Study – September 2024

The AI Imperative for Canada's Entrepreneurs

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Message from the Chief Economist

Canada is facing a cost crisis and a productivity problem

Canadian businesses recently faced a record spike in costs as the industrial product price index increased by 28% between January 2020 and June 2024. Even with the rate of inflation slowing down, the shock was so significant that it will continue to affect businesses.

In addition, Canada's productivity has declined since the pandemic. We don't fare any better when compared with other countries—in 2022, our labour productivity was 28% lower than the U.S. figure and 18% lower than the G7 average.

Although the factors leading to Canada's lower productivity are complex, one thing is certain: Canadian businesses will need to work more efficiently to remain competitive.

Artificial intelligence is creating opportunities for entrepreneurs

Artificial intelligence (AI) is improving rapidly. As it does, the benefits it brings to small and medium-sized enterprises (SMEs) are also increasing. AI can help them work more efficiently, make better decisions and reduce costs.

Larger SMEs are already adopting AI technology to a significant degree and seeing the advantages. Although finding the right AI tools can be complicated and costly for smaller businesses, investing in these tools could help them improve their efficiency and remain competitive in the long run.

This study examines how Canada's businesses are currently using AI, how it can help SMEs, and what steps they can take to adopt and reap the full benefits of AI tools.

Introduction

Artificial intelligence (AI) has become a worldwide phenomenon. The rapidly improving technology is making headlines and widening its scope of use. One notable example is the rise of ChatGPT—a generative AI that can process and generate language in a conversational style.

AI is changing the way many small and medium-sized enterprises (SMEs) in Canada produce and sell their goods and services, recruit talent, and interact with clients. To better understand its impact, BDC conducted a literature review on the topic and surveyed 1,247 business owners about their knowledge and use of AI.

Key topics explored in this study include the following:

- how SMEs in Canada are using AI-enabled tools
- how SMEs are implementing AI and how much it costs them
- what benefits AI-enabled tools can bring to businesses
- how business owners can leverage AI to help them
  - control costs
  - increase sales
  - navigate uncertainty
  - offset labour shortages
- best practices and guidelines for implementing AI solutions

Highlights

Canada’s businesses must improve their efficiency to remain competitive in the face of rising costs and lagging productivity. AI-enabled technology can help, but business owners need to learn more about it.

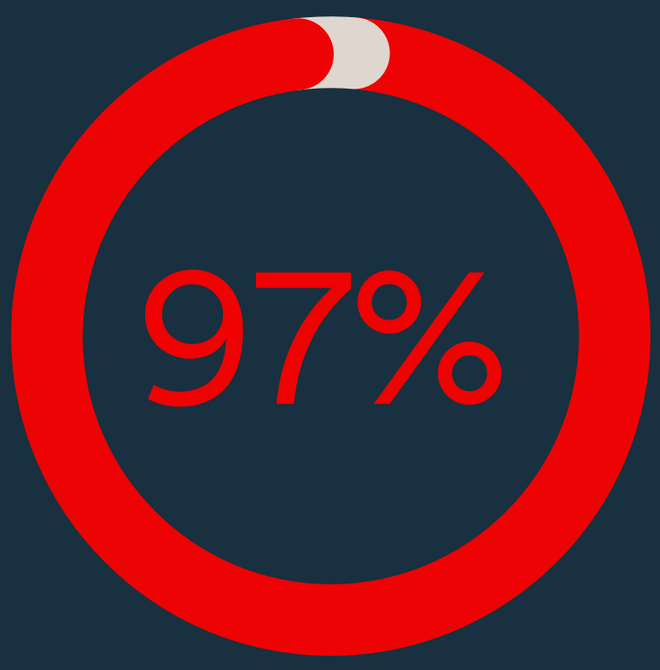
Most businesses already use some AI-powered tools, but many don't realize it

- When first asked, only 39% said they use AI
- When provided with a list of AI-powered tools, 66% selected at least one

Larger and younger firms have higher AI adoption rates

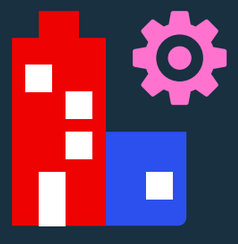
Larger SMEs (100 employees or more)	Young firms (5 years old or younger)	Micro-businesses (1 to 4 employees)	Older firms (25 years old or older)
86%	78%	60%	48%

Businesses that use AI see benefits:

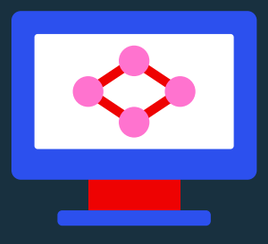


- Increased efficiency
- Reduced costs
- Higher sales
- Improved customer service
- Better sales, production or inventory management

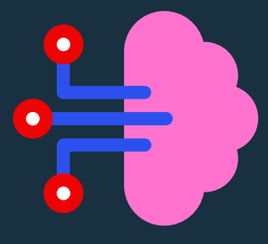
3 tips for getting started with AI



Assess the business’s needs and objectives



Adopt a data-driven culture



Learn about the different AI options

What is AI?

In simple terms, AI refers to machines or computer systems that can simulate human intelligence processes—such as reasoning, making decisions and solving problems—to perform tasks that, until recently, only a human could do.

AI's ability to quickly process and analyze massive amounts of data is at the heart of its capabilities.

An AI-enabled tool is an app, software program or piece of equipment that uses some form of AI to function. Some everyday examples include the following:

- personalized recommendations on a shopping website
- voice assistants
- image- and speech-recognition programs
- apps that provide driving directions

For example, AI can help transport businesses by making their routes more efficient. The tool collects data about the distance between locations, traffic and road conditions, and more.

Using AI algorithms, the tool then plans the most efficient route based on the business's goals. The AI will also continuously learn from past trips, making the tool more accurate over time.

AI enhances tools and creates opportunities

Over the last few years, the number of tools using some form of AI has increased significantly.

Besides creating new tools that did not exist before, AI can also enhance and improve existing tools, opening the door to many possibilities.

AI can help businesses to:

- Control costs by
  - automating repetitive tasks
  - improving productivity
  - predicting equipment breakdowns
- Increase sales by
  - generating leads
  - contacting prospects
  - personalizing recommendations
- Ease labour shortages by
  - reducing the number of redundant tasks
  - increasing engagement
  - facilitating recruitment
- Navigate uncertainty by
  - improving forecasting
  - monitoring inventory
  - optimizing resource allocation
- And more...

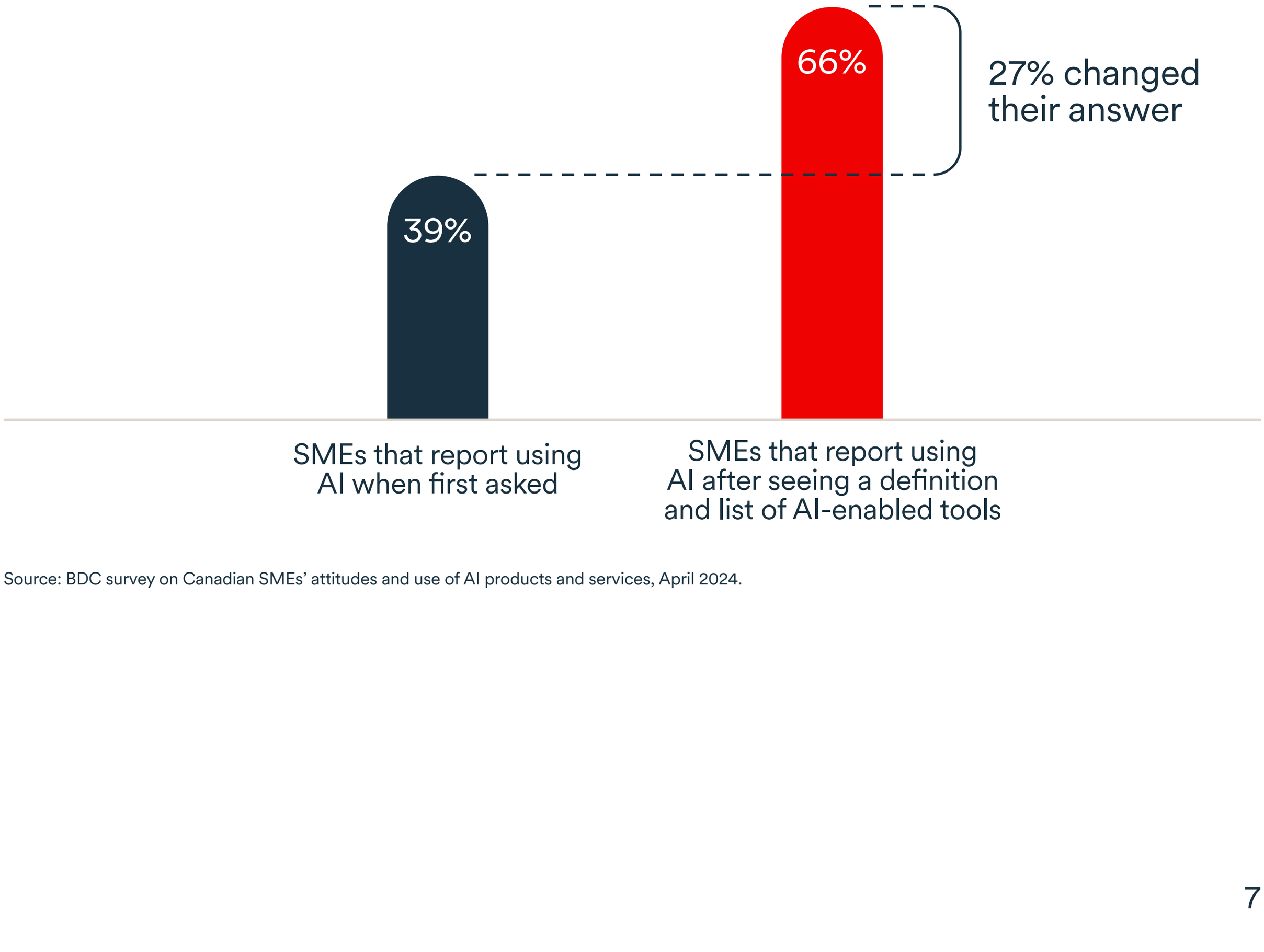
AI use among Canada's entrepreneurs

Entrepreneurs don't always know they're using AI

People don't need to understand AI and how it works to use AI-enabled tools. As a result, it can be difficult to pinpoint how many businesses are using it, because they may not know they are. In addition, entrepreneurs may be unaware that their existing tools contain AI updates or that their employees are using AI.

In this context, some business owners answered differently about their AI use before (39%) and after (66%) seeing a definition and list of AI-enabled tools (Figure 1). The discrepancy suggests that up to 40% of businesses may not know they are using AI.

Figure 1: SMEs that report using AI-enabled tools



Source: BDC survey on Canadian SMEs' attitudes and use of AI products and services, April 2024.

Business age, size and location affect AI adoption

SMEs that are more likely to use AI (Figure 2)

Young

AI adoption rates are higher among younger businesses (78%) than more mature ones (48%). This could be because it's easier to start with the latest technology than to change or upgrade an existing system.

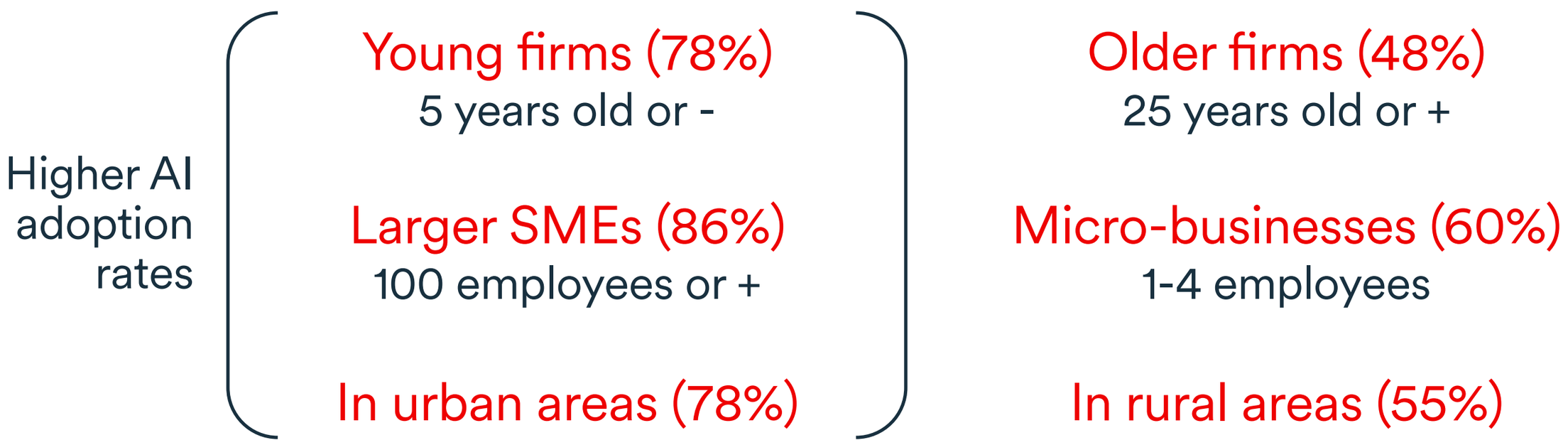
Large

Adoption rates vary significantly according to business size, with larger SMEs (86%) using AI more than smaller ones (60%). This could be because larger businesses have more resources to allocate to AI projects—from finding the right tool to fit their needs to having more employees who are able to use different software. Larger businesses can also leverage economies of scale when adopting AI tools.

In urban areas

Location is also an important factor influencing AI adoption by SMEs. Businesses in large urban areas (78%) use it more than businesses in rural areas (55%), and this difference persists even among younger businesses (84% vs. 65%). The more limited access to high-speed Internet among rural businesses could explain part of the difference. According to a recent report of the Auditor General of Canada, 91% of Canadian households have access to high-speed Internet but only 60% of rural households do.

Figure 2: AI adoption rates by business age, size and location



Source: BDC survey on Canadian SMEs' attitudes and use of AI products and services, April 2024.

AI use is expected to increase among SMEs

Of the business owners surveyed, 46% said that they plan to use more AI within the next 24 months—whether by starting from scratch or expanding their current use of AI-enabled tools.

Using information on both current and future users, SMEs can be classified into four groups, depending on whether they have plans to use more AI in the next two years.

Enthusiasts

40%

- Currently using AI
- Planning to expand use

Explorers

26%

- Currently using AI
- No plans to expand use

Curious

6%

- Not using AI
- Planning to start

Laggers

28%

- Not using AI
- No plans to start

Gap in AI use may widen between large and small SMEs

Only 5% of larger SMEs (100 employees or more) are laggers, compared with 35% of micro-businesses (four employees or fewer). Laggers are the only group not planning to adopt AI or expand AI use (Figure 3).

This means that by 2026, 95% of larger SMEs and 65% of micro-businesses will be using at least one AI-enabled tool. While adoption rates will increase slightly for all groups, the difference in adoption rates between larger SMEs and micro-businesses is likely to widen in the next two years.

AI use today

- 86% of larger SMEs
- 60% of micro-businesses

26 percentage-point gap in adoption rate

AI use in 2026

- 95% of larger SMEs
- 65% of micro-businesses

30 percentage-point gap in adoption rate

Larger SMEs see AI as a strategic imperative

Over the next two years, less than one-quarter of businesses plan to allocate part of their budget to AI adoption.

This percentage dramatically increases among firms with 100 or more employees.

of SMEs have budgeted for AI adoption over the next 24 months

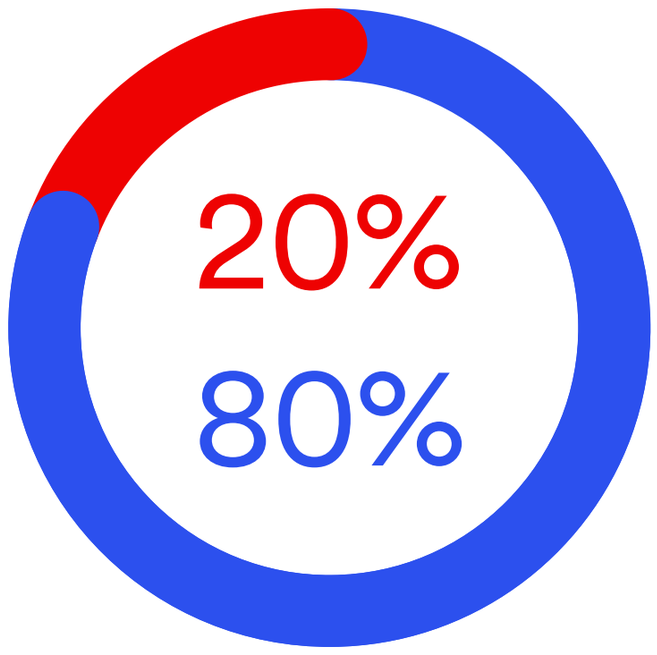
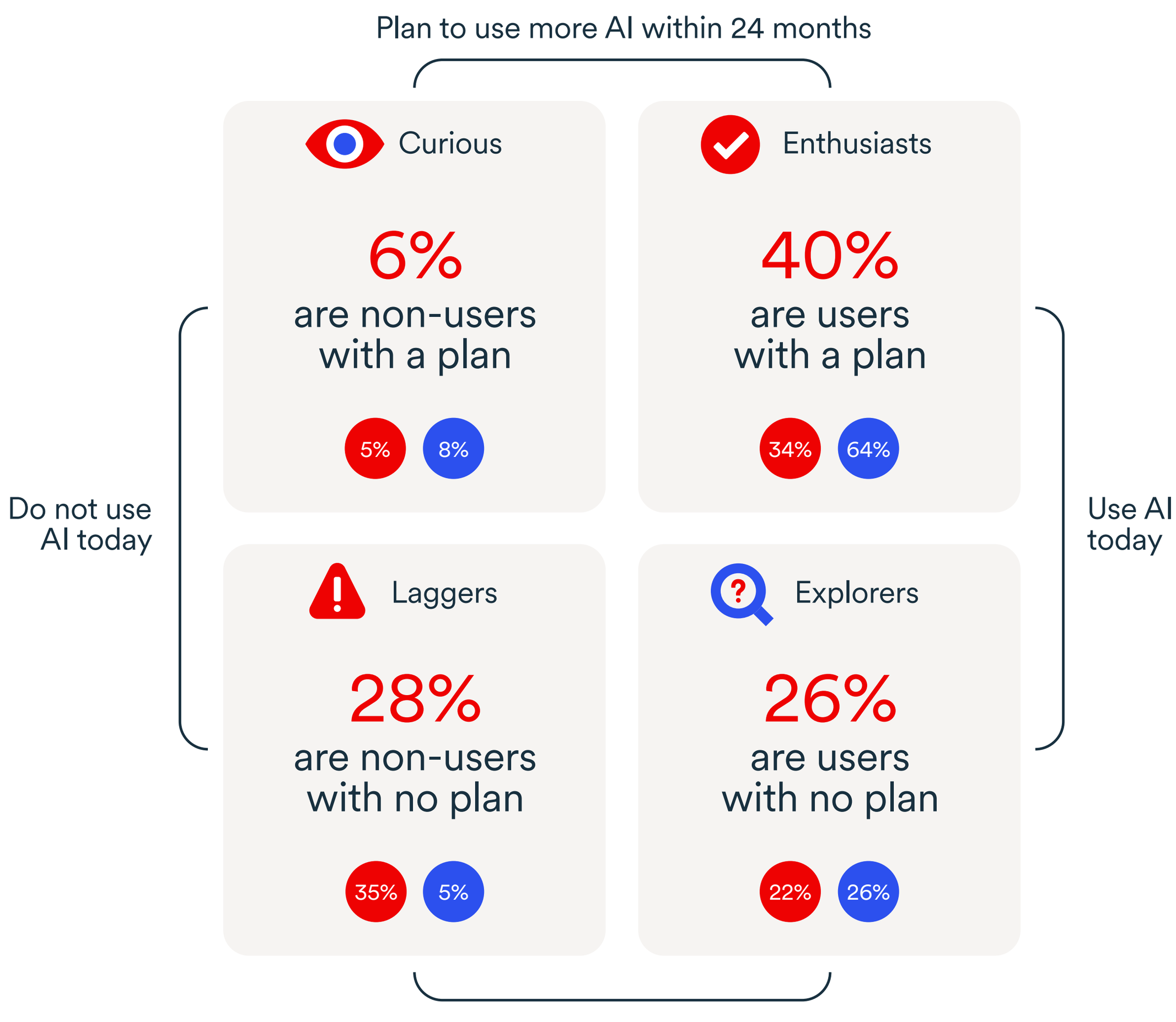


Figure 3: Four types of SMEs, in terms of AI adoption



Source: BDC survey on Canadian SMEs' attitudes and use of AI products and services, April 2024.

Which AI tools do businesses use?

There are thousands of AI-enabled tools. For this study, tools were grouped into large categories based on what they do, rather than how they work.

Many of the most popular tools among businesses include some form of AI, whether users know it or not.

Generative AI tools are the most popular among businesses

Generative AI (GenAI) generates content based on user instructions. It is the most widely used AI among businesses (28%), even though it has only been readily available since ChatGPT was released to the public in late 2022 (Figure 4).

GenAI tools became popular for several reasons:

- significant media coverage
- multiple uses
- free versions for users to try out

Some popular tools were not always AI enabled

Online advertising tools and specialized automated translation services[1] are also among the most popular tools used by businesses. They were not always AI enabled but have been significantly improved by its integration. These are typical examples of the kinds of tools people may use without knowing they are AI powered.

Tool complexity depends on business size

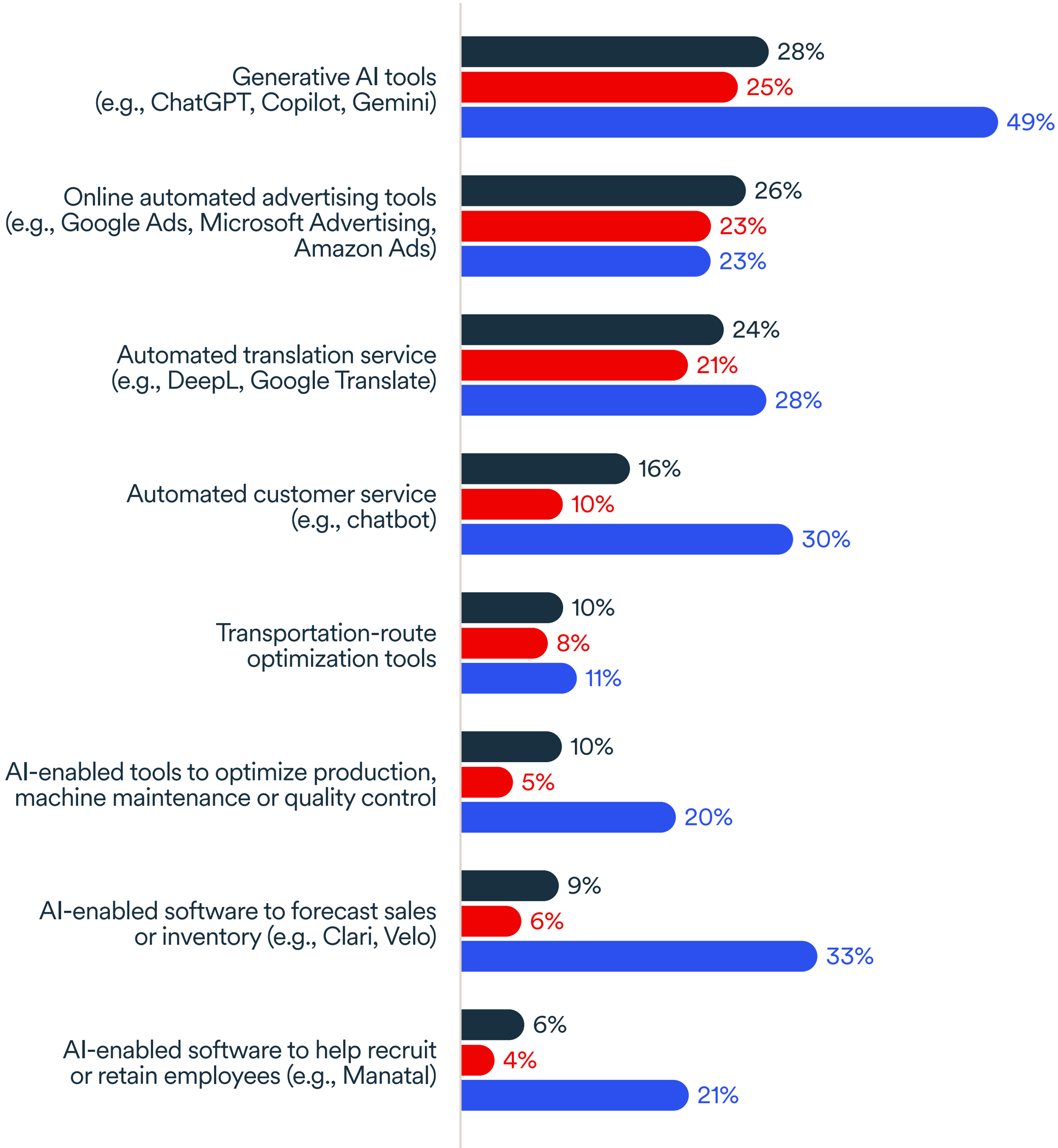
Larger SMEs use more specialized and complex tools than micro-businesses do, such as:

- chatbots
- AI-enabled tools for
  - optimizing production
  - forecasting sales
  - recruiting employees

Smaller businesses have a more limited budget and no dedicated departments, such as human resources or sales. As a result, they tend to adopt less specialized AI tools (Figure 4).

[1] For this study, we separated GenAI from AI specialized in translation, but many GenAI products also offer translation.

Figure 4: Percentage of SMEs using these AI-enabled tools



Source: BDC survey on Canadian SMEs' attitudes and use of AI products and services, April 2024.

The Show and Tell Agency

Openness to AI gives agency a competitive edge

When Marty Fisher started working in the 1990s, the Internet was still in its infancy. As companies started to see the value of putting their information online, Fisher built his first website. Clients came knocking and he soon had enough demand to launch a digital agency, Sherpa Marketing. Fisher grew the business by keeping an eye on technology's role in marketing and evolving with it.

“We’re often among the first to acquire new digital expertise, which has given us a competitive edge,” Fisher says.

It was this expertise that led to Sherpa’s merger with McKim Communications Group (MCG) in 2021. MCG’s president, Peter George, wanted to increase the company’s digital marketing capabilities. Fisher felt that Sherpa could equally benefit from MCG’s strategic and branding strengths.

They rebranded as The Show and Tell Agency in 2023, with Fisher and George as co-CEOs.

AI increased efficiency and competitiveness

After ChatGPT was launched in 2022, Fisher and the digital team started experimenting with GenAI tools and discovered several ways they can contribute to projects:

- **Brainstorming ideas and starting documents**

  Fisher says that GenAI is a handy starting point for writers. “With a good prompt, the tool can generate a decent first draft that you then edit and refine.”

  AI is also good for brainstorming ideas and can act as a kickstart for product names, tag lines, ad copy, and editorial content.

- **Finding and creating images**

  With a precise description, the AI can generate an image that the agency’s graphic designers can then modify and present as a mock-up during a pitch. Approved images can then be used to brief professional photographers.

- **Optimizing social media content**

  One AI platform can suggest edits to increase a video’s likelihood of going viral. There are also AI tools that provide multiple ad variations to help advertisers test different messaging.

- **Writing programming code**

  The agency’s software developers use AI to generate code snippets. “Instead of writing all the code from scratch, they take existing bits of code and plug them in for specific purposes.”

Fisher says AI has been key to the agency’s success in the current economic context.

“Traditional agencies are seen as slow and expensive. AI tools have allowed us to do some things more efficiently and cost-effectively. Having more time to focus on the important stuff helps us deliver better projects, which benefits our clients and business.”

Focusing on the business instead of running it

Fisher has used AI tools to help him with administrative tasks. “One of the first things we did was ask it to draft a policy for our team outlining the dos and don’ts of using AI responsibly,” he says.

Since then, he has used it to help draft an employee manual, job descriptions and other HR documents.

The agency also uses an AI tool to take meeting minutes and generate a list of required actions.

Marty Fisher's list of important things to note about AI

Keep privacy top-of-mind

Fisher advises business owners to invest in the professional version of AI tools to ensure privacy. "Many tools, such as ChatGPT, are open-source—be careful not to share proprietary data when using them."

Do not misrepresent your work

"We tell our clients when we're presenting something we created with the help of AI," he says. "The response has been positive, especially since they see the cost savings."

Know your subject matter

AI tools will sometimes use unreliable Internet information to generate content. Fisher says a subject-matter expert would be better able to recognize inaccuracies.

Encourage, don't force

"Some employees are comfortable using the tools they've always used," Fisher says.

What category of AI tools do businesses use?

For this study, we classified AI tools into three categories (Figure 5):

- out-of-the-box free tools*
- out-of-the-box paid tools*
- custom tools

  Custom tools require varying degrees of customization, depending on a business's needs. They include:

  - pre-built tools that plug into existing systems (such as a chatbot)
  - brand-new tools that are built specifically for an organization

* Ready to use as they are

Free AI tools are the most popular among SMEs

The wide availability of free tools poses both an opportunity and a risk for businesses.

Opportunity

Since the tools are free, it is easier for entrepreneurs to experiment with different solutions and find which ones work best for their business.

Risk

Since free tools rely on data to generate better answers for all users, businesses could be compromising sensitive information if they are not careful about what they enter into the tool. In addition, since there is no guarantee that all users have input quality data, some of the outputs could be biased or inaccurate.

Larger SMEs are moving away from free AI tools

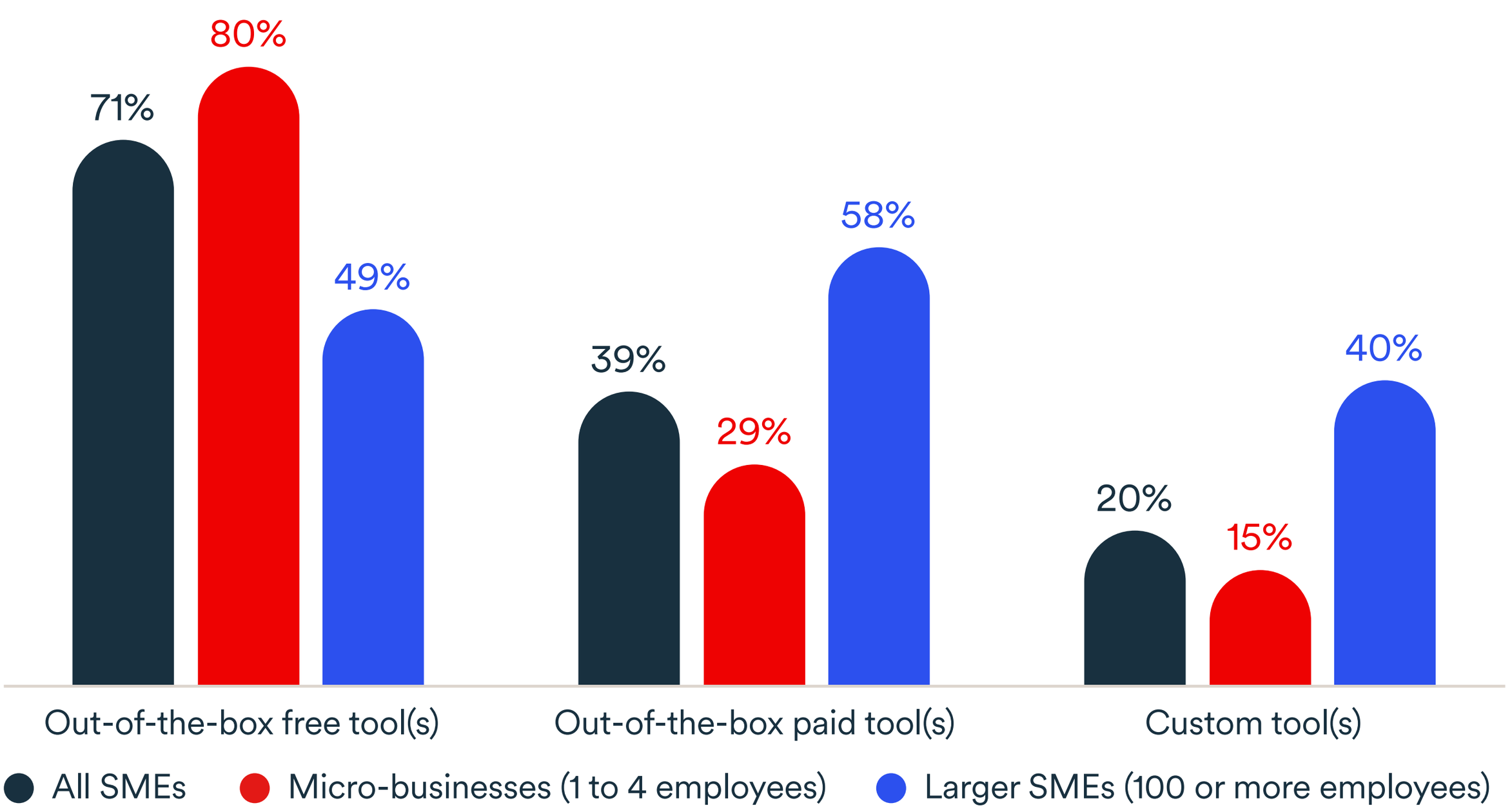
While micro-businesses are mainly using free AI tools, larger SMEs are starting to use paid tools more often, for security and privacy reasons (58%). Most out-of-the-box paid tools are subscription based and can offer better data protection to users. Many can also be integrated to the business's existing software, which enables the company to do more analysis with its own data, in a secure environment.

Larger SMEs are also starting to build more custom tools (40%). These tend to be firms that already have a good data-management structure. For example, in order to work effectively, a chatbot might need to match customers' names with their order history, past communications, product preferences and so on. A business must already have this data in digital form before implementing the chatbot.

Since custom AI tools are more complex than pre-built solutions, businesses usually hire an outside consultant to help identify the right technology and/or implement the tool.

The cost associated with this approach, as well as the need for a digitized data structure, probably explain why larger businesses are more likely than smaller ones to adopt custom solutions.

Figure 5: Types of AI tools used by SMEs (% among those using AI)



Source: BDC survey on Canadian SMEs' attitudes and use of AI products and services, April 2024.

Base included owners who had selected at least one AI tool (n=811). Those who did not know were excluded from the calculation base. Multiple answers were allowed; therefore, totals exceed 100%.

When did businesses start using AI?

AI models are not new, but recent improvements in their quality have led to the creation of many new AI-enabled software programs, apps, and add-ons. In addition, more IT businesses are integrating AI into their existing software.

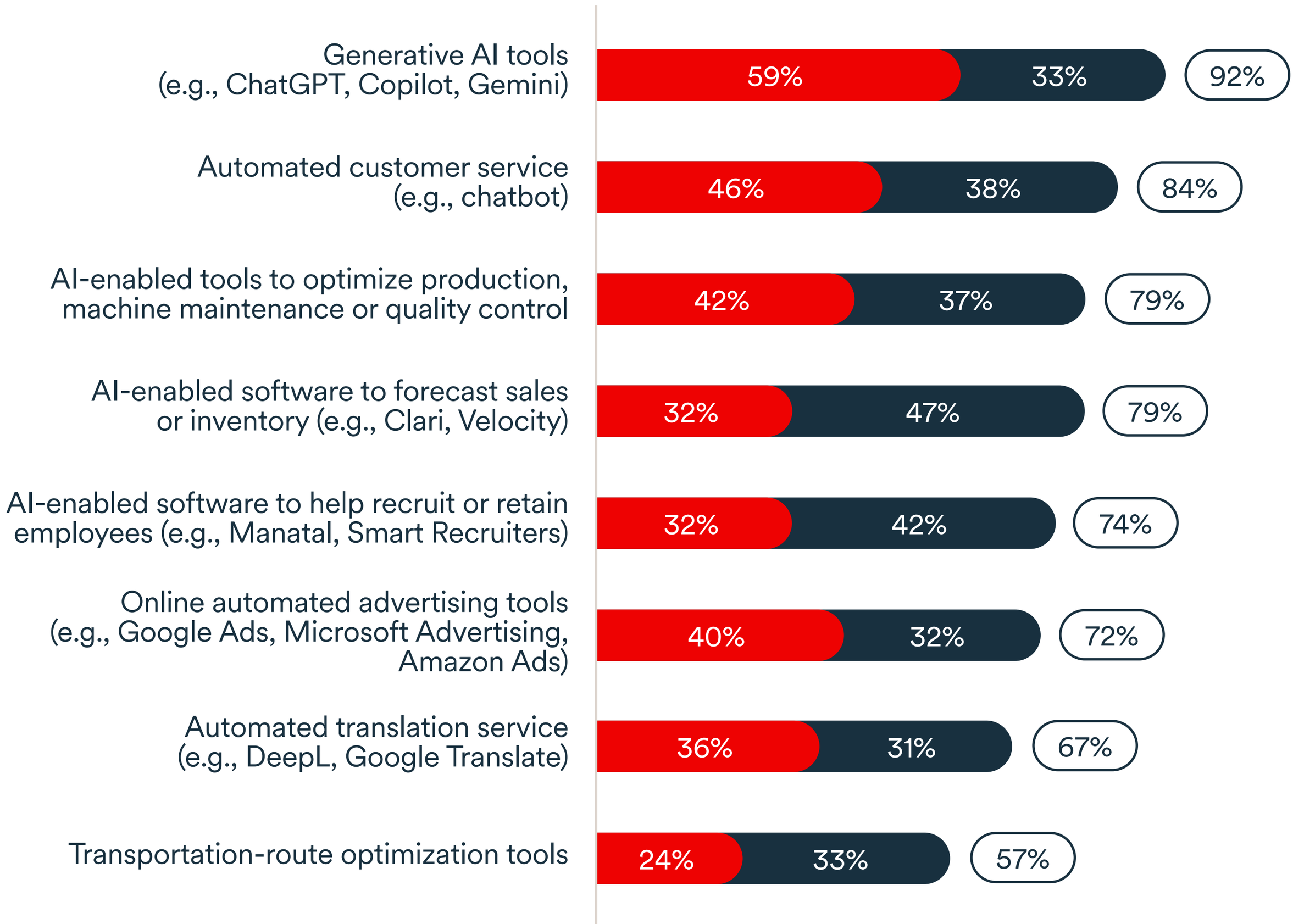
As a result, many firms have started using AI without actively adopting it. New AI capabilities were simply added to their software through routine updates, which could have included the addition of new functionalities or the improvement of existing functionalities. The improvements in predictive traffic analysis in navigation software are one example.

Most businesses started using AI tools only recently

In this context, most firms only recently started using AI, whether they intended to or not (Figure 6). For example, 59% of businesses using GenAI and 46% of those using chatbots didn't use them before 2023.

Complex AI tools to optimize production, forecast sales or help recruit employees have primarily been adopted within the last two years. Although these tools existed before, their effectiveness has improved significantly in recent years. New players are also entering the market and offering new products.

Figure 6: Percentage of SMEs that started using AI within the last year or two



Source: BDC survey on Canadian SMEs' attitudes and use of AI products and services, April 2024.

Base included owners who had selected at least one AI tool (n=811). Those who did not know were excluded from the calculation base.

How do small businesses implement AI?

In general, businesses implement AI with help from existing employees, external consultants and new employees (Figure 7).

Micro-businesses rely heavily on existing employees

Micro-businesses rely more on their employees to implement AI (72%) than on consultants (19%) or new hires with the skills to implement the tools (12%).

Relying on existing employees creates several challenges:

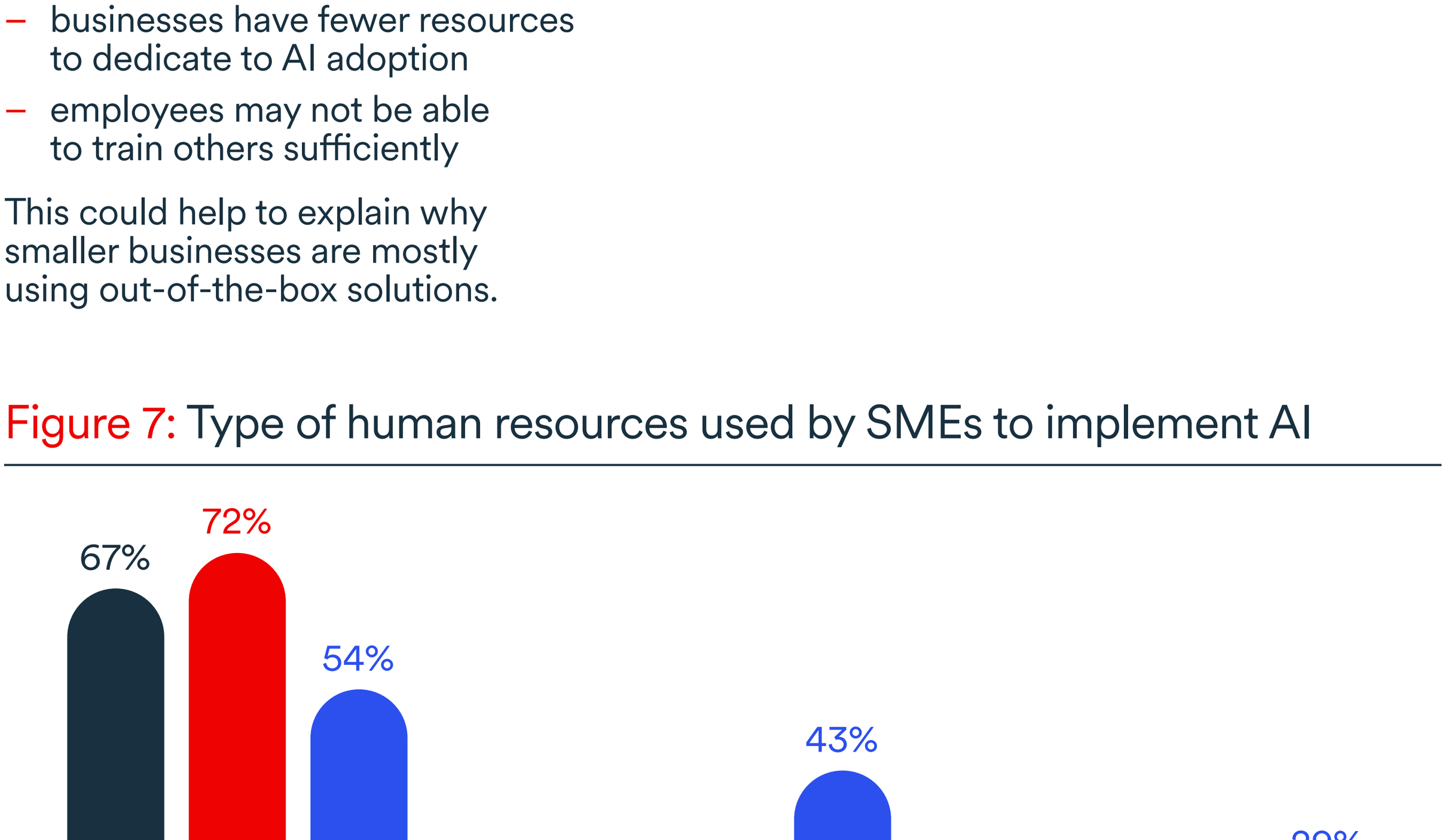
- employees must be versatile enough to successfully use AI
- employees must understand more than basic GenAI
- businesses have fewer resources to dedicate to AI adoption
- employees may not be able to train others sufficiently

This could help to explain why smaller businesses are mostly using out-of-the-box solutions.

Larger SMEs are more likely to hire an external consultant

Businesses with at least 100 employees rely less on their existing employees (54%) and are more likely to hire a consultant (43%) or new employees (29%). This is especially true for complex, customized tools requiring data analysts or scientists to ensure effective use of the technology.

Figure 7: Type of human resources used by SMEs to implement AI



Source: BDC survey on Canadian SMEs' attitudes and use of AI products and services, April 2024.

Base (n=785) included owners who had selected at least one AI tool. Those who did not know were excluded from the calculation base.

How much does it cost businesses to use AI?

Most businesses (62%) implemented AI for less than $5,000. More than one-third (39%) spent less than $1,000, but these tended to be light users, leveraging tools such as GenAI, translation AI and/or AI-powered online advertising.

Overall, the low cost of implementing AI for many SMEs reflects the following:

- many out-of-the-box AI tools are affordable
- most businesses do not build costly custom solutions
- businesses rely heavily on existing employees to implement AI
- firms allocate limited funds to AI due to the increased cost of doing business[2]

Business size and AI complexity affect costs

The cost of implementing or using AI increases with the size of the business and the complexity of the tool (Figure 8). Light AI use can be affordable, but heavy use is usually expensive.

For example, most businesses using more complex AI tools to optimize production, forecast sales or help recruit employees will spend more than $10,000 per year on maintenance. Heavy users also tend to use multiple AI tools, which increases the overall cost.

62%

of SMEs spent less than $5,000 on AI implementation

- 79% of micro-businesses
- only 32% of those using AI-enabled tools to optimize production
- only 22% of larger SMEs

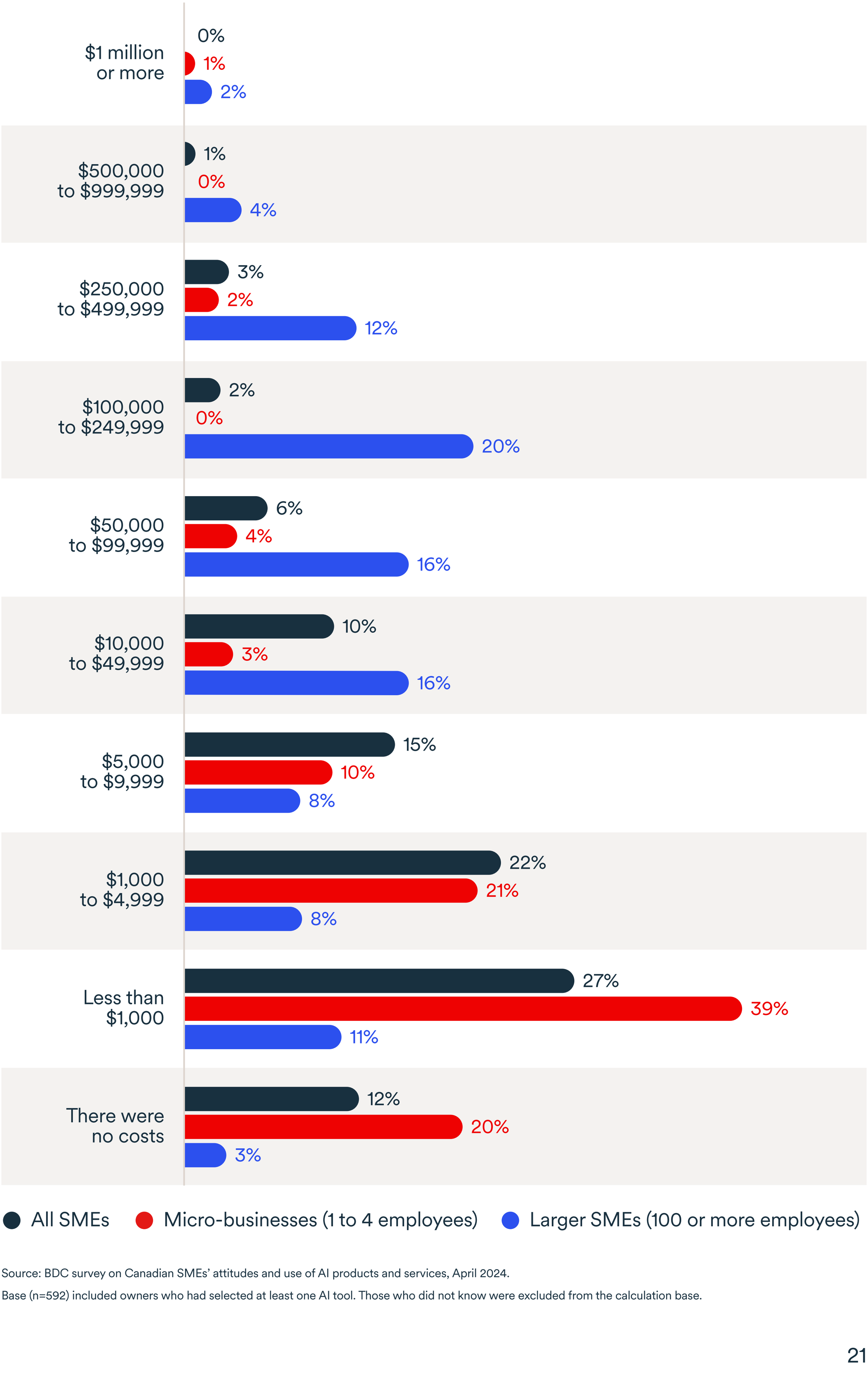
56%

of SMEs spend less than $1,000 per year to continue using AI

- 72% of micro-businesses
- only 17% of those using AI-enabled tools to optimize production
- only 15% of larger SMEs

2 BDC, *How to Cope with Inflation and Remain Profitable*, 2023.

Figure 8: Cost of implementing AI (including tool purchase and consulting fees)



Source: BDC survey on Canadian SMEs' attitudes and use of AI products and services, April 2024.

Base (n=592) included owners who had selected at least one AI tool. Those who did not know were excluded from the calculation base.

Groupe Jardins Brossard

This company’s shift to digital paves the way for AI

Olivier Girard made the leap to entrepreneurship in 2019. He bought a group of businesses that offered commercial and residential snow removal, with some landscaping and grounds maintenance operations. That’s how he found himself in an environment where almost everything was done on paper.

“Most transactions were done by cheque, and the drivers relied on paper lists for their routes,” explains Girard.

So, he decided to explore options to optimize the business’ practices.

Clearing the piles of paper with technology

After looking at the options, including designing his own tool, Girard decided to purchase a ready-made solution. It was mainly acquired and integrated to optimize services for customers and has introduced features such as:

- geocoding, which involves converting a mailing address to geographic coordinates
- online geolocation, which determines locations with high accuracy
- automated customer service

The benefits of the technological shift

The company equipped each driver with an electronic tablet. This immediately put an end to paper addresses and semi-coordinated routes.

Now, the routes are optimized by the tool and automatically displayed on the drivers’ tablets. Plus, customers get alerts to inform them of their next snow removal.

These capabilities have also helped to assess the cost-effectiveness of employees. The tool provides detailed information on routes travelled and time spent on each job. “We went from a company that used paper 100% of the time to as little as 5%,” says Girard.

In addition to optimizing the company’s operating costs and significantly improving the customer experience, the solution also helped the business:

- reduce internal communication in silos
- eliminate certain duplicate tasks
- automate financial transactions with customers

People working in the office have been able to benefit from flexible telework. Unnecessary tasks have been eliminated, such as waiting for a customer to drop off a cheque. “Today, the transactional site allows us to manage more than 75% of our sales online,” says Girard.

Automating some customer service functions has also helped Girard’s company filter messages by priority and better manage emergencies. Customers can now send a message by phone, email or Messenger and even submit certain questions to a chatbot.

The improved working conditions have made it much easier to quickly recruit qualified staff. “In 2019, even the general manager had to step in sometimes and answer sales calls during peak periods,” says Girard. “Today, we’re fully staffed.”

Digitization has also helped the company collect the data it needs for future AI optimizations.

Big changes come with challenges

Girard admits that there were some obstacles to implementing the technology.

Changing well-established practices, particularly among drivers, was the biggest challenge. But after explaining the advantages, along with some time to adapt and plenty of discussion, the staff were on board. “Now, the technology allows them to finish their work sooner and sometimes help out their colleagues.”

The company also had to talk to its customers and reassure them that they could still count on a human touch.

Building a strong foundation for AI

Girard’s ambition is to continue pushing the limits of today’s technologies and keep an eye out for new AI-based solutions to maximize efficiency.

To that end, the company has recently integrated an AI-powered chatbot that draws its answers from data on the company’s website. They are also developing a customer portal to improve communication and information access for their 12,000 customers.

“We really had no choice but to change the way we did things. As the industry evolves, there’s no room for small businesses that don’t adapt.”

Olivier Girard,
owner and president,
Groupe Jardins Brossard

What limits AI adoption by Canada's SMEs?

There are several barriers to AI adoption (Figure 9), but these are the main issues.

Unfamiliarity with different AI options

Large or small, many SMEs looking to adopt AI do not know all the tools available to them. One of the reasons could be the recent proliferation of new tools on the market, which can be difficult for potential users to keep track of.

Uncertainty about which AI tool fits their business

Even when SMEs have a clear list of tools to look at, they often do not know which one will be a good fit for their business. Comparing AI tools and identifying the right one requires research, and sometimes trial and error, both of which take time. Firms that can afford it tend to turn to external consultants to overcome this barrier.

Lack of awareness of their current AI tool's shortcomings

Businesses that are already using some form of AI may be unaware of similar tools, so they may not yet be using the tools that best fit their needs.

Concerns about data privacy and security

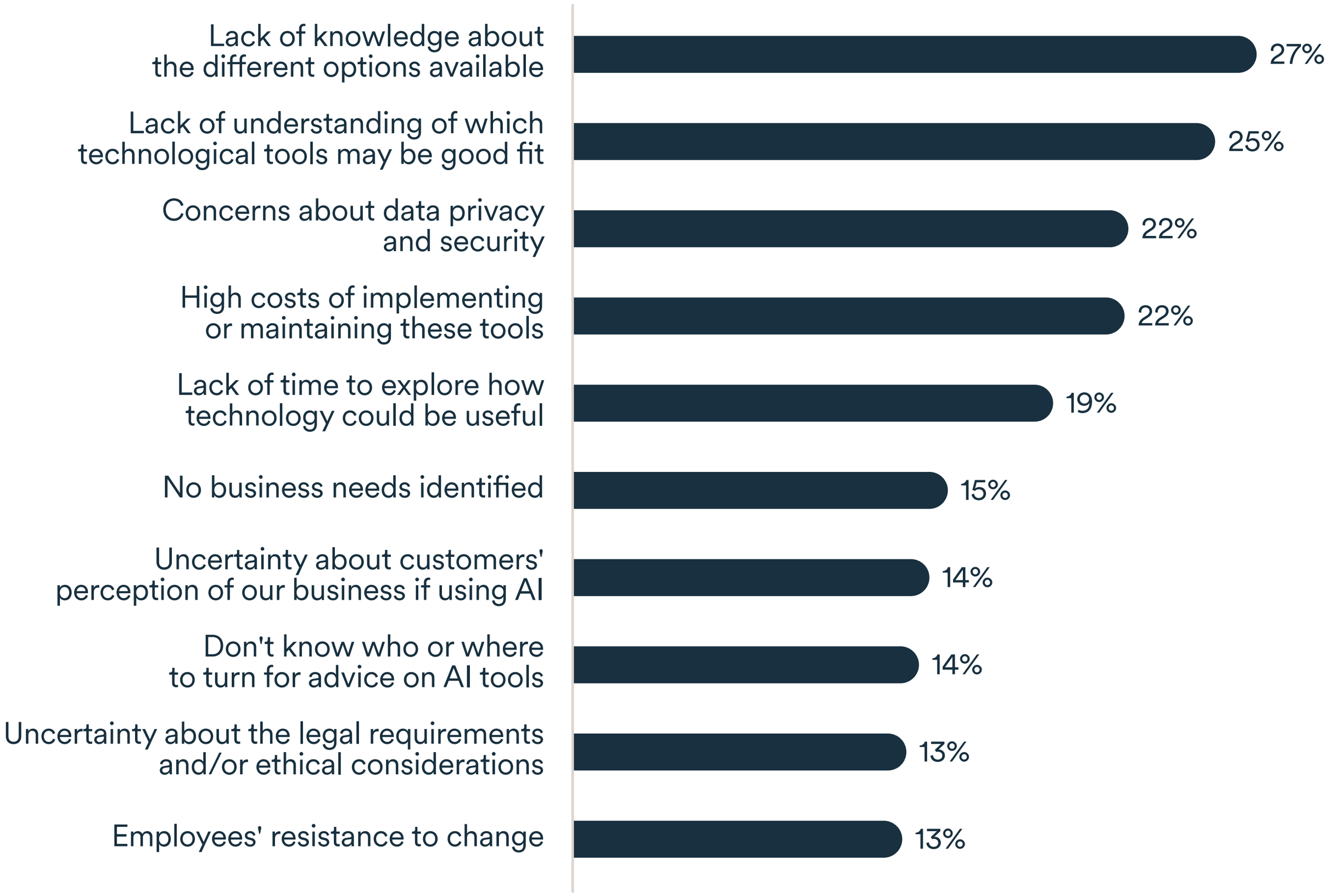
Entrepreneurs' overall lack of AI knowledge often correlates with their concerns around data privacy and security. More transparency from AI tool providers about the way user inputs are used could help reduce this obstacle.

Cost of implementation

In the context of recent high inflation,[3] the cost of implementing and maintaining AI is an important consideration for SMEs, despite the availability of affordable AI tools online. This is especially true for businesses in low-margin sectors, such as accommodation and food services (34%) and transportation and storage (38%). In these sectors, cost is the number-one challenge to adopting AI.

[3] BDC, *How to Cope with Inflation and Remain Profitable*, 2023.

Figure 9: Top 10 challenges for SMEs in adopting AI tools or expanding their use

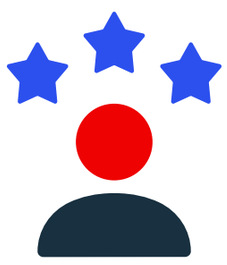


Source: BDC survey on Canadian SMEs’ attitudes and use of AI products and services, April 2024.

How AI can help small businesses

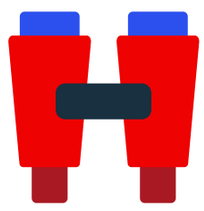
97% of SMEs that use AI say it delivers benefits

Overall, almost all businesses that use AI found some benefits to using it, with time savings/improved efficiency being the top one (44%) (Figure 10). Other benefits include the following:

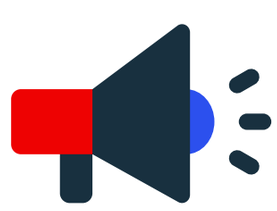


improved customer service

increased growth



better forecasting



more effective marketing

Despite the benefits, entrepreneurs expected more from AI

Although AI has helped businesses solve multiple problems, the results seemed to fall short of their initial hopes (Figure 10).

For example:

- 38% hoped AI would improve customer service
- 29% felt AI did improve it

Satisfaction with AI varies by business size

The difference between entrepreneurs' expectations of AI and the benefits they saw from it varies with business size.

Micro-businesses

They had higher hopes for AI than how they felt it performed, in all categories.

Larger SMEs

They felt the benefits surpassed their expectations in terms of

- boosting growth
- reducing costs
- automating redundant tasks
- improving their understanding of clients

Larger businesses are better equipped to reap the full benefits of AI, thanks to bigger budgets and economies of scale. Technology businesses are also well equipped to benefit from AI, thanks to their knowledge and expertise.

For example, the following businesses reduced costs by using AI:

- 41% of larger SMEs
- 43% of technology businesses
- 25% of micro-businesses

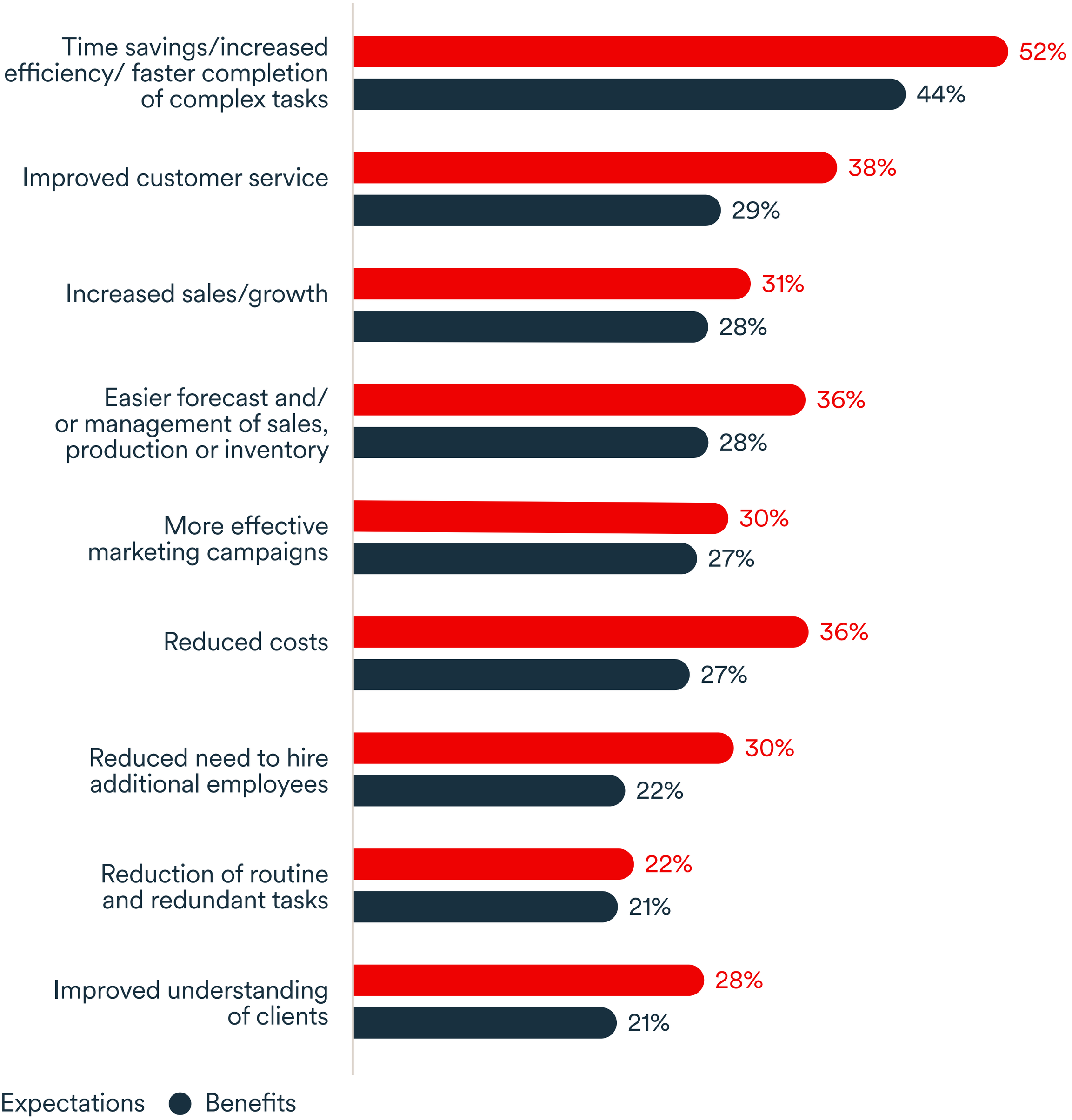
AI also delivered unexpected benefits

Many users benefitted from AI in ways they did not expect. For example, 30% of business owners who said AI reduced their costs were not initially aiming for that outcome. These "surprise" benefits explain why satisfaction is so high among AI users in general.

Satisfaction rate among AI users:

- 77% satisfied
- 20% neutral
- 4% dissatisfied

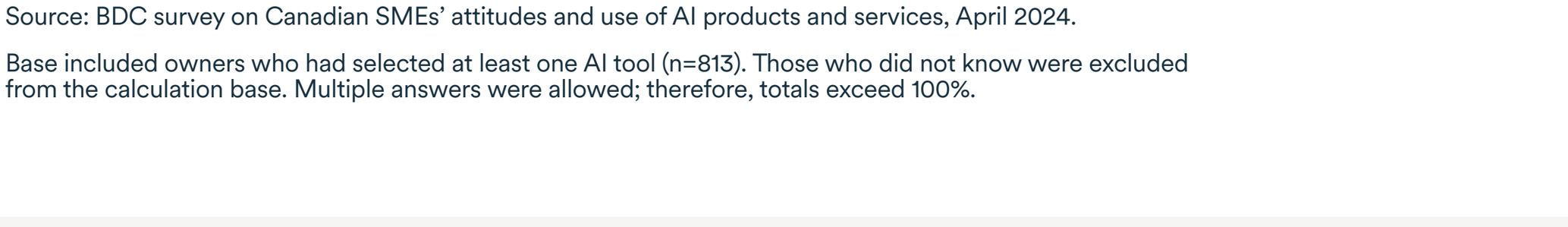
Figure 10: Businesses' main expectations of AI versus the actual benefits



Source: BDC survey on Canadian SMEs' attitudes and use of AI products and services, April 2024.

Base included owners who had selected at least one AI tool (n=813). Those who did not know were excluded from the calculation base. Multiple answers were allowed; therefore, totals exceed 100%.

The next few pages offer examples of AI-enabled tools that can help businesses to:



control costs

increase sales

navigate uncertainty

ease labour shortages

Control costs

How AI can help: Chatbot

35%

of businesses that have implemented a chatbot say it helped to reduce costs

This is higher than the average percentage of businesses that reported cost savings from other AI tools (27%).

Many company websites include a page of frequently asked questions (FAQs), but these must be limited to a few of the most common questions because they must be scrolled through to find the correct information. A chatbot can contain answers to thousands of questions. An AI-enabled chatbot can understand what people are asking and generate relevant replies.

More affordable chatbots will reply to questions with pre-defined answers. More sophisticated chatbots will interpret the question and reply in a human-like manner, and they may learn from previous answers.

61%

of businesses are satisfied with their AI-enabled chatbot

An AI-enabled chatbot can handle simple, high-volume questions so that customer service employees can focus on more value-added conversations. As a result, the business can satisfy more clients at a lower cost with a smaller team of knowledgeable employees. As the chatbot interacts with more people, it will collect data that can be used to improve it.

Example: Implementing a chatbot

Data requirements

- key questions clients ask
- answers to key questions
- the ability to scale the chatbot with data collected

Human resources used for implementation

- 39% of SMEs used external consultants
- 34% used existing employees
- 26% hired new employees

Implementation cost

- 73% of SMEs spent less than $10,000
- 58% spent less than $5,000
- 12% spent $50,000 or more

Annual maintenance cost

- 66% of SMEs spend less than $10,000
- 50% spend less than $5,000
- 10% spend $50,000 or more

All data is based on respondents using only this type of AI tool.

Increase sales

How AI can help: Tools for optimizing production activities

49%

of businessess using AI to optimize production activities say it has increased sales and/or production

About half of the users who have implemented AI-enabled tools to optimize production, machine maintenance or quality control have increased their sales and/or output. While only 10% of businesses use AI optimization tools, 21% of those in manufacturing and 24% of those in the technology sector do.

Tools that optimize production have been available to businesses for a while, but AI is improving them significantly—through brand-new systems or enhanced existing ones.

65%

of businesses are satisfied with their AI tool for optimizing production activities

One way a system using AI can help optimize production is by planning machinery maintenance to reduce unexpected downtime. AI will evaluate the risk of machine failure and recommend maintenance before a breakdown happens or before an expected peak in demand.

Example: Implementing an optimization tool for machinery maintenance

Data requirements

- date of machine installation
- sensor data, including usage
- other data specific to the machine

Implementation cost

- 55% of SMEs spent less than $10,000
- 37% spent less than $5,000
- 19% spent $50,000 or more

Human resources used for implementation

- 22% of SMEs used external consultants
- 58% used existing employees

Annual maintenance cost

- 43% of SMEs spend less than $10,000
- 38% spend less than $5,000
- 26% spend $50,000 or more

All data is based on respondents using only this type of AI tool.

Navigate uncertainty

How AI can help: Forecasting tool

47%

of businesses using AI-enabled forecasting software say it helps with planning and decision-making

While uncertainty can take different forms, software that helps with forecasting can highlight trends, so businesses can better manage their sales, production and inventory.

73%

of businesses are satisfied with their forecasting tool

Most users of software with AI-enabled sales or inventory forecasting capabilities are satisfied with it.

Let's take customer relationship management (CRM) software as an example of this type of tool. Adding AI capabilities to a CRM platform can help businesses see how specific market changes or shifts in consumer preferences could impact their sales. This visibility allows companies to plan their growth and allocate resources better.

Example: Implementing AI-enabled tools to forecast sales or inventory

Data requirements

- historical sales data
- customer information
- external research
  - market trends
  - competitor analysis
  - information on specific events

Implementation cost

- 77% of SMEs spent less than $10,000
- 55% spent less than $5,000
- 11% spent $50,000 or more

Human resources used for implementation

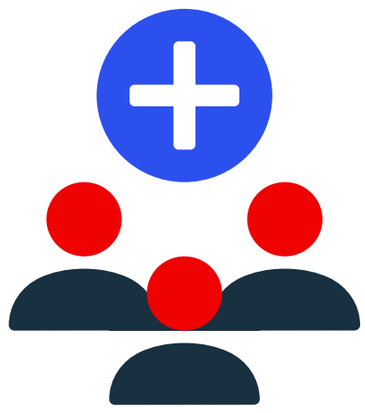
- 46% of SMEs used external consultants
- 25% used existing employees
- 37% hired new employees

Annual maintenance cost

- 57% of SMEs spend less than $10,000
- 38% spend less than $5,000
- 11% spend $50,000 or more

All data is based on respondents using only this type of AI tool.

Ease labour shortages



How AI can help: AI tools to improve efficiency

22%

of businesses using at least one AI tool say it has reduced hiring needs

Technology can automate processes and reduce redundant tasks. This can free up employees for more interesting and value-added work, which leads to better productivity, and can help attract and retain people.

Add AI capabilities to that, and it's like turbocharging a company's technology

AI tools that reduced the need for additional workers

- 32% of SMEs mentioned chatbots
- 29% mentioned forecasting tools
- 26% mentioned translation applications

AI tools that improved employee recruitment and retention

- 24% of SMEs mentioned tools for optimizing production activities
- 25% mentioned recruitment tools

Most AI tools do not replace employees. Rather, they help workers be more productive, giving them time to focus on more complex tasks. This helps businesses produce more goods and services with the same number of employees.

Example: Implementing AI as a personalized assistant tool

One way AI can help businesses handle daily administrative tasks is with a personalized assistant tool. Personal digital assistants have been around for years, but AI capabilities turn them into tools that can help with tasks such as:

- writing email responses
- summarizing team meetings
- managing customer cases
- generating marketing messages

This can help a micro-business grow without having to hire an assistant right away. In a more mature business, it can also help an administrative assistant focus on more value-added tasks.

However, this tool requires digital data to perform effectively. Before adopting one, businesses need digital systems such as Outlook, a CRM or an enterprise resource planning tool.

Erin Kelly and Kenton White,
co-founders, Advanced Symbolics Inc.

Advanced Symbolics Inc.

Using AI to outsmart competitors

About 10 years ago, Erin Kelly was the chief operating officer of an ad agency. She realized that companies would need to find a better way than social media clicks to optimize marketing campaigns—and AI would help.

“I noticed that clicks and likes were not good sales predictors. Let’s say you’re raising money for a charity and people ‘like’ your cause—that doesn’t mean they’ll make a donation,” Kelly says.

Kelly had the idea of developing a tool that could derive behavioural insights by scraping social media data from billions of online posts.

In 2015, she co-founded Ottawa-based start-up Advanced Symbolics Inc. (ASI) with physicist Kenton White.

“I knew what I wanted to do, but I didn’t have the technology,” she says. “Then I met Kenton, and he was doing all sorts of cool things. He said, ‘I measure people the way some scientists measure atoms.’”

They began developing Polly, an AI that learns and predicts the behaviours of target markets to help create more impactful advertising and messaging.

Harnessing the power of AI

Kelly and White had a vision: they wanted Polly to be a “zero-shot” AI, which means it would be able to go straight to work with no training. But building it would require the right people with the right skills.

The company’s staff is almost entirely technical. In addition to Kelly and White, there are nine employees, all but one with advanced degrees in fields like physics or machine learning. Led by White, they made up the research and development team tasked with developing Polly.

While the team worked, the company operated as a regular market research agency, running as a service business and gradually introducing Polly's abilities. Before long, Polly could sift through social media to make predictions about human behaviour for clients.

Polly's name comes from its first project, a study of the "poli"tics of Brexit: Polly made headlines in 2016 after predicting the outcomes of both the Brexit referendum and the U.S. federal election that brought Donald Trump to power.

Achieving a major milestone

In October 2023, Kelly and White finally achieved what they had originally set out to do: Polly became a "zero-shot" AI, and their clients gained direct access to its capabilities through "askpolly," a self-serve AI product and platform.

Before the breakthrough, it could take the company two weeks to train Polly on something a customer wanted to know about.

Today, Polly is protected by 6 patents. "In market research, businesses don't just want to know whether people like their product. They want to know whether people will buy their product," says Kelly. "Getting Polly to achieve that, and then making it zero-shot—that was years in the making."

Kelly's advice on using AI in your business

Determine if AI can help realize your vision

The answer lies in knowing what problems AI tools were built to solve, then figuring out whether a tool exists—or could be customized or invented—to reflect your vision.

"A lot of people think all AI is generative [like ChatGPT]," says Kelly. "But for certain tasks, there are better tools."

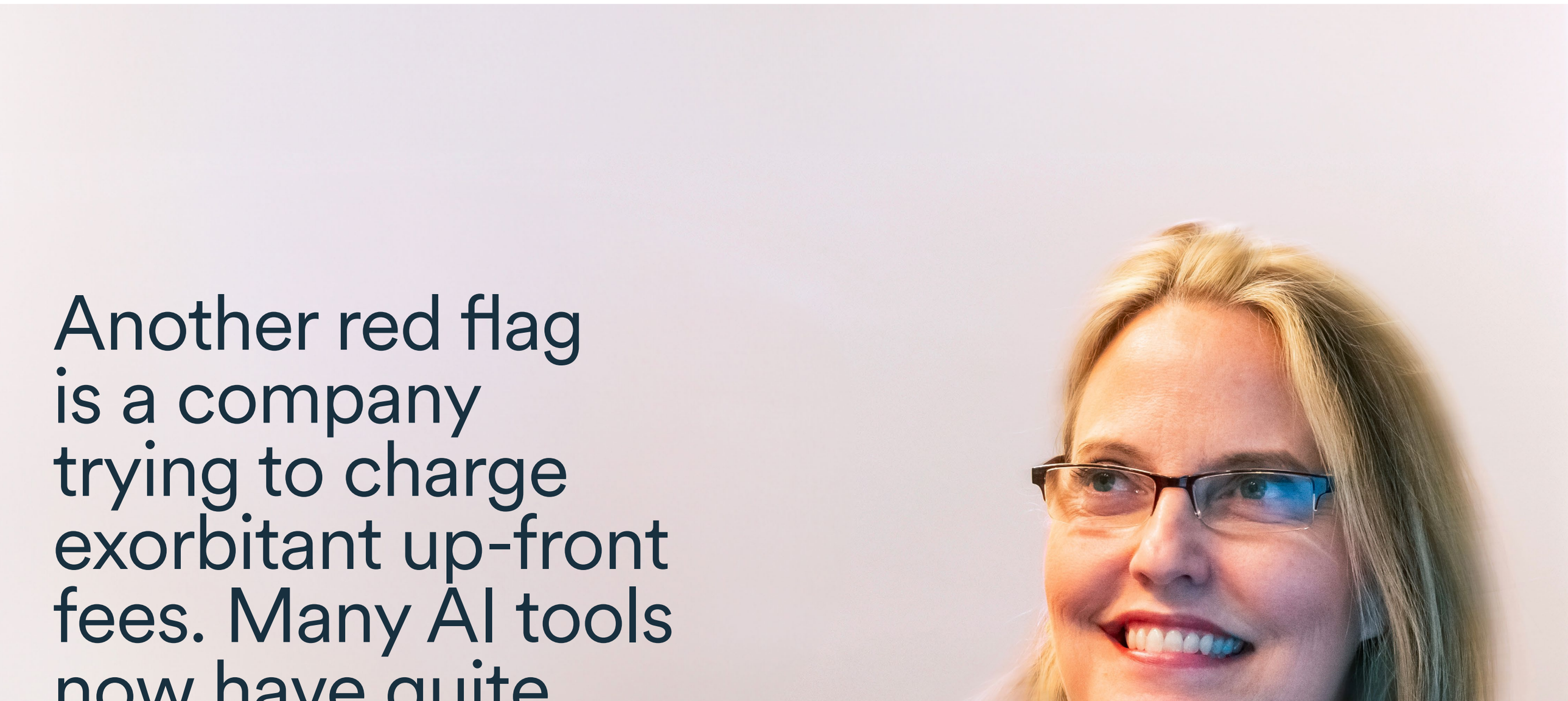
Prioritize out-of-the-box solutions

AI is complex and the technology is constantly changing. Many AI tools must access proprietary data to yield insights, making cybersecurity expertise essential.

For these reasons, Kelly recommends choosing an existing product. But if no out-of-the-box solution will do the job, an external partner might be able to customize or build a tool for you.

Watch out for these red flags when buying AI

Kelly recommends being wary of an AI tool whose provider can't tell you how it works (a "black box" solution). A truly innovative product is likely patented—and therefore, protected—so the company should be able to tell you what's under the covers, she says.



Another red flag is a company trying to charge exorbitant up-front fees. Many AI tools now have quite affordable monthly subscriptions.

Erin Kelly, co-founder,
Advanced Symbolics Inc.

3 tips for getting started with AI

1. Assess your business needs and objectives

Start with a clear digital strategy that aligns with your vision. Identify specific challenges within your organization so you can pinpoint the right AI use cases for your business.

- Think about your business goals for the next year or two. What are your most pressing needs and how could digital technologies address them?
- Based on this analysis, how integral will digital technologies be to your organization? Can a few simple tools meet your goals, or will you need to develop custom solutions?
- Do you have the right team to support your digital requirements, or will you need to hire or outsource experts?

2. Adopt a data-driven culture

To work well, AI needs high-quality data. Let's say you want to use your CRM system's AI feature to generate product recommendations for clients. If your company is not entering leads and opportunities in the system accurately and systematically, the AI will not suggest the correct actions.

- Examine your strategic priorities and the use cases you identified in step 1. If your company manages these tasks manually, your first step is to digitize them.
- If you already use technology for these functions, ensure the data your team has entered is accurate and timely.
- If data quality is poor, build data-entry steps into your processes and enforce them with appropriate quality control.

3. Learn about the different AI options

Many AI tools are available. It is important to choose the ones that best fit your needs in terms of:

- your objectives
- feasibility
- complexity of implementation
- budget

Other BDC resources

Subject	Description
What is AI?	Before you leap into AI, make sure you understand a few things about it, including what it can do right now, what the best use cases are for businesses, and the pros and cons of introducing it.
How can AI help my business?	Discover some of the most popular use cases for AI, as well as a few important facts to know before getting started.
Get started with AI checklist	Identify potential use cases for AI and prepare your business to implement them. This will help you ensure the effective use of your time, effort and resources as you take steps to get started with AI.

Methodology

Survey

The data in this report are from an online survey of 1,247 business owners and business decision-makers on the Forum online panel. The survey was conducted between April 10 and April 23, 2024. Data processing and analysis were performed by the BDC Research and Market Intelligence team.

Weighting factors

Results were weighted by region and number of employees to be representative of the Canadian SME population.

Margin of error

For a probabilistic sample of 1,247 respondents, the maximum margin of error is ± 2.8 percentage points, 19 times out of 20. However, as this survey is based on a non-probabilistic sample, this information is provided for reference only.

Get help digitizing your business

- Talk to our specialists about building a plan to leverage the power of AI in a way that makes sense for your business.
- Explore our flexible financing solutions to invest in technology.

For more information

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