

Technology 45%
Demand 41%
Forces 39%
Change 31%
Partners 16%
Rates 15%
Local 15%
Talent 13%
Other 6%



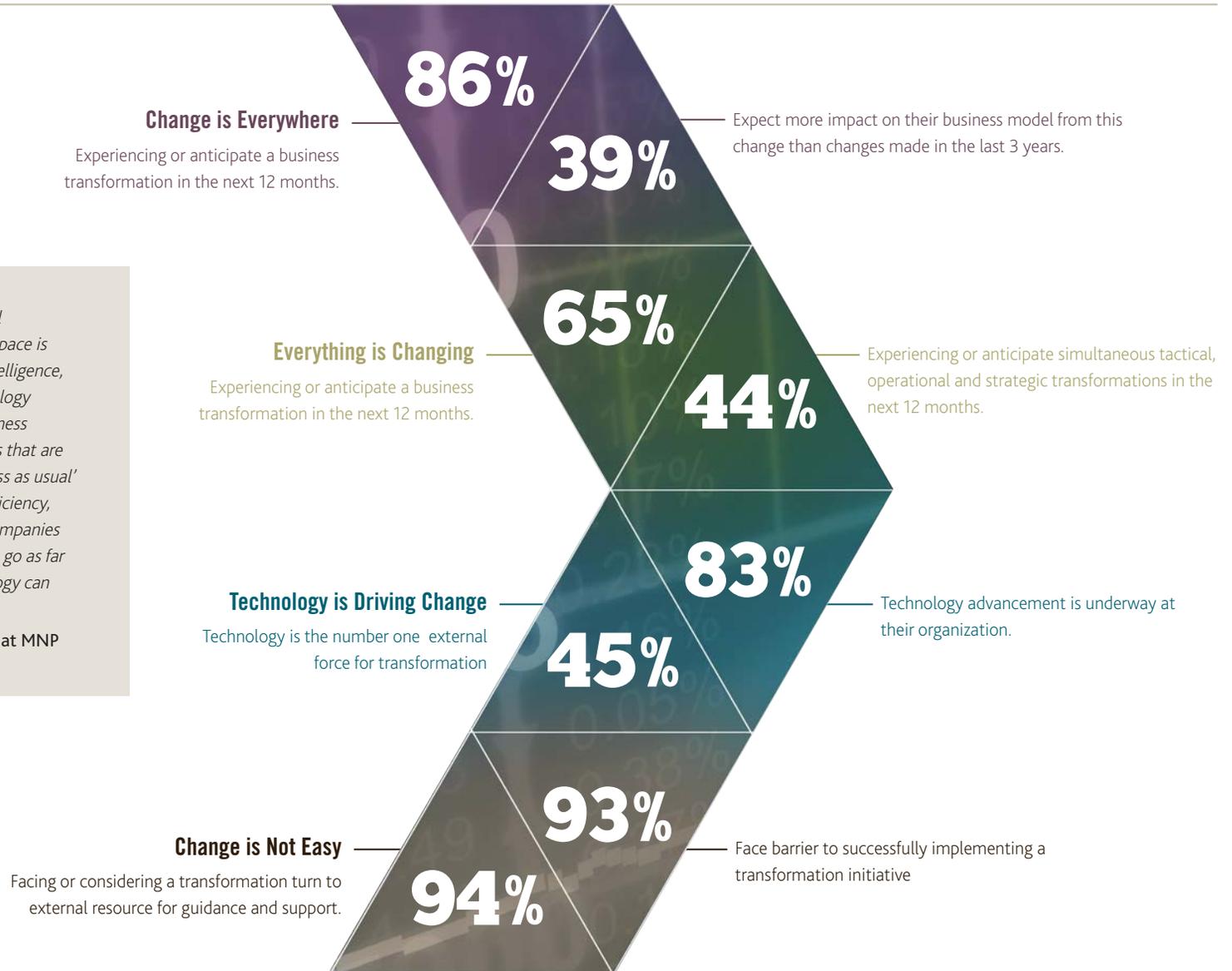
TRANSFORMATION AND TECHNOLOGY SURVEY

CAPTURING THE CHANGE WAVE: How Canadian Businesses are Transforming

Key Findings

"Being able to adapt in a world where technological breakthroughs are happening at an unprecedented pace is critical to business success. Blockchain, artificial intelligence, augmented reality, human-robot interfaces, technology platforms that enable sharing and on-demand business models — these are just some of the advancements that are changing how we live and work. There is no 'business as usual' in this environment. Technologies are increasing efficiency, cutting costs and improving competitiveness for companies willing and ready to adopt them. Entrepreneurs can go as far as their creativity takes them, knowing the technology can make their business ideas a reality."

— Trent Bester, Senior Vice President, Consulting at MNP



Key Findings



“In a time of rapid change, you can’t expect to get by on what has worked in the past. You must be willing to do things differently. Abandon routine — embrace velocity.”

— Futurist Jim Carroll

For Canadian businesses, transformation is no longer an option. A constant reality in today’s converging world of digital, physical and biological change is that businesses must be prepared to adapt. Technological breakthroughs are the new everyday normal and will continue to push businesses to transform and adapt how they operate and what they do to thrive in increasingly competitive markets.

MNP wants to help Canadian businesses understand and ultimately prosper from this transformation wave. We have surveyed Canadian business leaders in multiple industries about the challenges they face keeping pace with change to provide clarity and insights on a way forward.

Between September 25 and October 4, 2017, MNP engaged Ipsos to conduct a quantitative online survey of 1,200 Canadian business decision-makers. The sample was divided equally between smaller businesses (5 to 99 employees) and larger businesses (100+ employees) and weighted by gender and region.

The precision of Ipsos online surveys are calculated via a credibility interval. In this case, the total sample is considered accurate to within +/- 3.2 percentage points, 19 times out of 20, had all Canadian business decision-makers been surveyed. Subset credibility intervals for industry samples are +/- 10.0 percentage points and smaller/larger businesses at +/- 4.6 percentage points.



SECTION 1: The Transformation Tsunami

The rapid evolution and availability of digital technologies has accelerated the pace of business change, created more choices and introduced more complexity for business operators. Within the next two years, the Internet of Things is poised to go mainstream and more than triple the number of interconnected devices to almost 40 billion, significantly expanding access to data and impact the marketplace for goods and services of all kinds. The breadth and depth of change taking place cannot be overstated.

Our survey findings demonstrate a massive wave of transformation is on the verge of impacting nearly all Canadian businesses and industries. The speed, scope and power of new technologies are rapidly improving what many Canadian businesses are doing and how they are doing it and – in many cases — causing businesses to look to reinventing themselves to meet changing market demands.

Your competitors are transforming – are you?

“Change is a threat when done to me, but an opportunity when done by me.”

– Harvard Business Review’s Rosabeth Moss Kanter in *The Change Masters*.

Canadian businesses clearly realize the value of being ahead of change and the competitive advantage in harnessing it. Eighty-six percent of Canadian business decision makers surveyed indicate they are either undergoing or anticipate a business transformation in the next 12 months. For any organizations not thinking about transformation, this is a significant threat and a missed opportunity. Your competitors are already thinking two or three moves ahead.

Technological driven change is impacting every industry and company, regardless of size — not just the largest companies. Eighty-one percent of smaller organizations (5-99 employees) report undergoing or anticipating change versus 91 percent of larger organizations with more than 100 employees. From the largest multinationals to the earliest startups, disruption can come or go anywhere. Successful companies are those that embrace change and are focused on making ongoing improvement part of their DNA.

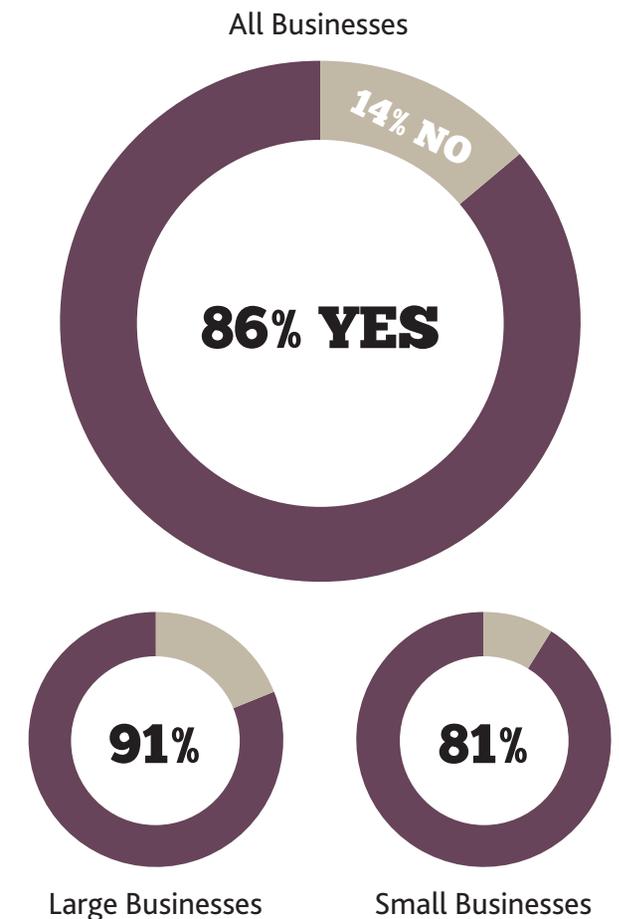
Transformations Big and Small

Change is not limited to just one or two things — everything is currently on the table. The majority of respondents indicate tactical business functions (67 percent) operational business functions (67 percent) and even the very strategic nature of their businesses (65 percent) are currently subject to or undergoing a change. Respondents from larger organizations are more likely to be considering a new course of strategic direction (71 percent) than respondents from smaller organizations (60 percent).

Almost half of Canadian business (44 percent) report their businesses are undergoing or anticipating simultaneous tactical, operational and strategic transformations in the next 12 months.

The future is now

Q: Is your business currently experiencing or anticipating any of these [tactical, operational, strategic] business transformations over the next 12 months?



SECTION 1: The Transformation Tsunami Cont'd

In addition to this amount of change, business decision makers also recognize the change feels like it is more impactful than before. Ninety-four percent of respondents facing a transformation anticipate the impact on their business model will be at least as significant as any other changes made in the last three years. Four in 10 (39 percent) think their current transformation initiatives will be more impactful.

"With all the buzz around change and disruption, it's easy to think of this as a new concept. It isn't. There have always been changes that create better ways of doing business and the entry of new competitors. The internet has forever changed business from strictly brick-and-mortar storefronts to online retailers with warehousing that customers rarely enter. The difference this time is the speed of change, the frequency of disruption, has increased because of technology," says Trent Bester, Senior Vice President, Consulting at MNP.

"All Canadian businesses and organizations need to be aware of the trends impacting their markets and the risks of stagnating" says Bester. For example, retailers are being forced to change because of shifting customer needs. Post-secondary institutions challenged by funding constraints are implementing tactical and operational transformation initiatives, including redesigning their programs and exploring alternative ways to generate revenue beyond tuition. "Among the major risks of undertaking multiple transformations is people getting distracted and doing a lot of things sub optimally versus focusing on key priorities and getting it right. And change fatigue, as people find it difficult to find the time to continue their day-to-day work and work on change projects" he says.

Fear of missing out can drive some businesses to try to replicate the change and transformation they see competitors or similar industries undergoing without fully evaluating the opportunity and what it would mean for their business. Bester notes four best practices on how to mitigate the risks around considering change:

1. Conduct a prioritization exercise at the outset to determine what is critical to the organization. "If you are working on strategic transformation that's changing the business, some of the operational and tactical initiatives may not be relevant any more. We do a lot of work with clients to make sure what they are doing is what they need to be working on."
2. Set expectations around outcomes, timeline and the benefits of the change and communicate this with employees.
3. Continue to communicate throughout the change initiatives so everyone is regularly updated on what is happening. "This will help maintain interest and engagement, particularly if the project is delayed."
4. Put a structure in place around how the projects will be run and have dedicated change resources in place who are completely focused on the projects. "These resources can be internal if you have the expertise or external if you don't."

For more insights on mitigating the risks of change, please contact MNP at: transformation@mnp.ca

Multiple Change is the New Normal

Is your business currently experiencing or anticipating any of these [tactical, operational, strategic] business transformations over the next 12 months? (select all)



Tactical

67% YES

Doing what you are currently doing, better, faster, or cheaper



Operational

67% YES

Doing what you are currently doing but in a fundamentally different way



Strategic

65% YES

Changing the course or direction of company



"[NAME], an importer and distributor of produce, was seeing more customers going directly to growers and importing on their own. A number of new developments that supported this change: improved communication technology, access to information – including growers - and production efficiencies from the growers that allow them to sell in smaller batches profitably. Identifying the source and cause for this change helped the client determine how they had to adjust their business model. Now, their business model is vertically integrated with them not only growing produce, but developing better strains."

Transformation Brings Optimism - But is it Unfounded?

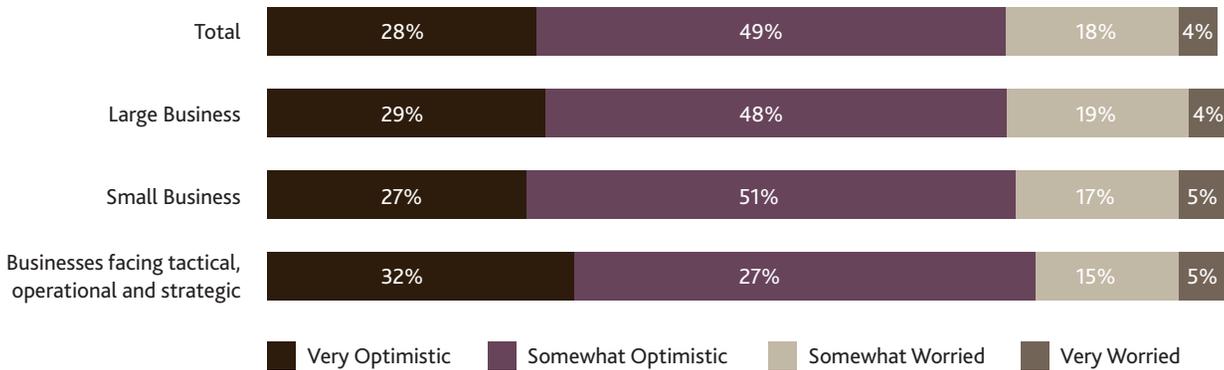
Canada's business leaders are overwhelmingly positive about the outcome of transformation. Just over three-quarters (78 percent) of respondents engaged in a type transformation are optimistic about the outcome. More transformation brings even greater confidence and optimism -- 32 percent of respondents from organizations undertaking three types of transformation are very optimistic.

Why is optimism high? "The current drivers of the need to transform are strong and have created a sense of urgency," says Leslie Dornan, Director, Consulting Services at MNP. "In the private sector, the competition is greater. In the public sector, the current way of doing business is not sustainable. These pressures translate into confidence that change will happen because organizations have to act in order to adapt.

"More attention is being paid to the people aspect of transformation and as a result, more resources are being put into change management and culture shift strategies. All of which points to the fact that executive leadership accepts that change is the way forward."

Steady As She Goes

How would you rate your level of optimism or worry about the outcome of the business transformation?



Hidden within this rosy outlook is the reality that optimism itself doesn't make the actual process of change any quicker or easier. As we detail in Section 2, there are many real and sizeable barriers to achieving transformation outcomes. Canadian businesses should be cautious and not underestimate the amount of effort required to realize the potential of transformation technologies.

From Disruptor to Industry Leader: Westjet's Culture of Transformation

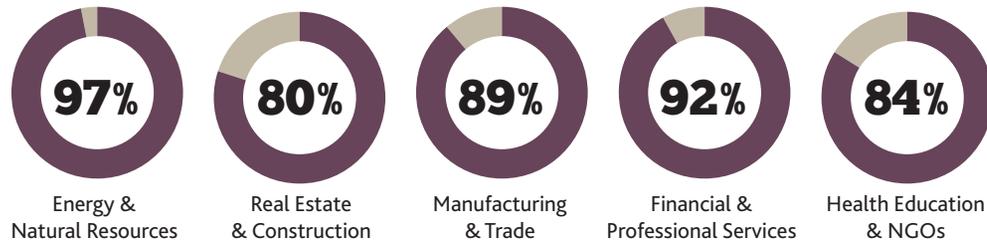
From its first flight on February 29, 1996 as a regional airline, WestJet set itself apart by crafting a made-in-Canada approach to affordable air travel that put people first. Change remains front and centre for the industry leader as it prepares to launch a new discount airline. "Westjet is always looking at how they can serve their market more efficiently from airport to airport. That's part of their business," says Sean Murphy MNP's Ontario Leader, Consulting, "They have to be agile in how they operate to respond to market demands and make changes to their supply of schedules and routes. They are also rethinking their approach to their guest experience and seeing if they can be fundamentally different than their competitors. And they are making strategic decisions about the markets they want to be in.

"Successful companies live by the adage change or die and they approach it with their own cultural values. For Westjet, they fundamentally believe the status quo is unacceptable. That's who they are and it's what has them leading change as opposed to reacting to it."



Industry Profile

Any One Type of Transformation by Industry

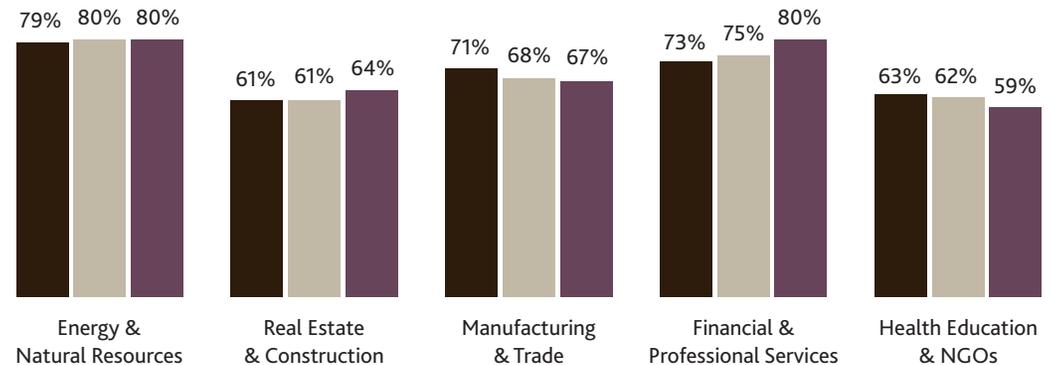


"Oil and gas companies have to find ways to generate the same level of returns by achieving efficiencies they didn't need before the downturn. The industry is seeing how big a role technology has to play in making that happen. Data analytics is providing businesses with reliable, easy ways to assess information. Oil and gas companies are now assessing their input and output at multiple levels to understand where there may be opportunities for improvement in production, cost reduction, or growth. With the amount of change in the sector -- economic, societal, regulatory, and environmental -- doing nothing is not an option."

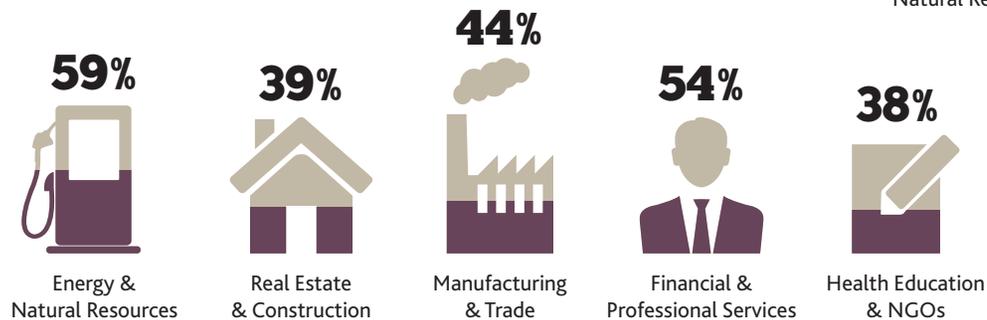
— Jeremy Rondeau, National Leader, Oilfield Services, MNP

Transformation by Type and Industry

- Tactical (Doing what you are currently doing, better, faster, or cheaper)
- Operational (Doing what you are currently doing but in a fundamentally different way)
- Strategic (Changing the course or direction of company)



All Three Types of Transformation by Industry



Financial and professional services companies know that big change is coming because of fintech, cryptocurrencies and blockchain but they aren't sure how to best move forward, so they are undertaking all avenues of transformation. The larger and more mature the organization, the more tied down they are to legacy hardware and infrastructure that previously would have been a source of competitive advantage but is now limiting. Effective transformation starts with leadership recognizing the services they currently offer and the way they are delivering them is changing. If you don't change, the competition, which is benefitting from much more efficient and less costly cloud-based technologies, will take your customers. The key is figuring out how to stay true to your core values as an organization when everything is in motion."

— Doug MacDonald, Financial Services Leader, Ontario, MNP

SECTION 2: Drivers and Barriers of Transformation

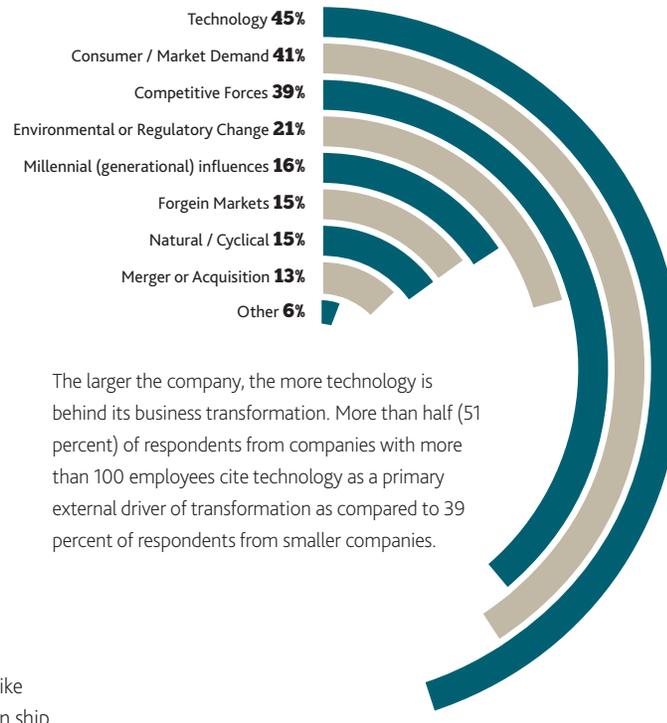
The digital revolution and the ongoing technological advancements it brings is the biggest external force driving transformation, as cited by 45 percent of total respondents. While disruptive technology is the impetus for transformation, the technologies these companies are using to facilitate and accelerate transformation are mostly operational and strategic — not disruptive.

“Technology is the reason businesses disrupt. It would be hard for Amazon to disrupt your local department store if we didn’t have the Internet. It would be hard for Uber to disrupt the taxi industry if we didn’t have smartphones,” says Scott Greenlay, National Director, Technology Solutions at MNP. “From a business and strategic perspective, technology enables new mechanisms for businesses to interact with their customers and that is substantial in its impact and change. For most people running businesses today, when they learned the tools of the trade, none of these channels or mechanisms existed. And it’s all happening fast.”

Our survey findings reflect that change is about harnessing available technology for profitability and meeting consumer needs, more so than keeping pace with emerging technology or innovation needs. “Digital transformation, which in many ways is business transformation, is all about leveraging technology to change the way we find and interact with customers or suppliers like [CLIENT NAME IN TRENT’S EXAMPLE],” says Greenlay. “Now you can ship anywhere, accept payment from anywhere. The ability to reach consumers with your product or service is unlike anything we’ve seen.”

External Drivers of Transformation

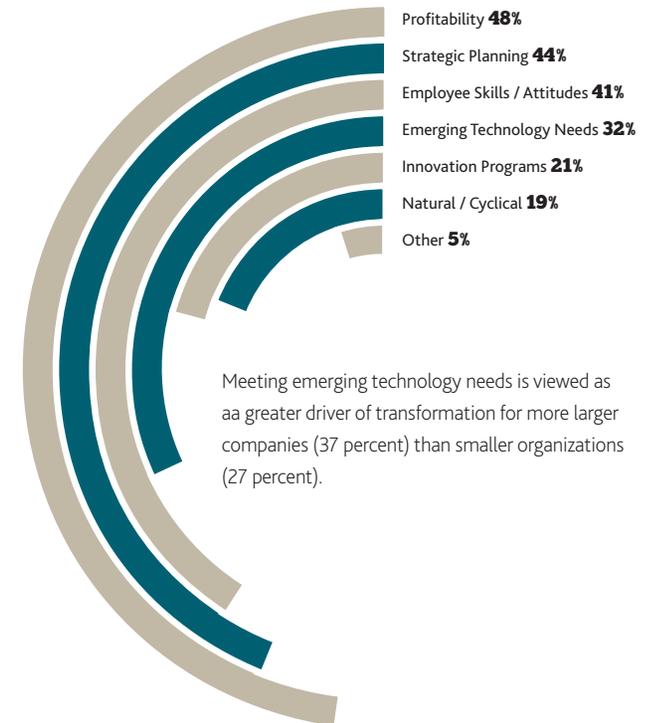
What are the primary external forces behind the business transformation change? (select all)



The larger the company, the more technology is behind its business transformation. More than half (51 percent) of respondents from companies with more than 100 employees cite technology as a primary external driver of transformation as compared to 39 percent of respondents from smaller companies.

Internal Drivers of Transformation

What are the primary primary internal forces behind the business transformation change? (select all)



Meeting emerging technology needs is viewed as a greater driver of transformation for more larger companies (37 percent) than smaller organizations (27 percent).

Fear is often also an important motivator, specifically as it relates to a lack of understanding about the value of technology. Some leaders react in fear to seeing what competitors and companies such as WealthSimple, Shopify and Hootsuite are able to do. “Reacting in fear is one way to move forward. But a more successful way is to get innovative with the products and services you are offering, leveraging the technology tools we have today and in some cases, anticipating the technology of tomorrow,” says Greenlay. “For example, many people are anticipating that blockchain will become a mature technology. So they are already making the investments because they’ve seen what happens when you are late to the dance with a technology innovation. Our role is to help businesses leverage technologies so they can compete, bring on new customers and grow.”

What's Standing in the Way of Progress?

The most reported barrier is cost, as reported by 32 percent of respondents, followed closely by lack of skilled people to lead the change (reported by 28 percent of respondents) and market complexity (reported by 25 percent of respondents).

While Canadian business leadership understands the need for change and what they want to achieve, there are differing opinions among leadership on whether there are available resources and a clear path to get there. Executives we surveyed were more than twice as likely to see no hinderances to change (12 percent) than managers and directors (5 percent).

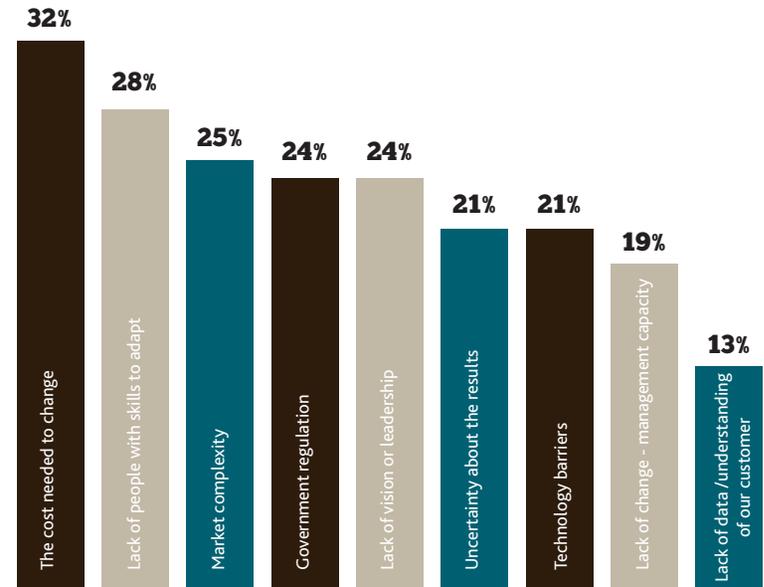
"As you move further down the chain of command the road to transformation is muddled with potential barriers" says MNP's Bester. "Managers and directors live the day-to-day challenges of trying to maintain the business while also performing the hands-on work required to facilitate transformation, If the nature of the desired transformation is not communicated effectively from leadership, managers and directors are left to interpret key objectives and quite often goals can be lost in translation or disregarded —particularly when not properly funded or resourced."

"Transformation success ultimately comes down to how you structure and fund the team driving the transformation, gaining buy-in from employees and ensuring you are focusing on the right areas to transform," says Greenlay. He points out four steps to a successful transformation:

- 1. Launch** – It is important to recognize transformation is a process. It has to have a formal start. It needs the attention of the leadership of the firm. The team composition of the transformation team is important – it needs to have positive enthusiasm, the ability to think "outside the box" and they must see technology as something to be leveraged. Gather the team, talk about the vision, strategy, and the opportunity and then challenge all assumptions.
- 2. Ideate** – It is critical to think about new ideas and approaches. How will the firm reach new clients? How will the firm better serve existing clients? Avoid the trap of only focusing on competitors - learn from other industries. Critically, remember ideas take time – and a stress-free mindset – if the team is occupied with operations it will be hard to be creative.
- 3. Prototype** – "Try It", "Fail Fast" and "Small Bets" are the watch words for exploring the ideas brought forward. Big and complex ideas can be broken down into smaller, short incremental steps to a larger objective while keeping momentum. Avoid the trap of seeking a large, "perfect solution". Consider a "bet on two ponies" strategy – pursuing two or three good ideas, "small bets", provides diversity, reduces risk and allows focuses the team on experimenting rather than perfection.
- 4. Mature** – Once prototypes start to show potential, keep building on the success and momentum. Grow the prototypes incrementally, with a focus on continued improvement, and continued building. And finally, repeat the cycle – truly transformative organizations repeat this cycle continually.

Potential for Adversity

What barriers exist that may hinder the success of your business transformation? (select all)



Technology is mentioned more often as a barrier for large businesses (25 percent) than small businesses (18 percent), reflecting the fact many larger, more mature organizations are faced with replacing costly outdated legacy infrastructure to maintain or improve their competitiveness.

"This approach helps bring more predictable results to clients," says Greenlay. "Using a proven process for your transformation will help increase success and reduce risk. Don't be afraid to get some help, especially for the first few iterations of the Launch-Ideate-Prototype-Mature cycle."

For more information on the four steps to successful transformations, contact MNP at: transformation@mnpc.ca

Most Businesses Don't Attempt to Go It Alone

When facing change, Canada's business leader's overwhelming report they have reached out to external support to achieve their transformation goals. Our survey found 94 percent of companies undergoing a transformation used external services to anticipate or react to the forces of change. And in most cases, multiple types of support were needed: more than two-thirds of those experiencing or anticipating business transformation (68 percent) used at least three different types of external support to deal with change and 26 percent used at least five. Organizations facing multiple transformations were the most likely to rely on multiple types of support.

The most used external supports related to technology and data collection / analysis. Three quarters of all Canadian businesses have used a technology support provider to help manager their transformation. Nearly the same number (74 percent) have reached out externally for data collection and analysis. Technology and data analysis are more specialized areas where many organization do not have the technical skills, processes or the capacity necessary to drive transformation, but recognize the need transform and want to borrow skills when they can. Consultants help fill organizations holes, offer access to the experience from those that have been down the road multiple times and provide important advice on the direction to take.

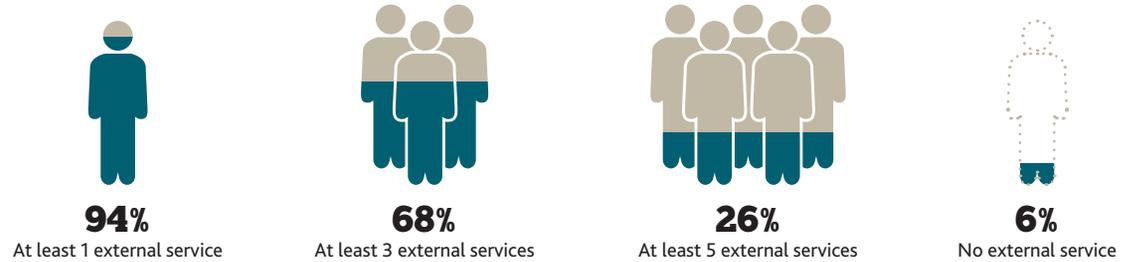
Larger organizations are more likely to use external consultants than smaller organizations. "Scale is the difference between the needs of large and small organizations," says Leslie Dorman, Director, Consulting Services, MNP

"Larger organizations are installing significant cross-departmental systems while smaller organizations, which don't have the same resources, are more likely to just do what they need to do. Even if they are installing integrated systems, the scale is much smaller."

[ADD CLIENT QUOTE ON VALUE OF EXTERNAL SERVICES]

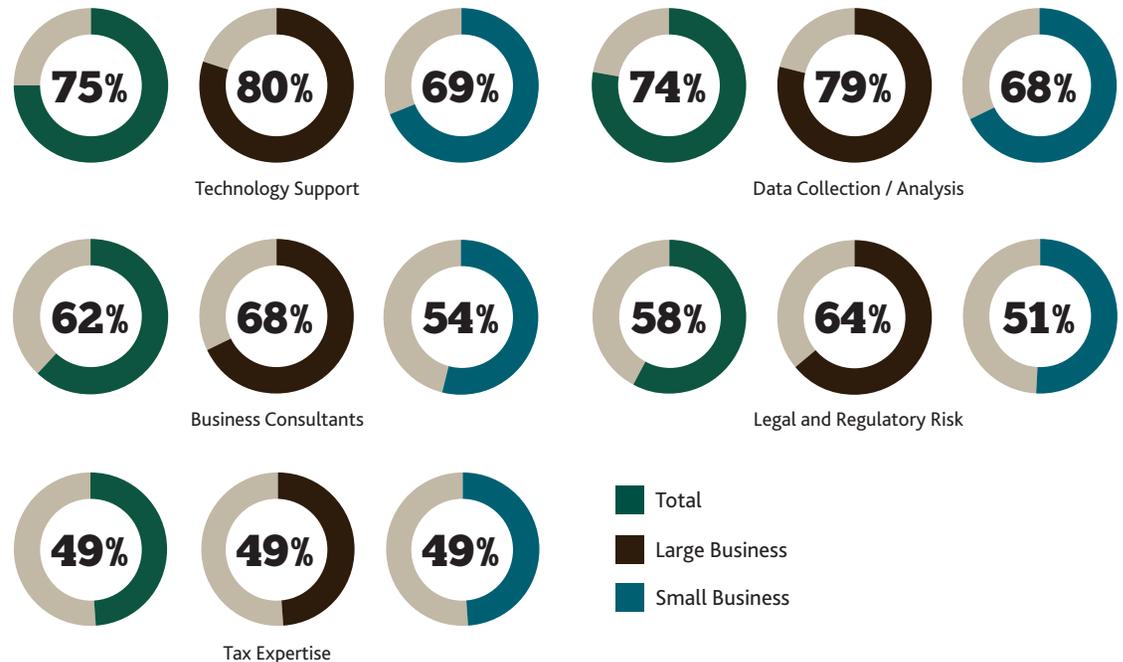
Any One Type of Transformation by Industry

Have you used the following external services to anticipate or react to transformative forces? (select all)



Any One Type of Transformation by Industry

Have you used the following external services to anticipate or react to transformative forces? (select all)



The Transformation End Game

What do Canada's businesses expect as outcomes from the current wave of transformations? From our survey results, it is clear they believe technology will accelerate the traditional keys to business sustainability and growth: new products, the capacity to better capture opportunity through reorganization, better service delivery models and to diversify or focus. Businesses anticipate change will bring cost reduction from efficiency improvements, a quicker path to future technology benefits and more collaboration with supplier and vendors — all core elements growth and sustainability. "Specifically, in the public sector, cost containment is driving transformation. There is no appetite for governments to increase tax to generate revenue, so organizations in this space are looking at new, less expensive ways to operate. They are internally focused on productivity," says Dornan. "In private sector, the focus is on improving the client experience to increase sales and maintain or grow market share."

Industry dynamics strongly influence the desired outcomes of transformation. The competitive environment, ability and capacity to innovate, regulatory restrictions, and access to capital will vary by business sector. Manufacturers are most likely to be introducing new product offerings, while companies in the energy / natural resources and real estate and construction industries are more likely to be preparing for a business expansion or contraction. Decision makers working in health, education or NGOs are more likely to report their companies are experiencing an internal reorganization.

What are Canadian Businesses Hoping to Achieve

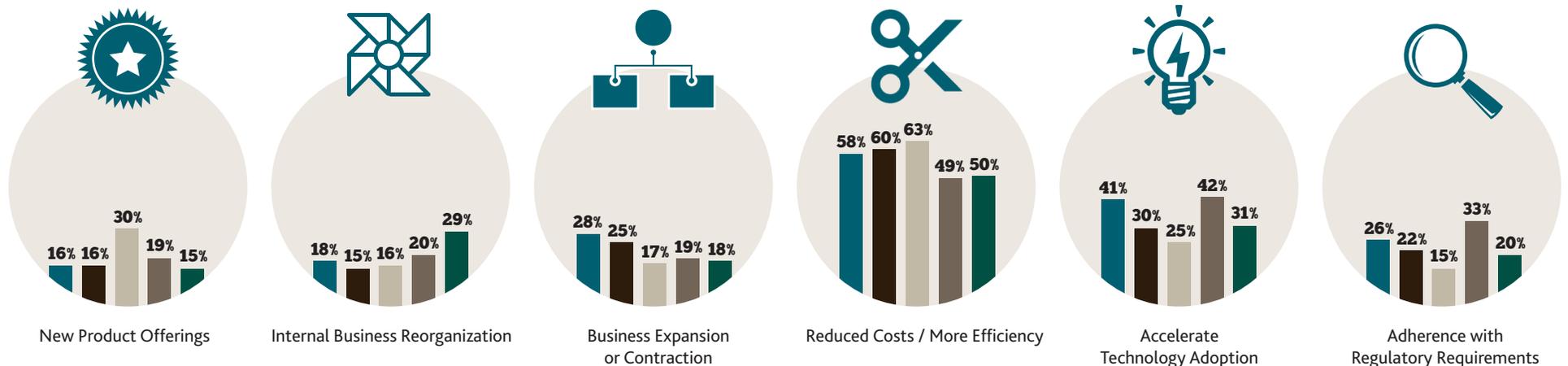
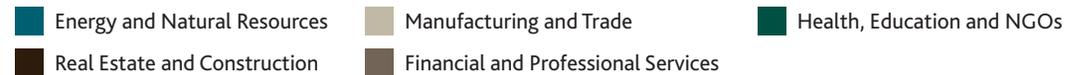
What is the primary nature of the business transformation? (select one)



What additional benefits, if any, do you expect as an outcome of the transformation? (select all)



Outcomes and Benefits by Industry



SECTION 3: How Technology is Transforming Canadian Businesses

Most (83%) Canada's businesses are currently involved in a technology-based transformation. By and large, these businesses are still early in their digital transformation journey — the advancements underway are focused on leveraging the more mainstream networking technologies consumers already possess. "This is the start of an important shift," says Sean Murphy, Regional Leader, Ontario, Consulting, MNP. "Twenty years ago, IT departments were driving technology investments. In many cases, these solutions were not tied to addressing business needs and those investments failed. The reverse is happening today. The chief operating officer or the chief marketing officer is using a consumer focus to directing technology transformation initiatives. IT is more often the enabler, not the leader."

Platform Integration is the Transformation King

Leading the charge in technology-based change is the trend towards platform integration. Nearly one in four businesses (38 percent) report they are current involved in some platform integration efforts, particularly cloud-based services. Of those engaging in platform integration, 68 percent use a cloud based service.

"All systems need to work together for the big picture to emerge," says Murphy. "When technology is bolted on, piecemeal, the results are short term. Ultimately, platform integration leads to efficiency and cost reductions, more useful and relevant products and services and greater flexibility within an organization to adapt to external changes. If the technology is attractive to employees, it is also a tool to attract and retain talent."

Platform integration produces a number of transformative effects on organizations. As measured in our survey, these changes include:

- Enhancement / efficiency of the value chain, reported by 36 percent
- Impact on hiring pool/skill levels, reported by 33 percent
- Fewer in-house solutions with a reliance on external tools, reported by 30 percent
- Fewer external partners, larger partner / vendor relationship, reported by 26 percent

"Integrating customer relationship management software with our existing technology platforms has enabled our organizations to enhance functionality, better manage risk, reduce our operating costs and ultimately serve our community better."

— Bruce Langevin, Director General and CIO, National Sciences and Engineering Council of Canada and the Social Sciences and Humanities Research Council of Canada

Canada's Active Technology Change Agenda

Which of the following technology advancements are underway in your organization?



Going Digital. What Does it mean?

In what ways is digital technology and technology enhancements in products and services transforming in your organization? (select all)

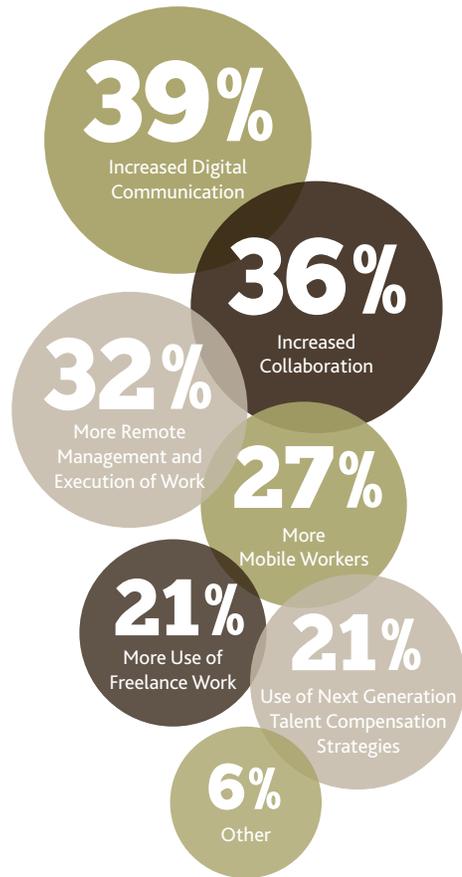


Delivering Digital Products and Services that Meet Consumers' Needs

Digital enhancements to products and services, such as the development of new apps or cloud delivery, are reported to be underway in 36 percent of businesses. As reported earlier, respondents indicate they are largely taking their cues from consumers on the nature of these changes. The majority (63 percent) are upgrading their hardware and software, 41 percent are developing apps and 38 percent are using the cloud to deliver their goods and services.

Technology Changing the Nature of Work

In what ways is technology driven changes to workforce / workplace models transforming in your organization? (select all)



The more sophisticated and strategic technologies have not yet become mainstream in Canada and play less of a role. The Internet of Things is being employed by 29 percent of total respondents to improve products and services. Artificial intelligence (17 percent), virtual reality (15 percent) and augmented reality (9 percent) are still too new for many and have seen lower levels of adoption to this point.

"Technology allows you to have more information about your client than you were able to get at easily before and you can share that information across more people in your organization than in the past. This means we can provide better service and more relevant products to the client. That's a huge win for business," says Greenlay, MNP's Technology Solutions' national director. "For example, furniture retailers know there is a journey consumers go through in their lifetime. By capturing where consumers are on that journey, they can offer ideas and products relevant to them at any given time. Businesses are also always trying to be more efficient, to get rid of the tedious, routine work. This frees up talent to spend more time around the customer, which as human beings we enjoy more, builds engagement and helps attract and retain top talent."

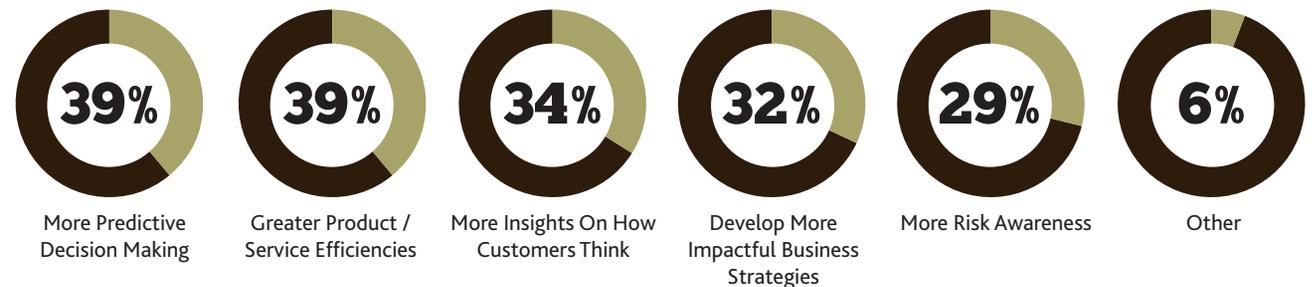
Where will you look for your next hire?

Technology advancements to the nature of work and workplace, such as online skills marketplaces like Upwork and the use of productivity tools like Skype and go-to-meeting are also gaining in use across Canadian businesses; almost a third of businesses (32 percent) report technology advancements underway in this area.

"Technology has transformed how and where we work. The smart use of technology enables organizations to provide a product or service in a better way. There is no need to be in the same room with clients or colleagues to be productive" says MNP's Dornan. "We are seeing technology systems that allow people to work remotely and access information and documents from servers at work. Millennials certainly want the freedom to work when and wherever they want to work and the technology supports that. At the same time, there is a move on the part of organizations to structure work around projects and to pay for results / performance, which is leading to a shift in compensation strategies. For their part, millennials want to be compensated based on performance."

More Data Equals Better Decisions

In what ways is data analytic technology transforming in your organization? (select all)



The Rise of Data-Driven Decision Making

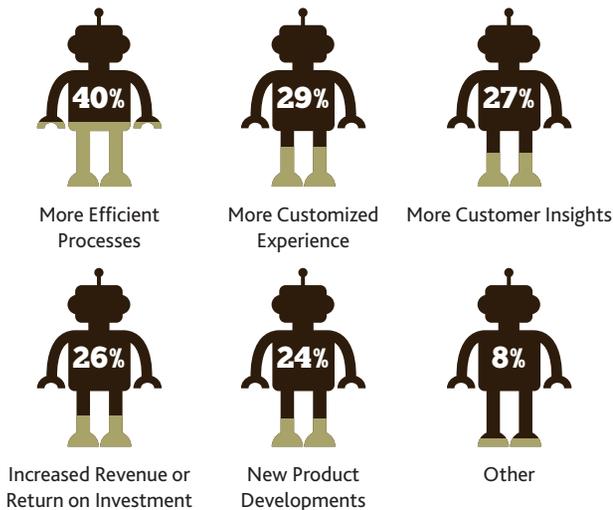
More Than Just Building a Better Firewall

In what ways is focus on digital trust transforming in your organization? (select all)



Rise of the Machines

In what ways is Artificial Intelligence transforming your organization? (select all)



Over the last five years, the proliferation of technology advancements such as the Internet of Things has placed miniature digital data collectors in more places than ever. As a result, a tipping point happened around the amount of data being generated, combined with the dramatic decrease in the cost of data storage and analytic systems because of cloud technology. The confluence of these events and the coverage data analytics has received in the media is causing more companies to look at how they can use data and the value they can derive it from it. Our survey found 28% of Canadian businesses are currently using data analytics and business intelligence technology to further their business goals.

“Those using data well have a clear competitive advantage. Amazon is destroying its competition because it understands how to extract insights from data,” says Richard Arthurs, National Leader, Data and Information Dynamics, MNP. “As organizations figure this out, deriving business insights will be part of everyone’s job and role and the way business is run. Data analytics will be as common as Excel on your laptop. Eventually, all technologies will have some link to analytical insight. It’s the fuel for disruption.”

Protecting Data: The Next Wave of Technology Growth

Digital trust technologies continue to grow in importance to businesses in Canada with every cyber breach media story and high-profile business’s failure to protect their client’s data. This new reality has not been missed by Canadian businesses: more than a quarter (27%) indicate they are currently in the process of advancing their digital trust technologies.

For Canadian businesses, their digital trust investment is not just about new ways of finding areas of vulnerability and loss prevention. It’s also about security data threat identification, real time monitoring and analysis, better control over access to data and enhancing their incidence response capacity. For almost half (46%) of those currently advancing their digital trust technology, the emerging security data / transaction technology blockchain is something they have considered.

“Trust is the building block of the digital economy. Thanks to the Internet, the ability of machines to learn and talk to each other and technologies such as blockchain, we now trust that it’s safe to do business on the Internet. Because it is a distributed ledger, there is no one owner and every transaction is transparent. In addition to enabling trusted transactions, blockchain is driving out inefficiencies and reducing costs.”

— Scott Greenlay, National Director, Technology Solutions, MNP

The Early Days of Artificial Intelligence

Notably, only 16 percent of Canadian businesses report a current level of activity in the development of artificial intelligence technology. Although AI lacks the visibility and profile of other technology transformations, it is already embedded in one form or another in many mainstream technology solutions. “In accounting, AI with machine learning allows us to look at transactions and find things in those transactions that might point out inefficiencies and trends,” says Greenlay. “Retailers are using AI to capture and analyze consumer behaviors. In banking, AI is being used in customer support and to automate routine transactions. It’s still early days, but AI will grow in visibility and importance.”

Still, many businesses don’t quite understand what it is or how to take advantage of it. “AI is not about robots taking over the world. AI is being applied in gaining better insights from all the volume of data now available because of the Internet of Things and connected devices,” he says. For those businesses engaged in AI, the top reported benefit is more efficient processes, followed by more customized experiences, more customer insights, increased revenues and new products.

The Impact of Technology on Your Change Agenda

The industries that reported the largest degree of transformation in our survey, energy and natural resource and financial and professional sectors, are also those reporting the most technology-based influences fueling the changes to their organization.

Energy and natural resources companies are dealing with the fallout from the significant drop in oil prices and production which continues to put pressure on profit margins. "They are being forced to look at their businesses and business models and adjust course," says Jeremy Rondeau, MNP Vice President, Oilfield Services. "Small and large companies are turning to technology to help them gain insights into what their customers are doing. If their customers are scaling back, they need to respond accordingly in a timely manner. They are also looking internally at their own processes and costs with an eye to improving efficiency and containing costs."

For financial and professional services, the challenge is one of maintaining and growing market share in a highly competitive space where customer relationships are critical. "On the one hand, for financial services, core products, such as accounts and credit cards, are becoming commodities.

On the other hand, non-financial/professional services players such as Google, Apple, Facebook and Amazon know more about your customers and what they need than you do," says Doug MacDonald, Financial Services Leader, MNP's Ontario region. "If financial and professional services companies don't get smarter about data to better service their customers, then lower-cost providers and non-bank competitors with better insights will take them."

Organizations and businesses from the energy and natural resources and financial and professional sectors also have notably higher usage of specific types of technology, including platform integration, data analytics and AI. Respondents from the real estate and construction, manufacturing and trade and health, education and non-governmental organizations, cite technology transformation in products and services as their most significant force driving change.

Unique Change Dynamics at Play in Each Industry

To what extent are the following technology advancements a force for transforming your organization? (significant + moderate)?

