects, at 43%, although this is also down considerably on last year's 56%.

Fortner says, You really want to make sure that every dollar you're putting into R&D is making a difference. There's an increasing number of ways to do that, such as time tracking software, where you can see how long your team is spending on phases, or codes. It's especially useful in developing technology. And once you have it in place and people know how to use it, it pretty much runs on its own."

Once again though, the numbers here have been affected by the inclusion of micro-businesses in the research. As we see below, large businesses are much more likely to be measuring innovation.

How do you measure innovation?

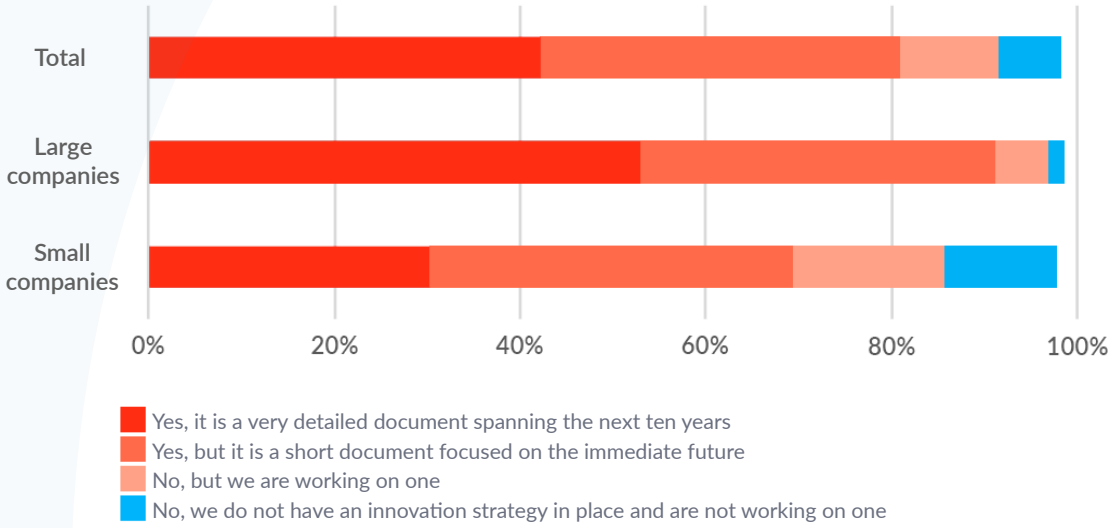


Either way, the measurement of innovation is likely to evolve towards more qualitative and holistic approaches. Traditional metrics like the number of patents or R&D spending might not fully capture the value and impact of innovation.

Strategy and roles

The first step that any business should take when investing in R&D is developing an innovation strategy. All companies, no matter their size, should have one in place.

Measurement large vs small companies



According to our research, 81% of businesses have an innovation strategy and roadmap in place. The depth and scale of these plans, however, differ significantly from business to business. 42% say they have a detailed document 'spanning the next ten years' while 39% say they have something shorter that is 'focused on the immediate future'.

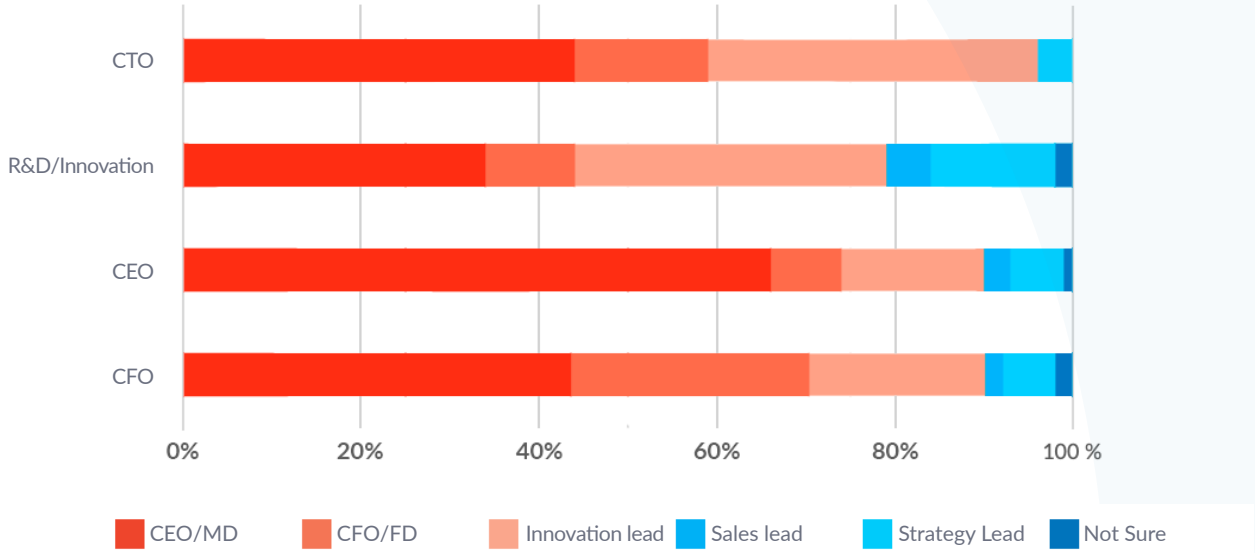
On the other hand, 18% of firms do not have an innovation plan in place, which is predominantly the case among smaller firms. 28% of small firms do not have a strategy, compared to just 8% of larger firms.

Although it's understandable that fewer small firms have strategies, Rios predicts that these numbers will come down. She says,

> "It's growing more common for businesses to have a head of innovation, even in smaller companies. These look across the entire business to understand where they should be looking to innovate, then build the plan around that and attach budgets to it."

This does raise the all-important question of who is responsible for developing the innovation strategy. 53% of respondents say that it is the CEO/MD. However, CEOs/MDs account for 51% of our panel, suggesting there may be some bias in the responses.

Perspectives on who is responsible for innovation strategy



Digging deeper, it's clear there's either conflict or confusion over who is in charge of the innovation strategy. Each job title sees their role as having more influence than other job titles give them credit. 66% of CEOs say the CEO is responsible for the innovation strategy compared to 34% of innovation leaders, 27% of CFOs say the CFO is responsible for the innovation strategy compared to only 8% of CEOs, while 35% of innovation leaders say they are responsible compared to 16% of CEOs.

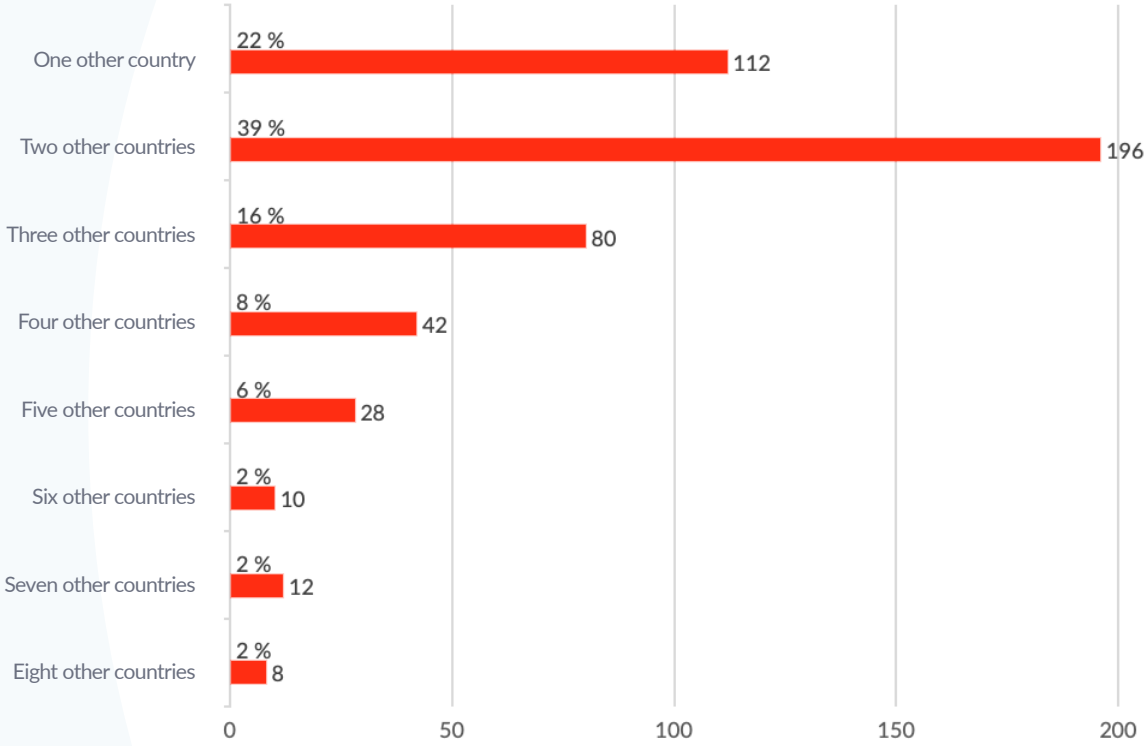
The head of innovation is a unique role that demands a broad set of skills. Fortner says, "You cannot produce an R&D plan without a view on finance, marketing and sales. You have to pull together all different parts of the business. So, over the years, it was often the CEO who oversaw the plans. But there's a growing amount of people who have the right blend."

Offshoring innovation

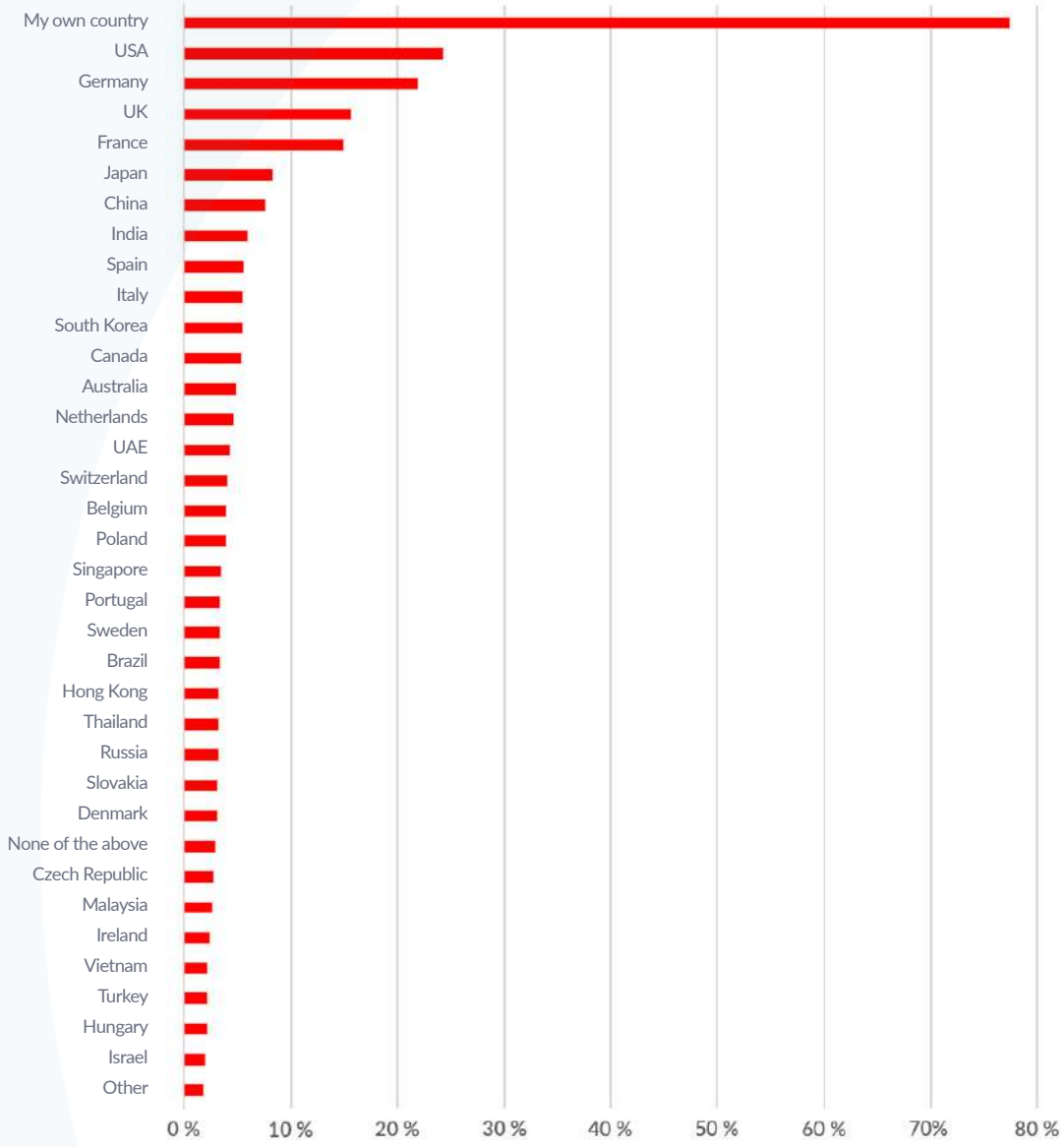
One of the most essential decisions for innovation is deciding where to do it. The research this year reveals a noteworthy decline in offshoring.

77% of firms are innovating in their own country, up from 72% last year. And whereas 44% of businesses were offshoring to at least one country last year, 41% are this year.

Number of countries offshoring



Offshoring


My own country
USA
Germany
UK
France
Japan
China
India
Spain
Italy
South Korea
Canada
Australia
Netherlands
UAE
Switzerland
Belgium
Poland
Singapore
Portugal
Sweden
Brazil
Hong Kong
Thailand
Russia
Slovakia
Denmark
None of the above
Czech Republic
Malaysia
Ireland
Vietnam
Turkey
Hungary
Israel
Other
0 %
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40 %
50 %
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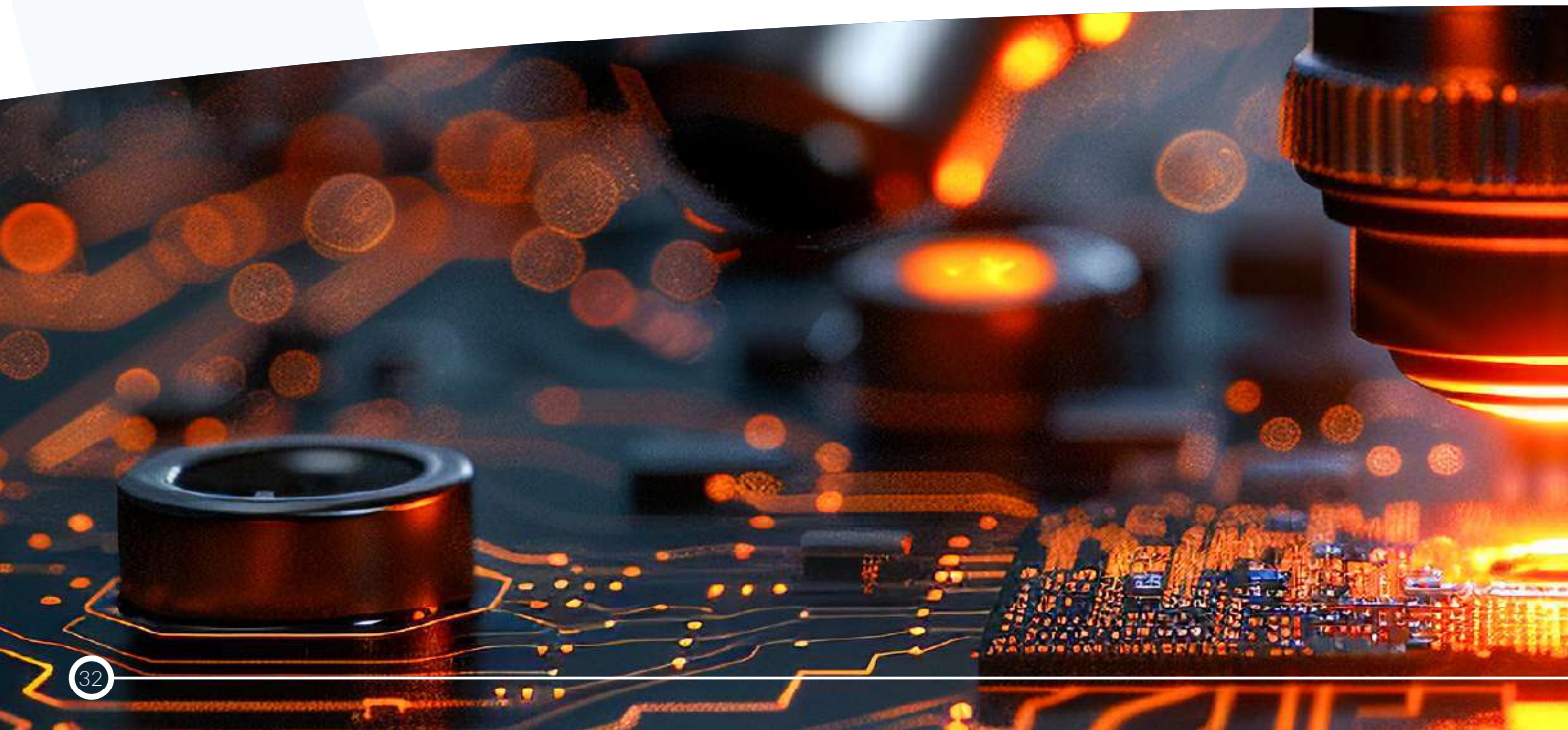


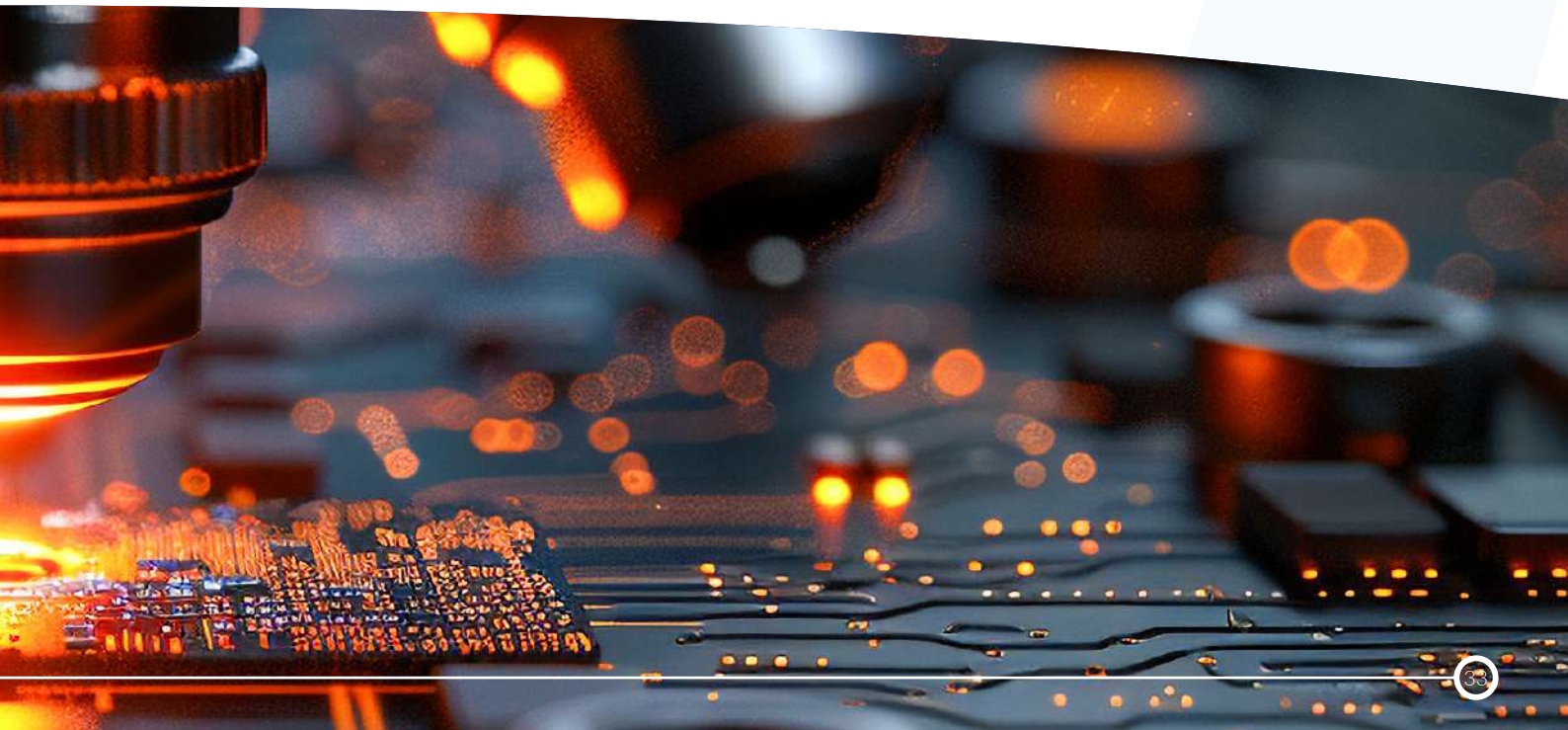
The two most popular countries, the USA and Germany, have both retained their places as first and second in the international ranking, but both have declined in comparison to last year. The USA is down from 33% to 24% while Germany is down from 26% to 22%. China has also dropped significantly from 14% to 8%.

The decline in the USA's popularity can be explained by the recent changes to the country's R&D tax credit scheme. Rules came into effect in 2023 that changed the incentives from being treated as an above the line deduction to being an asset. This has landed a lot of firms with a large tax bill that they were not necessarily expecting.

Fortner explains,

> "Everyone thought it would get repealed before it came into effect, so many weren't prepared for the extra bill. We have some clients hit with an extra $10 million in taxes. It was tied to other laws that Democrats and Republicans couldn't agree on, so it's just stalled and come into effect before an agreement could be made. It's had a disastrous knock-on effect on people's ability to consistently fund innovation."

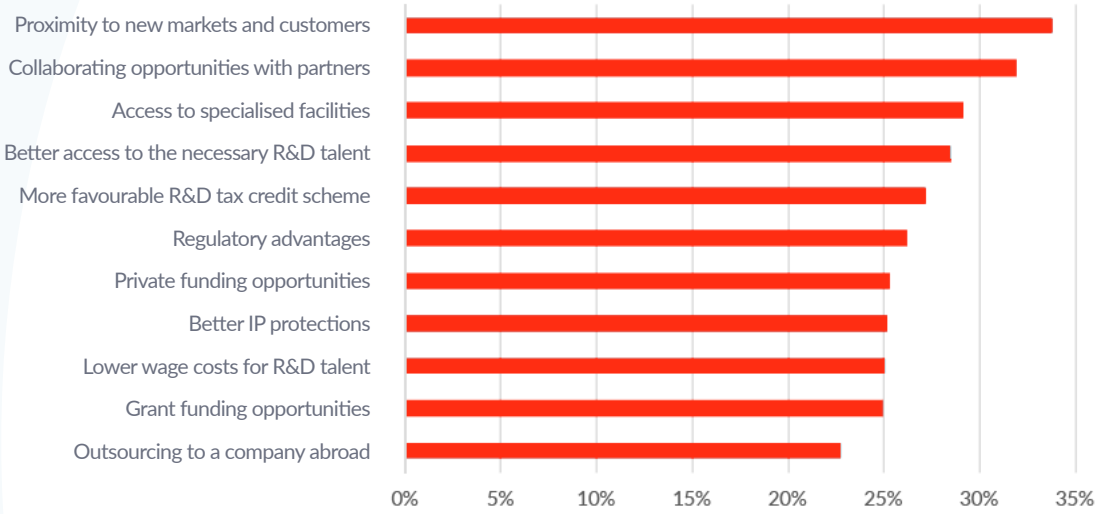
These tax changes apply to all R&D activity and therefore impacts companies that are looking to offshore to the USA. As a result, the market is less attractive as a destination and people are reassessing where to set up R&D projects. The speed at which there has been an exodus following these changes shows that business are agile and can move location relatively quickly.



Rios says, “There’s an important lesson here from a policy standpoint. With businesses able to move their R&D around so quickly, there’s everything to play for when it comes to attracting activity through incentives. The US has stumbled so there’s an opportunity for others to attract precious R&D activity to their region.”

As for reasons for offshoring, there are some significant changes. The most popular reason for offshoring last year was for better access to R&D talent. However, this has fallen several places to 4th, down from 33% to 28%. This can be taken as further evidence that technology is providing a solution to talent demand as Fortner touched on in Section One.

Factors in offshoring



On the other hand, ‘proximity to new markets and customers’ has jumped up several places from 3rd place to a comfortable 1st, at 34%. Fortner once again makes a link to technology. She says,

> “I think this is tied to social media. In the US, we’ve become such a consumer economy where we’re making these impulse purchases on our phone while we’re just scrolling away. And people don’t want it in two weeks, they want it tomorrow, so proximity matters.”

Tapping into new resources

While location is vital, a key part of the strategy is how it is resourced. Companies must be able to discover and leverage external parties that can support their innovation objectives.

Resources for innovation

Collaboration has always been critical to innovation and this year's research shows nothing different. A considerable 72% – almost three-quarters – of firms are currently collaborating in some capacity. Untereiner predicts that collaboration will continue to grow. She says,

> "There continues to be advancements in digital communication tools and platforms. There are more and more public-private technology platforms where equipment, projects, resources, and competencies are shared between companies as well as academic institutions. Platforms like this for open innovation are now used widely."

On the other hand, outsourcing is down from 43% to 39%. As firms have faced higher costs, they have reviewed external relationships and will have reduced spending where they can.

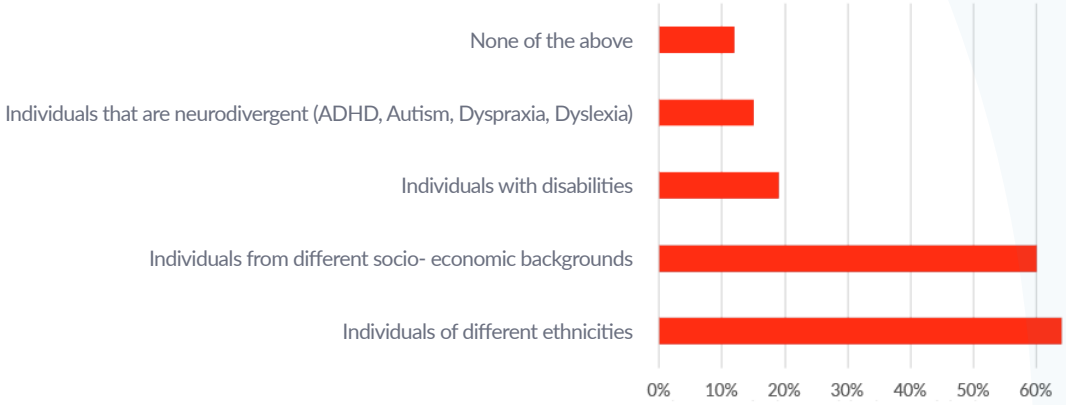
As well as external resources, firms also need to give their internal team the best chances of success, for which diversity is key. By nature, the innovation function is especially dependent on diverse ideas and perspectives.

Of the 295 innovation leaders we surveyed, 68% were male. Of the 960 companies that currently have an innovation team, 93% have at least one woman, 64% have representation from different ethnicities, 19% have representation from those with disabilities, and 15% have representation with

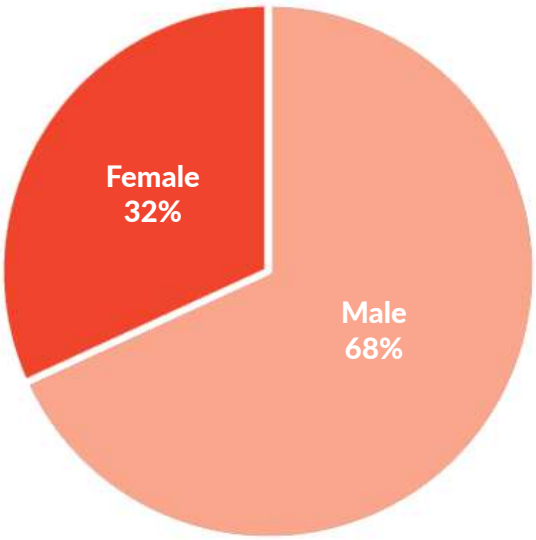
people that are neurodivergent. It's true that the size of the team has to be taken into account here, but the average size of teams surveyed is 103 people.

Rios says, "I don't feel like governments are doing enough to get people involved in STEM. Women are not really being encouraged into it. People really do underestimate the kind of positivity that representation has. If young girls see an industry that feels like an old boy's club, it can be off-putting."

Diversity of innovation teams



Gender of innovation leaders

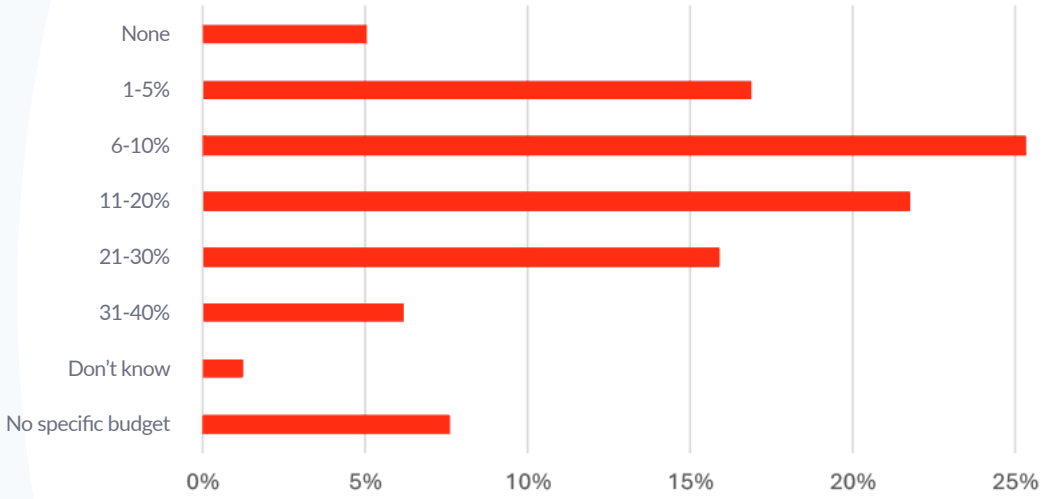


Artificial intelligence and R&D

As well as the right team, R&D leaders must tap into non-human resources. There's an increasingly close relationship between innovation and AI. While many firms are exploring how they can implement AI (therefore doing R&D into the technology), it can also play a large role in the innovation process itself.

The vast majority (86%) of businesses now have an allocated budget for R&D into AI. As Figure 17 shows, most have allocated less than 20% of their innovation budget into AI, with the most common budget being between 6 and 10% on AI. Only 5% of businesses have no budget allocated for AI, which rises to 10% among small businesses.

R&D budget for AI



Implementing AI is expensive so it's no surprise that larger firms are spending more on it. Not only does the AI have to be trained, but you also have to train staff to get the most out of it.

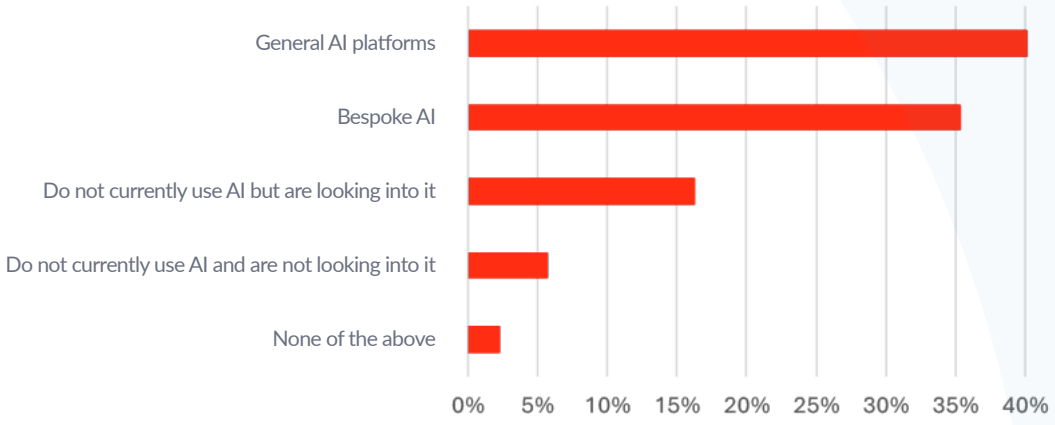
Untereiner says,

> "AI has to be adapted to each organisation so it can be a really huge investment that smaller firms simply don't have the resources for. It also has a greater impact on larger firms. It also has a greater impact on large corporations, where there are more productivity gains across various sectors have a greater impact."

As for the innovation process, 75% of firms are currently using AI to support their R&D activities in some capacity. One can categorize use of AI into two sub-groups; those that use one of

the standard platforms like Chat GPT on a more ad-hoc basis and those that have themselves created something bespoke.

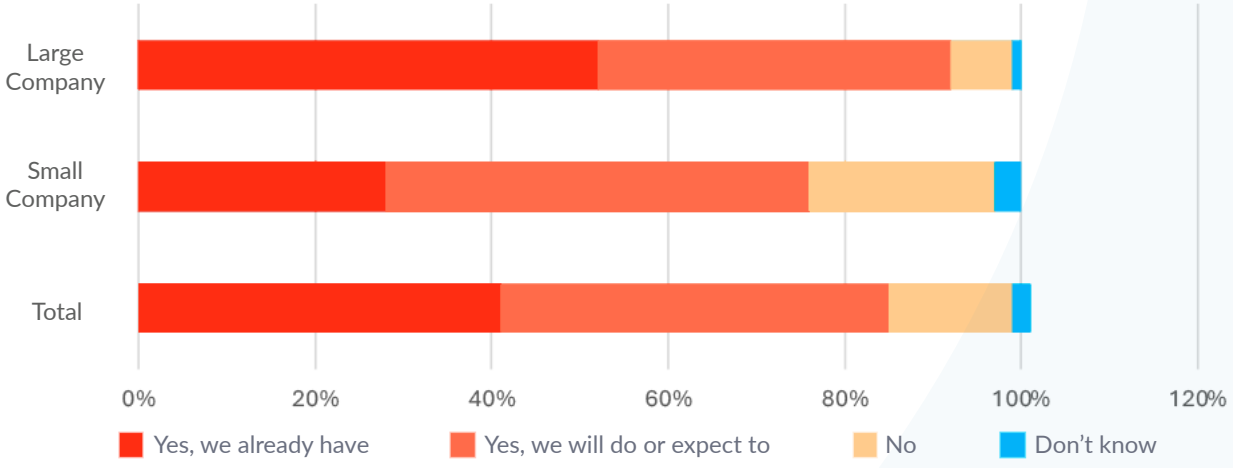
AI adoption for innovation



Untereiner says, “There’s plenty of debate happening about how to tap into AI. Platforms like ChatGPT were essentially a way to democratise the use of AI. Before it was only an option for a select few tech experts, and now everyone can use it. It’s very easy. However, if really you want something bespoke that will really change your business workflow, it comes at a big cost, especially if you cannot disclose confidential information.”

This widespread use of AI is inevitably having an impact on teams. When asked if they are changing the structure of their R&D team due to AI tools, a considerable 85% say they are. 41% say they already have, which rises to more than half (52%) among large firms.

AI impact on innovation teams



These are considerable findings and it's clear that AI is having a profound effect on how innovation is done in a business. Hrynkiewicz-Sudnik says,

> "AI truly is transforming R&D teams by automating routine tasks, enabling data-driven research, and facilitating more rapid prototyping and experimentation. This allows researchers to focus on higher-value activities such as creative problem-solving and strategic planning."

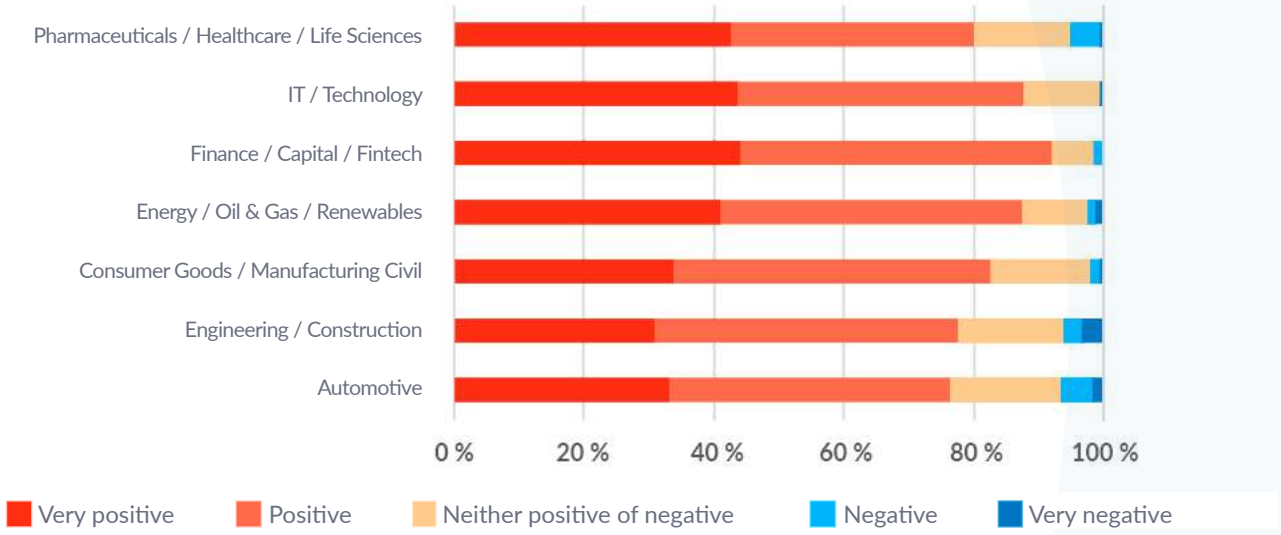
These abilities will inevitably contribute to a growing cycle of innovation whereby R&D can be done faster and investments go further.

AI risk vs reward

As firms experiment with AI, they are uncovering benefits as well as risk. The overall sentiment towards AI is currently overwhelmingly positive. 84% of firms say AI is having a positive impact on their innovation and only 3% have a negative perspective, with larger firms once again much more amenable to AI than smaller firms.

There are some notable differences in sentiment between the sectors, with finance and technology firms being most positive. The financial and technological sector are much better positioned to extract value from AI than sectors like construction because it's much easier to introduce AI to a technological process than it is to a manual process.

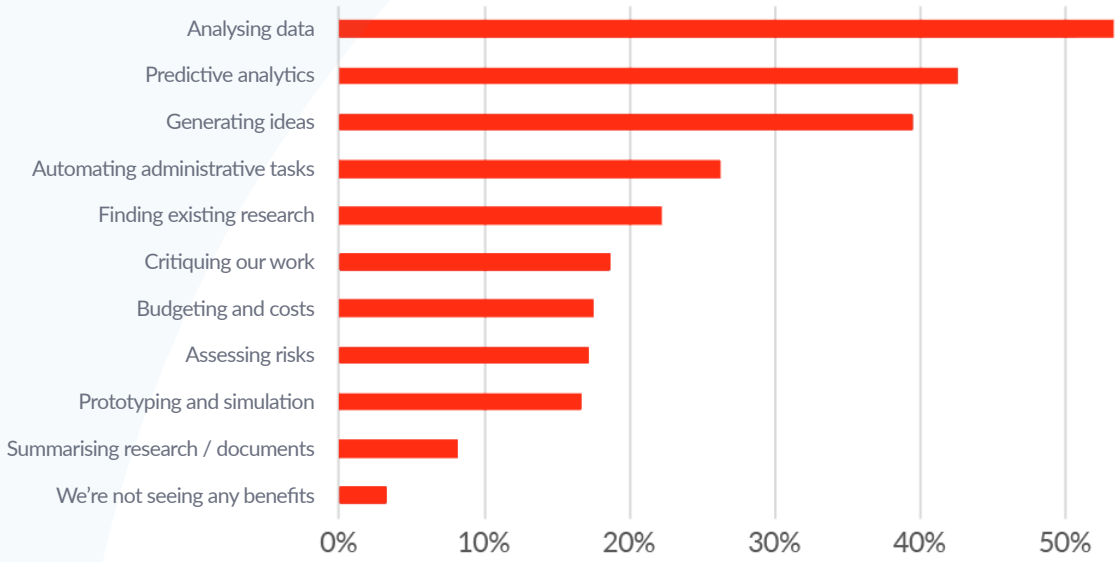
Impact of AI on innovation



Perhaps unsurprisingly, companies are currently most likely to be using AI to analyse data to support their innovation, at 53%, followed by predictive analytics, some way behind at 43%. This is unlikely to change soon, but as AI grows in sophistication it will be used for more complex and creative tasks. Fortner says,

> "It's still really in its nascent stages. It will get better at the more complicated tasks in time."

Uses of AI in innovation



While it's good to see such positive engagement with AI, there are some risks and firms must exercise some degree of caution, such as on creative tasks. Untereiner says,

> "Public AI platforms like Chat GPT are built from historical data and publicly available information from the internet. Not only does that mean it struggles when there is conflicting information on the internet, but it's not good at thinking outside the box. If anything, the fact it's built in this way means it is by definition completely unoriginal and therefore philosophically opposed to innovation."

The design of AI platforms like ChatGPT also presents risks from a privacy standpoint. Information that users put into the platform feeds into its learning so it could theoretically share sensitive information, whether it's a legal document, some company news, or of course intellectual property. Firms must be mindful of these risks and perhaps redact key sensitive information.

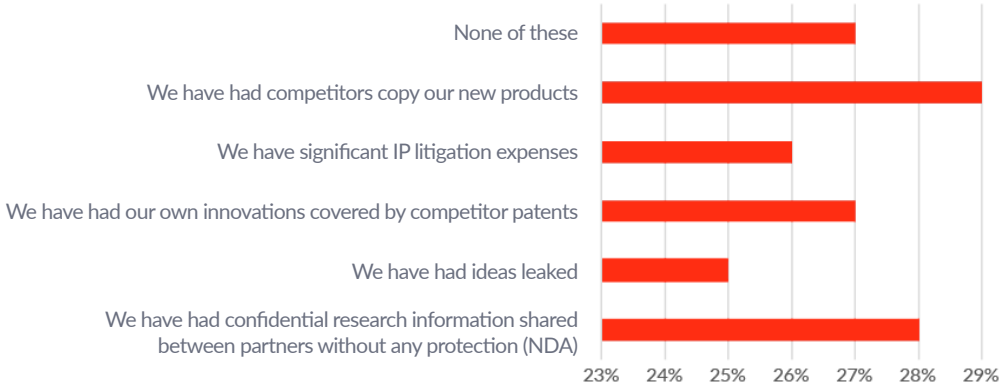
Mitigating IP theft

While it's true that AI has the potential to disclose IP, the far greater risk comes from working with other parties.

There is always a threat of IP theft and it is a constant source of concern for businesses. Our report last year touched on the concept of innovation espionage, which continues to evolve and there are certainly cases whereby firms actively look to copy competitors knowing that IP cases are difficult and expensive.

Our research uncovers the extent of the challenge. In the last five years, 29% of businesses have had competitors copy their products, 27% have had innovations covered by competitors, and 25% have had ideas leaked.

Intellectual property challenges



There are ways firms can protect themselves, such as avoiding sharing confidential information with partners or subcontractors without an NDA. Lots of firms, especially smaller ones, tend to neglect protecting their innovation and sensitive IP. However, Untereiner says that there are new methods of protecting IP. She says,

> "IP has always been a driver for value creation in innovation, but also a thorn, in particular for all of the knowledge which is not patentable, or not yet protected. We can see new digital platforms on the market that allow firms to exchange sensitive information in a secure way in order to protect themselves from IP leakage. It's wiser for a firm to take a proactive approach by protecting themselves as opposed to relying on the threat of retrospective legal action"

Secure platforms like this may help to explain why these figures are down on last year, with the percentage of firms that have had none of these problems going from 15% last year to 27% this year.

Conclusion

Improving the results of R&D investments is complex. Once they have assigned a budget, businesses need to have the right framework in place, including a comprehensive strategy that leverages all possible resources, factoring in those they can tap into at home, abroad, and through technology.

To really supercharge innovation, however, firms can explore ways in which they can receive a capital injection in the form of a grant, which we explore in Section Three.

Section 3

Navigating grant funding

While grants have always been a vital source of funding, their status is growing. At the same time as other sources of funding have been cut, governments have been trying to raise awareness and engagement with innovation grants, which is proving successful.

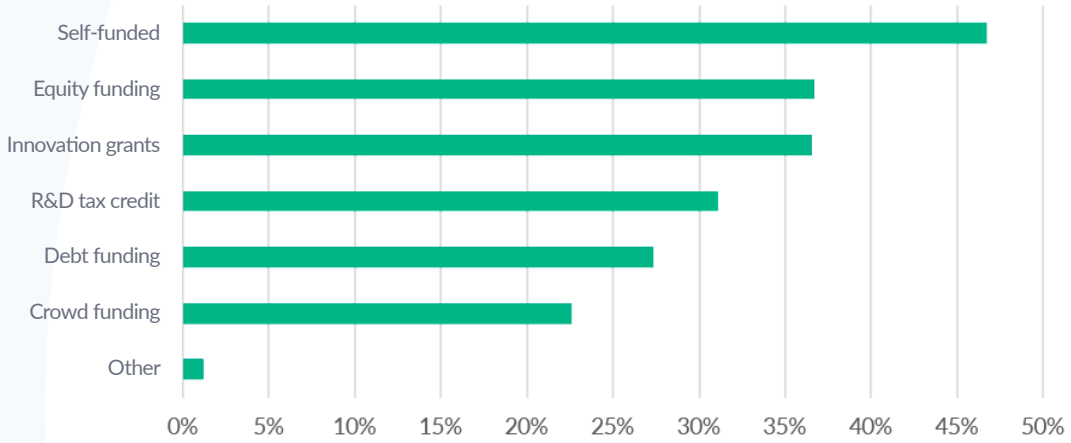
So how can firms tap into this lucrative source of funding?

Strategy and roles

Businesses are always looking for ways in which to maximise their funding, but the last 12 months have brought some unique challenges.

The widespread problems with tax credits mentioned in Section One have made grants all the more vital. Currently, 37% of businesses are using innovation grants, making them the joint second most popular source of funding alongside equity funding, and significantly ahead of tax credits at 31%. In fact, only 9% of companies say they have not considered grant funding.

Funding

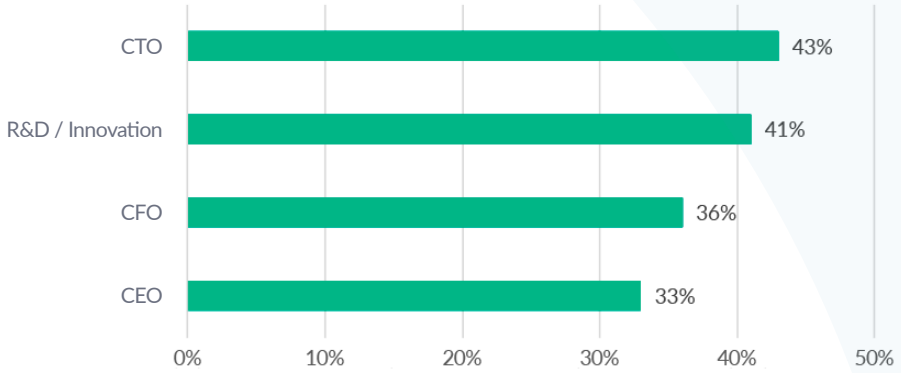


The volatility in tax credits has brought new dynamics to the age-old debate of tax credits vs grants. While the consensus has historically been that tax credits are superior because they can be applied to all eligible R&D activity and are therefore more accessible when grants must be applied for and are for a set amount, the balance is shifting.

Laurie Pilo, Global Head of Innovation Grants at Ayming, says,

> “I do think tax credits will be used less in years to come, especially if volatility continues. Not only is it hard for firms to keep on top of changes, but new tax rules can cause real challenges for businesses when funding is diluted after it’s been factored into plans. We’ve seen numerous instances where a company is asked for money from years ago. The certainty of a grant means they are often seen by companies as a financial scheme that can speed-up decision making processes and therefore improve the outcome of investments.”

Grant use split by job title



An analysis of job titles is revealing. 41% of innovation leaders say they are using grants whereas only 33% of CEOs/MD have the same view, indicating there may be a lack of awareness about grant use at the CEO level. This is likely to improve as there's growing awareness of grant funding at the board level, and not just because of funding but from a sales and brand perspective.

Grants can bring real value in attracting investment. Investors correctly see government funding as evidence for how innovative a company is and therefore how likely they are to succeed and grow. Pilo says,

> “Securing a grant comes with a certain prestige. I even have some clients that have a goal to get acquired and use grants to help garner attention from larger firms. It works as well because the market leaders are always scanning for exciting startups.”

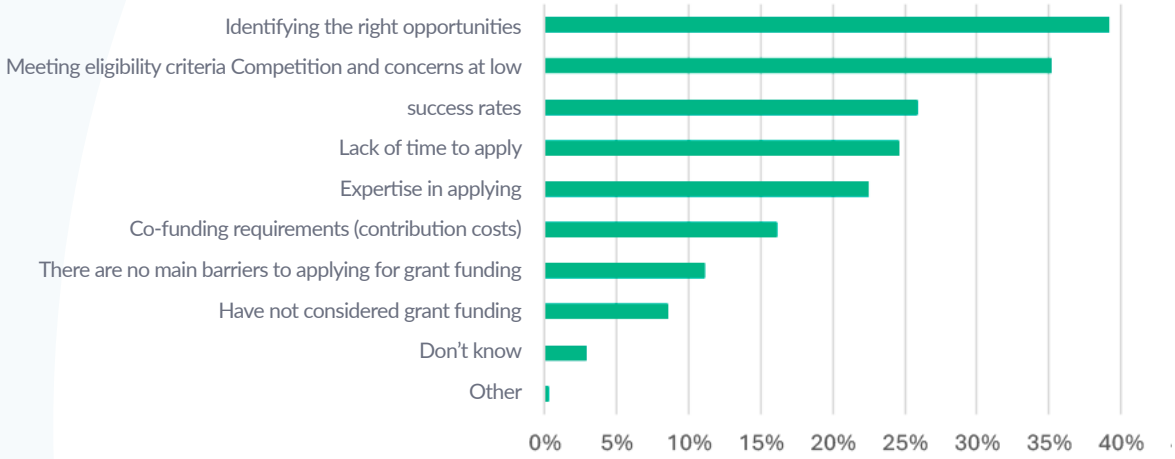
The growing attractiveness of grants means the funding is increasingly steering innovation strategies. Pilo says, “ We often see that companies are taking into account grant opportunities and factoring that into their business plan to make it more in line with the requirements of the public bodies.”

Securing grant funding

Winning a grant is not easy. Not only must businesses have R&D planned that is truly unique, but they also have to navigate the complexities of applications.

Businesses are most likely to find 'identifying the right opportunities' the biggest barrier to grant funding, at 39%. There are thousands of grant schemes available, all with different requirements so it's no surprise that it can be difficult to find the right fit.

Barriers to grant funding



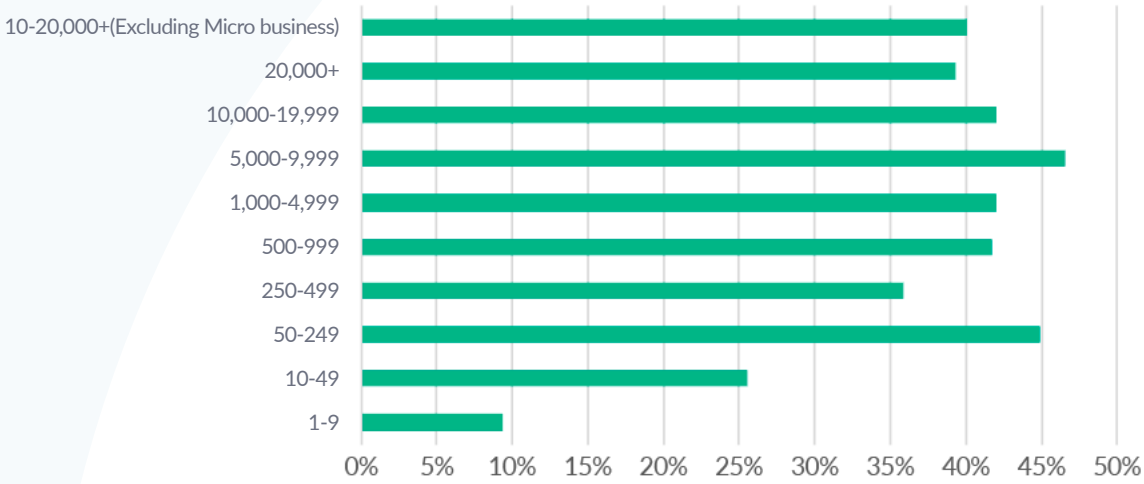
Pilo says,

> "Identifying the grants really is the first step. The grant landscape is constantly refreshing as new funding is announced, so you have to keep a close eye on what's coming out. Active monitoring is essential. It requires both monitoring changes in public policy and identifying their expectations by exchanging information with institutional bodies at a very early stage."

The second largest barrier is 'meeting eligibility criteria'. It's true that businesses must fit very specific requirements to win a grant and there isn't a grant available for all businesses. You have to provide evidence that you are doing something that is truly new to the market and will hit the objectives of the grant.

The demanding nature of applications means large firms are better equipped to apply, which is supported by the research. Currently, large firms are using grants more than smaller firms, at 41% compared to 31%. Only 19% of firms with fewer than 50 people are using grants.

Innovation grants by business size



That said, it's no simple task and requires people with the right expertise to write a winning application. There is a lot of administration and project management to consider both in finding and applying for grants that can be a strain on resources. And, as a rule of thumb, the larger the grant, the longer the application.

Pilo says,

> "Identifying the grant is one thing, but working up an application that sells what you are doing is another. My advice would be: right from the start of the project, you need to set up a project team that combines different areas of expertise."

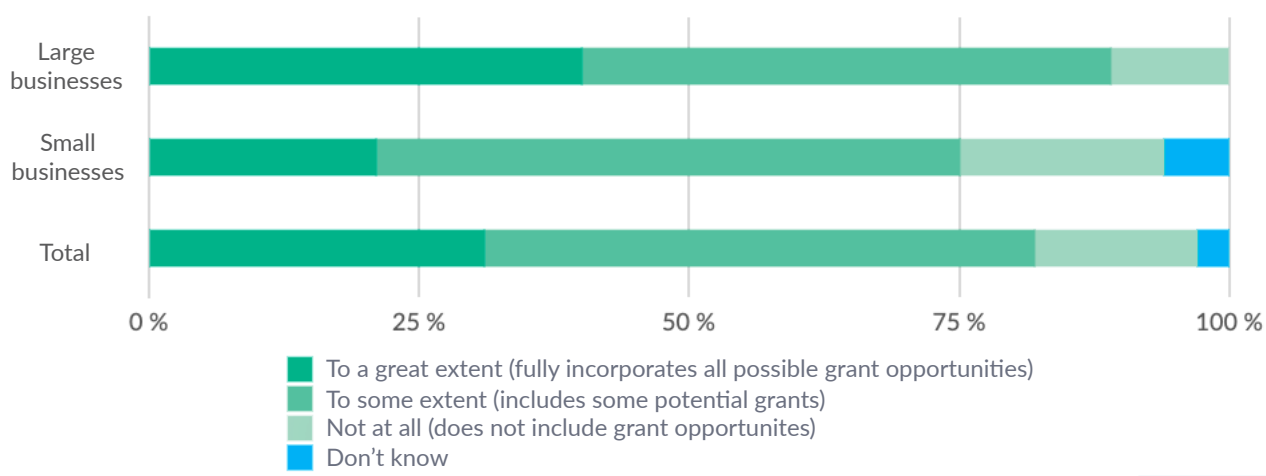
This is even more difficult when managing the application across several different parties. A growing number of grants are only available to consortiums, which are usually made up of one large firm and several smaller ones. It takes a lot of work to coordinate all the stakeholders and build an application that tells the right story to the funding body.

Mapping the grants landscape

Firms are clearly finding it most difficult to identify the right grant opportunities so need to spend time on researching what's available to them.

When asked how far their innovation strategy maps out possible grant opportunities, there's a lot of confidence. 82% of firms say they do include grant opportunities in their innovation strategy while 15% say they don't do this 'at all'.

Grant planning



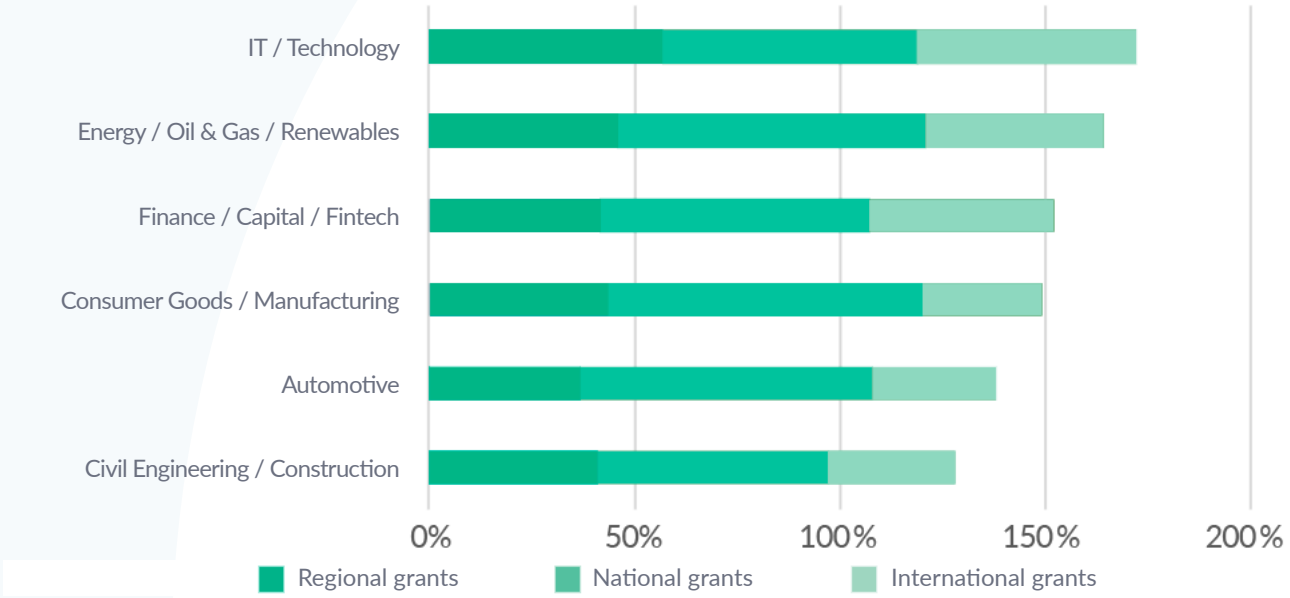
As one might expect, larger firms are much more likely to do this in detail and map out all possible grant opportunities, at 41% compared to 21% of small firms. In contrast, small firms are much more likely not to do this at all at, at 19%, compared to 11% of large firms.

Pilo says,

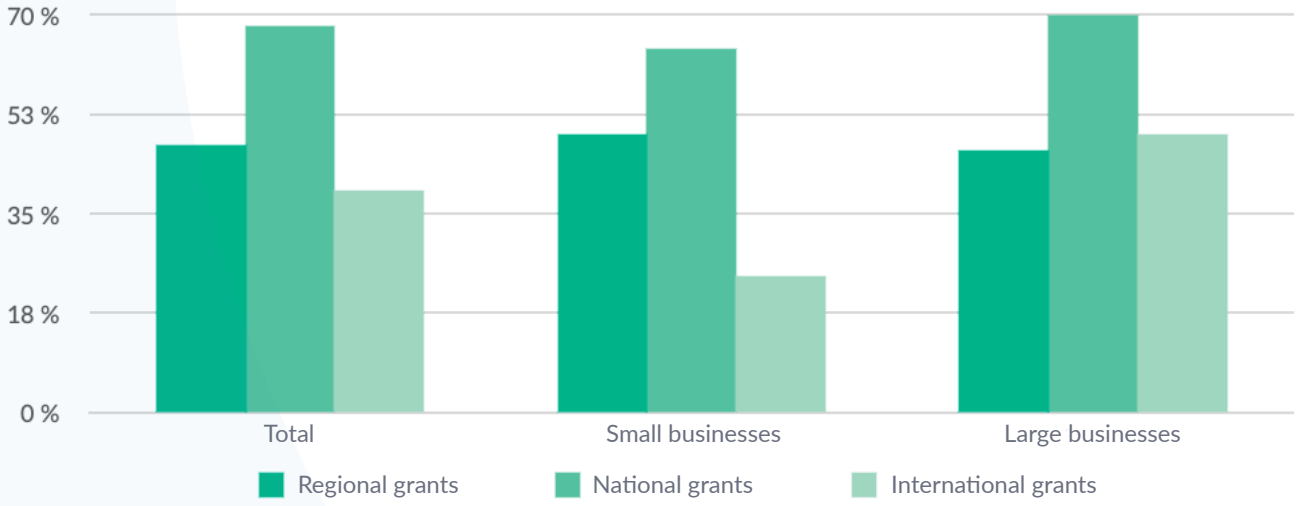
> "These are still quite high numbers for completely neglecting grant opportunities from your plans. It should factor in all strategies, no matter the sector or size of the company."

That said, businesses cannot take a scattergun approach to grant applications. They must be highly strategic because there is a big range of funding schemes depending on sector and region, which ultimately reflects what elements of the economy each government is trying to stimulate.

Grants by sector



Grants by size



The most popular type of grant is national grants, at 68%, significantly ahead regional grants, at 47%, and international grants, at 39%. International grants usually involve bigger sums and are more aimed at larger firms, whereas regional grants are for smaller firms.

This also affects the companies that they prioritise. Regional grants are most popular with smaller firms and are favoured by technology firms, which is due to the Government trying to encourage innovation among startups.

National grants are popular among both large and small firms, but often favour certain sectors. The manufacturing sector appears to be tapping into grants the most, with 76% of firms using them, whereas construction is the least, at 56%. Many governments are looking to prop up and protect their manufacturing sectors and have targeted grants to stimulate those industries.

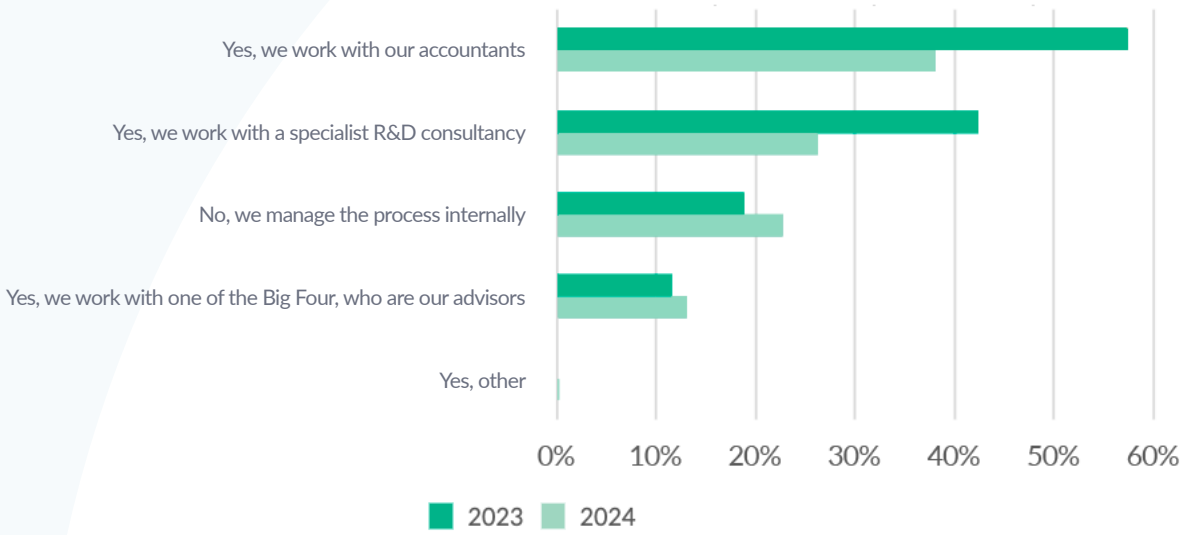
Pilo says,

> “Large international grants have lots of requirements, including around ESG impact. Local grants are less competitive and have fewer requirements. Most of the time, the aim of the municipality is to encourage the industry to stay in the region and stimulate the local economy.”

There are potential opportunities in all grants and businesses may be eligible for large and small grants, both locally and internationally. The challenge is identifying the right ones and managing the application.

To improve their chances of a successful application, innovation teams can tap into external support. However, there has been a significant trend towards relying on internal resources. Use of internal resources is up from 19% to 23%. Meanwhile, the use of accountants is down considerably from 57% to 38% and use of specialist consultancies is down from 42% to 26%.

External support 2023 vs 2024



Businesses are re-internalising applications because they're an increasingly important part of strategy. Accountants aren't suitable because you require an understanding of technical R&D. But innovation leaders have to work closely with consultancies and give them the right amount of access to information. Pilo says,

> "The consulting firm knows the requirements better than anyone and knows what is needed to secure the funding. But no consulting firm can do it completely independently. They need input from the experts running the project."

Conclusion

Innovation grants are now pivotal in funding R&D activity amid fluctuating financial landscapes.

By strategically integrating grant opportunities into their innovation strategies and proactively navigating the grant landscape, businesses can secure crucial funding, bolster their market standing, and attract investors.

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