

Table of Contents

› 1 Executive Summary Page 5	› 2 Terminology & definitions Page 9	› 3 Purpose of the report Page 13
› 4 Research approach & methodology Page 17	› 5 Respondent organisation profile Page 23	› 6 The BCX Digital Innovation Index Page 27
› 7 Factors impacting innovation across sectors Page 39	› 8 Digital factors & opportunities Page 105	› 9 Conclusion Page 117
› 10 Appendix Page 119	› 11 Author & contributor profiles Page 121	

1

Executive Summary





As the global business landscape continues to evolve at an unprecedented pace, digital innovation has become a cornerstone for achieving and sustaining competitive advantage.

Digital technologies continue to be at the forefront of innovation efforts in South Africa. With companies looking to adopt advanced technologies like artificial intelligence (AI), cloud computing, and low-code platforms, the drive to become more efficient and enhance customer experiences to drive growth is clear.

However, the rapid evolution of technological change does not come without its challenges. This is especially the case for large companies that are still reliant on legacy systems. It is therefore essential to balance the need for digital transformation with the agility required to experiment with new technologies.

The BCX Digital Innovation Index, a collaborative effort with EY Parthenon, builds on the foundation of last year's edition to provide decision-makers with an in-depth exploration of how South African organisations are navigating the innovation environment. This year, the report includes insights from 60 organisations, with the addition of 27 participants, providing a comprehensive view of the current state of digital innovation across the country.

It explores the complex interplay between various internal and external drivers that uniquely affect each economic sector. Drawing upon data gleaned from questionnaires and interviews with senior leaders from 60 notable institutions, the report delineates the multifaceted challenges and prospects tied to the pursuit of digital innovation. The study classifies South African organisations into four discernible categories: 'Excellent', 'Maturing', 'Emergent', and 'Nascent', each presenting different approaches and stages of development in pursuing innovation.

One of the key highlights of the report is how important most respondents see innovation within their businesses. In fact, many of the companies surveyed have embedded innovation into their broader business strategies reflecting how this has become a driver for growth and sustainability.

The report highlights how investing in innovation is one of the decisive factors when it comes to determining a company's success. The BCX Digital Innovation Index also underscores the importance of external partnerships when it comes to driving innovation. Many organisations are increasingly turning to external collaborators to supplement their internal capabilities, particularly in areas where local expertise is limited.

This trend reflects a growing recognition that successful innovation often requires a blend of internal strengths and external insights. Even so, the continued shortage of digital talent in South Africa remains a significant hurdle. Many local businesses are struggling to find and retain the skills needed to drive their innovation agendas.

Fortunately, the 2024 Index shows that decision-makers are increasingly accepting risk and failure as essential to the innovation process. Companies are moving towards fostering cultures that encourage experimentation and learning from setbacks. This shift has been shown to be vital to unlock the full potential of innovation. In turn, this empowers organisations to explore new business models and customer experiences without fear of failure.

The South African economic landscape provides both opportunities and challenges when it comes to innovation. While there is cautious optimism from respondents, many are turning to innovation as an intervention to mitigate economic and regulatory uncertainties. Unfortunately, the ongoing geopolitical tensions, coupled with local challenges such as infrastructure constraints and political instability leading up to the elections, continue to impact the pace of innovation.

The 2024 BCX Innovation Index offers a comprehensive roadmap for South African organisations seeking to achieve innovation excellence.

By focusing on the core pillars of strategy, investment, operating model, skills, and culture, the report provides actionable insights for organisations at every stage of their innovation journey.

As South Africa continues to grapple with both challenges and opportunities, the ability to innovate will be a key determinant of long-term success.

2

Terminology & definitions



Innovation

A new idea or invention that creates a new or transforms an existing process, product, service or business model that creates value for the organisation or for which customers will pay.

In this report, we define innovation broadly to include the development of new products, services, processes, and business, in new or adjacent markets, across horizons, from incremental improvements to transformational or disruptive innovation.

Our definition of innovation encompasses digital innovation as digital assets and capabilities are typically a key enabler or ingredient to innovation in this day and age.

Digitalisation

Digitalisation 'refers to the transformation of traditional, often manual, operations into digital formats through the application of modern technology. This involves converting tangible objects or existing procedures into digital data that can be stored, analysed, and manipulated with electronic devices and specialised software. The end result is a more streamlined, efficient, and accessible way of conducting business.

Innovation enablers

Trends, capabilities, tools or ways of working that support the delivery and success of innovation initiatives born either within an organisation or its broader environment.

Innovation inhibitors

Factors that cause a slowdown or halt to innovation efforts or initiatives.

Innovation triggers

Factors within an organisation's external or internal environment that drive or motivate an organisation to pursue digital innovation.

Digital

In the business context, 'digital' refers to the use of numerical data, coded as bits and bytes, for the storage, transmission, and processing of information. Unlike analogue methods, which use a continuous range of values, digital techniques convert information into a format that can be easily managed and manipulated by electronic devices such as computers and smartphones. This digital framework is the foundation for technologies that drive modern businesses, including the internet, cloud computing, and data analytics.

Digital transformation

Adoption of digital technology by an organisation to enhance any non-digital products, services or operations within the organisation with the ultimate goal of increasing value for customers, employees and or improving organisational efficiency.

Capability

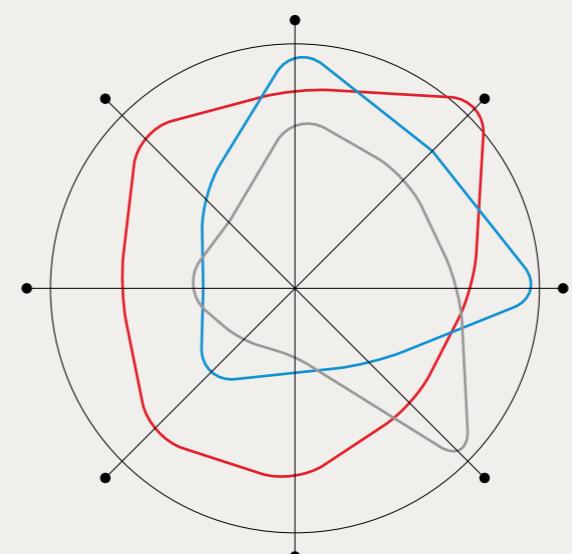
A combination of knowledge, skills and resources that create competence in achieving certain objectives.

Business transformation

A fundamental change to a businesses' operations, process, people or systems to enhance its operational or financial position or to better align with its strategy or vision.

Public sector

The public sector refers to organisations that operate under a statutory mandate, which is a formal instruction or authority granted through legislation passed by the government. This statutory mandate sets out the responsibilities, powers, and framework within which these organisations must operate. It is a legally binding directive that governs the structure, functions, and goals of public sector organizations.



3

Purpose of the report





In our digital age, the introduction of new technologies, the emergence of disruptors within and across industries, and rapidly evolving customer expectations present both challenges and opportunities for existing business models.

To compete effectively in such a climate, businesses today must stay close to their customers and continually challenge the status quo that has sustained their performance in the past. They need to re-evaluate how they conduct business and serve customers, adapting their practices to reduce costs and tap into new value streams.

The current wave of digital transformation, supported by the wealth of data and the growing accessibility of technological tools, provides significant opportunities for businesses. When applied effectively, these tools can transform businesses in terms of achieving operational efficiencies and unlocking new areas of value. Innovation, which includes digital innovation like introducing a new process, product, service, or business model, remains a powerful force, enabling organisations to transition into a transformed or re-invented version of themselves.

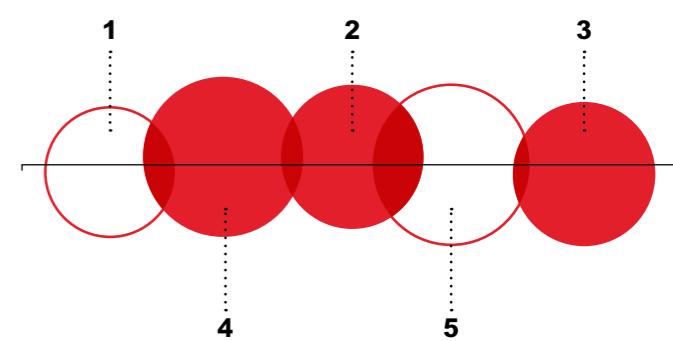
While being nimble and agile allows start-up companies to quickly identify and act on opportunities, large incumbents operate from a sturdy yet slower foundation, navigating these dynamic times. Their substantial asset and customer bases, coupled with established practices, often lead to a more cautious approach to risk and a measured exploration of growth through innovation. For large, well-established organisations, the pursuit of innovation presents a distinct set of challenges compared to start-ups.

With this perspective, the BCX Digital Innovation Index report, a pioneering study centred on big business in South Africa, seeks to unveil how large entities in both the private and public sector are approaching innovation. It aims to illuminate the factors that either stimulate or impede digital innovation and growth on both a national and sectoral scale.

The second edition of the BCX Digital Innovation Index offers a benchmark for major South African organisations, guiding them in refining their innovation strategies to tackle challenges and leverage innovation drivers within the local context.

The index evaluates how organisations are structured to champion innovation across five pivotal areas, termed the 'building blocks' of Innovation Excellence.

Additionally, the report delves into the interplay between these building blocks, examining how they synergise or amplify efforts towards achieving innovation excellence. It also explores how various internal and external drivers impact each sector of the economy in unique ways.



4

Research approach & methodology



In South Africa, large organisations confront the dual challenge of maintaining consistent service delivery and operations while also preparing for the future through innovative practices.

Gaining insight into how these entities strategize for success in innovation can offer a deeper understanding of both the opportunities and challenges inherent to the South African context.

The 2nd edition of this comprehensive study, a collaborative effort between BCX and EY-Parthenon, delves into the innovation landscape of South Africa's major organisations. By combining data from both surveys and in-depth interviews with senior leaders from 27 leading organisations this year, we provide a holistic view of innovation practices across varied organisations. Additionally, this edition has included the public sector, bringing in interesting insights on the experiences of public organisations.

Our mixed-methods approach not only offers a close-up view of innovation in South Africa but also ensures the confidentiality of specific business activities when presenting our findings.

The BCX Digital Innovation Index serves as a tool to evaluate organisations across five distinct business elements, referred to as 'building blocks'.



Organisations are assessed and scored based on survey statements or through a series of questions posed during interviews.

This scoring system allows for benchmarking each organisation against its South African peers. Our research team meticulously analysed the assessment results, assigning an innovation archetype that encapsulates an organisation's position on the BCX Digital Innovation Index. This also enabled us to draw insights from consolidated sector experience.

It's important to note that while our approach offers a snapshot of current practices, it doesn't project the future innovation ambitions and efforts of the organisations.

The foundation of BCX Digital Innovation Index framework and formula is built upon industry best practices, innovation theory, and the extensive knowledge and experience of EY. While our analysis incorporates data from 27 organisations this year, it's crucial to understand that EY did not conduct any audit work. Furthermore, they did not undertake any procedures to verify the accuracy of the information provided by the participating organisations. The

responsibility for the content and conclusions of this report is expressly limited to BCX and any other party with whom there exists a written agreement concerning a duty of care. Any other parties choosing to rely on this report's contents do so entirely at their own discretion.

Evaluating the practices and factors that either support or impede innovation is not a straightforward task. The conclusions we've drawn are inherently subjective, relying heavily on self-assessment reported by the participant and our innovation practitioners individual experience.

To ensure the robustness of our research, we adhered to certain design principles. These principles, inspired by best practices in study design, played a pivotal role in shaping both the development of the Index Framework and our data collection approach.



These guiding principles are:

Respect Confidentiality

The survey questions sought to preserve the confidentiality of respondents and their organisations. They were designed to avoid revealing the content of the company strategy or details of any project or investment. Every respondent had the choice about whether the identity of their organisation would be disclosed in the report.

Avoid Cognitive Bias

An attempt was made to formulate questions logically, and to design the survey to avoid cognitive biases from the researchers' perspective, such as circular reasoning or confirmation bias.

Not Leading

Questions were posed objectively and did not suggest to respondents that there could be a right or wrong answer.

Unambiguous

The survey sought to provide clear questions and answer options, that were easy to understand. They were designed to leave no room for doubt, misunderstanding, or confusion, ensuring respondents could accurately determine what was being asked.

Clear Articulation and Structure

The survey and interview started by clearly articulating the aims of the study, setting expectations with respondents at the outset. The questions were organised in a logical structure, with intuitive transitions between sections.

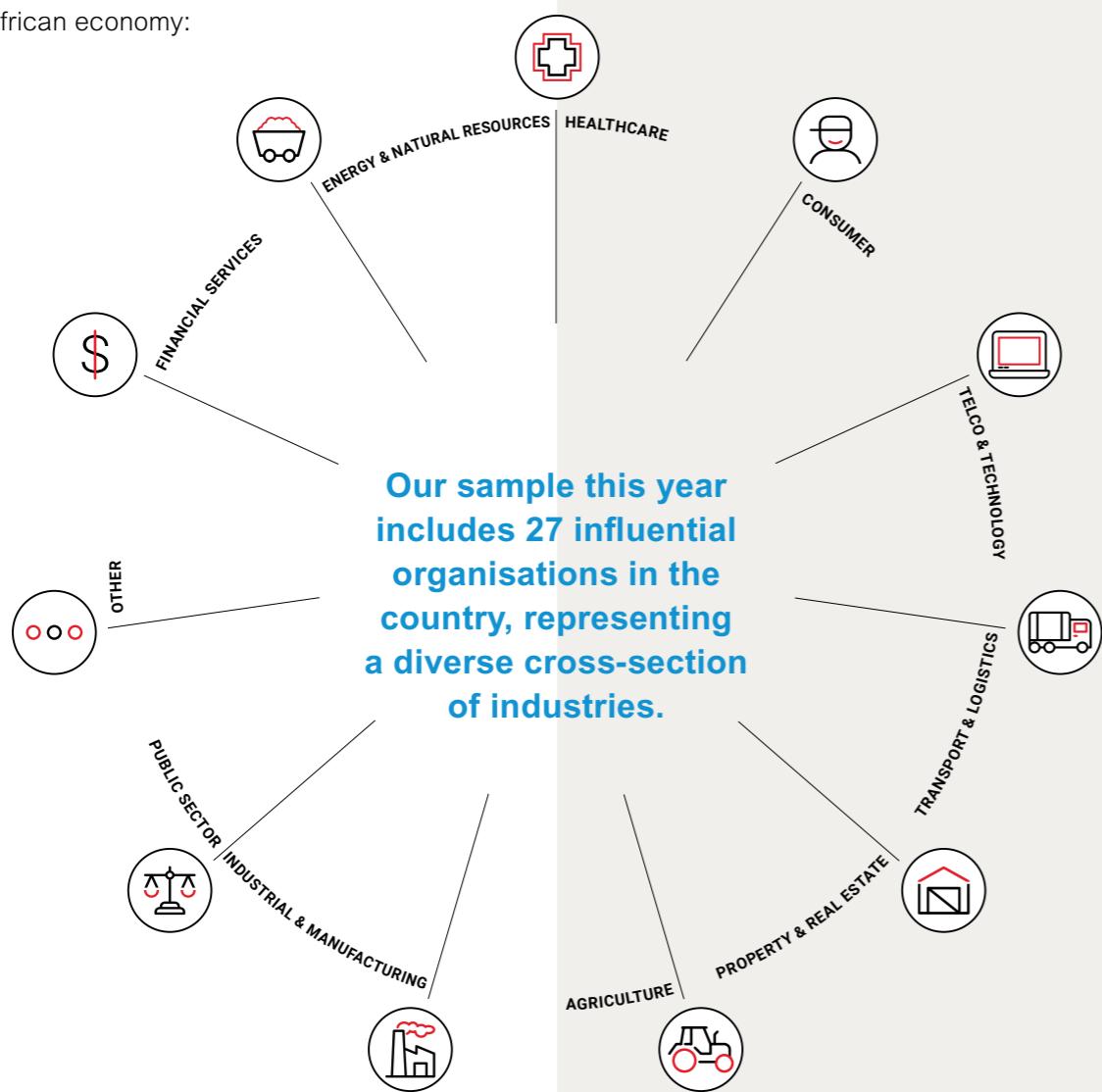
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Respondent organisation profile



The second edition of our study delved into the innovation pursuits of the country's largest organisations both within the private and public sectors.

To pinpoint these entities, we selected the pivotal sectors that form the backbone of the South African economy:



It was imperative for our respondent organisations to have a footprint within South Africa, but we remained open-minded about the location of their global headquarters.

Respondent profiles

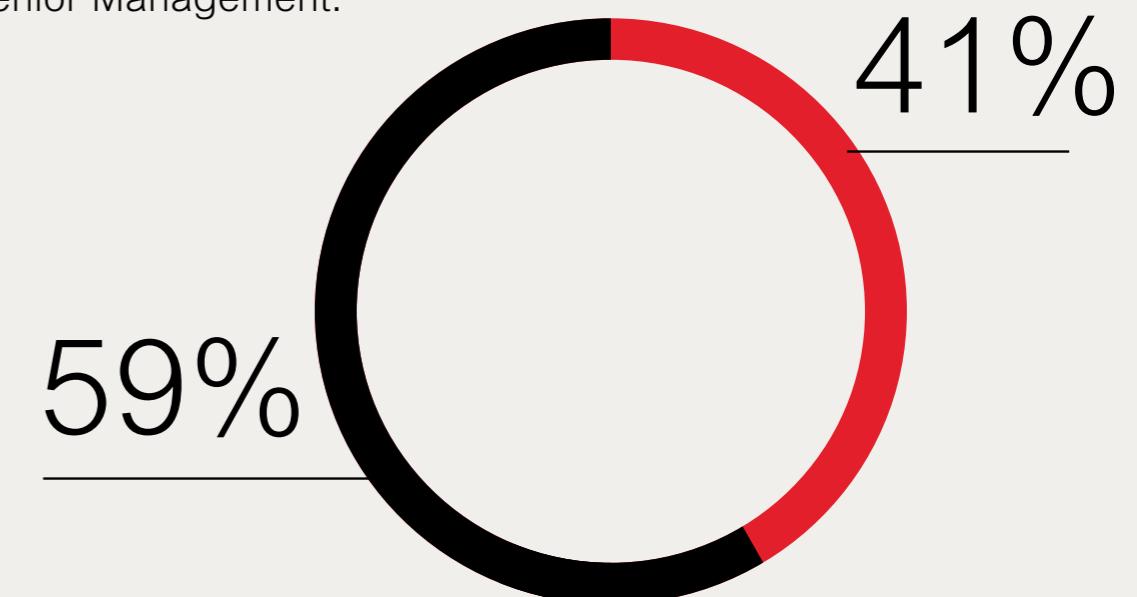
The individuals who represent the participating organisations within this study are not just any employees; they are those in senior or leadership positions, equipped with a profound understanding of their company's aspirations and initiatives in innovation, growth, technology, and strategy.

Their positions frequently necessitated a broad perspective of the company, including its strategic

goals, organisational intricacies, and the mechanics of its day-to-day operations. They were also expected to have a sharp insight into the paths of innovation and the allocation of resources for technology. Considering their high-ranking status, it was anticipated that these individuals would have an extensive grasp of the wider industry environment and the business setting of their organisation.

This year, 41% of respondents belonged to the C-Suite, while the remaining 59% of respondents belonged to Senior Management.

- C-suite
- Senior Management

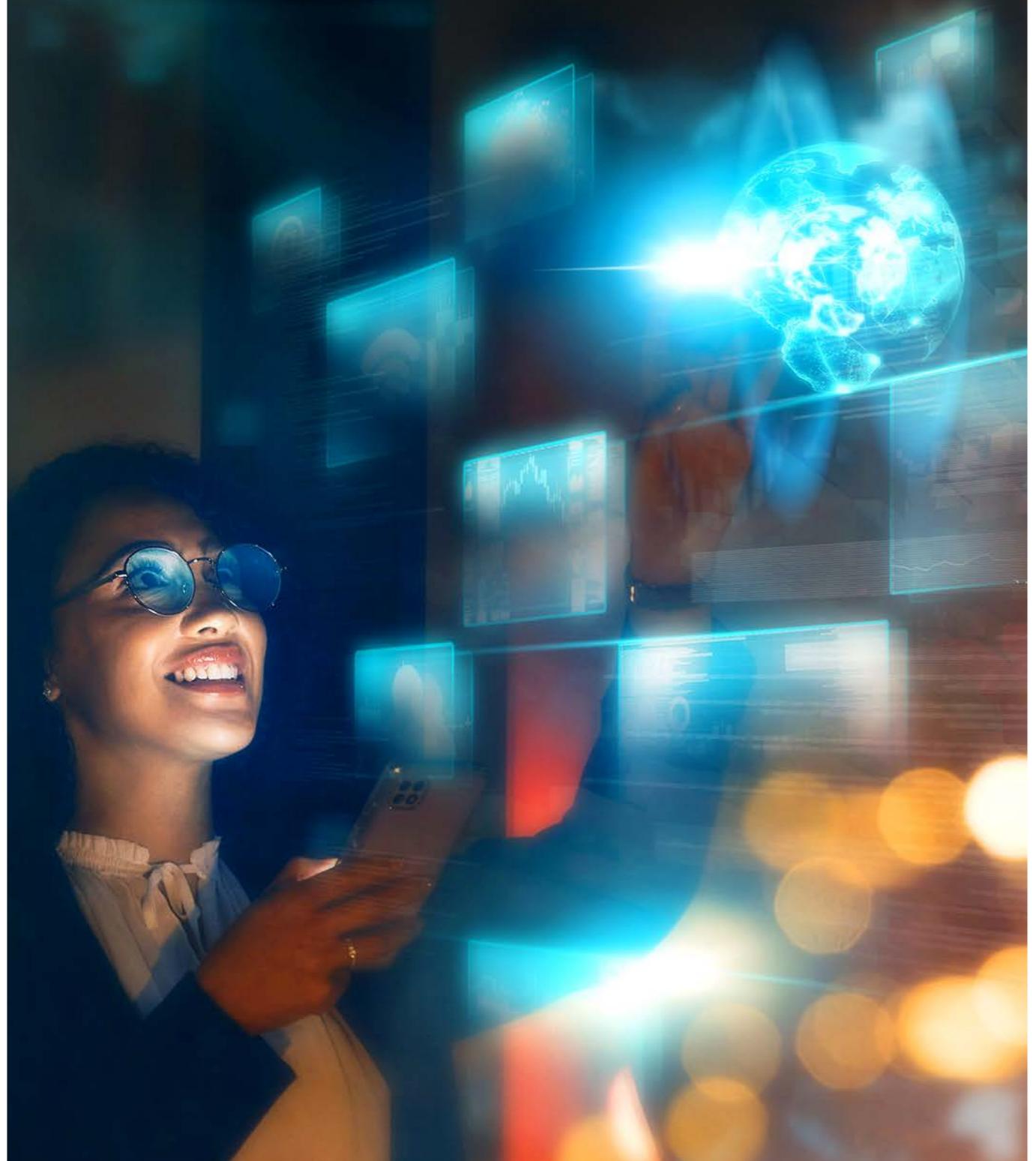




6

The BCX Digital Innovation Index

This report presents the Innovation Excellence Index, which is built upon five essential pillars for mastering innovation.



This index is bolstered by a formula that categorises organisations along a continuum of excellence.

The Innovation Excellence formula delineates the ideal configuration for spearheading and facilitating digital innovation endeavours within expansive organisations. The methodology and framework

underpinning the Innovation Index offer a swift means to evaluate an organisation's dedication to and proficiency in innovation. It also benchmarks entities to foster impactful innovation practices.

The five building blocks of innovation excellence are:



The innovation excellence pillars emphasise the importance of being primed for innovation pursuits. Possessing these pillars equips organisations with the essential catalysts to propel innovation at scale. This includes crafting new, appealing, and feasible products and services, forging scalable business models, and nurturing digital skills that bolster resilience against unpredictability and disruptions.

When these pillars are robustly established and adeptly managed, digital innovation evolves into a ubiquitous capability permeating the entire organisation.

1. Strategy

Driving innovation with a clear strategic intent shows that it's a top priority for both leadership and the organisation. It indicates that resources should be allocated to it. To achieve innovation excellence, a clear innovation strategy must be in place. This strategy should align with the broader organisational strategy, making its contribution to the overall business objectives clear. It's essential for this strategy to be applied across individual business units or departments. An innovation strategy provides clarity on the goals of innovation efforts and outlines how these efforts should be organised, pursued, and funded. It sets the mandate for innovation capability within an organisation or a broader innovation ecosystem. Many innovation projects or teams fail due to a lack of clear direction, increasing the risk of unsuccessful investments.



2. Investment

Investment is crucial for executing an innovation strategy, as it provides the necessary resources to achieve innovation outcomes. True excellence in this area is marked by a dedicated, recurring, and transparent budget. This budget should be specifically earmarked to support innovation activities. However, a budget is only effective if it's accessible through a clear and well-understood process. It also needs to be appropriately sized within the organisation, ensuring that experiments and learning cycles are conducted at the right scale. Innovation investment demands a distinct framework or governance mechanism. This mechanism should allocate funds to innovation initiatives and measure their performance. Traditional metrics often fall short in the dynamic and uncertain environment of innovation, making the measurement of return on investment a challenge.



3. Operating Model and Process

An operating model delineates how innovation capability is structured and pursued. It determines how innovation efforts are managed and integrated into the organisation, whether these efforts are solely internal or also involve external partners. This model sets out the guidelines, frameworks, and ways of working that guide how innovation is integrated into the organisation. The innovation process, whether termed a journey or lifecycle, charts the course of an idea from pinpointing a business issue to developing a solution and then scaling it.

Excellence in this realm necessitates a clearly defined approach to idea generation, solution development, and either its implementation or scaling. This approach should foster swift ideation, testing, and development in a setting that's free from the constraints of everyday business operations.

Ideally, innovation efforts should be spearheaded by a dedicated team with a designated leader, working in tandem with the wider business. Integrating these efforts across the business is vital to prevent siloed thinking and solution development.

However, it's essential to strike a balance between independence and integration. This ensures that innovation can operate beyond bureaucratic and traditional methods, whilst still drawing on the inherent skills and strengths of the business.



4. Skills and Capabilities

Innovation, encompassing digital innovation, necessitates the collaboration of interdisciplinary teams. This foundational element includes the competencies needed to guide innovation initiatives through the innovation process, as well as any specialist technical skills specific initiatives might demand.

Organisational capabilities, such as skills, knowledge, and resources in data, customer focus, and user-centricity, are pivotal. Additionally, the agility to adopt a growth mindset, embrace new learning, and tackle problems with both creativity and rigour is essential for achieving innovation excellence. To meet these requirements, an organisation can choose to upskill its teams or acquire these skills through partnerships and alternative models.



5. Culture and Commitment

A culture that is open and collaborative, promoting interdisciplinary work, lays the foundation for innovation. Cultivating a habit of experimentation, coupled with a 'fail-fast, learn-fast' ethos, empowers employees to take measured risks and delve into new business models, product features, and user experiences.

Spaces and forums that encourage cross-functional collaboration, combined with a robust culture of ownership championed by leadership, embolden employees to venture into innovative solutions for the business challenges they encounter. This ensures a wholehearted embrace of innovation initiatives across the organisation. True excellence in an innovation culture is characterised by a spirit of experimentation, hypothesis testing, and a collaborative atmosphere that acknowledges and learns from setbacks.

Exploring Innovation Excellence

Exploring Innovation Excellence assesses whether organisations possess the foundational elements needed to chase innovation, craft new digital business models, and hone digital competencies in a VUCA (Volatile, Uncertain, Complex, Ambiguous) world.

How do organisations:

- Pinpoint and nurture ideas for fresh growth?
- Propel successful ideas to scale, ushering the business into the future?
- Persistently engage with digital advancements?

Large, well-established organisations, when compared to newcomers or smaller businesses, typically boast resources, business infrastructure, a loyal customer base, and a recognised brand. These are strengths that enable them to invest in and swiftly chase new ventures. However, they often grapple with the intricacies, entrenched habits, and conflicting priorities that come with size and legacy. These challenges can hinder their agility and adaptability. For such long-standing, sizable organisations, it's especially crucial to have these foundational elements in place. This ensures they have the mandate and capability to pursue innovation with the highest likelihood of success.

Innovation Excellence Categories: Levels of readiness to excel at innovation.

The Innovation Excellence categories was developed by assessing organisations' innovation set-up maturity or readiness against the aforementioned building blocks. Four levels or categories have been defined to gauge an organisation's positioning for excelling at innovation. An organisation's average score across all building blocks determines its category placement.

EXCELLENT Organisations in this category are ideally structured to champion innovation. Key traits of such organisations include leadership, structure, and a culture deeply committed to innovation as a strategic priority for growth, market relevance, and sustainability. They possess the necessary resources, skills, and capabilities, along with the systems and processes, to consistently drive innovation from ideation to scale. Embracing risk and potential failure in exploring new avenues, these organisations demonstrate agility in adapting when presented with new insights.

MATURING Organisations in this category are on a promising trajectory towards innovation excellence. While they already showcase areas of excellence, dedicated teams are at the forefront of driving their innovation initiatives. While certain building blocks might need further alignment to consistently support their efforts, their culture and business processes are evolving to embrace broader innovation scopes. These organisations successfully deliver value through innovation, and with some refinements in their set-up, they have the potential to unlock even greater achievements.

EMERGING Organisations at this stage are taking commendable steps towards prioritising innovation. They may invest in specific initiatives, and while the building blocks for innovation excellence are in place, they are still being refined and expanded. These organisations are on a journey of transitioning from legacy systems and protocols, and are gradually shifting their cultural focus to embrace more risk and innovation. As they continue to evolve, they'll be better positioned to amplify the impact of their innovation initiatives consistently.

NASCENT Organisations in the nascent stage might not currently prioritise innovation. They are either just beginning to recognise the potential of innovation to drive growth or are finding it challenging to structure their innovation efforts.

6 The BCX Digital Innovation Index

The matrix below details the characteristics associated with the pursuit of innovation and building blocks across the assessment categories. Organisations in these categories may exhibit some

of these traits to varying degrees. It's important to note that this is a compilation of characteristics and not definitive for an organisation that falls within a specific category. The placement of an organisation

within a particular category is determined by its average score across all building blocks.



Strategy

NASCENT

- No current strategy to innovate, although ambition might be there.
- There aren't clear objectives nor a specific mandate for innovation efforts defined.
- The organisation does currently not see innovation as a focus area and initiatives are not prioritised.



Investment

- Investment in digital innovation efforts isn't currently funded or funding isn't allocated or disbursed specifically for this purpose.
- There is no formal or recurrent investment into innovation.
- No formal governance process exists to nurture and track investments into innovation.



Operating Model and Process

- No teams or formal structures exist to test, validate and scale innovative ideas different from typical project development.



Skills and Capabilities

- Skills that can drive innovation may be present, but are not visible.
- Technologies, tools and systems not designed to support tests of innovative ideas.
- Organisation does not hire or upskill its staff in innovation, but staff may pursue learning on their own.



Culture and Commitment

- Innovation culture not visible.
- A risk averse culture dominates.
- Cross-functional collaborations and innovation resources are scarce across the organisation.

EMERGING

- Innovation is considered a business priority.
- 'Innovation' and 'digital' are understood to be part of the corporate strategy but not actively defined nor explicitly translated into divisional/functional strategies.
- Some individual departments have defined an innovation strategy to guide innovation efforts.

- Some funding is available to explore digital innovation activities, but it is hard to access.
- Some individual departments or business areas fund their own innovation initiatives.
- Investments governed through existing financial return metrics.

- Innovation teams formed in an ad hoc manner by business units.
- No formal roles assigned.
- Innovation follows project management cycles.

- Some key skills are not available or are immature in order to drive initiatives to success.
- The organisation may have access to user-centric, data-centric, digital and technical capabilities, although these are scattered.
- Technologies, tools and systems available limit teams' ability to innovate.
- Upskilling or hiring not driven formally by organisation, but may be led by individual teams.

- Business metrics and leadership tone doesn't drive/ encourage innovation.
- Organisation's culture is focused on minimising risk and failure.
- A culture of curiosity, questioning and learning may be present amongst some, but widespread or applied effectively.

MATURING

- 'Innovation' and 'digital' are embedded into corporate strategy and well-understood by and communicated across the broader business.
- Some individual departments have defined an innovation strategy to guide innovation efforts.

- Budget is made available for specific initiatives.
- There is a process in place to access investment to drive new initiatives.
- Investments evaluated per initiative against a business case that assesses traditional investment metrics.
- Unique metric applied to some extent or to some projects.

- Teams or departments practise innovation in pockets within the organisation.
- Design thinking approaches are applied to innovation efforts although a unique process not formally defined.
- Team is formed internally and is limited by low cross-functional representation.

- Teams may not have sufficient capacity to deliver innovation at the scale required to drive impact for organisation, but there are the skills required to deliver creative problem-solving in fast-paced, iterative cycles of learning and adapting.
- Tech stack may restrict some types of digital innovation.
- Upskilling or hiring is restricted to certain groups.
- Innovation teams are data-centric, and have some access to data within and beyond the organisation.

- Innovation culture contained within innovation teams.
- Systems and processes may hamper risk-taking and block innovation.
- Employees feel empowered to take risks and explore new innovation ideas to solve business challenges.
- Failures in innovation are considered sources of learning to some extent.

EXCELLENT

- A defined Innovation strategy is in place guiding innovation efforts.
- The strategy is widely communicated and understood across the whole organisation.
- The innovation strategy aligns with the wider company strategy and cascades down to individual business units or departments.

- Innovation activities are supported by a dedicated, recurrent and transparent budget across the organisation.
- There is a known and clearly understood process in place to access the set innovation budget.
- A governance framework or mechanism exists to best allocate funding to innovation initiatives and also measure performance.

- There are structures in place to rapidly ideate and experiment with new business models, ideas and experiences in an environment unconstrained from the day-to-day business.
- A dedicated team owns and drives innovation objectives within the organisation.

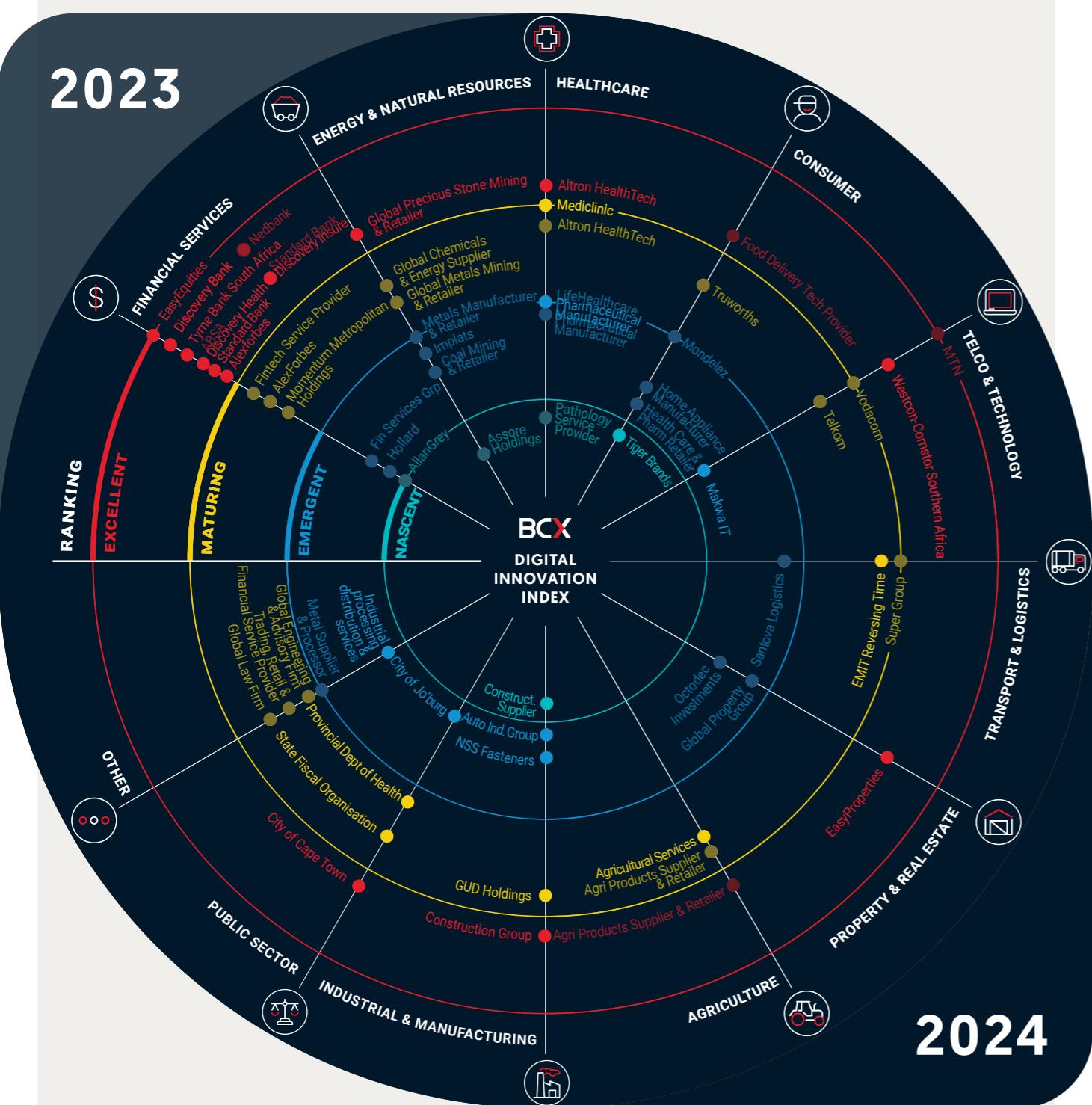
- Large enough teams across relevant disciplines drive innovation, e.g. product management, agile methodologies, user experience design, business acumen, data and tech.
- Flexible tech infrastructure supports digital innovation.
- Organisation systematically invests in upskilling or hiring relevant talent.
- Innovation teams have access to specific technical skills and support as required for specific initiatives (through hiring and/or upskilling).

- An innovation culture of testing, failing, learning and pivoting practised across organisations.
- Innovation is celebrated through rewards and incentives.
- Employees feel empowered to take risks and explore new innovation ideas to solve business challenges.
- Cross-departmental/functional collaboration is encouraged through shared spaces and forums.

2024 Digital Innovation Index Results:

With 27 organisations taking part in the initiative this year, 18 of those being new participants, we have a fresh perspective on consistent, common

experiences. The Index also explores new impacts that have been raised during the period.



Participants this year have exhibited a heightened investment in innovative practices (when compared to 2023 results).

This indicates a proactive approach to staying ahead in a competitive landscape. However, the ongoing challenge of a limited local talent pool continues to pose a significant hurdle in realising the full potential of innovation within these organisations.

This is reflected in how respondents scored across all five of the building blocks in the BCX Digital Innovation Index. Below, we examine the average view across all the sectors surveyed.

Innovation remains a strategic priority

Most respondents acknowledge the strategic importance of innovation. They also have a formally defined innovation strategy in place or have innovation as a critical pillar within their overarching strategy. The findings highlight a subset of organisations that are still working to integrate innovation into their business strategy which reflects that several South African organisations are still in the early stages of their innovation journey.

There is an improving practice of dedicating investment towards innovation activities

Findings reveal that most participants are categorised between 'Excellent' and 'Maturing' when it comes to their investment in innovation. Organisations rated as 'Excellent' have demonstrated a commitment to innovation through the allocation of a dedicated budget specifically earmarked for this purpose. This has been accompanied by innovation-relevant governance structures to evaluate innovation initiatives. Of course, there is potential for improvement among those organisations that continue to rely on traditional project and business metrics to assess their innovation projects.

Forging external partnerships to access expertise and capacity is a critical driver of innovation

A considerable number of respondents have reported forming partnerships with external entities to boost their innovation efforts. These collaborations are important to supplement the necessary expertise to execute innovative projects successfully – whether they provide access to technological, innovation, or industry knowledge and skills. Many companies outsource specific expertise from external sources when required. This could be due to either a lack of particular skills within the local market or an unwillingness to invest in skills development. The result is that momentum to drive innovation could be limited.

South Africa's innovation and digital talent shortage persists

On average, organisations have achieved a 'Maturing' status when it comes to the skills for digital innovation that they are able to employ and retain. Just under half of the respondents have reported being able to access the necessary skills to drive innovation internally.

However, most companies still need to introduce specific expertise on an ad hoc basis when it comes to digital innovation initiatives. Organisations classified as 'Excellent' demonstrated being dedicated to investing in the development of these specialised skills or recruiting relevant talent to drive a culture of innovation.

Acceptance of failure and risk supports innovation

Companies have reported a greater understanding and acceptance of risk and failure when it comes to pursuing innovation. On average, respondents have achieved a higher rating in the culture building block. Most respondents have expressed a readiness to embrace risk. However, they admit that there are still obstacles where existing business processes do not accommodate such uncertainty.

6 The BCX Digital Innovation Index

The below graphic illustrates how companies are distributed across the five building blocks:

DISTRIBUTION ACROSS BUILDING BLOCKS



South Africa's innovation and digital talent shortage persists

There is an improving practice of dedicating investment towards innovation activities

Forging external partnerships to access expertise and capacity is a critical driver of innovation

Innovation remains a strategic priority



7

Factors impacting innovation across sectors



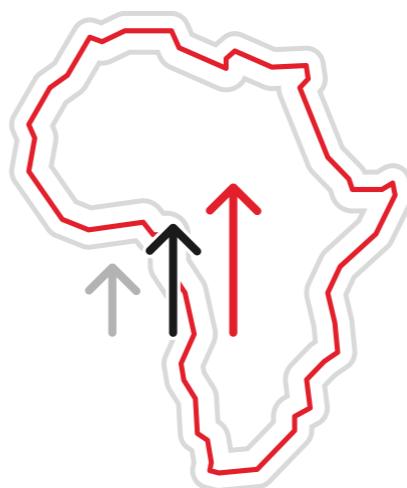
7.1 South Africa Overview

Navigating South Africa's economic landscape for the year ahead.



The African economic outlook for the year ahead reflects a landscape marked by ongoing structural challenges. These include geopolitical tensions, climate issues, and political instability. Despite this, and a slowdown in real GDP growth in 2023, a positive economic outlook is anticipated. Growth is expected to rebound by the end of this year and well into 2025. This resilience is supported by anticipated global economic improvements and effective policy measures.

► **Africa is poised to maintain its position as the second-fastest growing region globally, with numerous countries expected to achieve higher growth rates compared to 2023.**



This is not to say there are no challenges present. South Africa continues to grapple with subdued growth prospects, elevated inflation, and a tight monetary policy environment. Structural constraints, combined with global uncertainties, pose significant obstacles to economic recovery and long-term growth.

Respondents highlighted the year-on-year slowdown of the macro and socio-economic climate as a significant inhibitor to innovation efforts and investment for 2024, regardless of sector. There was also the impact of the local elections on the market to consider.

Investor sentiment in South Africa reflects a blend of cautious optimism and concern over political stability and policy direction.

The recent general election saw the African National Congress (ANC) lose its majority for the first time since 1994. This has resulted in the establishment of a Government of National Unity (GNU). For some investors, the environment has prompted a wait-and-see approach. For others, they remain hopeful about the country's potential. The uncertainty brought about by elections and geopolitical shifts around the world appears to inhibit business risk-taking and decrease investments in innovation. In South Africa, businesses observed an unexpectedly long lull after the elections. It appears that the country is waiting to see whether the GNU garners investor trust to boost economic activity.

7 Factors impacting innovation across sectors

7.1 South Africa Overview

While elements of political uncertainty linger, there is an overall positive sentiment regarding policy stability.

This can be attributed to the momentum that has been generated by the outcome of the 2024 elections. However, governance issues at state-owned enterprises may continue to impede economic recovery efforts and exacerbate fiscal challenges. Additionally, external risks such as sustained higher interest rates and geopolitical tensions contribute to economic uncertainty, impacting South Africa's growth trajectory.

South Africa faces significant economic challenges that require decisive policy actions and structural reforms to navigate through and revitalise the economy.

Addressing issues such as weak consumer sentiment (due to income constraints, debt burden, and the rising cost of living), infrastructure challenges, skills development and retention, and governance concerns at state-owned entities become imperative to achieve sustainable development.

Within this environment, there are suggestions that businesses might see some traction in securing investment, particularly those heavily reliant on the predictability afforded by political stability and clear policy direction. Organisations operating against this economic backdrop must navigate modest growth and inflationary pressures straining operational costs and tightening profit margins.

Collaborating across specialist areas, value chains, and industries becomes an enabler to achieving innovation.

Of course, it has become important to understand how organisations are structured to pursue innovation. This will provide us with insight into how these companies are preparing themselves to adapt to the trends within their respective industries, ensuring their sustained success in the future.

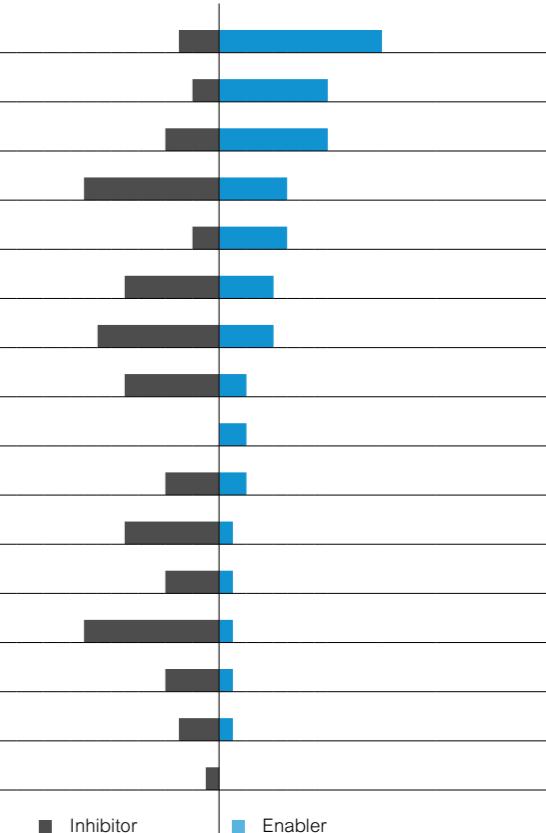
The following section of the report takes a closer look at sector-specific perspectives. It will provide insights into the environmental factors that affect large organisations within those sectors. It also highlights the commonalities and nuances in how businesses approach innovation while accounting for the unique characteristics of their respective sectors.



→ **Innovation has therefore become crucial to explore new areas of value, reinventing business, and maintaining relevance and competitiveness.**

SOUTH AFRICA: EXTERNAL FACTORS

- Partnerships with innovation and technical service providers
- Exposure to a startup and innovation ecosystem
- Our industry logic model: how different parties across our value chain interact to create value
- The availability of high quality talent to lead innovation
- Collaboration with regulators
- The availability of high quality talent with data skills
- The availability of high quality talent with digital skills
- The regulatory landscape in which we operate
- Collaboration with the private sector
- Investment environment/ Climate in our industry
- Impact of local elections (SA)
- Impact of global elections super cycle
- Year-on-year slow down of macro and socio economic climate in South Africa
- Current conflict and rumours of war globally
- Government funding and investment priorities
- Government debt consolidation priority



7.2 Financial Services

Financial Services comprises banking, insurance, and investment businesses operating in the private sector.

Globally, the digitisation of banking services is transforming the industry by providing customers with more convenient and accessible financial solutions.

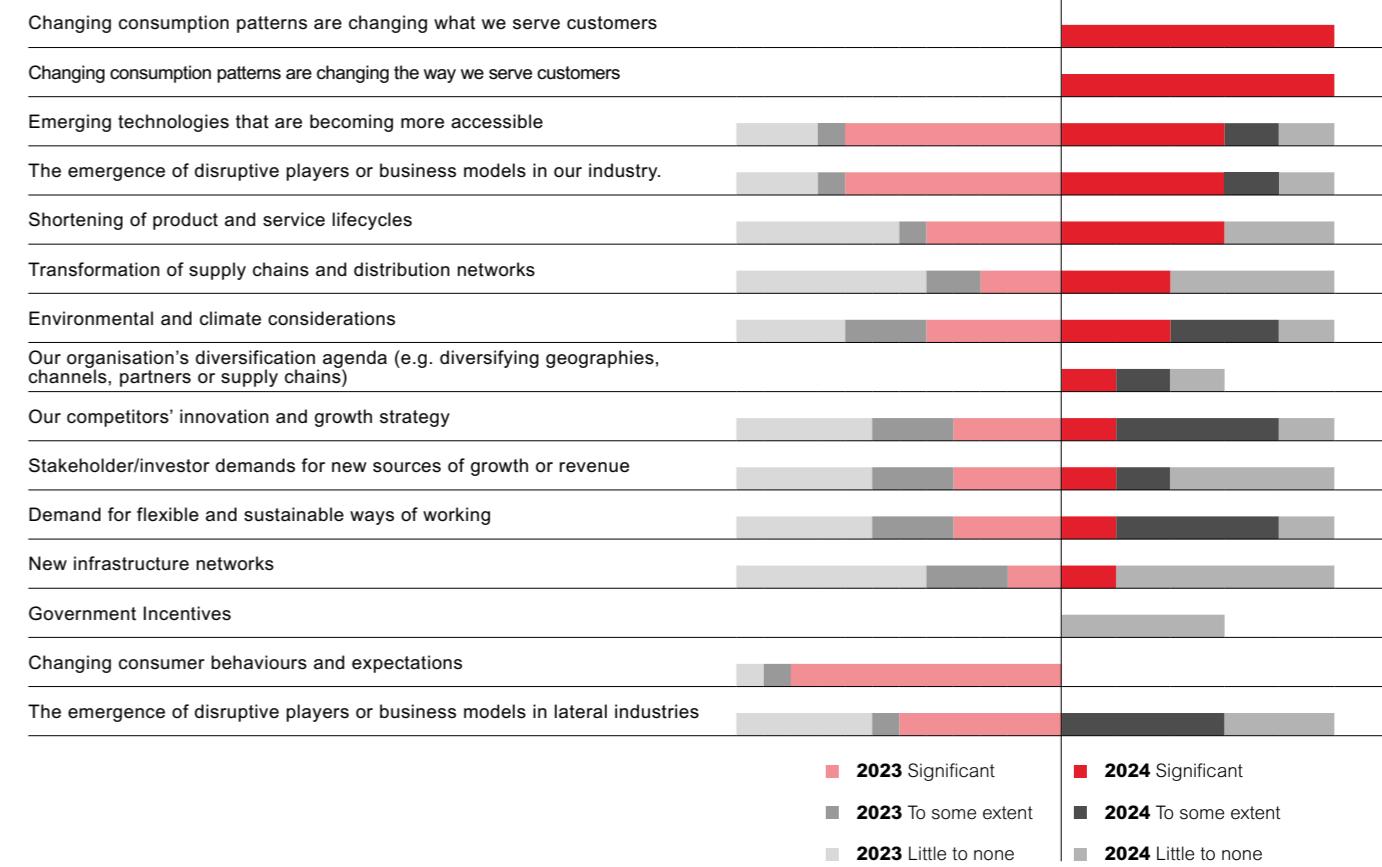
Financial services organisations adopt data and analytics to enhance their internal decision-making processes and deliver personalised services to customers. Within this sector, there are significant opportunities for digital innovation. Our survey has found that respondents in South Africa are committed to pursuing digital innovation with companies mature in this regard.



→ **The financial services sector is a significant driver and enabler of the country's economic activity. The country's financial ecosystem is a sophisticated environment even when compared to other countries around the world.**

Competition is high in the sector. Financial services providers face competition from one another, fintech companies, and non-traditional entrants in the sector like telecom operators and retailers. New and more agile entrants are leveraging technology to offer

FINANCIAL SERVICES: DRIVERS OF INNOVATION



differentiated products and customer experiences. In response, incumbents are investing heavily in digitalisation to enhance the customer experience, remain competitive, and adapt to the rapidly changing market demands.

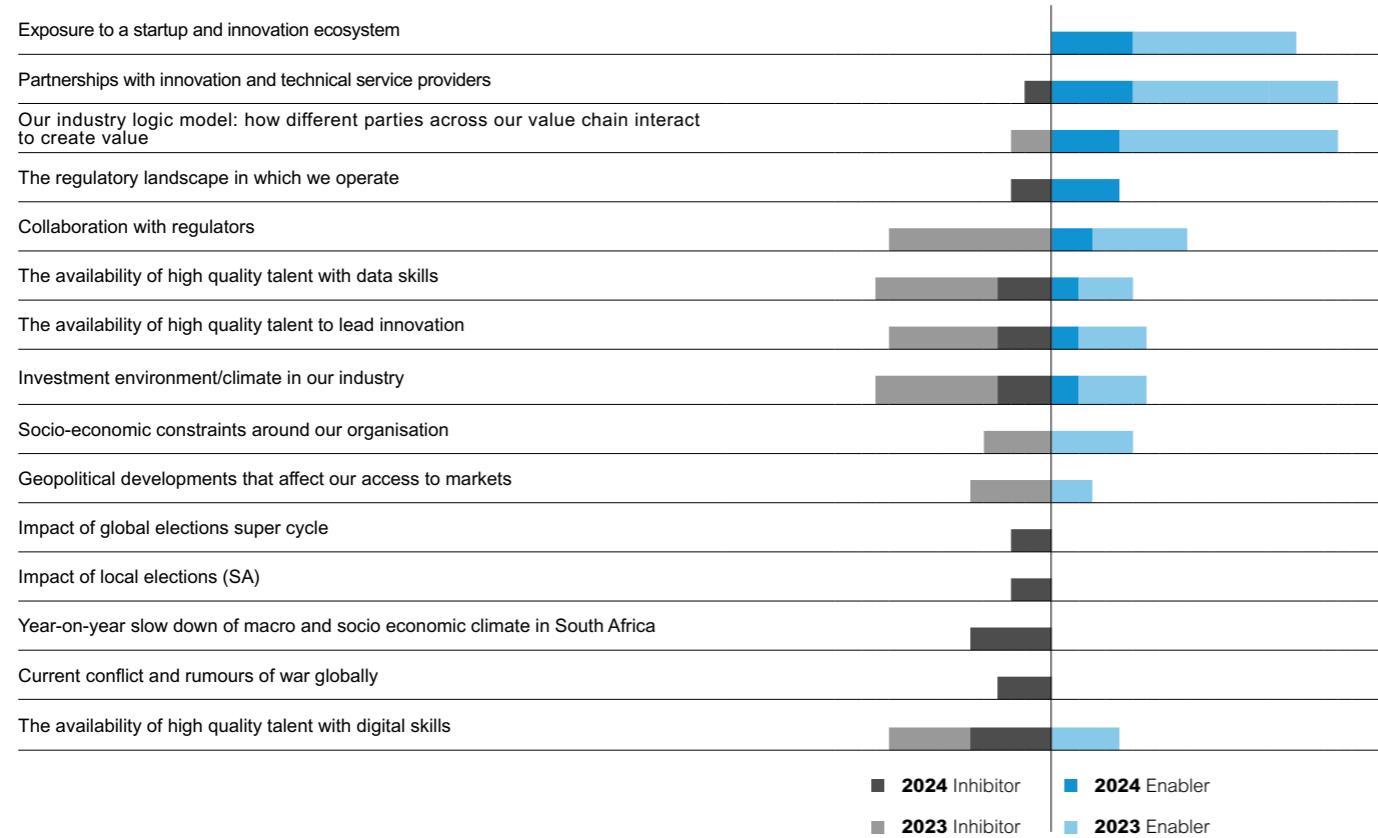
To continue growing, large financial services organisations need to turn their attention to gaining market share. This requires delivering unique offerings and the best experiences especially when there is little room to differentiate on price. Creating new value propositions that meet changing customer expectations is a key driver of digital innovation efforts and investment in this sector.

Shifts in consumer behaviour continue to be the strongest driver of innovation efforts when it comes to product and service offerings. In turn, delivering on and servicing those new value propositions becomes important.

7 Factors impacting innovation across sectors

7.2 Financial Services

FINANCIAL SERVICES: EXTERNAL FACTORS



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Partnerships and collaborations are the most significant enablers of innovation in the external environment.

This is especially the case when it comes to companies across the financial services value chain and the broader ecosystem of the financial services sector. It is through these partnerships and collaborations that financial services organisations get access to technological capabilities and specialised expertise they may not have or may not want to invest in.

The local regulatory landscape has been identified as both an inhibitor and an enabler of innovation. Organisations must operate within the confines of strict regulations, which can hamper the development of new services and products. These regulatory constraints necessitate a robust compliance framework, often at the expense of agility and speed in innovation. This has resulted in financial services organisations increasingly collaborating with regulators. It is a good approach to ensure the

development of regulatory frameworks that foster and enable innovation.

The limited availability of digital innovation-relevant talent in the market is another critical factor that impacts innovation.

Companies find it hard to attract and retain skills in high-demand digital areas. While some respondents said the availability of innovation, digital and data skills enable their digitalisation efforts, access to that talent remains a challenge.

Furthermore, local and global economic conditions, specifically the impacts of elections and strained economies, have challenged the ability of many financial services providers to focus and spend on innovation efforts. In times of slow economic growth and periods of uncertainty, organisations often tighten their budgets for initiatives with uncertain outcomes. However, it is at these times that investing in finding new areas of value becomes more critical.

FINANCIAL SERVICES: INTERNAL FACTORS

Our organisation's ability to find the right problems or challenges to solve to drive maximal impact

Mandate from 'the top': leadership focus and commitment

Our organisation's openness to change and transformation or eagerness to be a first-mover

How our organisation collaborates across functions, teams and departments

Access to customer/user insights

How our organisation prioritises and allocates resources to innovation

Our organisation's approach to risk and uncertainty

Our organisation's ability to scale innovation practices

How our organisation measures and incentivises innovation

Our organisation's way of dealing with/attitude to failure

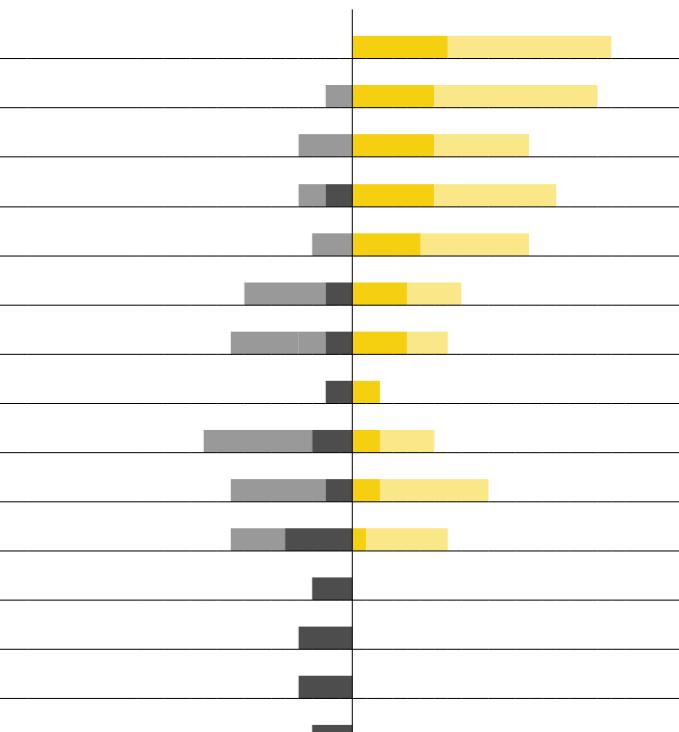
Our organisation's ability to find, deploy and retain innovation and technical skills

Short termism of planning periods

Legacy processes and systems

A strong focus on cost optimisation

Change Management: managing the adoption of new solutions and scaling out innovation habits in the organisation



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7 Factors impacting innovation across sectors

7.2 Financial Services

The biggest enabler of successful innovation outcomes is a company's 'ability to find the right problems or challenges to solve to drive maximal impact.' Without this, innovation efforts are wasted. Either these efforts do not produce the desired return on investment and value, or struggle to succeed because they are not solving a real market or business need.

Additionally, there are elements and dynamics within a company's internal environment that can impact the effectiveness of its innovation capabilities. Leadership's commitment to innovation is also critical. Respondents noted that leaders who prioritise and actively drive innovation efforts are pivotal in creating an environment where new ideas are not only encouraged but seen as essential for the organisation's growth and success.

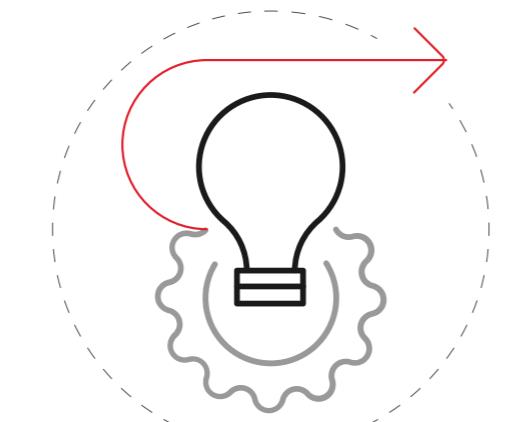
The financial services sector is often characterised by a deeply ingrained culture of innovation, which acts as a significant catalyst for progressive change.

Organisations within this sector typically exhibit a collaborative nature, underpinned by well-articulated innovation strategies. Despite this, change management remains a significant inhibitor of innovation in the sector.

The top inhibitors or challenges experienced internally within financial services organisations revolve around accommodating the unique approaches demanded by innovation delivery. This is especially the case when compared to traditional or business-as-usual activities. Furthermore, implementing unique approaches when navigating legacy systems and processes is also problematic. Other stumbling blocks include the need to integrate and scale new solutions or find ways of working within existing stability and risk requirements. Doing this within the existing technology landscape poses a significant challenge.

Experimenting in safe environments and the courage to change become important for successful scaling when it comes to digital innovation.

A persistent internal challenge faced by organisations is the retention of essential technical skills. The rapid pace of technological advancement necessitates a workforce that is not only skilled but also adaptable and continuously evolving as the ways of work and the market evolve. The skills can be both difficult and expensive to find. Retaining such talent can be very competitive. Losing this talent can result in a knowledge gap, hindering the organisation's capacity to innovate successfully. This shortfall can slow down the momentum of growth and weaken the competitive advantage that these organisations strive for. In an industry where innovation is the lifeblood of success, the retention of technical expertise is not just a human resource concern; it is a strategic imperative that should be prioritised.

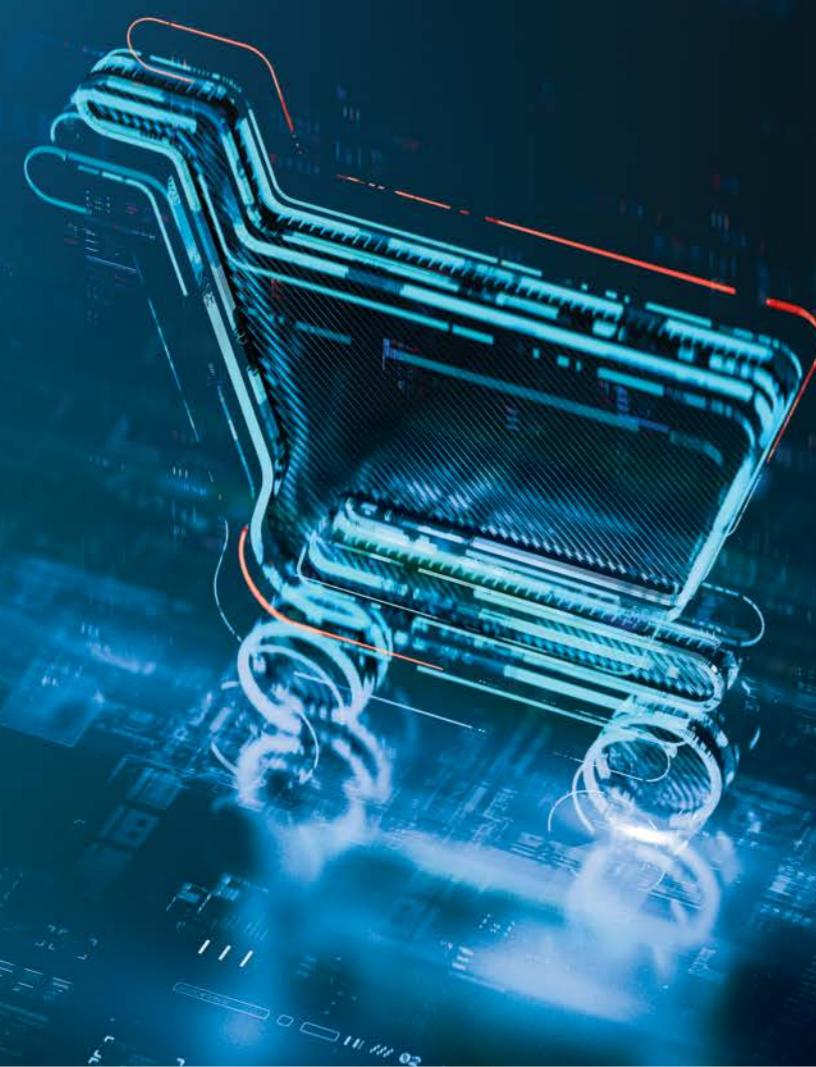


A persistent internal challenge faced by organisations is the retention of essential technical skills.



7.3 Consumer Products

Consumer products in this context comprise manufacturing, distribution, and the retail of consumer products.



South Africa is the largest retail market in Sub-Saharan Africa and is characterised by a sizeable youth (below 35 years of age) consumer demographic. Yet, retailers and manufacturers have been navigating a tough landscape filled with economic challenges. These are compounded by energy shortages and infrastructure and supply chain limitations that inflate costs for consumers and businesses alike.

Consumers are trying to remain resilient in the face of continued cost of living pressure and economic worries. Increasingly, they are adopting new technologies to help them research, compare offerings, and shop. It is within this space where consumer product organisations can capitalise on opportunities.

Of course, the focus and type of innovation may vary based on an organisation's position within the value chain. For instance, manufacturers may concentrate on innovating processes or machinery, while distributors may prioritise transforming their

distribution networks. Retailers, on the other hand, may place their focus on innovating customer engagement. However, all stakeholders put the emphasis on product innovation. Although the outcomes of innovation may vary, the approach to innovation and the factors influencing it remain relevant to all participants in the industry.

The top-ranked organisations are often those who predominantly operate through e-commerce platforms, having fully embraced digital innovation. Digital innovation is especially critical considering the increased level of sophistication that consumers now expect from online shopping channels. Implementing digital innovations can enhance agility, improve efficiency, and align ecosystems with evolving consumer preferences and behaviours.

To achieve this, organisations must establish capabilities that place data at the core of their operations and enable the agility needed to respond effectively to market changes.

CONSUMER PRODUCTS: DRIVERS OF INNOVATION

Our organisation's diversification agenda (e.g. diversifying geographies, channels, partners or supply chains)

Changing consumption patterns are changing what we serve customers

Changing consumption patterns are changing the way we serve customers

Emerging technologies that are becoming more accessible

Transformation of supply chains and distribution networks

Stakeholder/investor demands for new sources of growth or revenue

Demand for flexible and sustainable ways of working

Our competitors' innovation and growth strategy

Government Incentives

Changing consumer behaviours and expectations

The emergence of disruptive players or business models in our industry

Environmental and climate considerations

The emergence of disruptive players or business models in lateral industries

Shortening of product and service lifecycles

New infrastructure networks



► 7 Factors impacting innovation across sectors

7.3 Consumer Products

All organisations have indicated that changing consumer behaviours and expectations are significant drivers of their innovation efforts.

Consumer-facing organisations achieve the greatest success when their values and actions align with those of their customers. Therefore, this alignment becomes a crucial focus for innovation. Organisations are now striving to differentiate themselves by ensuring a stronger alignment with their consumers' values and desires, aiming to maintain their interests. Consumers increasingly scrutinise not only the product or service but also the organisation behind the brand as well as its environmental impact.

It is crucial that digital innovation protects and nurtures the relationship with the consumer.

The significant and rapid shift towards e-commerce underscores the importance for business leaders to consistently challenge their assumptions about what the digital consumer desires, how they prefer to make purchases, and what it takes to meet these evolving needs.

Service-led models often leverage digital platforms to engage with consumers directly, allowing for better customer insights and feedback loops. This direct engagement helps companies understand consumer needs and preferences in real time, enabling them to quickly adapt and tailor their offerings.

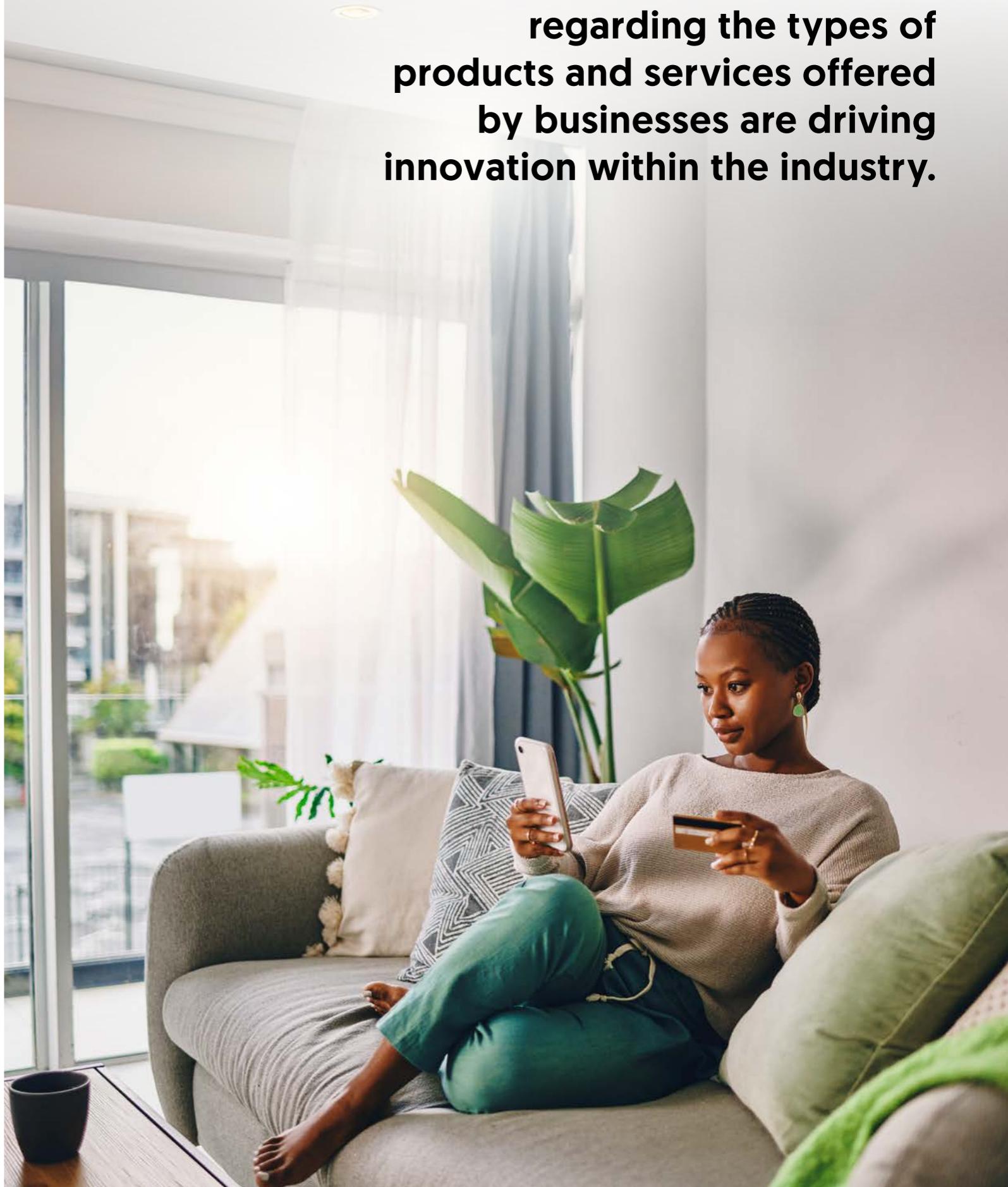
Shifts in consumer behaviour and evolving preferences regarding the types of products and services offered by businesses are driving innovation within the industry.

However, meeting customer expectations for improved experiences while simultaneously addressing business requirements related to cost, profit, and sustainability presents a challenge for consumer organisations. These organisations are investing in technology to drive efficiency, data-driven product innovation, personalisation, and service-led business models that meet these changing expectations.

The accessibility of technology and digital capabilities has made it easier for consumers to access information, explore alternatives, share their experiences, collaborate, and learn from one another. Within business operations, emerging technologies are enhancing manufacturing and distribution performance.

Additionally, business diversification and the transformation of supply chains are also pivotal in fostering innovation. Companies are branching out into new markets and adjusting their logistics networks with several innovative technologies and processes. This is done to improve efficiency, agility, and sustainability, to ensure they stay competitive and responsive to continually changing market demands. The transformation of supply chains and distribution networks is bringing about fundamental changes in business performance through supporting sales growth, cost efficiencies, risk management, and operational resilience. There is a shift from linear to interconnected ecosystems comprising partners, suppliers, and alliances. These are moving towards fully autonomous supply chains that fuel innovation and business growth. Consumer organisations operate within extensive and intricate networks, making the focus on creating sustainable networks crucial to their success.

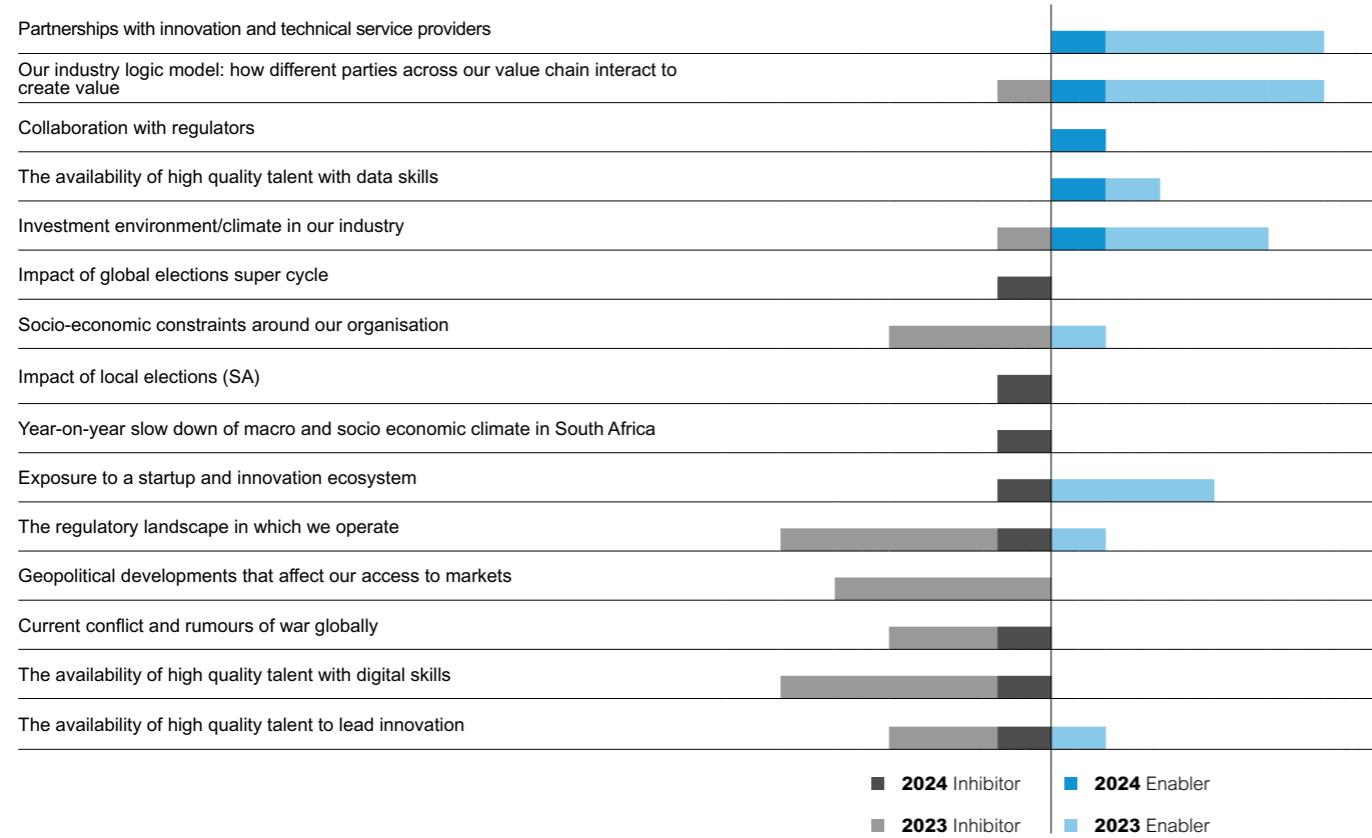
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7 Factors impacting innovation across sectors

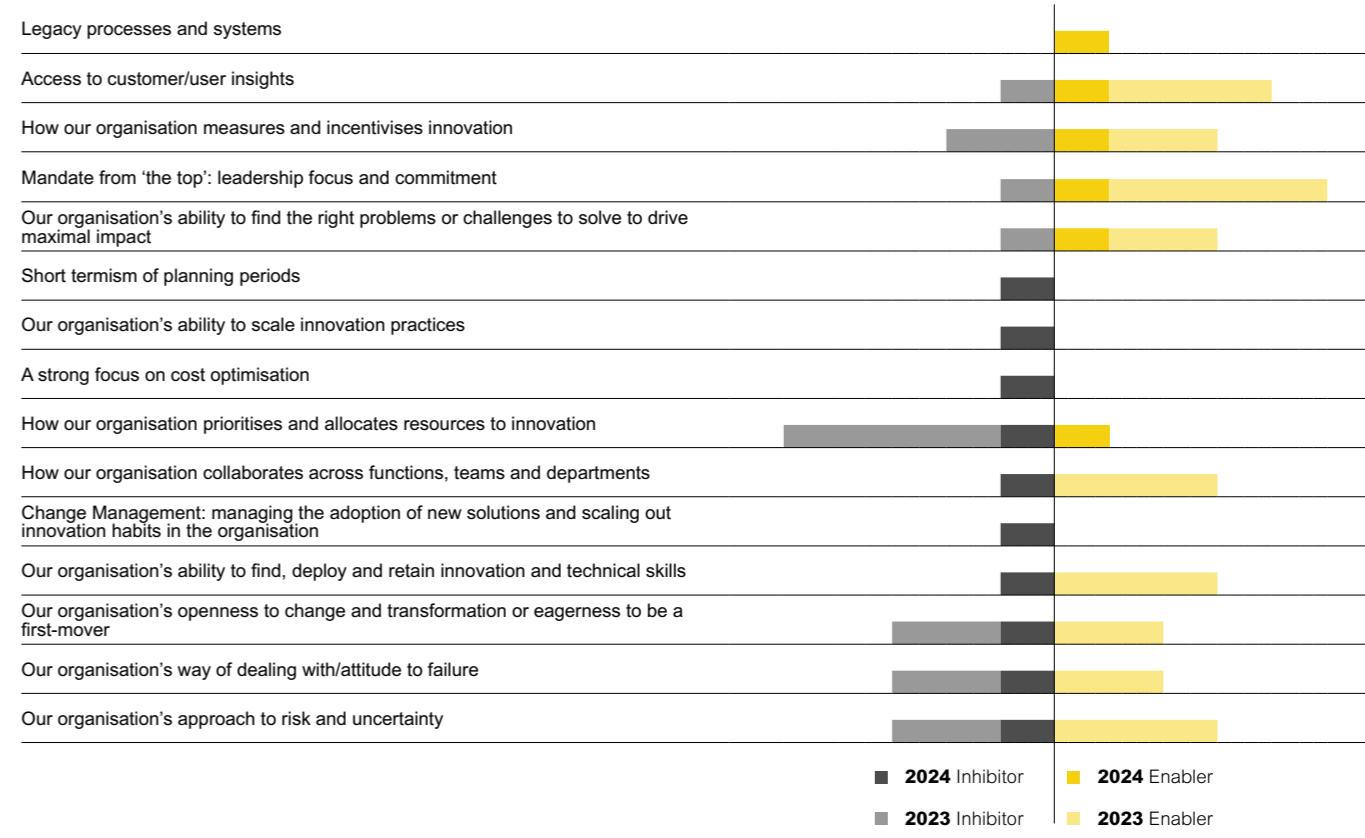
7.3 Consumer Products

CONSUMER PRODUCTS: EXTERNAL FACTORS



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CONSUMER PRODUCTS: INTERNAL FACTORS



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Working together and forming strategic alliances are crucial for spurring innovation in this sector.

Forging alliances can drive a positive effect that is several magnitudes greater than if companies acted alone. This results in building bigger scale and higher financial viability. For some, regulation is the trigger and compliance the end goal. But others are looking beyond this. Many companies are choosing to step forward to partner and collaborate across the value chain to shape their futures.

Findings from this year's survey indicate that consumer product companies persist in forging

relationships with technology and innovation service providers. They also maintain ongoing collaboration with different stakeholders throughout the value chain, including regulatory bodies, which is instrumental in driving sector innovation.

Having access to a skilled workforce, particularly those with data skills, continues to be a catalyst for innovation. However, the scarcity of individuals with advanced digital skills and the ability to lead innovative efforts is once again emerging as a barrier to innovation within the industry. Consumer companies need to recruit new talent as they scramble to build digital capabilities.

The growing emphasis on sustainability, combined with increasing tax and regulatory complexity, and geopolitical and economic uncertainty is forcing companies to prioritise compliance, transparency, and resilience in their operations and supply chains.

A commitment to innovation from company leaders has been reaffirmed as a crucial driver of innovation in this sector. Additionally, the ability to tap into consumer insights is instrumental in fostering innovation. An example of this can include digital services provided by consumer businesses, such as online shopping and delivery. These services facilitate the gathering of vital customer data. In turn, this enables these companies to refine and customise their products and services to better meet customer needs. Companies need to leverage this data in ways that add value to both the physical and digital customer experience.

Conversely, the overall organisational culture and attitude towards innovation can act as a barrier to innovation within this sector. This is reflected in how companies prioritise and allocate resources for innovation, their readiness to embrace change and transformation, their response to setbacks and failure, and their approach to managing risk and uncertainty.

Consumer companies need to anticipate the evolving market forces and consistently meet the changing expectations of future consumers. They can foster trust and loyalty among customers by delivering differentiated experiences seamlessly across various touchpoints.

7.4 Healthcare

In the years following the pandemic, the focus on physical and mental well-being has increased. This, coupled with digitally savvy patients who are used to integrating several technologies into their lives, presents opportunities and challenges for the healthcare sector.



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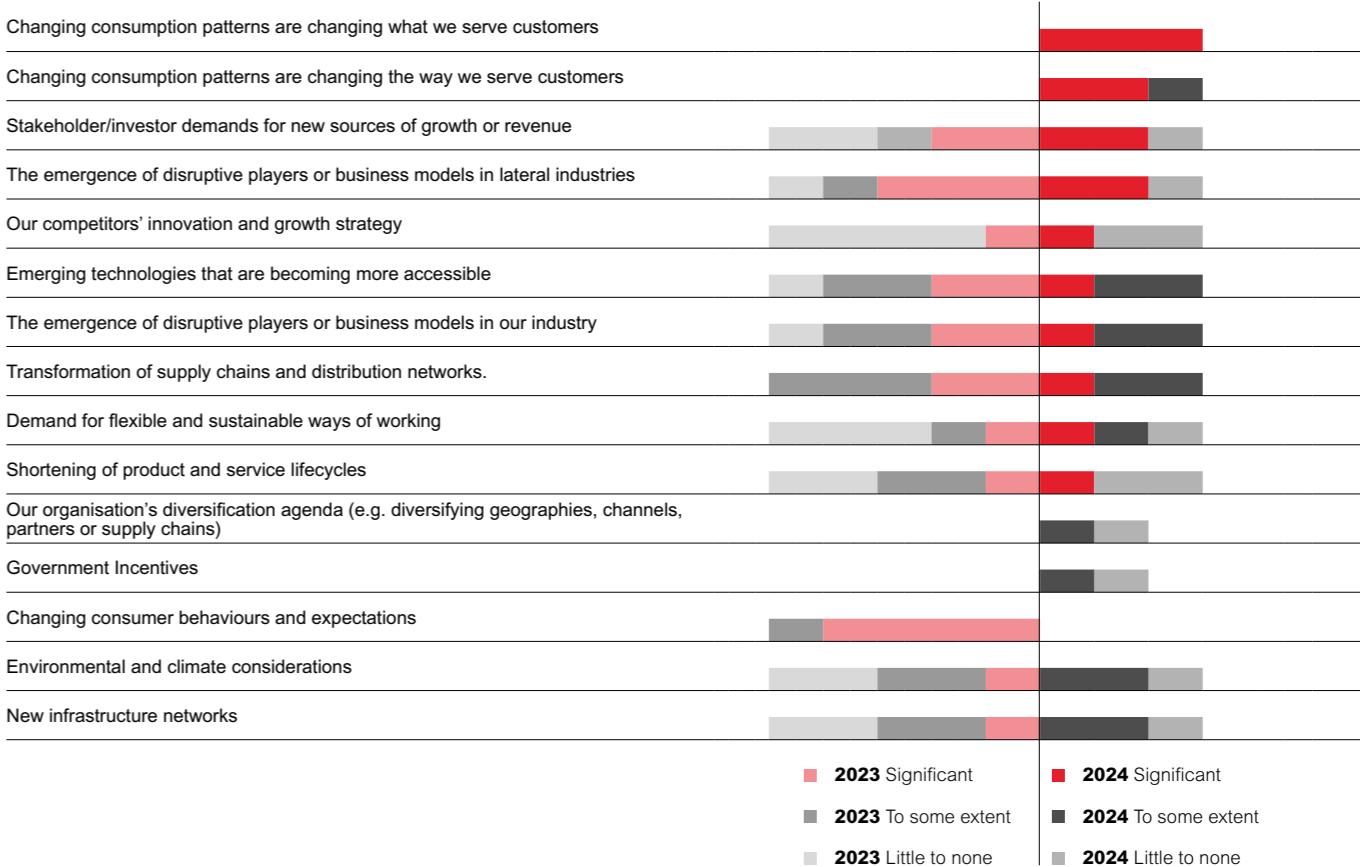
Healthcare is delivered to patients within a complex ecosystem. This comprises healthcare professionals, policymakers, regulators, public and private health hospitals, pharmaceutical companies, and medical schemes and their administrators. Innovators in healthcare can span the ecosystem while also including medical and health technologists who develop tools and technologies to support people's well-being.

A healthcare system's ability to cope with the disease burden it faces underpins its effectiveness. Globally, an ageing population, an increasing prevalence of

chronic diseases, and new medical technologies are driving growth in the sector. South Africa is the largest healthcare spender in Africa, with the country's sector relatively more developed than the rest of the continent.

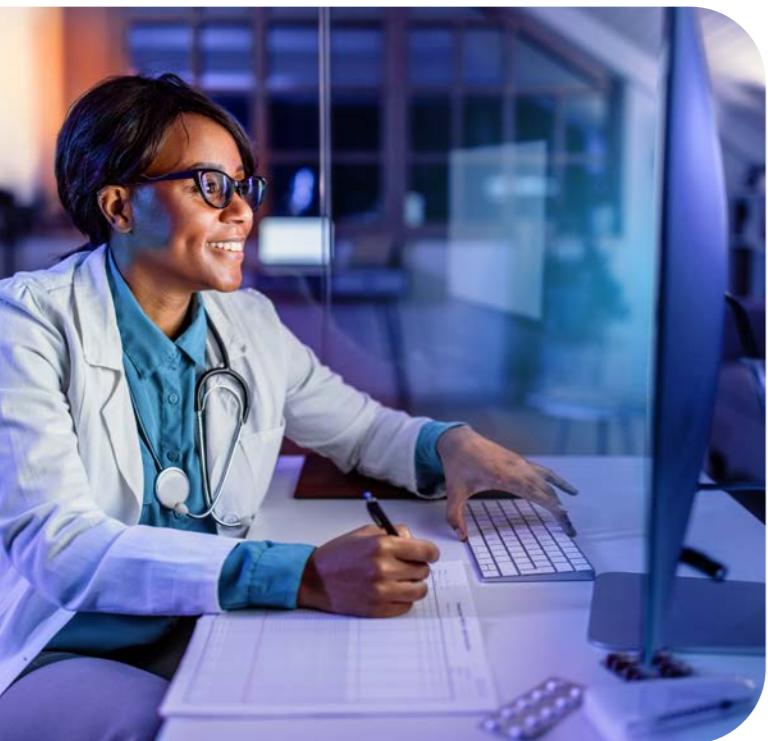
The South African healthcare offering spans both public and private providers. The sector's performance is supported by advanced medical facilities and relatively higher healthcare expenditure. Growth tends to be unequal across provinces and is primarily driven by a need to improve access to healthcare by upgrading infrastructure and treating infectious diseases. To make healthcare universally accessible to all South African citizens and long-term residents, the National Health Insurance (NHI) Bill has been introduced. This presents unique opportunities and challenges for the country and sector.

HEALTHCARE: DRIVERS OF INNOVATION



The evolution of how healthcare is consumed, the emergence of players from lateral sectors disrupting healthcare delivery models, and investor appetite for growth are driving innovation in healthcare in South Africa.

Furthermore, telehealth has gained prominence since the pandemic. Virtual medicine presents an opportunity for healthcare providers to access more patients at lower costs. In one model, patients have access to a healthcare professional virtually. In other models, technologies help scale a healthcare offering in new ways. One such example is robotic surgery. South African healthcare providers are leveraging this to create differentiated patient experiences across specific types of care.



Globally and locally, players from lateral industries have begun to enter healthcare. Together with small, agile new entrants into the space, these create a highly competitive landscape for the industry. Healthcare organisations in South Africa are partnering with these entrants to deliver new, distinctive value to patients and other consumers, not least through new use cases and new technologies.

By sharing expertise and resources, cross-industry collaborations create new, value-based care models, helping manage population health more effectively and align incentives toward better patient outcomes. Examples include driving efficiencies through laboratories automating processes. This enables them to handle increased testing demands efficiently, leading to cost reductions and improved diagnostic capabilities. Additionally, shared medical appointments, where multiple patients with similar conditions are seen collectively, help optimise resources and enhance patient education and support.



Another significant growth opportunity for investors and key sector stakeholders comes from the introduction of new health technologies and services tailored to the needs of informed and connected South African patients. This is fuelling growth and innovation in the sector.

The introduction of the NHI is considered a mixed blessing. Its promise to provide universal access to good quality healthcare in South Africa through encouraging partnerships and collaboration between the public and private systems is welcome. However, in its earlier days of implementation, some organisations face uncertainty around their role and how to best embrace the resultant opportunities. A handful of more mature organisations are able to anticipate the changes they would be required to implement internally. These companies are already taking the necessary steps to be ready once the bill is enforced.

Beyond the NHI, the complex regulatory environment around healthcare presents challenges for healthcare organisations to innovate. Unclear regulations in the face of rapidly emerging technologies inhibit organisations' ability to take measured risks to improve their patient offering and deliver higher quality care more efficiently.

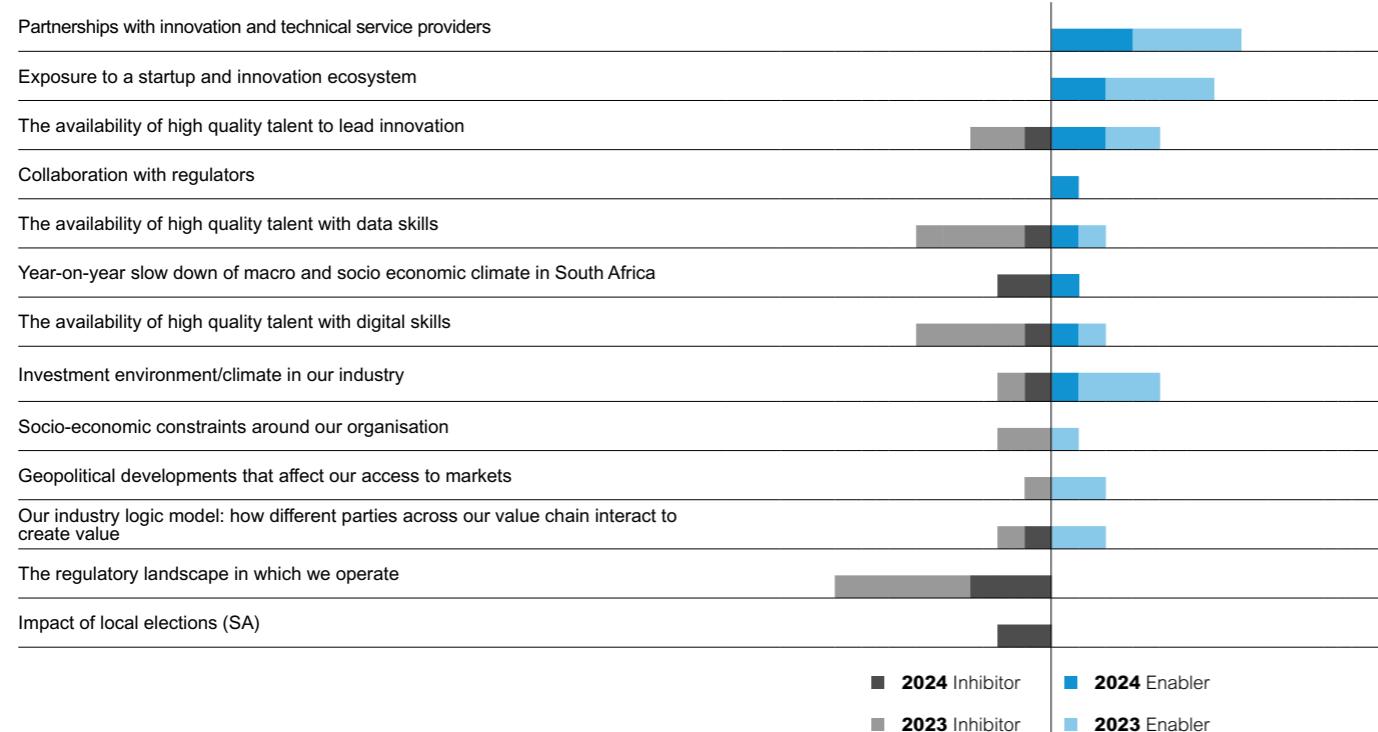
Some players at the leading edge of healthcare innovation are able to collaborate with regulators in improving their services. However, the lack of specific incentives for private sector participation in public healthcare can limit the ability of healthcare companies to innovate and adapt to new opportunities. This is even more so the case within the context of the NHI and beyond.

A strong innovation and growth practice in the digital era requires the availability of suitably qualified and experienced talent. This talent needs to be digitally literate, be familiar with innovation and user-centric methodologies and must be able to collaborate with experts in healthcare to develop new products and services that are desirable, feasible, and viable. Talent of this calibre is rare, and organisations compete globally to attract and retain them. Interestingly, some healthcare organisations in South Africa appear to be able to recruit and deploy this talent towards their innovation pillar.

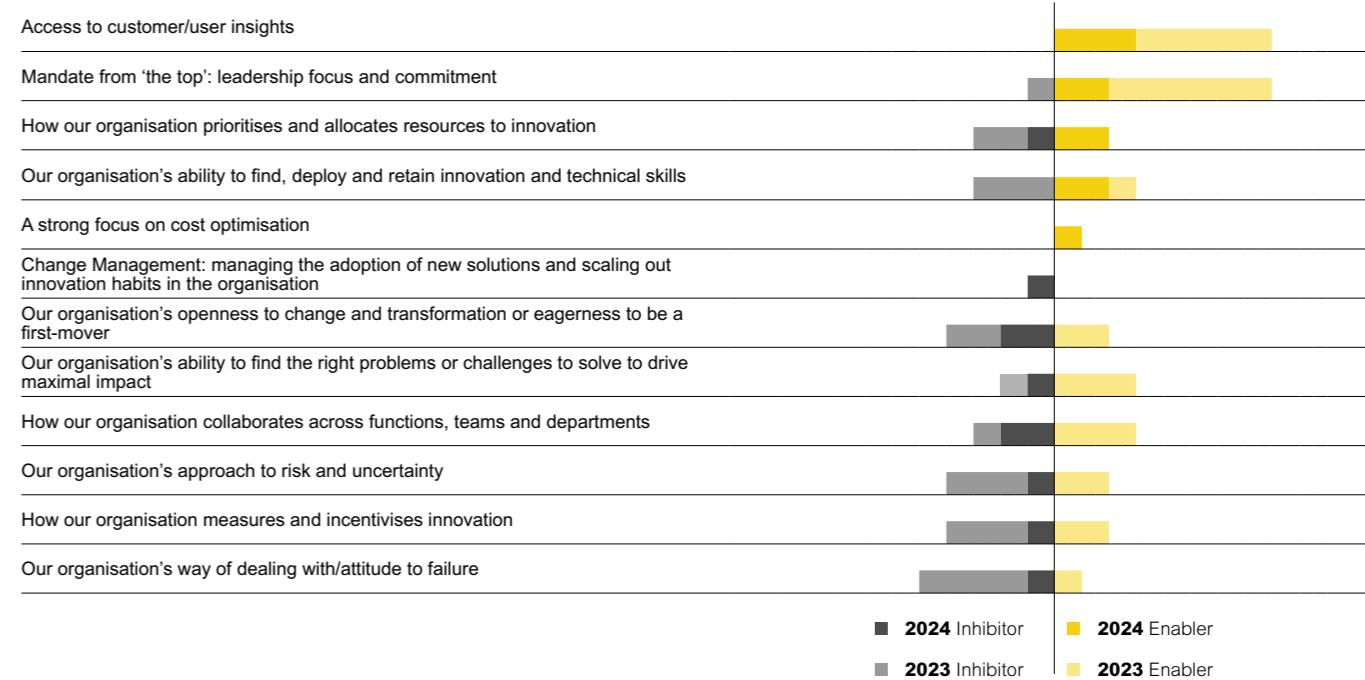
7 Factors impacting innovation across sectors

7.4 Healthcare

HEALTHCARE: EXTERNAL FACTORS



HEALTHCARE: INTERNAL FACTORS



Similar to other sectors, the period leading up to the 2024 elections also impacted the health sector. This resulted in a 'wait-and-see' approach by healthcare companies pursuing and investing in technology and innovation. Shortly after the election period, a positive sentiment saw companies in the healthcare space beginning to reengage service providers and partners. This resulted in efforts to continue pursuits of various technology and innovation capabilities required within their businesses.

Economic considerations can also be considered an inhibitor. This is particularly the case within the private healthcare sector in South Africa. Here, variables like the unemployment rate, which impacts people's disposable income and their ability to afford private medical care, is a significant influencing factor. This challenging economic environment requires the adoption of more innovative approaches especially when it comes to healthcare delivery and financing.

Access to consumer and patient data afforded through digital channels and the leadership's drive and commitment to growth are strong enablers of innovation in healthcare. However, a risk-averse culture with no habit of learning from failures and a resistance to change continue to restrict healthcare organisations' ability to explore new avenues of growth through innovation.

Access to user insights, not least through digital tools, is a crucial internal enabler of innovation. Patients taking more accountability for their health and the desire for holistic health are driving healthcare players to think differently and create new innovations that cater to these evolving patient needs. This patient-centric approach is enabling healthcare companies to explore new cases and innovations that align with the expectations and behaviours of their users.

Backed by their leadership, the healthcare organisations surveyed this year are allocating resources specifically to innovation. This helps them nurture a healthy innovation practice.

Despite the commitment to innovative cultures displayed in this sector, some organisations have noted that their organisations' openness to change and transformation, as well as how they collaborate across functions in the pursuit of innovation, can

hinder innovation. Additionally, ineffective change management can inhibit innovation in organisations operating in this sector. The complexities of human behaviour and culture can further restrict the adoption of new innovations within a company. This indicates that while change is necessary for innovation, managing that change is a complex undertaking that must be navigated appropriately.

Governance processes are necessary for ensuring accountability and oversight.

When designed ineffectively, they can add bureaucratic complexity, slow down decisions, and inhibit the speed at which organisations can innovate. Those organisations that excel with innovation are the ones who can successfully balance the need for accountability, oversight and control with ownership, creativity and fast action. Together, these nurture innovation.

7.5 Energy and Natural Resources

Organisations in the energy and natural resources (ENR) sector are involved in the mining, extraction, manufacturing, distribution, and retail of natural minerals and other geological materials, as well as the associated by-products.

The forces impacting this sector include decarbonisation, digitisation, cost constraints, and geopolitical unpredictability. They require companies to carefully balance addressing immediate commercial pressures and reconfiguring themselves for the future. Increasingly, organisations in this sector find it challenging to achieve interim net zero targets, alongside productivity and revenue objectives. This results in them re-evaluating their strategies to stay relevant.

Digital innovation and transformation are critical enablers of productivity. The better use of assets throughout the value chain is critical in this regard.



► **The drivers, challenges, and enablers highlighted in the 2023 survey are still relevant and held by respondents of this year's survey.**

Top drivers of Innovation within the ENR sector:

Environmental and climate considerations.

Environmental and climate factors influence the strategies and innovation activities of ENR sector organisations, given that ESG demands attention across all operational facets. Several prominent areas that can benefit the most from ESG improvements, such as bolstering diversity, equity, inclusion, mine closures, and rehabilitation, are not new. However, the evolving nature of ESG requires newfound expertise in areas like water stewardship and biodiversity.

Stakeholder expectations are expanding to encompass enhanced risk and opportunity evaluations, transparent reporting, outcome-driven metrics, and assurance. Innovation presents avenues for ENR organisations to adapt to an evolving future and fulfil these anticipations.

Firms that critically assess and adapt their business models can gain a competitive advantage as demand and expectations evolve.

Transformation of supply chains and distribution networks.

Ongoing worldwide upheavals are heightening the need to more rapidly transform the supply chain to withstand fluctuations better and uncover avenues for enhancing efficiency, resilience, and clarity.

To this end, ENR organisations are considering advanced, innovative methods to alleviate supply chain risks. These include strengthening supplier relationships and collaborative agreements. The integration of digital innovation and emerging technologies is essential to power this shift, facilitating marked improvements in cost, productivity, and safety.

Changing consumer behaviours and expectations.

There has been a notable change in how investors, customers, and society perceive value, acknowledging the extensive effects - both favourable and adverse - of an organisation's actions. Consumers are becoming more motivated by social and environmental principles. ENR organisations must prioritise defining their purpose, using it to strengthen their brand and convey worth to their consumers.

Demand for flexible and sustainable ways of working.

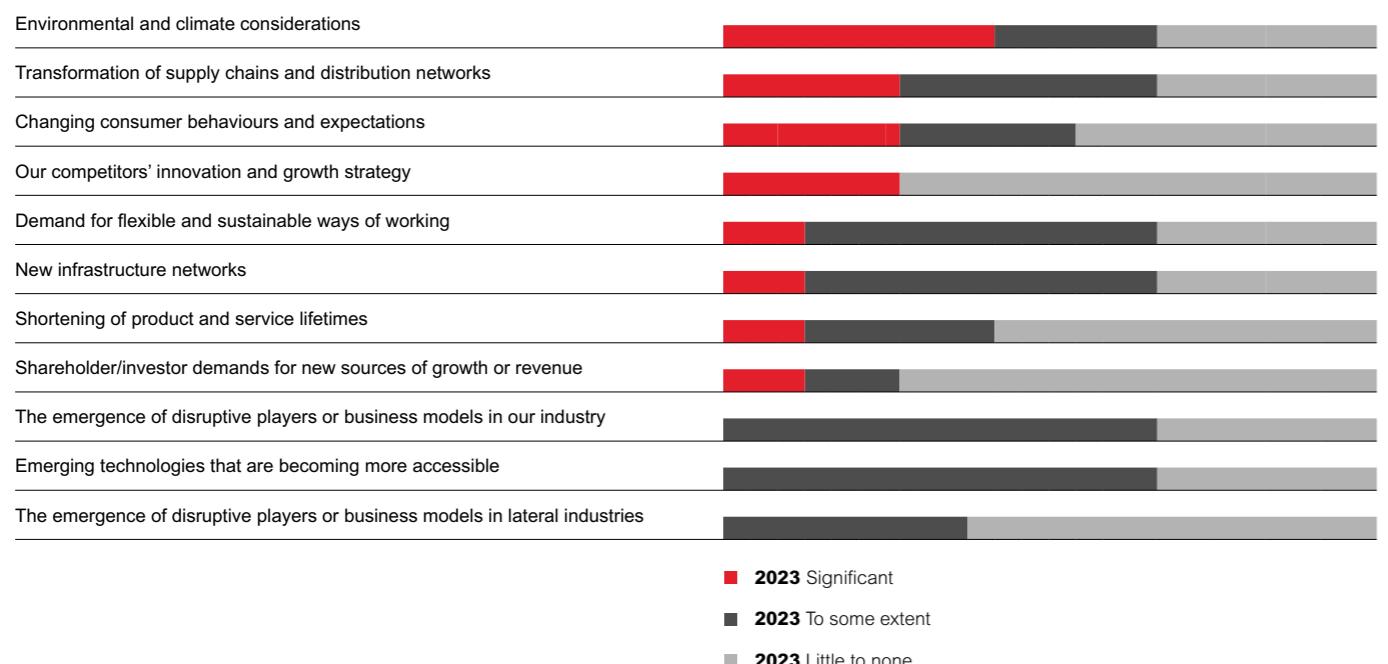
Amidst this changing landscape of values, the sector anticipates a need for varied workers, possessing diverse skills and unique work priorities to evolve into a more digital, data-centric, and streamlined industry. Embedding innovative strategies into workforce planning and establishing a blueprint that guarantees the required talent aligns with future business needs is paramount for a sustainable future in the workplace. To source talent with essential ENR skills, the sector must reconsider its methods of attracting, nurturing, and retaining talent. This is especially the case as younger workers might be dissuaded by the mining industry's reputation as well as their need for flexible work schedules and locations.

7 Factors impacting innovation across sectors

7.5 Energy and Natural Resources

Furthermore, infrastructure networks, particularly in energy, are changing. The energy transition is altering demand patterns, with companies pivoting by investing more in “future-oriented” commodities like copper and lithium, divesting coal assets, and adopting forward-looking innovative business models.

ENERGY AND NATURAL RESOURCES: DRIVERS OF INNOVATION

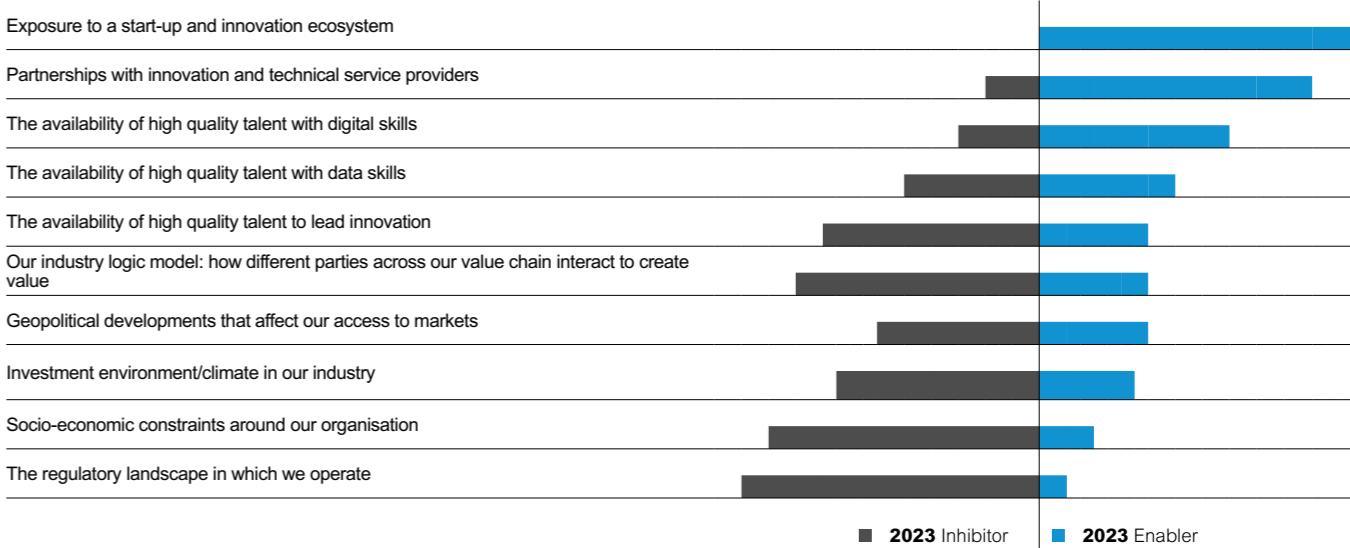


- 2023 Significant
- 2023 To some extent
- 2023 Little to none

In pursuing growth and innovation, the following factors were experienced in the internal and external

environments that enable or inhibit efforts and ambitions:

ENERGY AND NATURAL RESOURCES: EXTERNAL FACTORS



■ 2023 Inhibitor ■ 2023 Enabler

Within the ENR sector, organisations pinpoint their interaction with start-up ecosystems and innovation, as well as partnerships with innovative and technical service providers, as significant enablers in the external environment. These organisations acknowledge that collaborations with such agile businesses, and the skillsets they offer, bolster the evolution and expansion of innovative ideas within the broader organisation. This strategy mitigates the extent of investment and productivity loss needed, especially given the restrictive circumstances that hamper the ability to invest in enduring skills and capability.

Such partnerships become indispensable when seeking expertise in innovation, digital, and data realms due to the pivotal role of these skills in spearheading digital innovation ventures. The lack of access to talent possessing the required competencies is a substantial obstacle that must be overcome. Many organisations highlighted the difficulty of sourcing such skills within South Africa.

The challenge is not merely the limited supply of talent in these areas; the ENR sector is also struggling to attract talent into the sector, given its waning appeal in the job market. Upcoming generations entering the workforce perceive the ENR sector as misaligned with their personal values and mission.

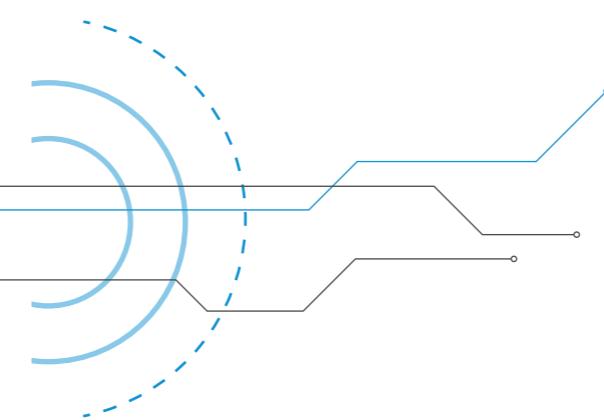
The investment landscape elicited diverse reactions, with some viewing it as a facilitator and others as a constraint. A few noted the robust investment directed towards digital and innovation, while others remarked on the cash flow challenges many ENR organisations face, restricting funds for fresh ventures. Nevertheless, it is vital to consider ways to channel investments into growth and transformation, all the while retaining a stringent focus on capital discipline.



ENR organisations, characteristically laden with assets and infrastructure, grapple with the challenge of enhancing current business performance, judiciously discarding outdated inefficiencies, and concurrently forging the enterprises of the future.

A prominent factor recognised as both a facilitator and an impediment is the industry's logic model. This model examines the interactions among various entities across the value chain to generate value. The agility and responsiveness can be constrained due to the substantial scale of many groups within the ENR sector, several of which have global operations and vital stakeholders like governments that necessitate close collaboration. However, this model proves beneficial when stakeholders cooperate. For instance, teaming up with OEMs for joint problem-solving through co-designed solutions.

The predominant constraining factor that organisations encounter from the external environment is the regulatory framework. There is a perception among several organisations that the sector is being excessively regulated within South Africa.



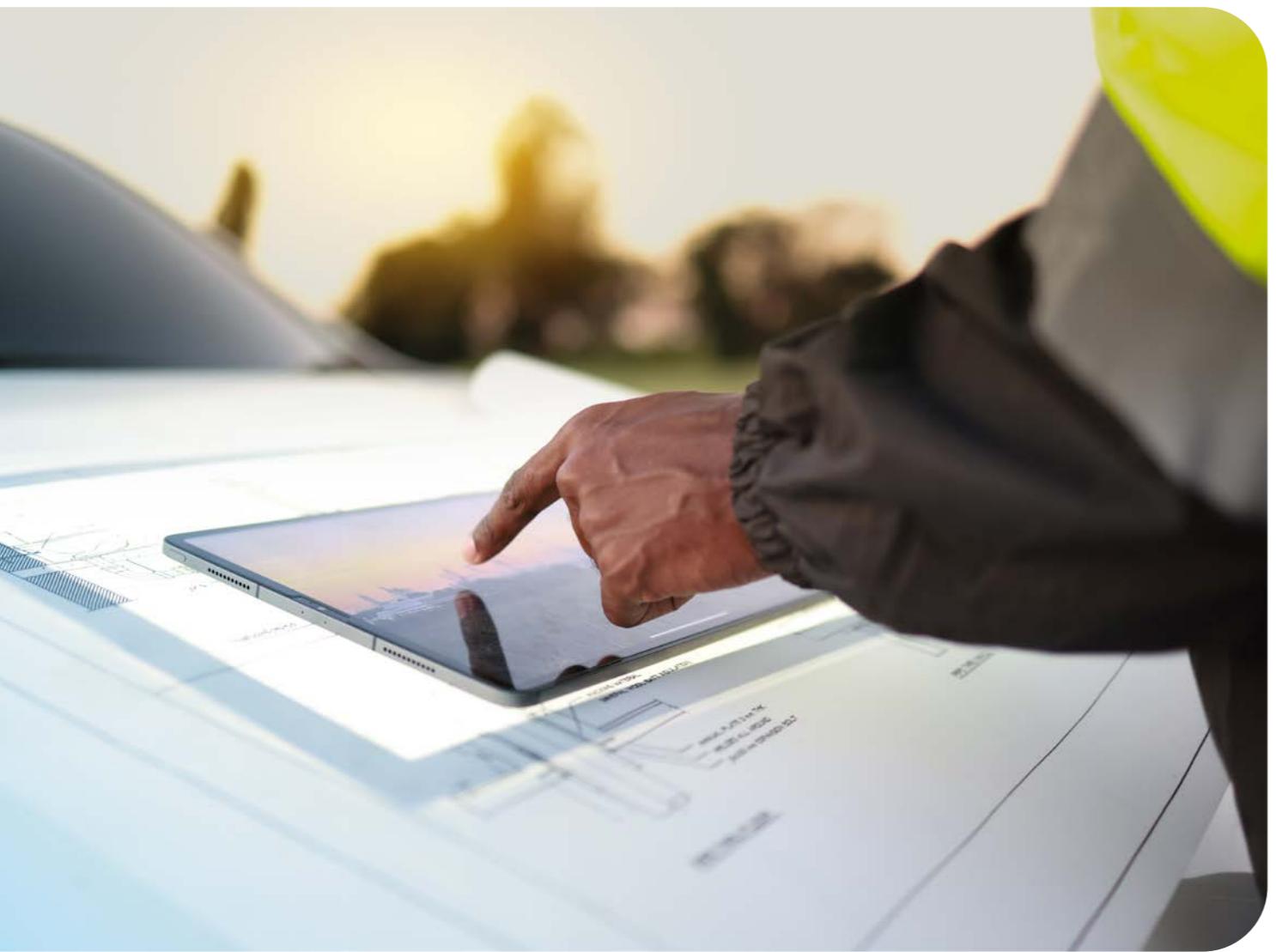
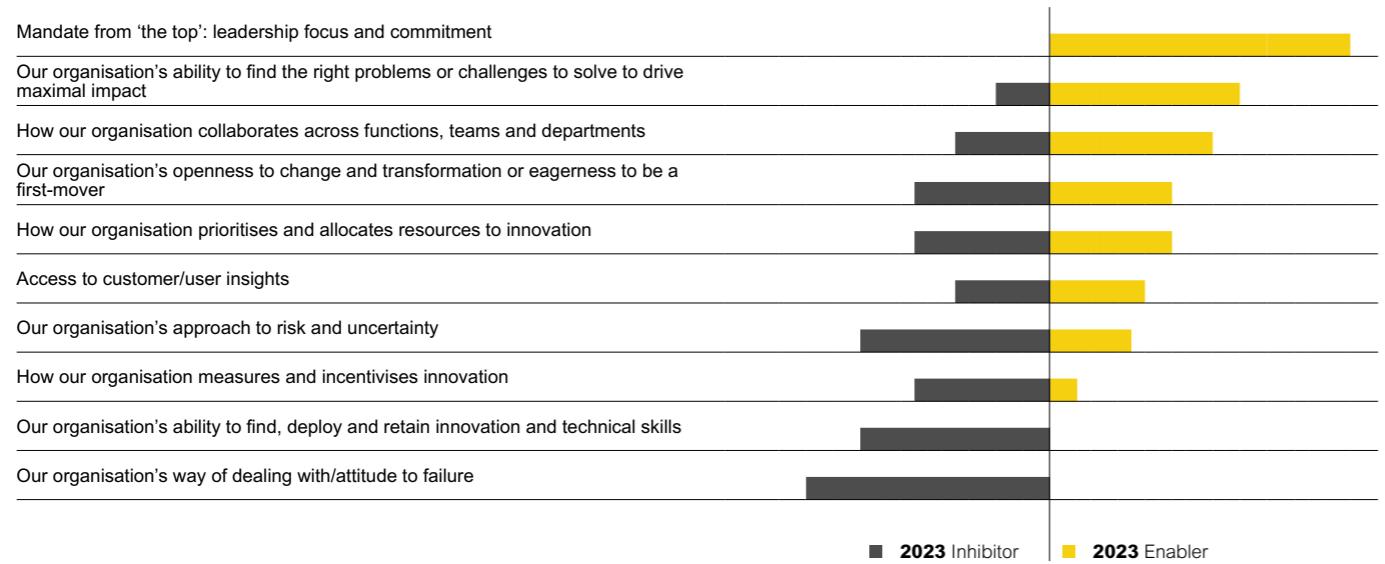
While the significance of regulation and policies is indisputable, particularly in ensuring safety, such regulation often inhibits innovation and digital transformation. This is due to the constraints it places on machinery and subterranean operations. The intricacy and sheer volume of regulations demanding compliance present a disconcerting barrier to the exploration of novel solutions that could enhance the operating conditions that regulation aims to safeguard.

Given its historical stature as a substantial employer and contributor to the South African economy, socio-economic elements profoundly influence ENR organisations. There is intensified scrutiny of ENR entities concerning their support for communities affected by their operations.

7 Factors impacting innovation across sectors

7.5 Energy and Natural Resources

ENERGY AND NATURAL RESOURCES: INTERNAL FACTORS



The most significant enabling factor within the internal business environment is the unequivocal and dedicated mandate from leadership.

Such a mandate naturally leads to the prioritisation of, and investment in, innovation activities. Organisations emphasised that this commitment also engenders close collaboration and robust support from leadership all the way down to delivery teams.

This commitment reinforces the next highly ranked enabler: the organisation's aptitude in pinpointing the right problems or challenges to address, thereby maximising impact. Firms highlighted that this is facilitated by a culture that promotes an objective evaluation of performance rather than an emotional one. Concentrating on the correct issues ensures a higher return on investment.

How organisations earmark resources for innovation is another significant enabler within the internal landscape. Yet, a direct challenge to this is the organisation's capacity to identify, use, and retain innovation and technical expertise — a factor ranked high as an internal barrier.

The interplay is evident: while an organisation might prioritise innovation when resources are allocated, the necessary skills for the initiative might be lacking. Firms also noted the increasing difficulty in attracting and subsequently retaining the right talent, resulting in smaller innovation teams overwhelmed by their workload. When budgets tighten, innovation is often the first area to see cuts, further exacerbating any capability deficits.

A notable inhibitor for ENR organisations, which further decelerates innovation, is the firm's approach to failure. This attitude significantly influences the prioritisation, development, and scaling of identified solutions. Many respondents commented that their leadership, accustomed to navigating numerous

regulatory requirements, instinctively questions novelties, resulting in slower adoption or outright obstruction of innovation. Moreover, the manner in which organisations measure and incentivise innovation was also highlighted as a major internal barrier. Absent the motivation stemming from effective performance metrics and incentives, there is little impetus for employees to take initiative or assume added responsibilities.

The organisation's stance on failure, combined with its approach to risk and uncertainty, was underscored as a major internal impediment to innovation. The inherent resistance to change, like altering work methods, significantly influences the approval rate and speed to introduce digital or innovative initiatives. Some proposed that this might be the driving force behind the demand for a unique process detailing the progression of an idea from problem identification to solution development and expansion.

It is intriguing to observe the nearly equal divide regarding ENR organisations' receptiveness to change and their pioneering spirit. All firms ranking this factor, be it as an enabler or barrier, placed it within their top three. This highlights the different attitudes companies in this sector have towards market disruption. Some lean towards a proactive stance, while others adopt a more reactive approach due to variables such as alignment of digital and innovation to overall strategy, investment availability, or access to necessary capabilities.

7.6 Telco and Technology

Organisations in this sector comprise multinational telecommunication providers of wired and wireless voice, messaging, data, and integrated communications solutions as well as technology product and service providers.



South Africa's telecom and technology sector is a standout in the Africa region, transitioning from voice services to data-centric applications. Growth has been driven by substantial investment in infrastructure from both the public and private sectors. Additionally, the surge in smartphone usage and strong demand for mobile and internet services

have further contributed to this growth. The outlook for the local telecom and technology sector is optimistic. However, it faces global risks like rising interest rates and cybersecurity threats. There are also local regulatory changes that could affect growth prospects.

TELCO AND TECHNOLOGY: DRIVERS OF INNOVATION

Our organisation's diversification agenda (e.g. diversifying geographies, channels, partners or supply chains)

Changing consumption patterns are changing the way we serve customers

Changing consumption patterns are changing what we serve customers

Shortening of product and service lifecycles

Demand for flexible and sustainable ways of working

Emerging technologies that are becoming more accessible

Stakeholder/investor demands for new sources of growth or revenue

New infrastructure networks

The emergence of disruptive players or business models in our industry

Our competitors' innovation and growth strategy

Transformation of supply chains and distribution networks

The emergence of disruptive players or business models in lateral industries

Government Incentives

Environmental and climate considerations

Our competitors' innovation and growth strategy



Innovation drivers in this sector include the need to diversify business models and emerging technologies that are becoming more accessible.

The telecom and technology industry has been instrumental in the digital revolution and has transformed how we live, work, and play. As waves of new technologies emerge, digital services become more widespread. This is challenging telecom operators to reinvent how they serve customers while creating and capturing value beyond connectivity.

7 Factors impacting innovation across sectors

7.6 Telco and Technology

The need to reinvent themselves whilst investing heavily in infrastructure to support the digital world pushes these businesses to diversify. In this landscape, businesses in this sector are moving away from physical stockholding to digital products such as software, intangibles, and subscriptions. Even though hyperscalers and digital service providers have a global reach, technology companies have a sizeable opportunity to localise services to specific regions where they operate. In doing so, they can potentially maintain a strong position in the value chain.

Since the pandemic, digital tools have become central to people's flexible ways of working. The demand for connectivity and for the right technological solutions to support this flexibility was felt by operators and tech companies directly.

→ This drives innovation: telecom and technology companies must support the demand for hybrid work through real-time access to work systems, colleagues, and information.

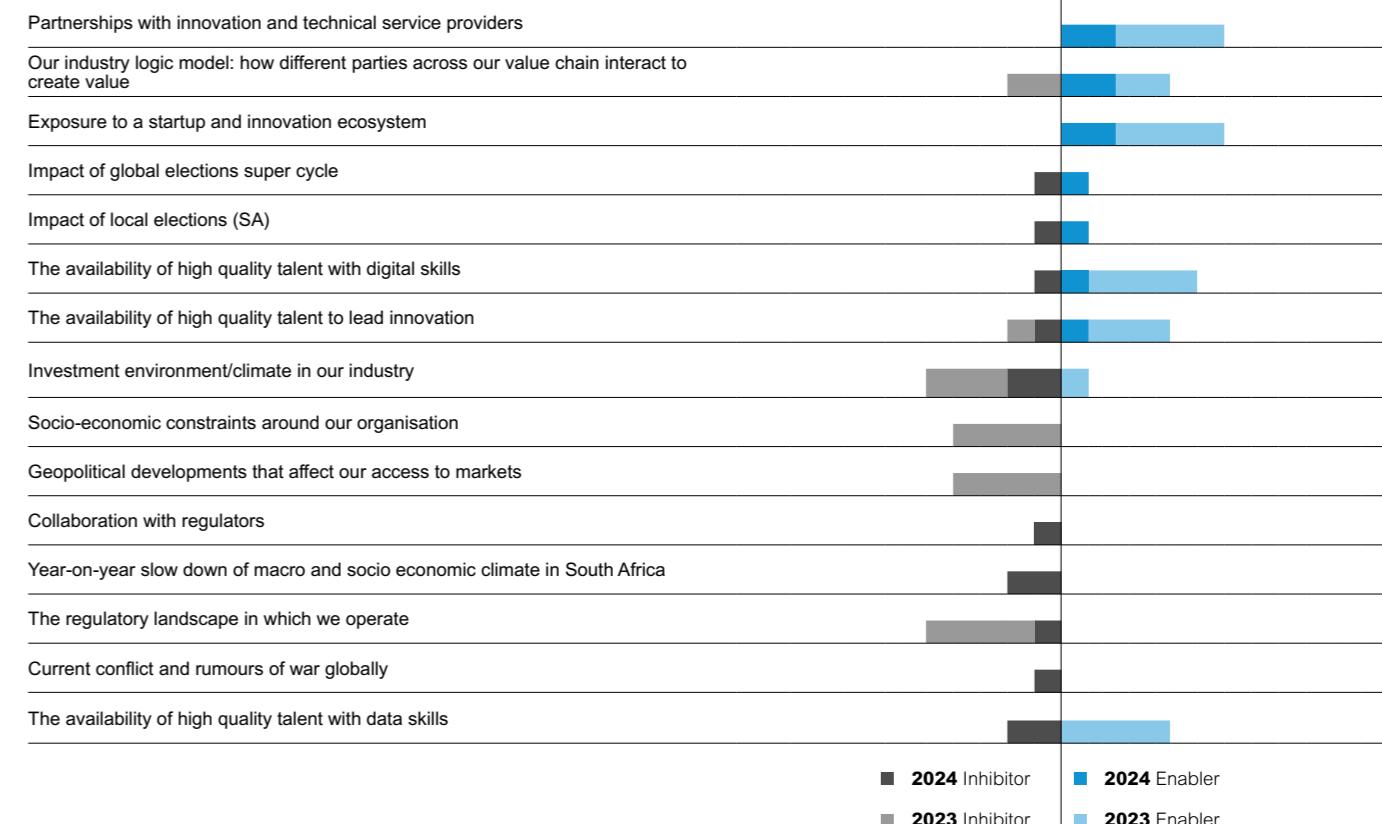
They also address the evolving needs of digital workers to become more efficient and productive whilst preserving wellbeing. This requires businesses to reimagine how they design their operations for a more modern world. This constant need for evolution shortens product and service lifecycles, further driving a need for companies to innovate. Telecom and technology companies are driving this. The emergence of disruptive players who specialise in these intangible technology products, challenges traditional businesses to adapt and innovate.

Connectivity plays a pivotal role in transformation, enabling data centre infrastructure in new markets to be built. In turn, this empowers public sector institutions to adopt cloud technologies and software solutions. Although connectivity has become somewhat commoditised, it remains a critical enabler for market opportunities, especially as more offerings become available with increased connectivity.

Despite what appears to be a lack of specific government incentives for the ICT industry in South Africa, organisations could drive expansion in certain areas should these incentives become more available. However, current challenges, such as infrastructure and power shortages create hurdles for IT innovation and growth.



TELCO AND TECHNOLOGY: EXTERNAL FACTORS



Respondents listed 'a poor investment and economic environment/climate' and 'access to skills' as the top external inhibitors to innovation within their industry.

→ Collaboration with other organisations is identified as the top enabler of innovation.

Interaction between different parties in the value chain can be a source of value creation. Telecoms and technology organisations recognise the value that working with their wider ecosystem can bring especially when it comes to innovation.

Having access to external service providers and a start-up ecosystem allows organisations to bridge any capability or market gaps. Telecoms and technology providers are seen as strong partners to all industries. Therefore, they play a critical and enabling role in driving innovation across the economy.

Within the industry logic model, as business models change and new models emerge, the ability to coordinate how ecosystems of partners collaborate to create and capture value in the sector is critical. Forming strategic partnerships with a broad network of stakeholders (within and outside of the industry) can facilitate their access to markets and customer service.

7 Factors impacting innovation across sectors

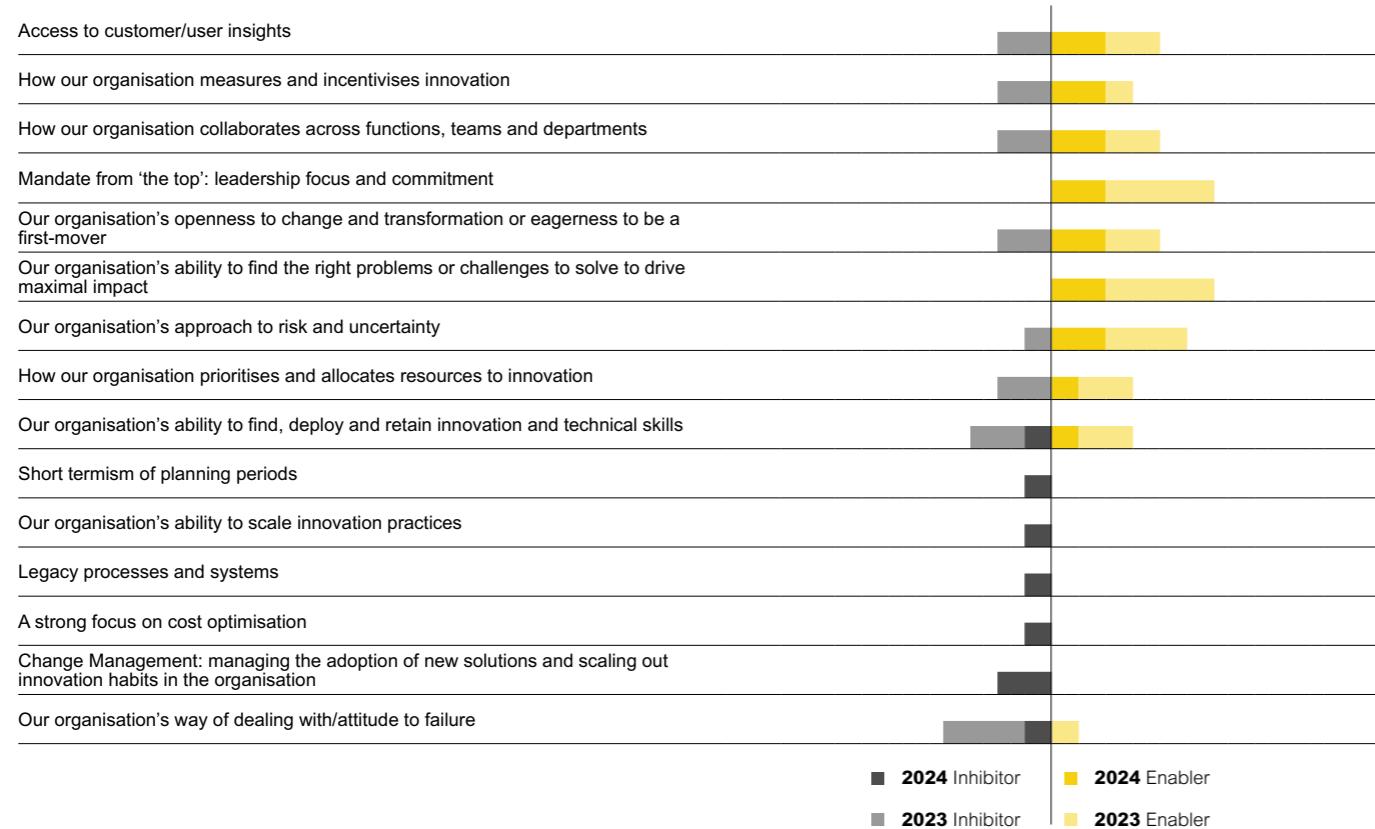
7.6 Telco and Technology

Some organisations indicate that skills available in the market are accessible and sufficient for their needs. However, others cite specialist skills, especially in areas like cybersecurity, to be lacking and posing a significant challenge. The competition for a limited pool of skilled professionals can hinder growth as organisations vie to attract and retain top talent. This issue is exacerbated by a macroeconomic slowdown. While this does not result in a significant contraction in the telecoms and technology industry, it has necessitated a shift in how companies

sell and deliver their services to drive growth.

Several organisations in this sector maintain a positive sentiment towards the local and global elections. Others, similar to other industries across this report, cite that these events have influenced investment decisions and the economic climate negatively. For instance, fluctuations in the exchange rate during the election have strained customer budgets, especially for digital technologies that are largely dollar-driven.

TELCO AND TECHNOLOGY: INTERNAL FACTORS



Internally, change management has emerged as a big challenge this year. Successful change management involves guiding the organisation through the adoption of new technologies and processes, ensuring that these changes are smoothly integrated into daily operations. Understanding the purpose behind the implementation of technology is essential for effective change management. Organisations must clearly articulate the benefits

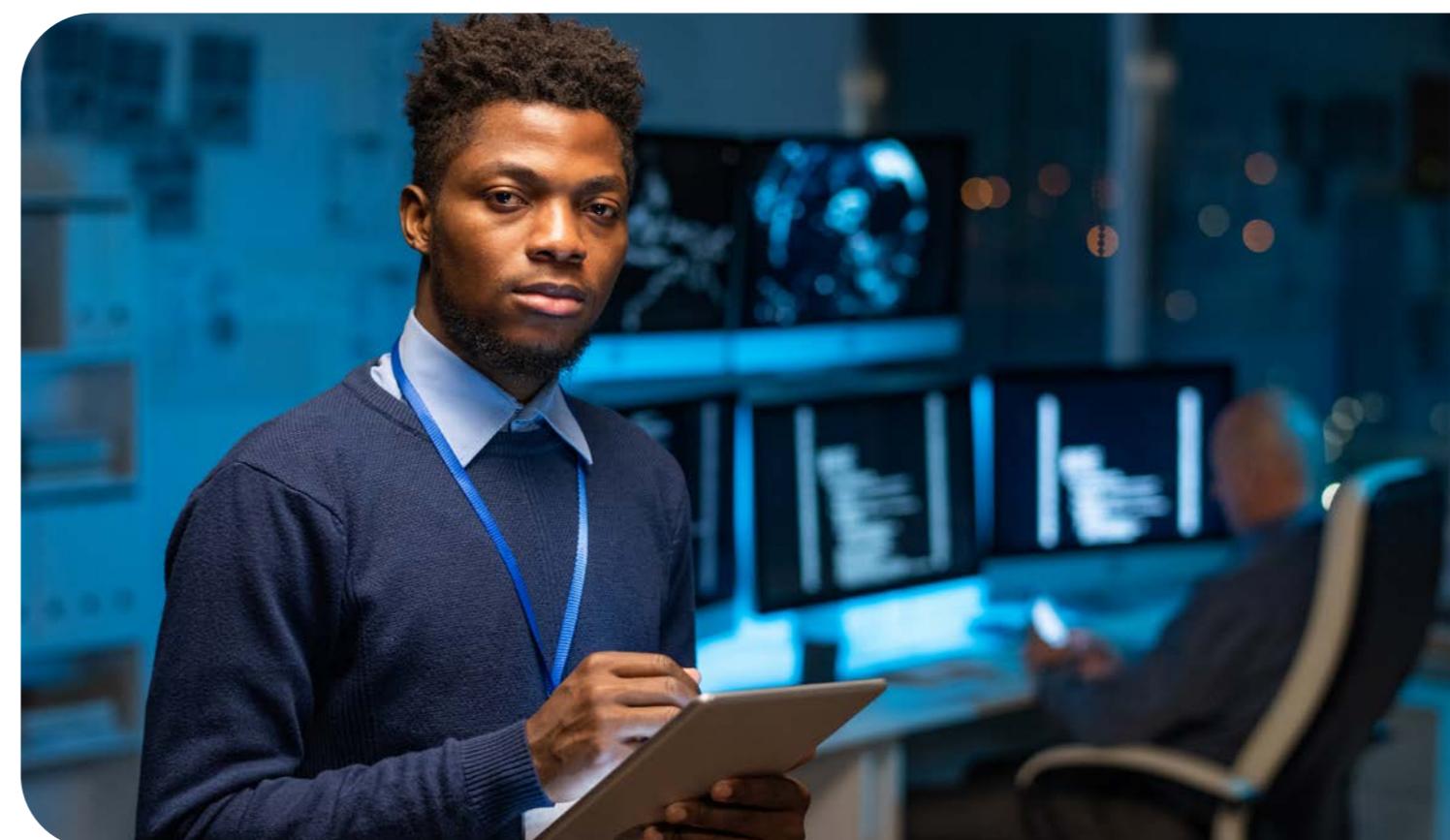
of new technology to facilitate adoption. When the advantages are evident, employees are more likely to embrace change and use new systems to their full potential. However, if the benefits are not directly relevant to their roles, there is a risk that these systems will be underutilised or ignored, underscoring the importance of demonstrating value to all stakeholders.

Access to the right customer insights is key to enabling innovation. This helps drive the development of products and services that meet evolving market needs. Being able to process customer data can transform insights into actionable strategies, enabling organisations to support their customers more effectively. This focus on customer needs ensures that innovation efforts are not only internally driven but also aligned with market demand, creating opportunities for growth and competitive differentiation.

In addition, the overall culture of these organisations can be seen to enable innovation within this sector. An agile culture that is open to experimentation, cross-functional collaborations, learning from failures, and fast iteration helps organisations move at the pace of the market. Agile development originated from software development during the early days of

the digital revolution. As drivers of this revolution, technology companies tend to have such a culture embedded within their operations. The exponential growth of technology in recent years has seen companies now face the additional challenge of managing an ecosystem of solutions and services within a complex competitive landscape. Maintaining a level of agility and a focused approach to business helps these organisations outperform their peers on the market.

These organisations reiterate the importance of leadership support in driving innovation. When top executives demonstrate support for innovation, it sets a tone that filters through the entire organisation, fostering an environment where new ideas are encouraged and incentivised, collaboration is welcomed, and problems are solved.



7.7 Agriculture

Agriculture extends to any organisation involved in grain production, agricultural marketing, logistics, retailing, and trading products that focus on crops and plantations.



Globally, the sector has demonstrated consistent performance and growth despite agricultural commodity price fluctuations. These fluctuations can be attributed to changes in exchange rates, government subsidies, and climate uncertainty. As the global population continues to rise, the demand for food increases. The sector must therefore embrace innovative solutions and technological advancements to enhance productivity and efficiency to meet this growing demand. The use of data, data analytics, and automation are revolutionising traditional farming practices. In turn, this results in higher yields and reduced resource waste.

South Africa's agricultural sector plays a vital role in this global economy. A favourable climate, coupled with advancements in precision farming and mechanisation, has significantly improved yields and efficiency in the country.

➔ **Innovation, enabled by technological advancements and focused on ensuring business sustainability and sustainable practices, is the primary driver of growth in the global agricultural sector.**

Technological advancements, such as wireless technologies, GPS positioning, and robotics have transformed farming practices, making them more efficient and productive. Precision agriculture allows farmers to optimise their resources and inputs, further contributing to higher yields and a reduced environmental impact.

In a volatile and uncertain environment, agricultural organisations are focusing on digital innovation to achieve greater precision and predictability. The emphasis here is on ensuring long-term sustainability and resilience through technologies that reduce fluctuations from severe droughts and floods.

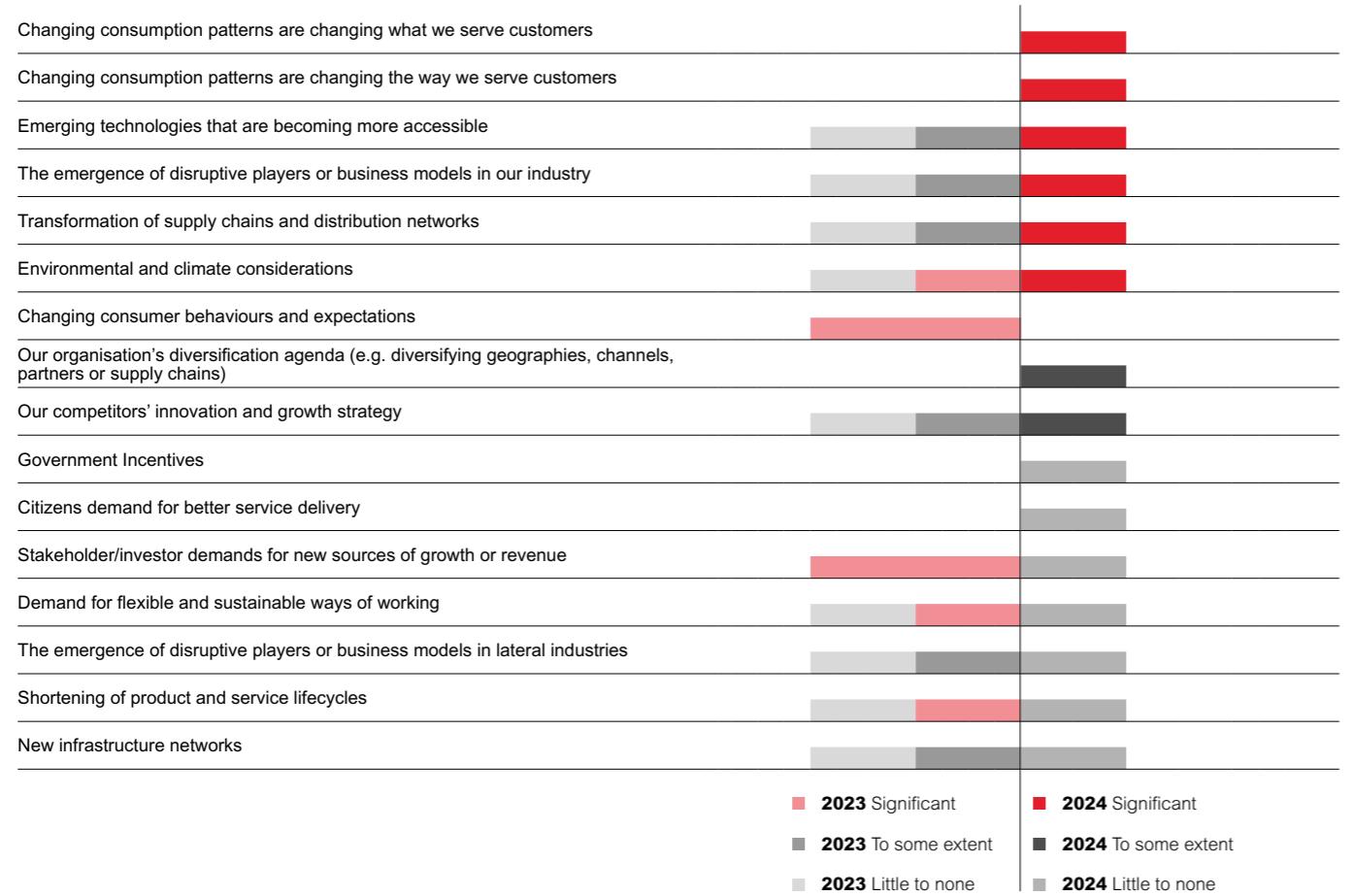
The transformation of supply chains is also impacting the ecosystem. An agile and forward-thinking approach is essential to maintain and enhance the flow of goods from farm to market.



7 Factors impacting innovation across sectors

7.7 Agriculture

AGRICULTURE: DRIVERS OF INNOVATION



Similar to many other sectors, the need to differentiate and drive competitive advantage is a top driver of digital innovation efforts and investment.

There are two significant forces that are driving this locally and impacting competitive dynamics. Firstly, regional or provincial boundaries continue to dissolve.

Secondly, and perhaps more interestingly, the age demographic of farmers is shifting toward a younger generation who tend to more strongly drive the use of technology and new practices.

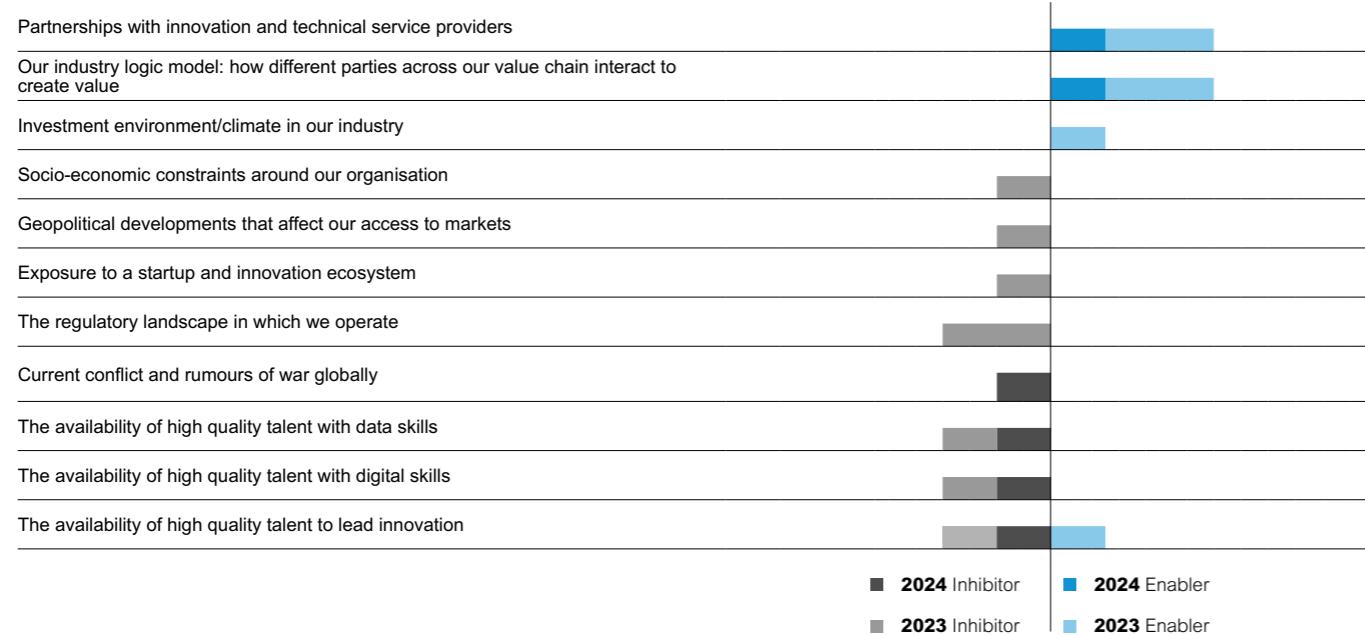
The South African market is highly competitive due to its size. While competition is good, it can also be a challenge when it comes to the widespread adoption of new solutions as some farmers might not want to make unnecessary changes to their existing practices.



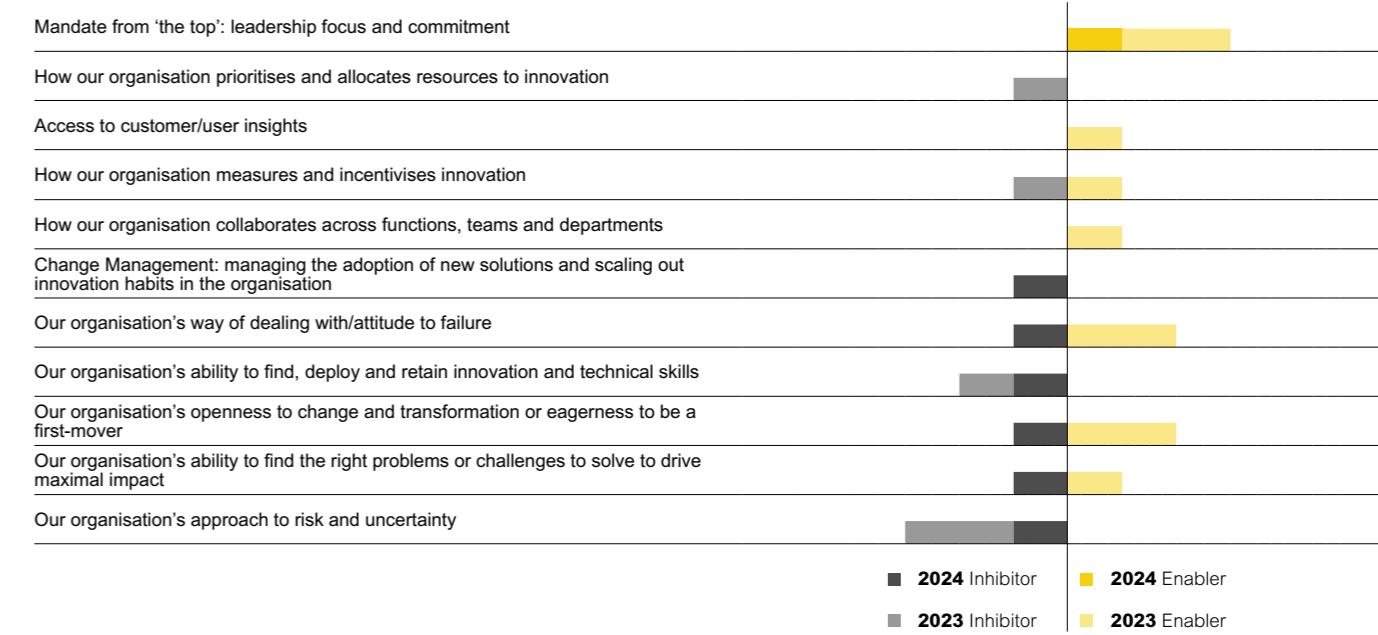
7 Factors impacting innovation across sectors

7.7 Agriculture

AGRICULTURE: EXTERNAL FACTORS



AGRICULTURE: INTERNAL FACTORS



Competition is also a challenge to digital innovation efforts in the local market. This sees local players competing against the global inflow of capital and capability. Additionally, other industry players like banks are moving more deeply into the agriculture sector.

Furthermore, identifying business needs and defining value from technology can be difficult. Defining use cases where business value will be generated is challenging, especially in a low-margin environment where costs need to return material value.

The deterioration of infrastructure has a severe impact on the local sector. Power and water shortages halt production and operations. Poor internet and cellular connectivity in rural areas inhibit the adoption of advanced technology and digital capabilities.

The availability of skills remains a persistent challenge. As the global competition for talent intensifies, it is difficult to retain and acquire the necessary expertise

for innovation. More than that, hiring teams do not always understand the technological and innovative skills required in agriculture.

The top enabler and accelerator of innovation efforts in agriculture is working with technology partners who are willing to explore new solutions with organisations.

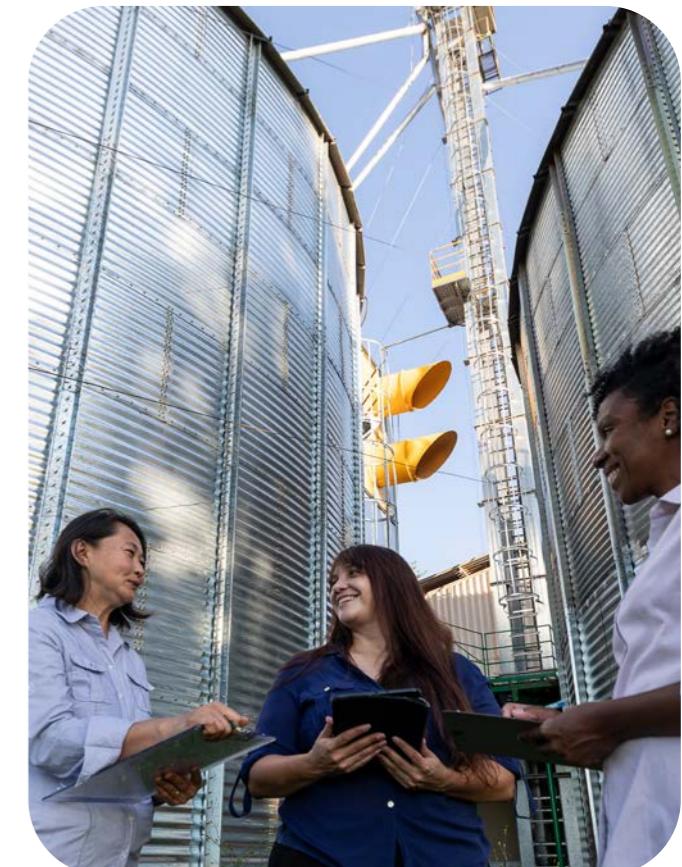
These partnerships are powerful due to the marrying of technology and digital capability with specialists who operate in the sector and who have industry knowledge and close relationships with stakeholders.

There are two main enablers of digital innovation efforts.

Leadership's focus and commitment are important. An executive team's dedication to innovation fosters an environment where new ideas are encouraged and explored. This creates a culture that is conducive to change and advancement. It also impacts the allocation of resources by ensuring funds are made available for new initiatives that explore new streams of value.

Following this, **employee commitment and enthusiasm** become crucial internal enablers. A workforce that is engaged and willing to contribute ideas can significantly drive innovation.

However, change management can be a significant barrier. Resistance to change among employees can impact a company's ability to innovate effectively.



7.8 Transport and Logistics

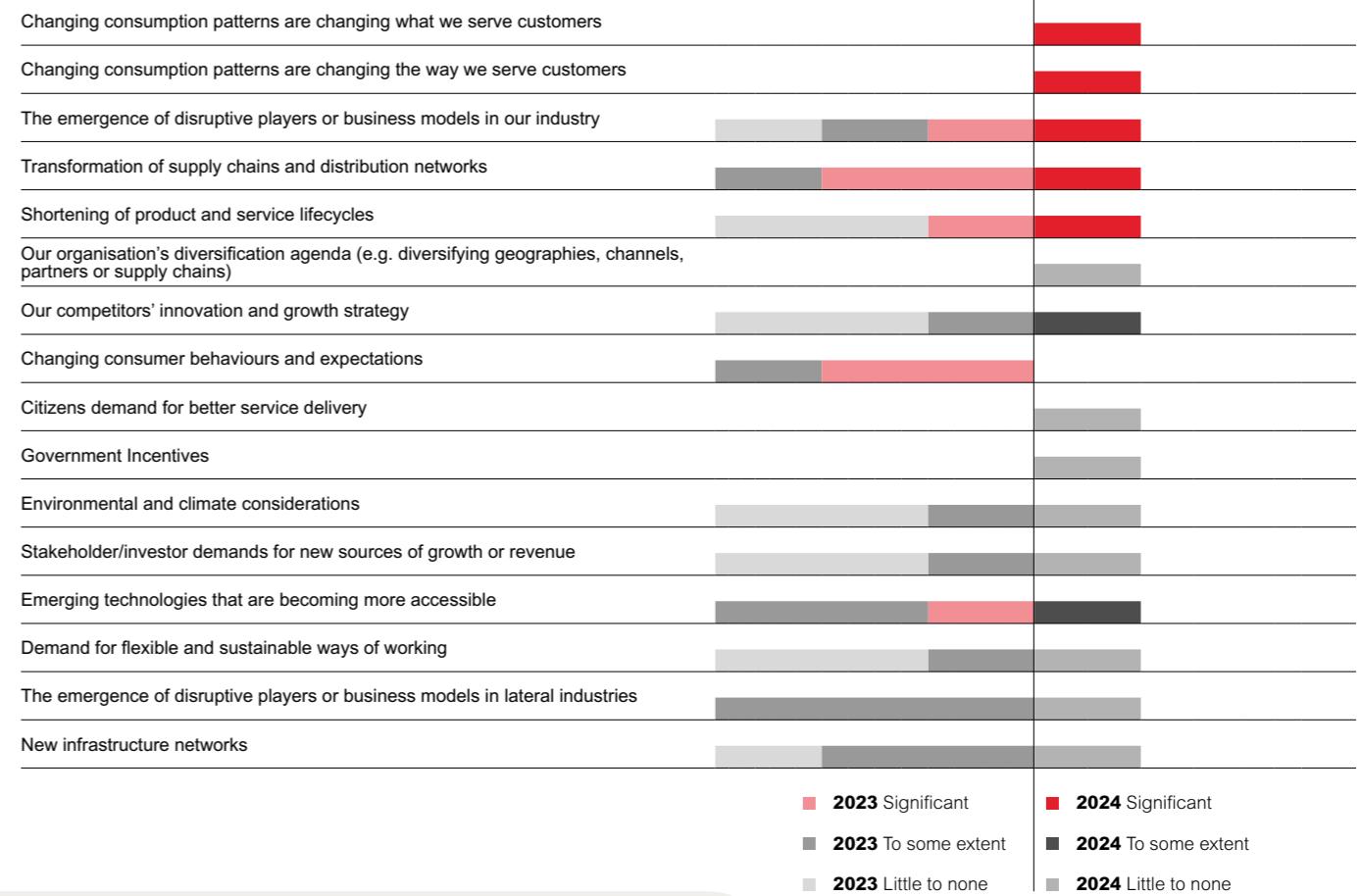
Defined as services for the movement of goods and people. It includes distribution and logistics management, warehousing and supply chain optimisation, and fleet management.



Worldwide, growth in this sector is driven by technological advancements, increased demand for efficient and sustainable transportation solutions, and the effects of globalisation. As economies expand and urbanise, the need for advanced transportation and delivery systems becomes increasingly critical to commerce.

South Africa's market has been growing, albeit at a slower pace compared to other regions. The sector has seen an increase in market size and demand for transport equipment. This has been driven by an increase in population which, in turn, has seen higher demand for light motor vehicles.

TRANSPORT AND LOGISTICS: DRIVERS OF INNOVATION



Legend:
■ 2023 Significant
■ 2023 To some extent
■ 2023 Little to none
■ 2024 Significant
■ 2024 To some extent
■ 2024 Little to none

→ **Changing consumption patterns, the emergence of disruptive business models, and the transformation of supply chains and distribution channels are significant drivers of innovation within the transport sector.**

7 Factors impacting innovation across sectors

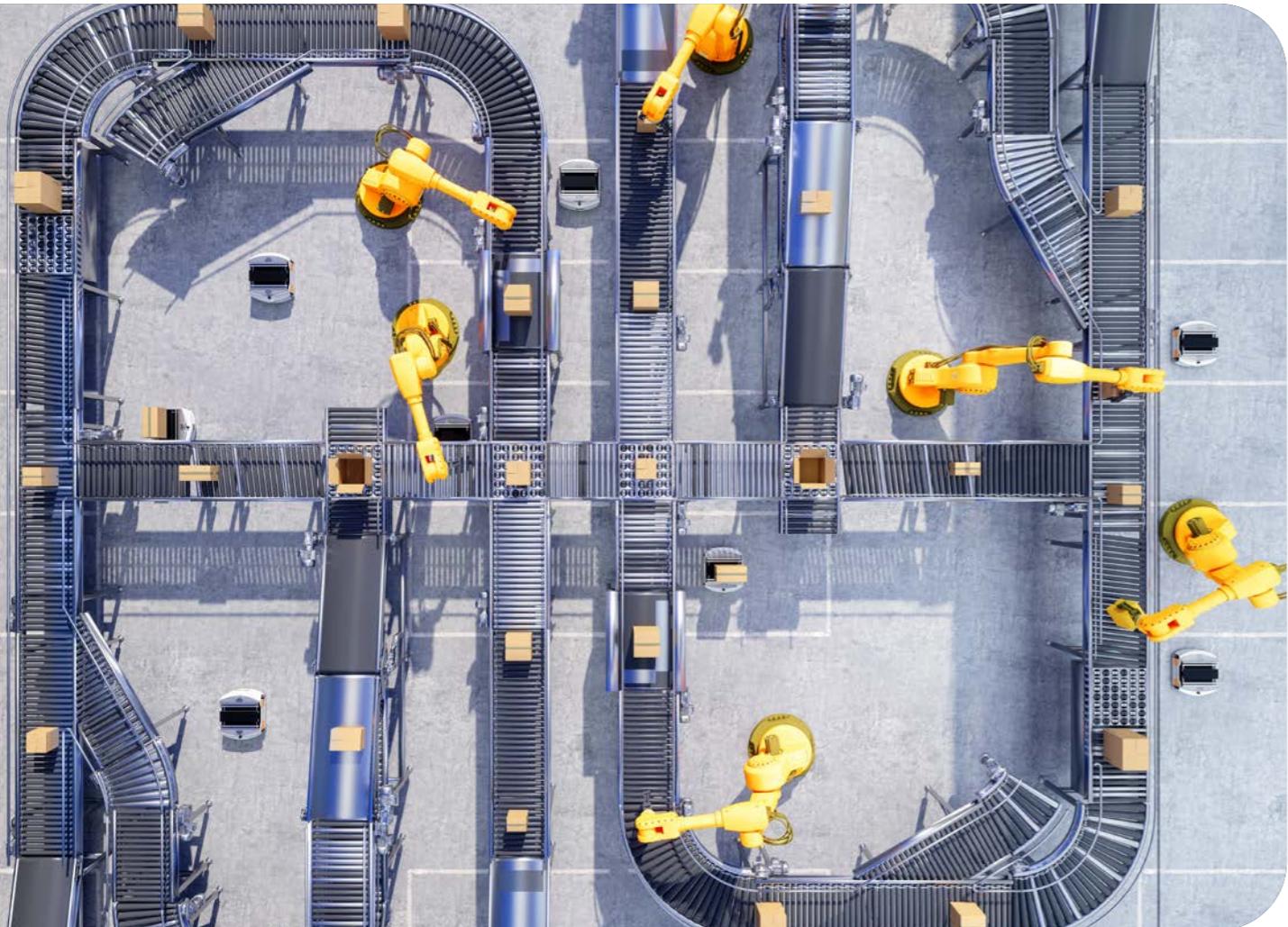
7.8 Transport and Logistics

Additionally, the sector is impacted by the transformative shift in consumer behaviour toward a preference for online transactions over traditional brick-and-mortar shopping experiences. Along with this, there are high expectations for fast delivery.

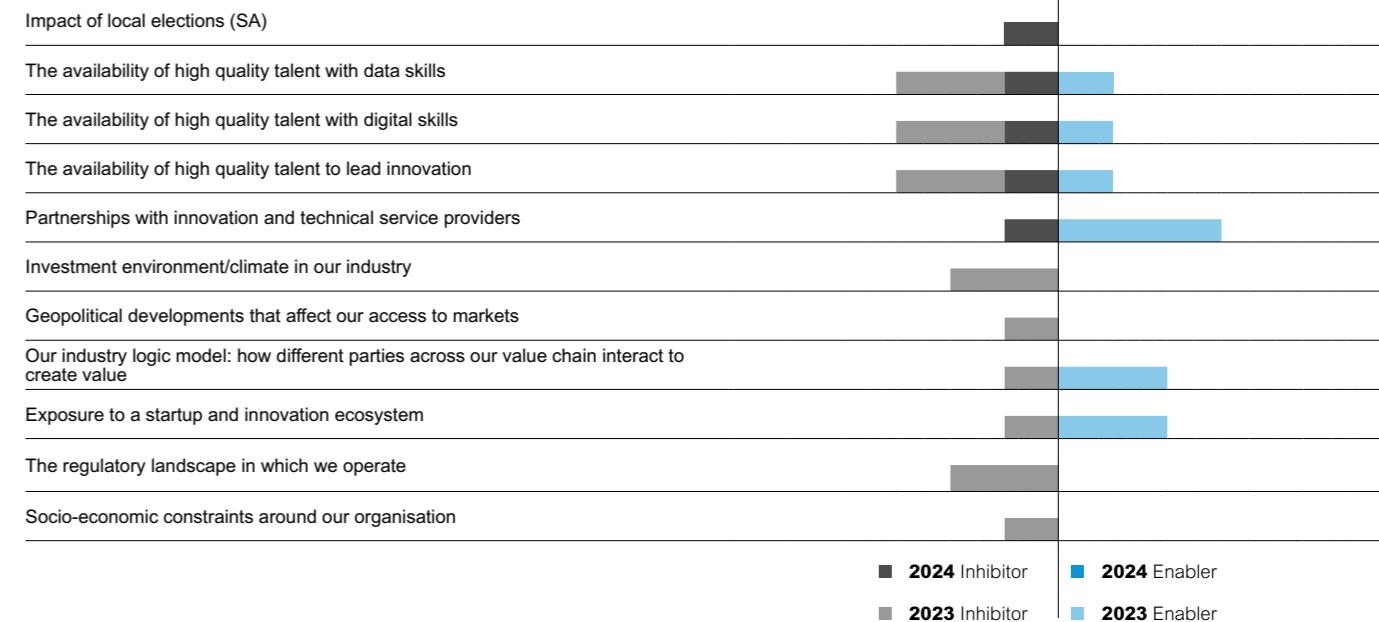
When it comes to the final mile delivery environment, there are significant changes underway. This requires the adoption of new technologies to manage logistics more effectively and efficiently.

There is a need for improved communication and transparency in both the B2B (Business-to-Business) and B2C (Business-to-Consumer) space. Already, the levels of personalised communication on the rise in other industries are changing customer expectations across the board.

Within the B2B context, the sequencing of events is vital as deliveries are often integrated into production or warehousing schedules. Any failure in delivery can result in unfulfilled or cancelled orders, resulting in subsequent losses. In the B2C space, customers have precise expectations and time constraints. For example, coordinating delivery times with customers who require being home to receive large items or prepare meals by a certain hour has introduced complexities that can break the communication channel or result in costly repeated delivery attempts for logistics service providers.



TRANSPORT AND LOGISTICS: EXTERNAL FACTORS



■ 2024 Inhibitor ■ 2024 Enabler
■ 2023 Inhibitor ■ 2023 Enabler

The sector is currently experiencing an interplay of several factors in the South African market. New entrants, that include Amazon, are increasing the competitiveness of the logistics industry. Because the sector competes on price and speed of delivery, there is a drive and focus on digital innovation initiatives that result in operational efficiency and customer satisfaction. Margins will improve as a result of these interventions. However, obstacles remain in the local market.

For instance, there is a strong focus on automation in the industry. The challenge here is the convergence of the available systems in the market. Partnerships with technology providers, seen as critical in the delivery of digital innovation, are not always easy to establish. This can be attributed to international solutions being difficult to integrate and implement with local ones. Further exacerbating this is the small number of local solutions providers. There is also concern about the limited technological advancement in the South African logistics sector when compared to global markets. Many businesses are frustrated by their own lack of innovation as well as that of their technology partner.

The anticipation and aftermath of the elections have resulted in a noticeable slump in market activity. There is a general sense of uncertainty regarding the future direction of government policy and its effect on national unity. The industry is closely watching these political developments, understanding that they will have a profound impact on the stability of supply chains and the overall business climate.

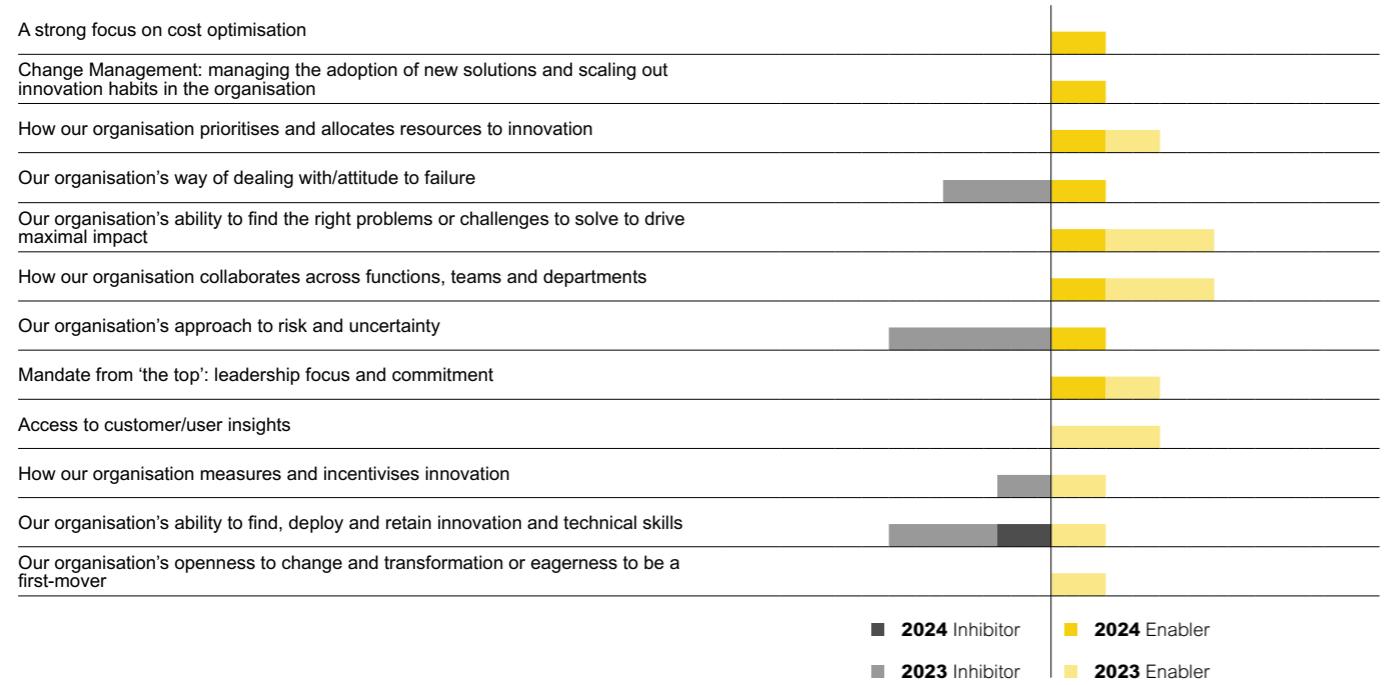
Infrastructure bottlenecks add to the sector's woes. Chronic congestion and delays at ports, particularly in the face of disruptive load shedding, contribute to major route blockages and exacerbate traffic issues. Moreover, the sector must contend with high incidence of crime, which not only affects the safety and security of transport operations but also places a heavy burden on companies to invest in crime prevention strategies.

Cumulatively, these challenges are putting pressure on the sector to adapt and maintain efficiency, while also threatening the economic viability and attractiveness of South Africa as a logistics hub for Southern Africa.

7 Factors impacting innovation across sectors

7.8 Transport and Logistics

TRANSPORT AND LOGISTICS: INTERNAL FACTORS



Like so many other industries, logistics must overcome a significant skills gap especially when it comes to digital innovation. Those individuals at an organisation responsible for innovation have other portfolios to drive. This means their capacity to focus on driving strategic digital innovation initiatives is often diluted by their other tasks. The gap in digital innovation skills requires organisations to invest more in training and development programmes that can equip the workforce (or at least put the right team structures in place) with the necessary capabilities to drive the industry forward in today's digitally driven world.

Some businesses have overcome this challenge by ensuring that skills transfer takes place for employees when they partner with other organisations.

Businesses are looking to navigate the balance between cost optimisation and the drive for transformation.

There is an imperative to reduce costs along with the need to invest in new technologies and processes that can provide a competitive edge. The focus on cost optimisation is resulting in many businesses re-evaluating their budgets and prioritising investments that promise both immediate efficiencies and long-term strategic value. Despite all the sectoral challenges, companies are turning to innovative solutions that go beyond price differentiation. By leveraging digital innovation, these organisations can optimise their operations and enhance customer satisfaction. This will put efficiencies in place that can offset the significant cost pressures.

The transport and logistics sector must continue to innovate while navigating complex and competitive landscapes and attracting high-quality talent. Strategic investments in infrastructure and technology, a less risk-averse culture, and strong leadership are essential to enhance the sector's capacity for change and to pioneer advancements that deliver substantial value.

The transport and logistics sector must continue to innovate while navigating complex and competitive landscapes and attracting high-quality talent.



7.9 Industrial and Manufacturing

This sector consists of construction and industrial product sales, services, and manufacturing organisations within South Africa.



The global construction market has experienced strong growth. Projections indicate that this should continue in the coming years. This growth is largely attributed to the ongoing urbanisation trend and expansion of cities. The result is increased demand for construction and industrial products. These must provide the necessary infrastructure and housing to accommodate the growing urban population.

However, the industrial and manufacturing sector must contend with a fragmented value chain which makes any change a difficult undertaking. There are also significant external factors that impact on the sector. These include digitisation, an increased need to comply with environmental sustainability, industrialisation, commodification, and pricing pressure. Within this complex ecosystem, companies must find ways to work together to continue to thrive in an industry that changes rapidly.

Of course, this sector plays an important role in South Africa's economy as it is a large employer and exporter. It impacts on virtually all other economic sectors. The manufacturing of automobiles, beverages, and steel are significant contributors to the country's GDP.

Digital innovation in the sector is focused on making products 'smart' and connected. Organisations must also digitalise their operations while creating more automated and reliable supply chains.

The end goal is to deliver on rising customer expectations. Connected products can provide greater transparency into demand, enabling businesses to be more responsive to their customers. With deeper insights into customer behaviour, manufacturers can offer proactive services. These can include preventive maintenance on equipment and remote customer support.

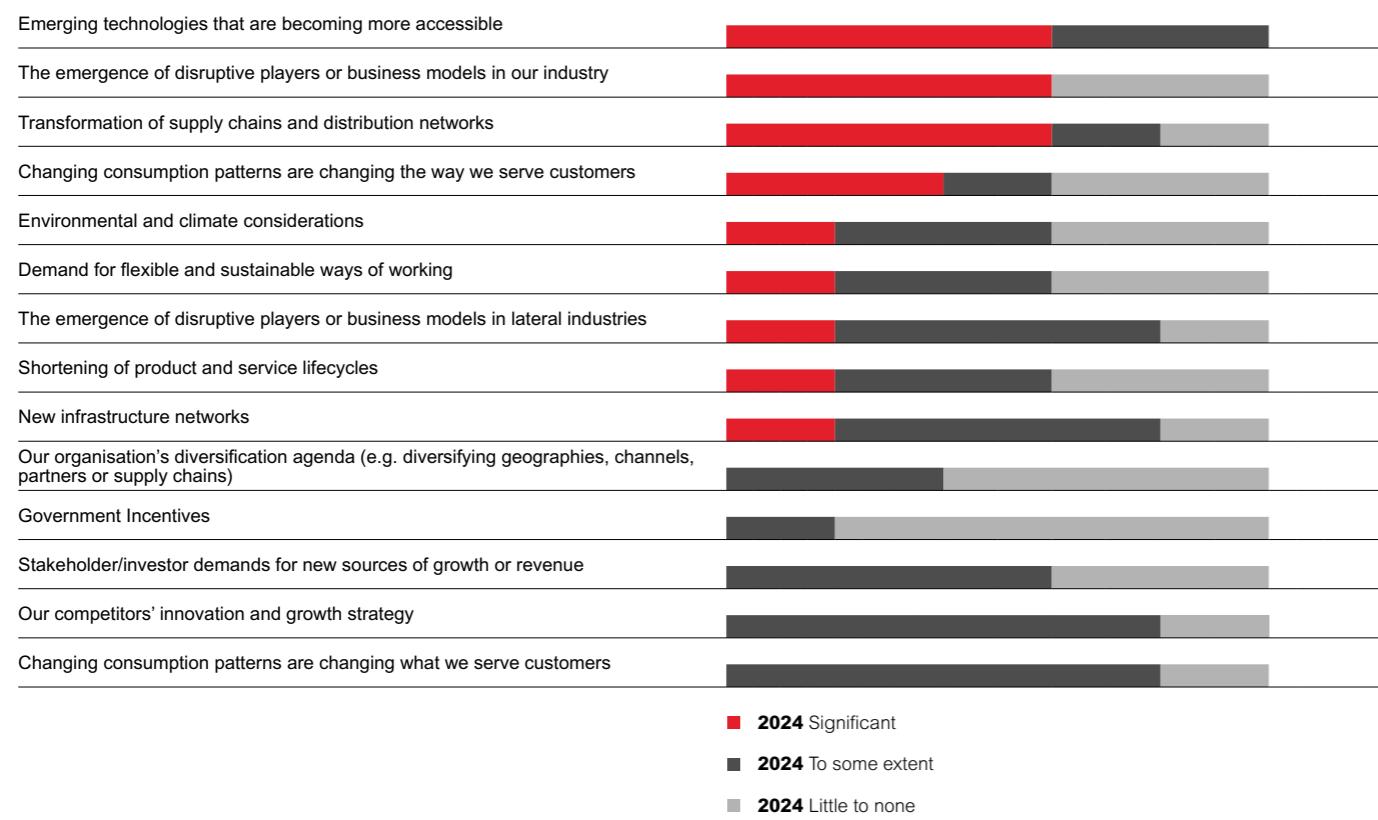
Improved digital solutions increase data availability and transparency. In turn, this drives commoditisation and standardisation to benefit manufacturing companies' supply of equipment, consumables, software, and services. However, traditional hardware suppliers will likely face increased competition within this environment. This can partly be attributed to how easily accessible information has become through the internet with more people gaining application-level knowledge of their products.



7 Factors impacting innovation across sectors

7.9 Industrial and Manufacturing

INDUSTRIAL AND MANUFACTURING: DRIVERS OF INNOVATION



The three most significant drivers of innovation in the sector are 'emerging technologies that are becoming more accessible', 'the emergence of disruptive players or business models', and 'the transformation of supply chain and distribution networks'.

New and emerging technologies are key to unlocking the potential of both product and process innovation. Smart and connected product and service offerings are driving advancements across the value chain. Processes are being revolutionised through the use of digital twins, artificial intelligence, and machine learning. Companies are working to understand the impact of new technologies, and how they can maximise value.

The Internet of Things is revolutionising many aspects of manufacturing operations, including real-time production monitoring, improving metrics accuracy, and production efficiency. The focus

has turned to exploring how artificial intelligence, blockchain, and robotics can improve or transform operations. Cloud platforms enable customers to receive instant quotes for parts and components. It also reduces lead time for prototyping and improves customer access to component quotes as well as alternative sourcing options. These solutions have the potential to significantly disrupt the way small and medium-sized machine shops, other component manufacturers, and assembly shops interact with their OEM or top customers.

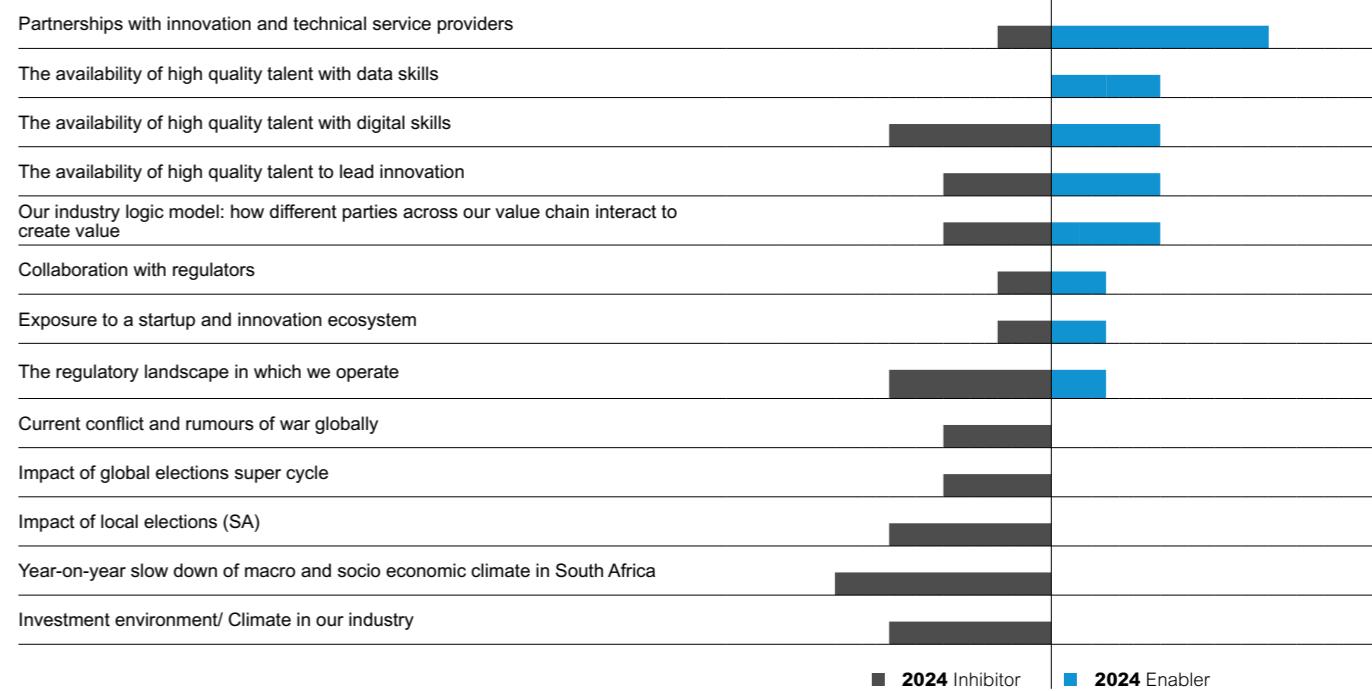
Businesses are not relying on product-centric innovation alone but also focus on business models that create and capture value in new ways. Combining connected products, customer knowledge, and the right ecosystem of relationships can place businesses operating in this sector in a beneficial position when it comes to the value chain.

Disruptive business models and the transformation of supply chains and distribution channels help businesses expand their product or service offerings. Targeting a product or service value proposition only to the immediate next party in the value chain does not maximise value.

For example, producers of windows are no longer simply selling products to distributors or installers. They must also consider serving as consultants to

planners and architects and consider the role of the window in the building context. This can help generate value in areas such as airflow, security, and fire protection. **Ultimately, organisations in the industrial sector must know the lifecycle of their product, determine where they can offer added value, and extend and enhance this value proposition to remain competitive.**

INDUSTRIAL AND MANUFACTURING: EXTERNAL FACTORS



Organisations often need to deliberate on whether their long-term strategies are better served by finding ecosystem partners. The alternatives to this are either internally developing these skills or acquiring new capabilities. Partnering and building ecosystems are considered valuable as companies start re-examining their core competencies. When organisations' innovative offerings are dependent on

technologies and even data that are not addressed by these competencies, it may become necessary to partner with technology service providers as a more efficient path to market. Additionally, organisations that are pursuing business model innovation may also opt to find other ecosystem partners outside of the technology sector where needed.

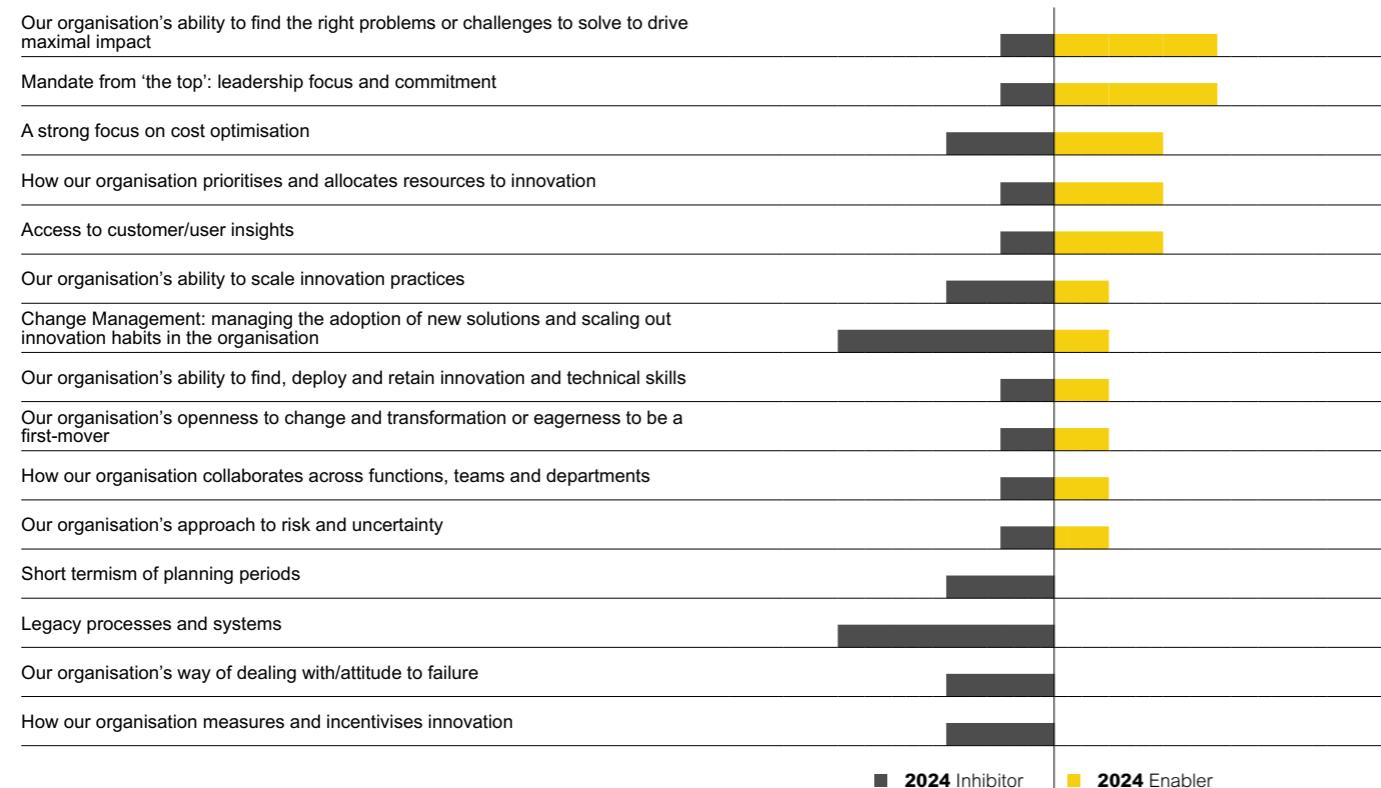
7 Factors impacting innovation across sectors

7.9 Industrial and Manufacturing

Partnerships with providers of innovation and technical services emerge as the most significant external enabler of innovation within this industry.

Notably, the presence of skilled professionals in the market is less of an obstacle in this sector when compared to the other sectors featured in this report. While talent scarcity is still a barrier, a significant number of respondents recognise the accessibility of skilled individuals as a facilitator of innovative progress. However, the specific availability of talent with digital expertise has been identified as a challenge.

INDUSTRIAL AND MANUFACTURING: INTERNAL FACTORS



The two most significant internal enablers of innovation are the 'organisation's ability to find the right problems to solve to drive maximal impact' and 'leadership's focus and commitment' to innovation.

The slowdown of the macroeconomic environment has been identified as a significant inhibitor of digital innovation. **The impact of local elections has had a big impact on activity and investment during the past year.** This is particularly negative given that the investment climate in the sector is seen to inhibit innovation.

The regulatory environment is also an inhibitor to innovation efforts. It can make growth difficult, create costs, cause delays, impose limitations, and hinder the flexibility of businesses.



Finding the right problems to solve to drive maximum impact is not without its difficulties. However, it is critical to do so in achieving successful scalable innovation. Part of this requires understanding the root cause of business challenges or market pain points. Furthermore, understanding the enterprise-wide adaptations and applications that are possible from specific technologies, business solutions, or new product ideas is important. Without a clearly defined problem statement or aspiration, irrelevant solutions could be introduced. Concentrating on the correct issues ensures a higher return on investment. Leadership's involvement can be very valuable here in directing efforts toward the problems that must be solved and giving the mandate to explore solutions.

A 'focus on cost optimisation' is experienced by some as an enabler and by some as an inhibitor of innovation progress. It could help certain organisations focus on reducing costs and become more efficient. However, others might feel that this focus on cost optimisation constrains investment. They might even mandate for the innovation efforts themselves.

The two biggest challenges faced by respondents are managing the business or people change required when adopting a new solution or practice and scaling innovation initiatives. Linked to this challenge

is the need to work within or alongside legacy processes and systems. Typically, these do not accommodate the capability or agility required for digital innovation initiatives. These legacy environments can slow change or even limit the scalability of the environments. While not every initiative needs extensive cross-organisation coordination and buy-in, many are interdisciplinary and touch legacy systems and processes.

Legacy systems and traditional approaches that are driven by siloed teams as well as static views of competitive and operational landscapes present significant risks and frustrations on the road to reinvention. For decades, manufacturing and industrial business models have largely focused on incremental growth through product improvement or market expansion. Moving away from that and implementing new technologies and ways of working can be very hard.

Effective implementation and scaling of innovation initiatives demands engagement with a range of intersecting value drivers.

This includes product, service and business model innovation, customer experience, intelligent and sustainable supply chains, and talent.

'A strong focus on cost optimisation', 'appropriate allocation of resources', and 'access to customer insights' are also enabling innovation in the sector.

7.10 Property

Organisations in this sector comprise real estate investment trusts with portfolios spanning retail, industrial, and office spaces as well as specialist property.

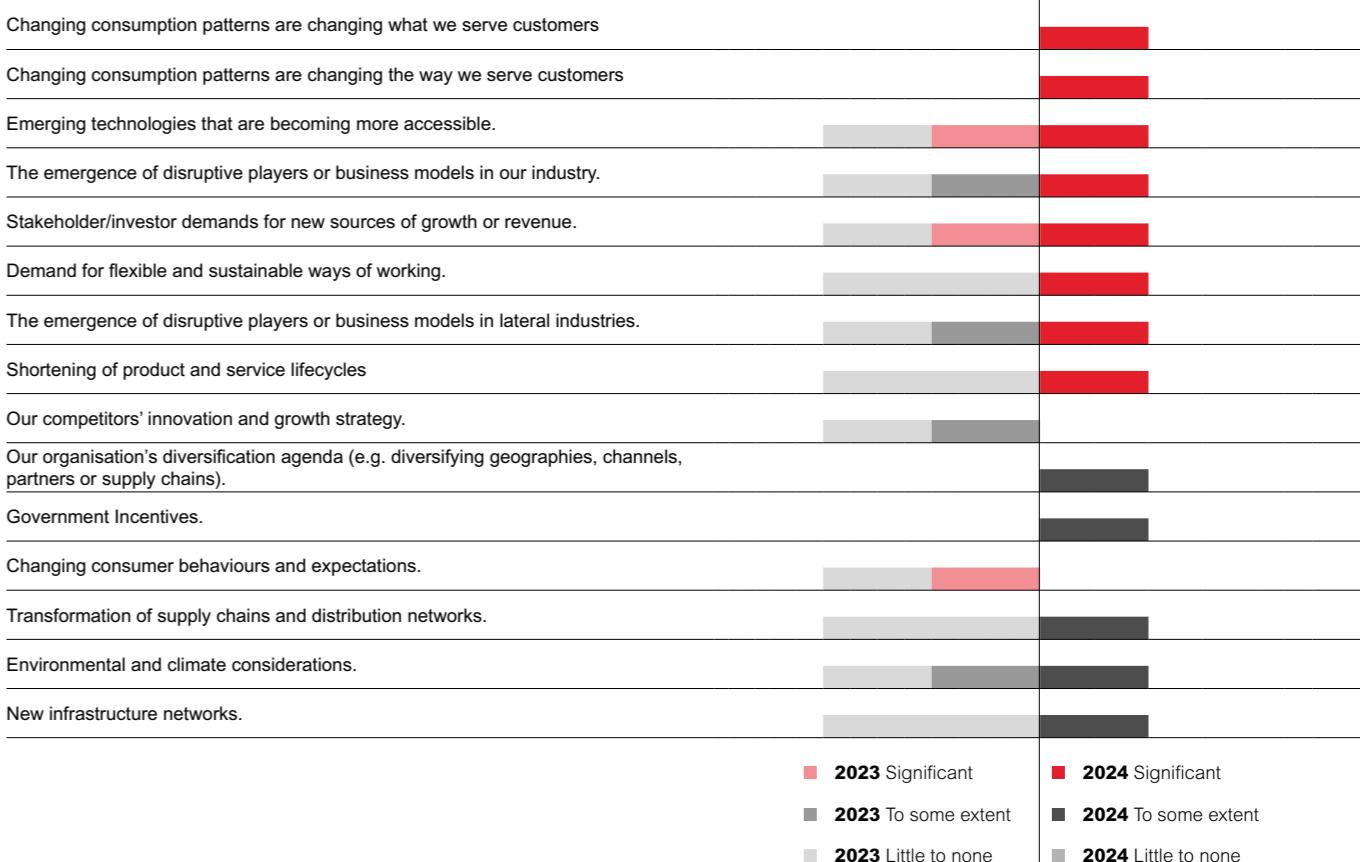
Urbanisation, population growth, and economic expansion in emerging markets have contributed to growth in the global property sector.



→ **Technological advancements have revolutionised the industry, generating operational efficiencies and innovative solutions for property management and transactions.**

With the integration of big data, artificial intelligence, and blockchain technologies, the sector has streamlined processes and increased transparency. Despite challenges such as regulatory changes and market saturation, the global property sector is poised for continued growth. This growth will be supported by ongoing technological innovations and expanding real estate investment opportunities.

PROPERTY: DRIVERS OF INNOVATION



Economic conditions, demographic trends, and technological integration are key drivers of South Africa's property sector. In fact, the local sector has shown resilience despite economic challenges, bolstered by technological advancements in PropTech solutions. While economic conditions and technological integration support moderate growth, the sector faces challenges such as political instability and regulatory changes that impact the rate of development.

Demographic trends, including urbanisation and a growing middle class, have been driving demand for residential and commercial properties. Technological integration, such as the adoption of cloud property management software and other PropTech innovations, enhances operational efficiencies and market competitiveness.

7 Factors impacting innovation across sectors

7.10 Property

Two of the key drivers of innovation in the sector are the accessibility of emerging technologies and investor demands for new sources of growth and revenue.

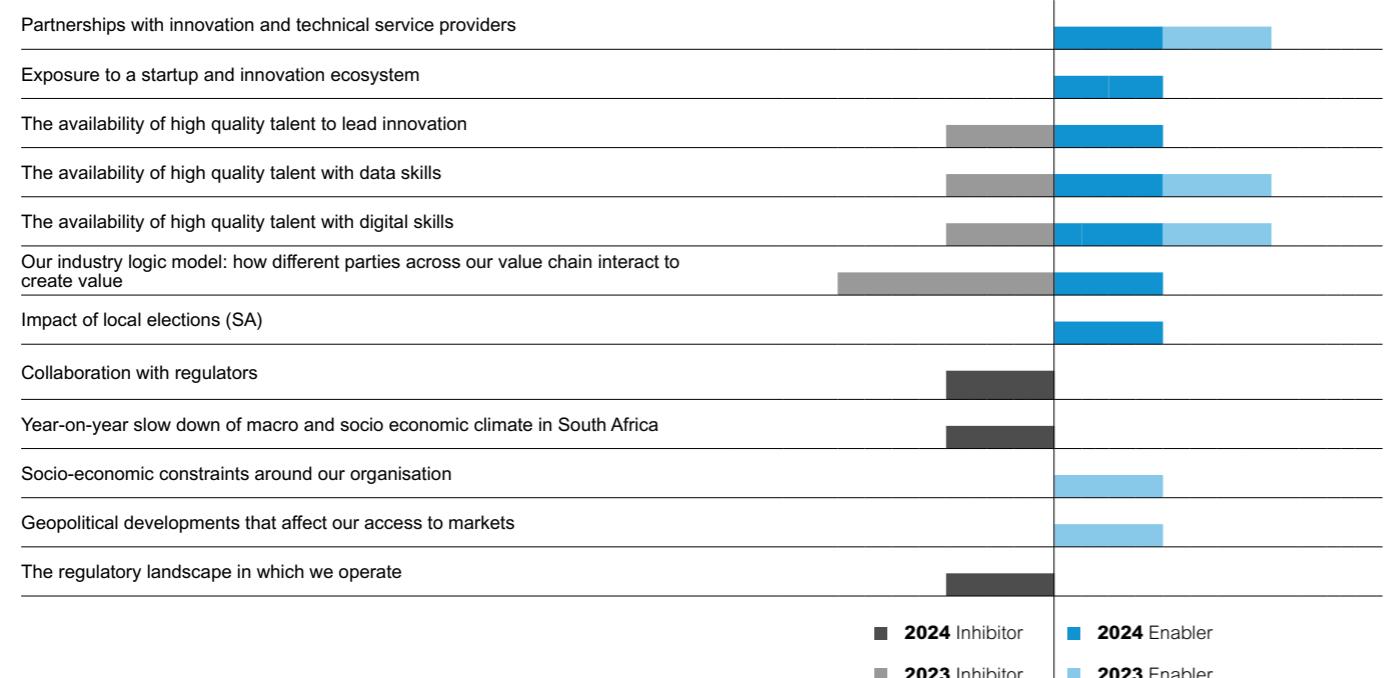
Technology capabilities such as big data analytics, artificial intelligence, and blockchain technology have revolutionised property transactions, enhancing transparency, efficiency, and customer experience. South Africa's growing adoption of such technologies mirrors a worldwide trend where tech innovations are increasingly shaping the future of the sector. The firms leading the way recognise that in the long term, technology solutions will achieve efficiency improvements and cost reductions through the automation of certain processes and elimination of errors. In addition, these solutions will also potentially transform the ability of these real estate companies

to leverage internal and external data to make better investment and operating decisions. They will likely also help companies access new revenue streams to diversify their business and reduce risk.

This year, government incentives and expansion into new business areas have emerged as additional catalysts for innovation.

Interestingly, the transformation of supply chains and distribution channels, which were previously noted to have minimal impact on innovation, appear to play a role in driving innovation in the sector this year. Similarly, the development of new infrastructure networks, the shortening of product and service life cycles, and the demand for flexible ways of working have also been cited as contributing factors to innovation in the sector.

PROPERTY: EXTERNAL FACTORS



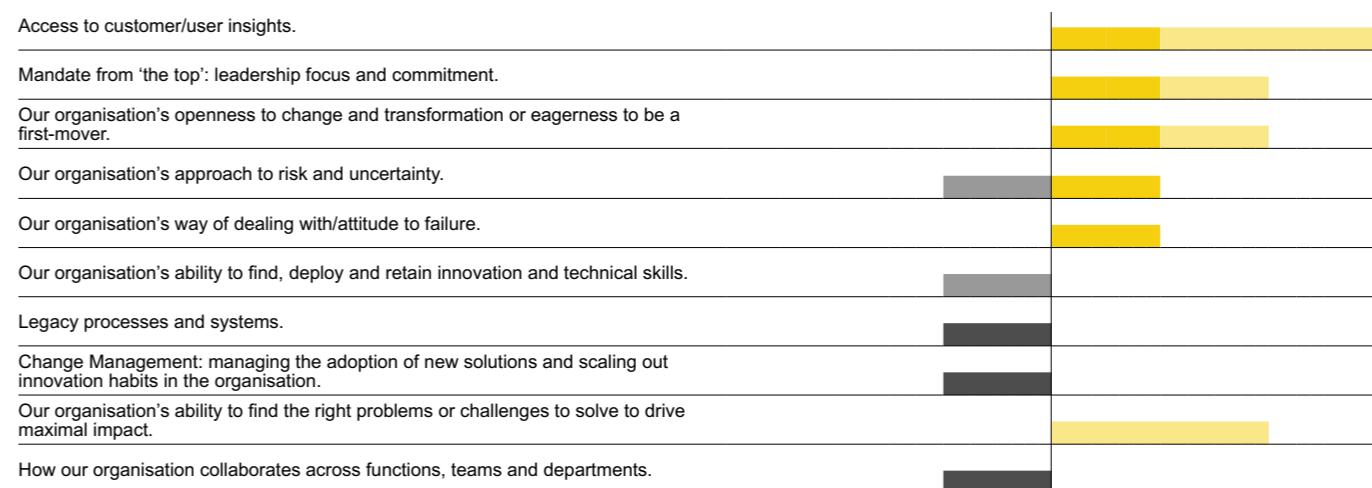
Furthermore, collaborations with innovation and technical service providers continue to be an important driver of innovation in this industry.

Respondents this year have expressed more favourable opinions regarding the availability of skills on the market. This contrasts with last year when skills were seen as a significant hurdle to overcome.

A conservative regulatory environment at the provincial and local levels poses a challenge to innovative endeavours.

This limits the flexibility to explore new avenues for growth and innovation. However, to affect change requires collaboration with regulators which in itself can be a source of frustration.

PROPERTY: INTERNAL FACTORS



■ 2024 Inhibitor ■ 2024 Enabler
■ 2023 Inhibitor ■ 2023 Enabler

The top driver of innovation is the ability to access customer insights. The use of data presents vital opportunities for innovation when it comes to the services extended to customers, both in how services are delivered and how customers are engaged. It also impacts on the type of solutions offered.

How people search for, view, buy, manage, and sell property has shifted significantly in recent years. This can be attributed to the strengthening of a digital experience as opposed to a physical one. Moreover, the digital experience requires customer insights to be effective and, in turn, provides further customer insights.

Other internal factors identified as important are 'leadership commitment,' 'openness to change

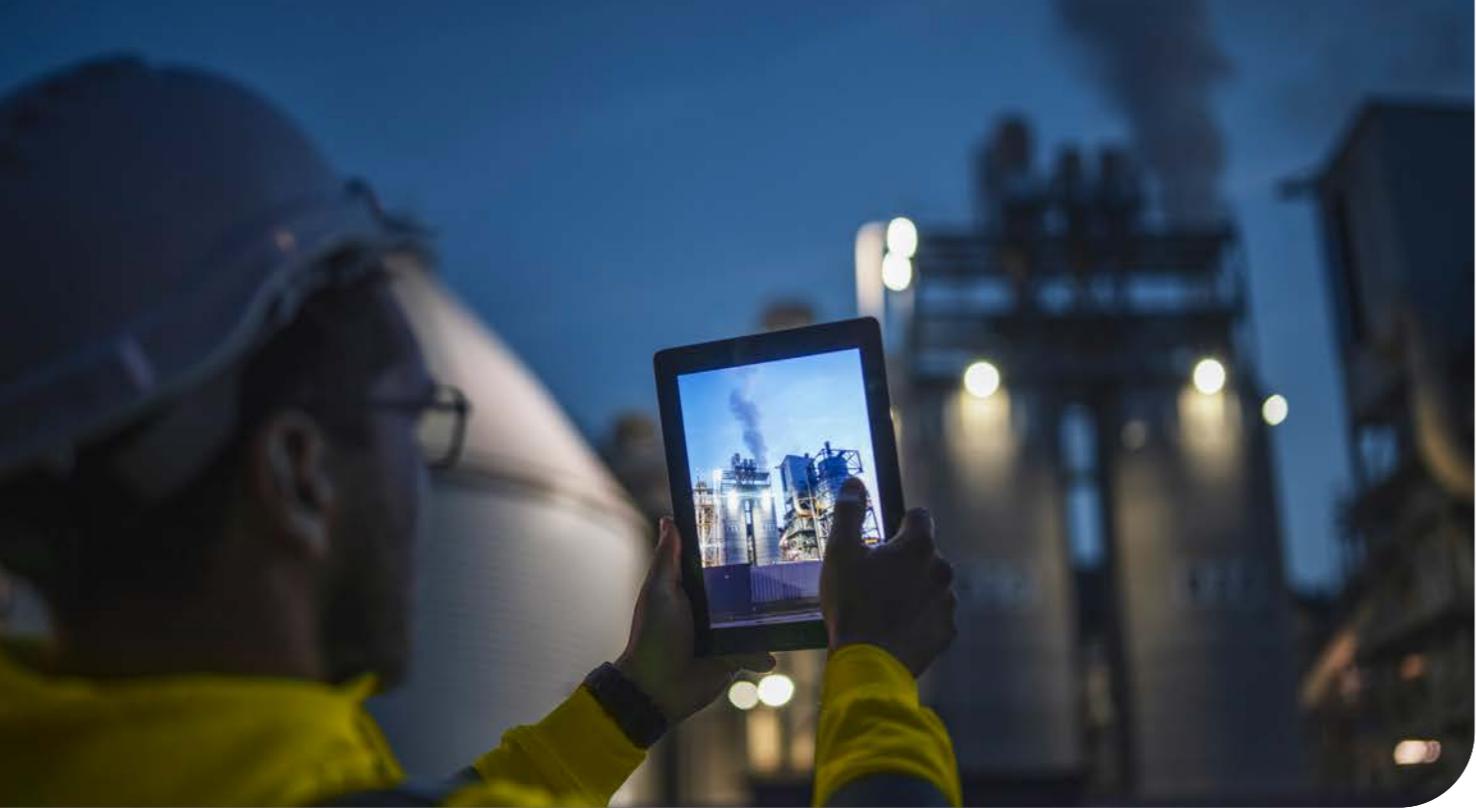
Similar to other sectors, the slowdown of the broader economic climate has negatively affected the progress of innovation within the property industry. A sluggish macroeconomic landscape also contributes to reduced innovation through fewer investments and a more cautious approach to risk-taking in the property sector.

and transformation,' and 'approaches to risk and uncertainty and failure.' As highlighted in other sectors, a culture that is averse to risk can impede leadership's commitment to innovation and growth.

Many well-established organisations in this industry are still reliant on what has proved dependable over the years. They are therefore resistant to change. Breaking that ingrained mentality will continue to be a challenge. The vision of how adopting technology can improve operational processes to benefit the company requires trust and openness to change. 'Legacy processes and systems' will continue to be a challenge until new ways of working that accept experimentation and failure are practised. It also requires change and collaboration to be fully embraced.

7.11 Public Sector

This sector consists of provincial municipalities, departments within those municipalities, public fiscal organisations, and any other institution that receives its mandate from the Government.



Today's citizens are accustomed to an increasingly fast, simple, and gratifying experience from their service providers. They want the same experience when it comes to the public sector.

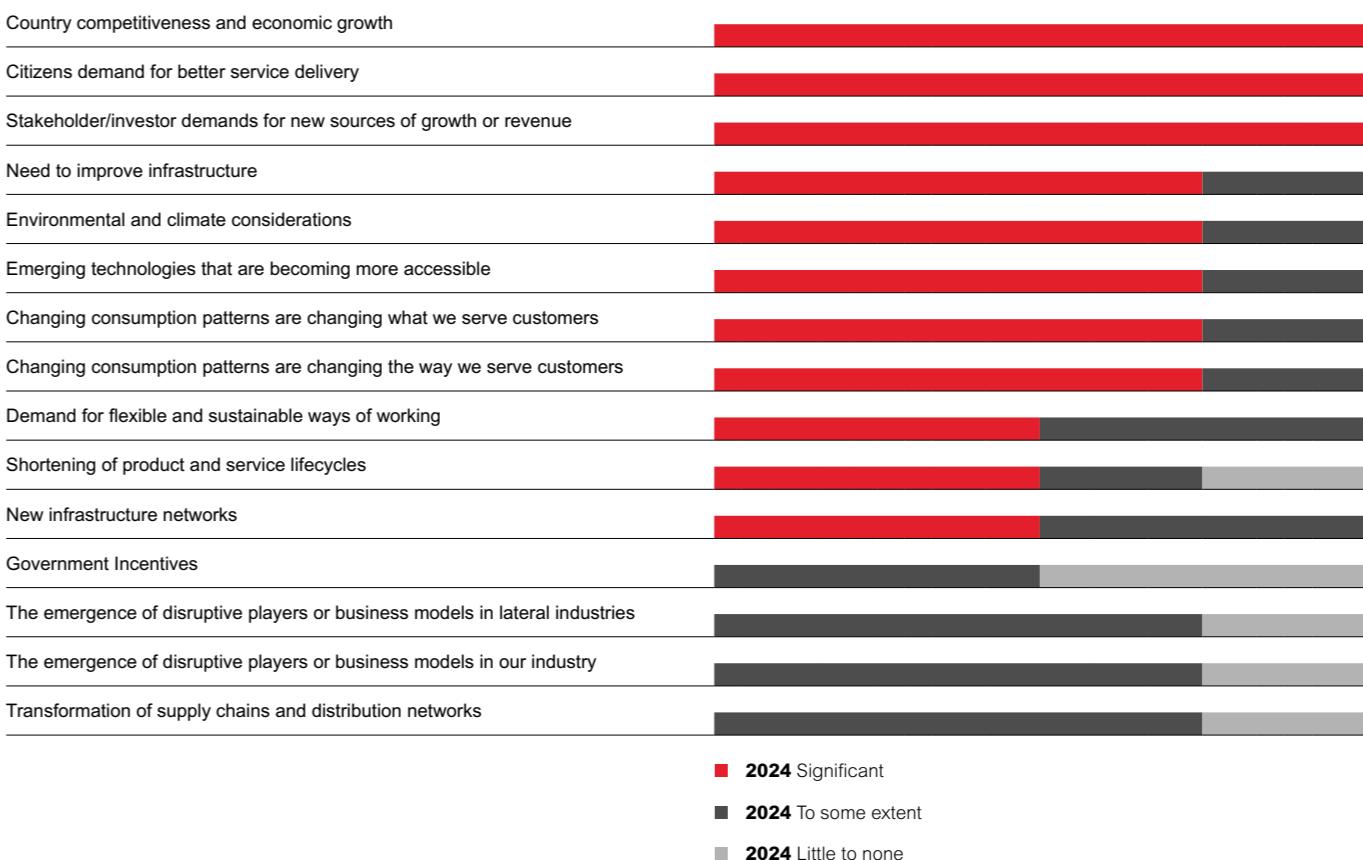
Public sector organisations have to balance the effective allocation of resources while still meeting this public expectation. Innovation is critical to identify ways to improve service delivery, internal processes, regulation, and policy implementation.

However, defining innovation can be challenging as is implementing an operating model to enable it. The lack of a defined innovation strategy, no specific innovation processes or frameworks, a limited budget or leadership capacity, and the size of the organisation add to the challenge. On top of this, the public sector must deal with public scrutiny, competing for funds, and the traditionally risk-averse approach of government.

The Index reveals a range of maturity levels across the five building blocks of innovation within public sector organisations. Some are leading the way while others are still busy gathering momentum in this regard.

The drivers of innovation in the public sector do not differ significantly from those of the private sector. Of course, there are nuances in the outcomes of innovation objectives. For example, to stay ahead of the innovation curve, the private sector is driven by competition and the need for profit. In the public sector, there is no competition incentive. However, there is a need to keep pace with private sector innovation. Citizens will judge governments based on the ease of doing business with the private sector versus the complexities associated with the public sector.

PUBLIC SECTOR: DRIVERS OF INNOVATION



7 Factors impacting innovation across sectors

7.11 Public Sector

The public sector plays a critical role in promoting economic growth and strengthening the competitiveness of a country. These have become strong drivers for organisations in the public sector to invest in digital innovation. We are approaching an environment where competition between provinces will be based on intangibles like access to healthcare, access to knowledge workers, and a regulatory environment that enables innovation. A public sector that can keep up with industry innovation and be an early adopter of new products and technologies will add to the competitive edge of jurisdictions.

There is a clear demand from citizens for improved service delivery. For their part, stakeholders in the public sector want new sources of growth. These pressures are further drivers of innovation in the public sector. Efforts to create more platforms for engagement, such as service delivery apps and upgraded contact centres, reflect interventions by the public sector to meet these demands. By fostering a transparent and responsive environment, the public sector can co-produce services with the community, resulting in more effective and satisfactory outcomes.

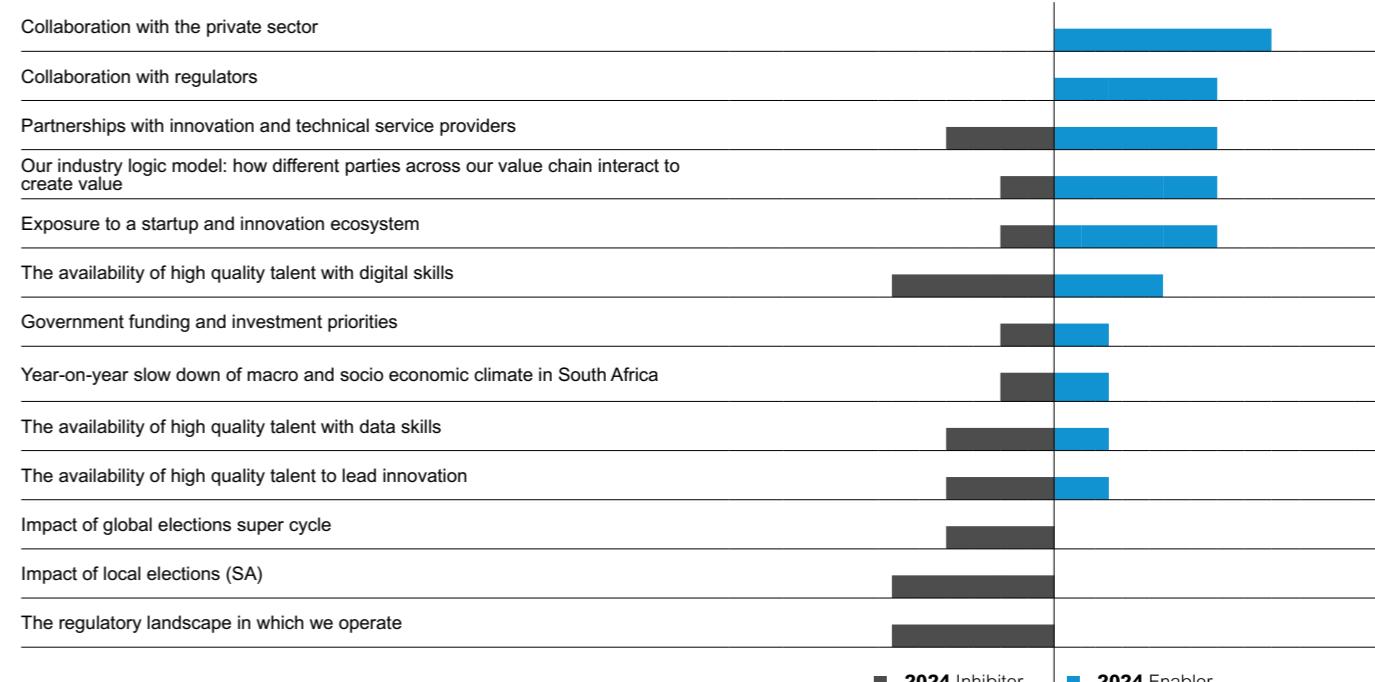
The rise of social media, access to improved data and analysis, and legislation requiring transparency and scrutiny are contributing to the increase in public commentary on the performance of the public sector. Citizens are more connected and engaged than ever when it comes to monitoring and reporting on the effectiveness, appropriateness, and efficiency of government programmes. This means the public sector will have to improve on these aspects or face continued challenges to its competence and credibility.

Another key driver of innovation in the public sector is the ongoing need for improvement of infrastructure. Initiatives that focus on green energy, technology infrastructure, and smart city elements are indicative of the sector's commitment to developing sustainable and efficient infrastructure. These improvements not only address current needs but also lay the groundwork for future growth and innovation.

Technology is a crucial enabler for the public sector to become more citizen-centric. It plays a vital role in creating timely, integrated, personalised, and cost-effective public services. Access to various emerging technologies is therefore another key driver of innovation in the public sector as it looks to find ways of improving service delivery and operational efficiency. Initiatives such as the rollouts of Wi-Fi networks and the development of smart city programmes demonstrate a commitment to leveraging technology for the benefit of citizens. These technologies provide the foundation for innovative services and the potential for job creation. The result is a more dynamic and responsive public sector.

Public sector entities are increasingly recognising the importance of adapting to the changing needs and behaviours of citizens. The shift towards digital engagement platforms allows for more efficient and accessible communication between the public sector and the communities it serves. This adaptation is not just about technology. Instead, it is about creating new opportunities to engage with the public and align service delivery with what citizens are expecting.

PUBLIC SECTOR: EXTERNAL FACTORS



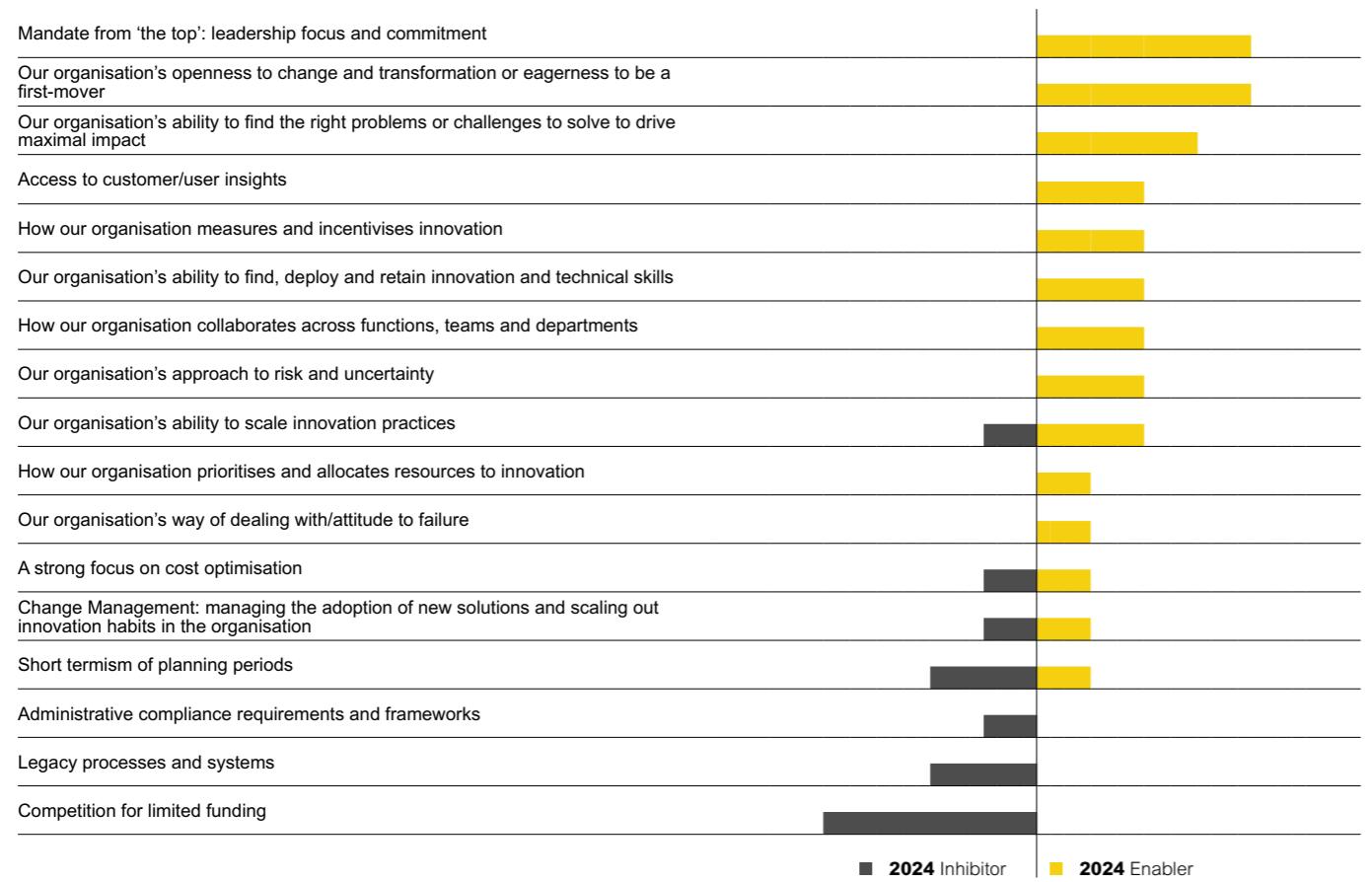
Other enablers to drive innovation in the public sector include partnerships and collaborations. These can be done with entities across government and the private as well as with regulators and technical service providers. Examples of these partnerships can be seen with Telco providers who support government entities in the expansion and access to connectivity across the country. These partnerships not only enhance community services but also foster an ecosystem conducive to innovation.

Engagement with the private sector fosters innovation by bringing in skills, new perspectives, additional investment, and cutting-edge technologies. These collaborations result in economic growth, job creation, and the nurturing of a skilled workforce capable of sustaining and advancing innovation efforts.

However, a shortage of relevant skills within the public sector is a significant inhibitor to innovation. The gap in technical expertise and professional qualifications can further limit the public sector in adopting and leveraging new technologies as effectively as possible. To address this, initiatives aimed at professional development and improving skills are essential. This will equip public sector employees with the competencies required to drive innovation. Newer generations of workers value and search for careers that provide them with a sense of making a difference. Because the public sector offers such an environment, it can compete for top talent in ways that were not possible before.

Similar to what the private sector experienced, the lead-up to and period following the South African elections limited the innovation efforts of public sector organisations. Regulation within the public sector is also posing a challenge when it comes to stakeholders embracing innovation initiatives.

PUBLIC SECTOR: INTERNAL FACTORS



Within the public sector, internal dynamics significantly influence the success of innovation efforts. Having leadership who is committed to innovation is important.

They set strategic priorities and allocate resources that can drive innovation efforts. Such a dedicated focus ensures that innovation is not an afterthought but becomes an integral part of the organisation's growth and development strategy.

Having a public sector entity being open to transformation is also important. This allows for the adoption of new technologies and the re-engineering of processes to improve service delivery. It requires a culture that is not only receptive to change but actively seeks it. Such a culture reflects the understanding that transformation is

necessary for progress and to stay relevant in a rapidly evolving environment.

Several internal factors are inhibiting innovation within the public sector. Scarce financial resources often lead to a prioritisation of immediate needs over long-term, innovative projects. Public entities must navigate the complexities of budget constraints and competing demands.

The public sector encompasses a range of services and responsibilities. These include healthcare, education, infrastructure, social services, defence, and public safety. Each department has specific funding requirements. A significant portion of the public sector's budget is funded by citizens through taxes. As a result, government has the duty to be prudent and allocate financial resources to areas where they will be the most effective. At the same

time, demographics are driving increased usage of public services. This is especially the case in high-cost areas like healthcare and education. The result is an increased cost to government. The end result is competition between different departments for available funds.

Legacy processes and systems can also create an environment that is resistant to change. The use of outdated technologies and established routines hinder the adoption of newer, more efficient methods. These legacy systems and processes continue to be in use because they may be deeply embedded in public sector operations. Despite this, these systems are perceived as reliable and stable having been in place for such a long time. The decision to change or upgrade such systems is often weighed against benefits, risks, and costs (which further add to funding constraints across departments).

Finally, the short-term nature of planning cycles in the public sector may discourage investment in innovation. The benefits of transformative initiatives may not be realised within these brief timeframes. Short-termism in government planning refers to the tendency to prioritise immediate goals and quick wins over long-term objectives and sustainable outcomes. These planning cycles can be influenced by varying factors. These include electoral cycles or public pressure. The consequences of short-termism can include missed opportunities for

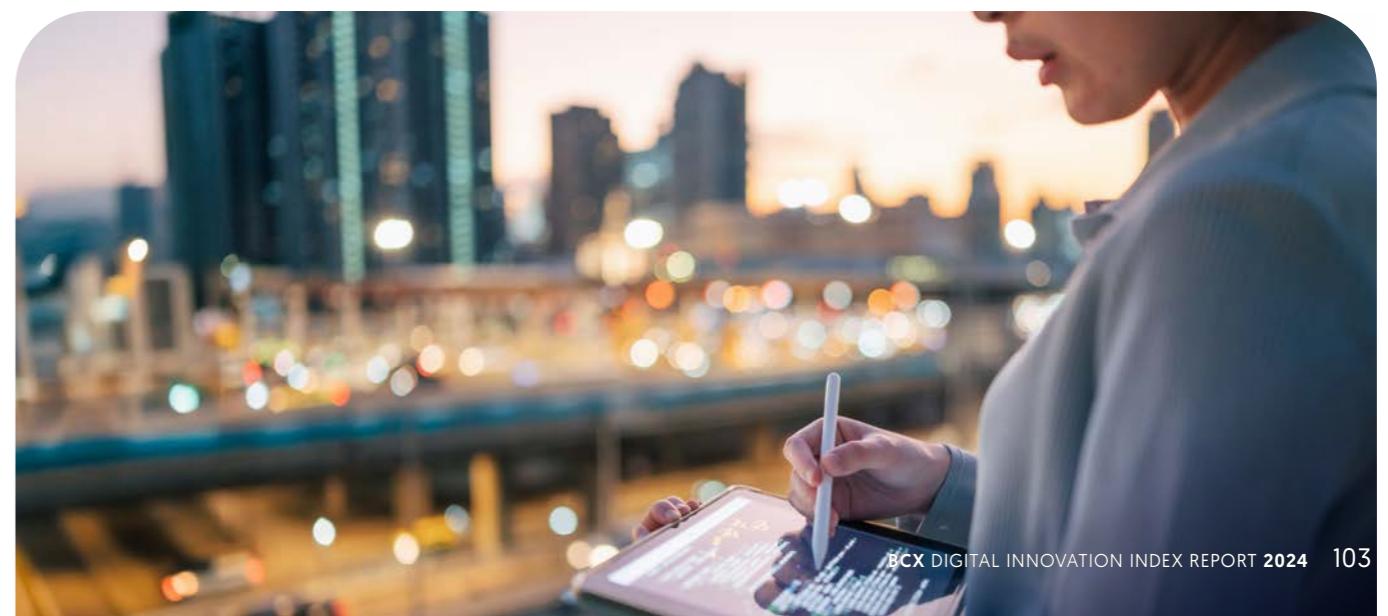
sustainable development, underinvestment in critical infrastructure, lack of preparedness for future challenges, and policies that may need to be revised or reversed in the future.

The reality is that the corporate culture required to embrace and exploit innovation is not universally fostered in government and public sector organisations. **Traditionally, these entities are designed to be reliable, predictable, and hierarchical.**

In innovation, as it has in some other areas, government can learn from the approaches taken in the private sector but ultimately has to chart its own course.

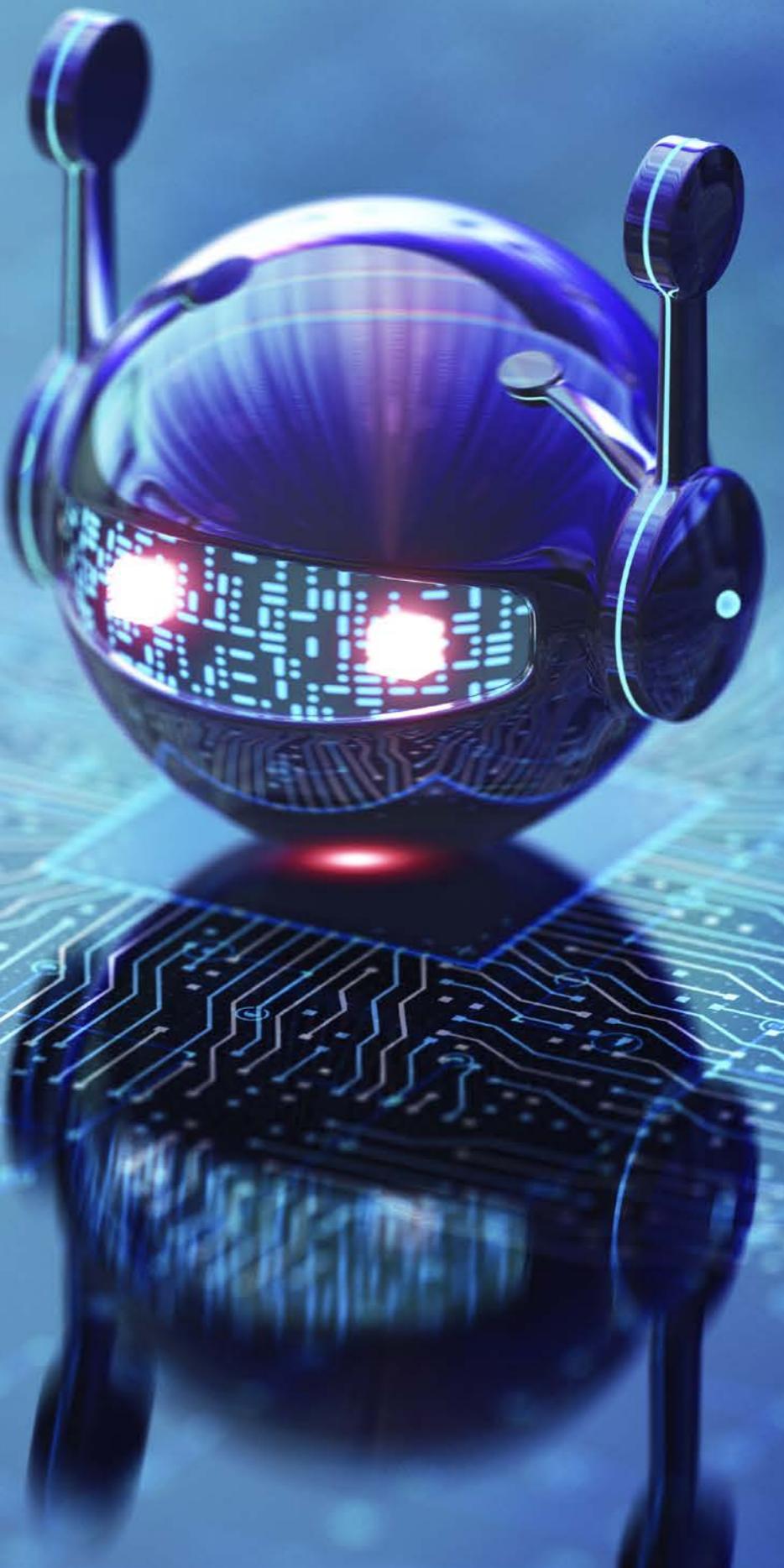
Public sector organisations — especially regulators — play a key role in setting the boundaries, targets, and framework for the private sector to innovate.

Within the context of highly regulated sectors, legislation and regulation can set what might seem like stretched or unrealistic targets. These are perceived to force private sector organisations to rethink how they do things resulting in innovative approaches to meet those targets. The challenge that public sector regulatory organisations need to focus on is finding the right balance when it comes to keeping the pressure on, while still remaining competitive in a global economy and supporting economic growth.



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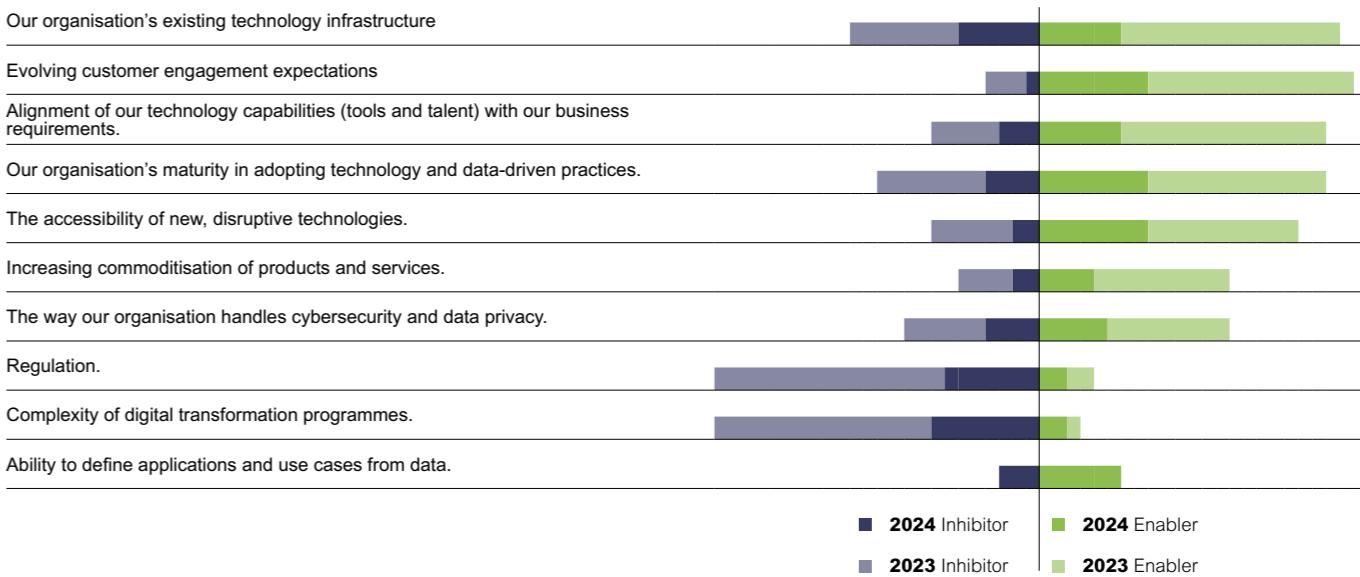
Digital Factors and Opportunities





The opportunity and evolving promise of digital technologies in innovation.

TECHNOLOGY & DIGITAL INFRASTRUCTURE



New technologies are rapidly emerging to address an ever-growing number of use cases in business. This provides tremendous promise for organisations to gain efficiency and to provide revolutionary customer experiences. However, choosing which technologies to invest in and doing so while adhering to ever-shifting regulatory requirements is a challenge. In South Africa, this is compounded by unequal access to technologies due to the uneven distribution of infrastructure and network connectivity which results in creating underserved populations.

According to respondents, the adoption of emerging technologies is hampered by the complexity of digital transformation programmes in large organisations currently reliant on extensive legacy systems and several layers to digitise.

Often, organisations find that the emergence of new technologies far outpaces the potential benefits of digital transformation programmes. As new digital tools get more sophisticated, they allow organisations to reimagine entire customer journeys. This results in delivering discernible customer value. Successful application of these tools and technologies requires

a level of experimentation and testing to validate their potential value before a business invests in and operationalises them.

Digital transformation programmes are not always designed to harness these emerging technologies at the pace at which they emerge. Often, these digital programmes are focused on implementing robust domain-specific tools to support digital business processes. The programmes are therefore generally slower and carefully sequenced over a long time to minimise disruption to the business. They require complex change management to shift entire teams to digital modes of operation. By the time a digital transformation programme reaches this adoption stage, and workflows become digitised in an organisation, competitors and new disruptors might have already eroded the organisation's market share.

Maintaining a habit of experimentation with technologies by applying innovation methodologies to strategic business use cases can unlock sources of value even while digital transformation programmes are underway. When these experiments show potential, the organisation needs to carefully

8 Digital Factors and Opportunities

orchestrate how a solution should be scaled and operationalised, especially with the digital transformation happening in parallel. The business needs to exercise care and manage the employee experience in the face of changes happening through both digital transformation and innovation.

This must be done to alleviate change management, which has been highlighted as an internal inhibitor across sectors.

Regulation continues to pose a challenge to businesses adopting digital technologies. Whilst organisations in the 'Excellent' category of the Innovation Index choose to invest in technological solutions in creative ways that comply with existing regulations, many organisations in South Africa take a more cautious approach. Several laws and policies around emerging technologies are still under discussion. This poses uncertainties in organisations' compliance requirements. Early investments into new technologies could come at a substantial cost further down the line, especially if these laws would eventually require that organisations re-engineer how they apply these emerging technologies to their business. The recently announced African Union Continental AI Strategy as well as the National AI Policy Framework in South Africa are steps in the right direction to provide more certainty to

businesses. The challenge for regulators is to define policies and laws that promote growth and creativity in businesses whilst safeguarding ethical, responsible, and equitable practices, and to do so at the right pace to encourage the adoption of these technologies.

Another inhibitor to digital innovation is companies' ability to embed the right data-driven practices into their business decision-making. Even though organisations find they can define specific use cases for data, they are not always able to translate this to changing mindsets and habits that see the adoption of data in day-to-day business processes.

This suggests that, whilst some organisations might have access to technical skills to collect, extract, model, and display data into dashboards, they might fall short of embedding these skills successfully into business processes. A bridge to business users who need to understand, interpret, and act on the data might be missing. Respondents in the 'Excellent' category appear to have bridged this gap and cite this as an enabler of innovation.

Many organisations find that the technological tools and talent to which they have access are strong enablers for them to innovate and meet their business goals. However, some respondents are constrained by the limited talent pool in South Africa. The ongoing trend of young talent emigrating risks further tightening an already limited talent pool.

Despite all these challenges, South African organisations continue to innovate and invest in digital tools and technologies. Customer expectations of digital and blended experiences are cited as one of the strongest driving forces for this. As more services go online, customers expect convenient access to real-time or near-real-time information. In such an environment, not having a digital presence is a risky proposition for any business. Digital technologies level the playing field. When all competitors provide comparable digital services, organisations can differentiate themselves through the experience they offer to their customers. Organisations need to tune their digital presence to attract, engage, and retain customers in a virtuous loop.

In the digital age, the importance of data over value generation is clear. Protecting the integrity, quality, and accessibility of this data to generate long-term business value is paramount. **A robust technological infrastructure and appropriate cybersecurity measures underpin an organisation's ability to harness value from the data they hold.**

When designed well, these allow the business to scale and respond to evolving customer demands. A strong security posture helps organisations strengthen their clients' trust in them when it comes to safeguarding their data whilst still providing services to them. In the South African context, businesses appear to have adopted strong infrastructure and cybersecurity measures, which enable their digital innovation efforts.

A small portion of respondents still consider their setup to be inhibiting. Let us assume that such an organisation has the basics in place to collect and manage its customer data securely. This means an innovation lens to prioritise low-risk experiments with potential for strategic impact can be a starting point to prepare for and unlock investments for longer-term improvements in the security posture

and infrastructure. Indeed, organisations in the 'Nascent', 'Emergent', and 'Mature' categories of the Innovation Index have invested in data production and management capabilities to be implemented within the next one to three years, so that they may eventually monetise their data and grow.

In line with global trends, South African organisations face a competitive field as products and services get commoditised, new business models emerge, and new technologies and disruptive players arise.

Given the potential disruption of their value chains, businesses must innovate to survive. However, with the right mechanisms in place to innovate, they can drive growth in their industry and develop resilience against changes in their environment.



The technological footprint of South African organisations across the BCX Innovation Index spectrum.

We investigated the technological footprint of organisations across the BCX Innovation Index spectrum. As part of this, we determined the number of different technologies already adopted and invested in for implementation, and those undergoing exploration by organisations in each category. Unsurprisingly, organisations in the 'Excellent' category have the widest footprint of technologies already in production. Such organisations are expected to have the basics in place to be technologically savvy - a strong infrastructure and security posture, as well as a process to rapidly test and onboard new technologies into their business processes.

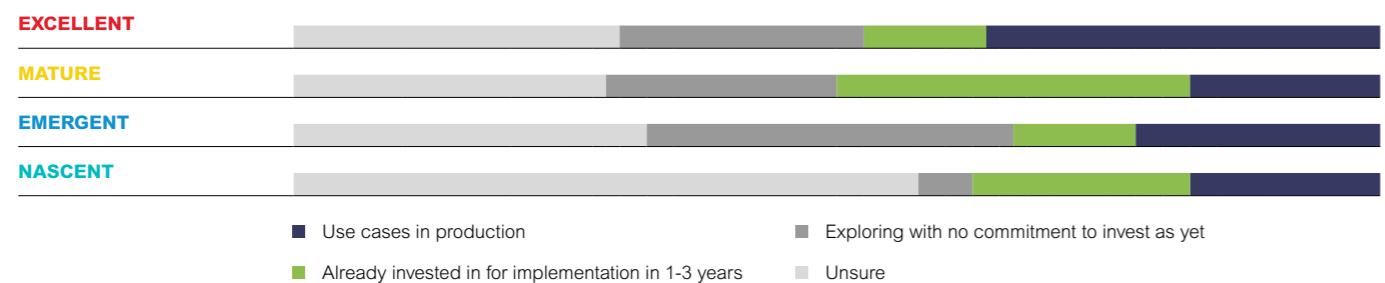
Organisations in the 'Mature' category have adopted a smaller umbrella of technologies and

seem to have invested heavily to catch up with their 'Excellent' counterparts. Such a slower adoption of technologies might reflect a longer journey to get a strong foundation on which to grow their footprint. It is interesting to note that organisations across both these categories appear to explore new technologies with the same breadth, indicating potential similarities in how they dedicate resources to test new technologies.

In the 'Emergent' category, organisations appear to have a slightly wider footprint of technologies adopted than those in the 'Mature' category. Their investment into new implementations is notably lower, whilst they seem to be exploring a wider range of technologies. These organisations might be lagging behind their peers in how they test new technologies, before deciding on implementation.

Organisations in the 'Nascent' category appear to be the most conservative in technological adoption. They have the smallest adoption footprint. They are least likely to be exploring new technologies. However, they have invested in several technologies to implement, seemingly to catch up to their more technologically savvy peers.

EXTENT OF INVESTMENT IN NEW TECHNOLOGIES



Interestingly, when we compare technological adoption across sectors, a ranking emerges with financial services and healthcare. These two sectors have the widest footprints of technologies and use cases already in production. Organisations in these sectors might have had no choice but to be early adopters of technology. This is especially true in the face of fierce competition and the need for excellence in customer experience and service. They might also have benefited from early experimentation and sector-specific customer solutions becoming available given how these sectors touch the lives of every citizen.

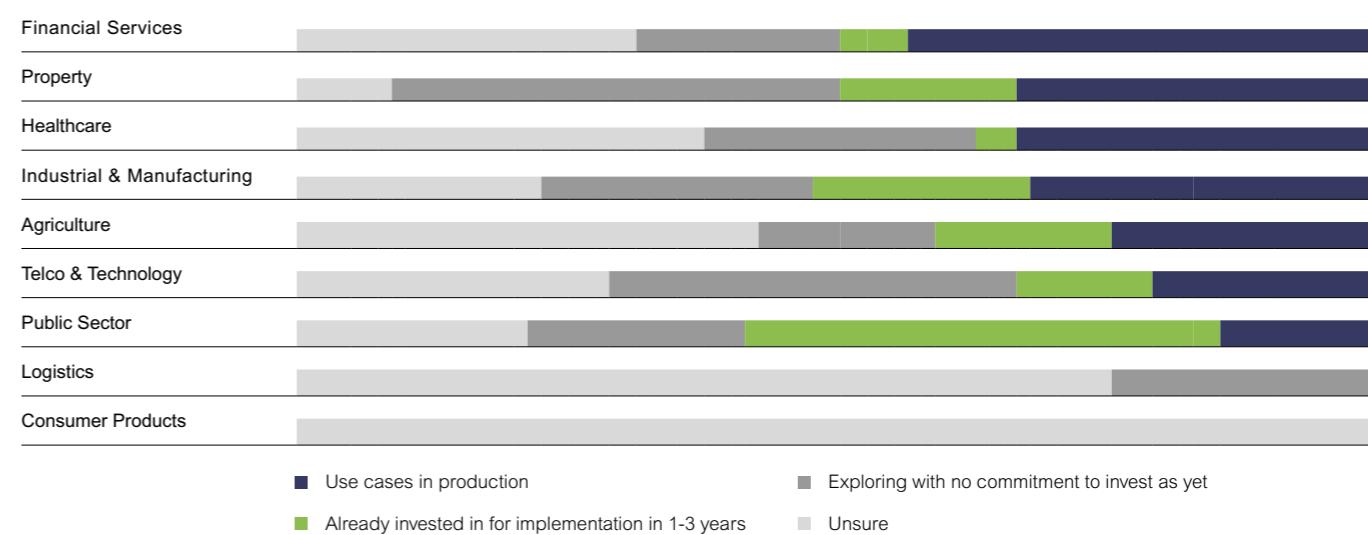
Other sectors appear to have been slower to implement these technologies. The public sector has invested heavily to drive the digital revolution in the delivery of its citizen services. This promises to improve the citizen experience in South Africa over the next few years. The property

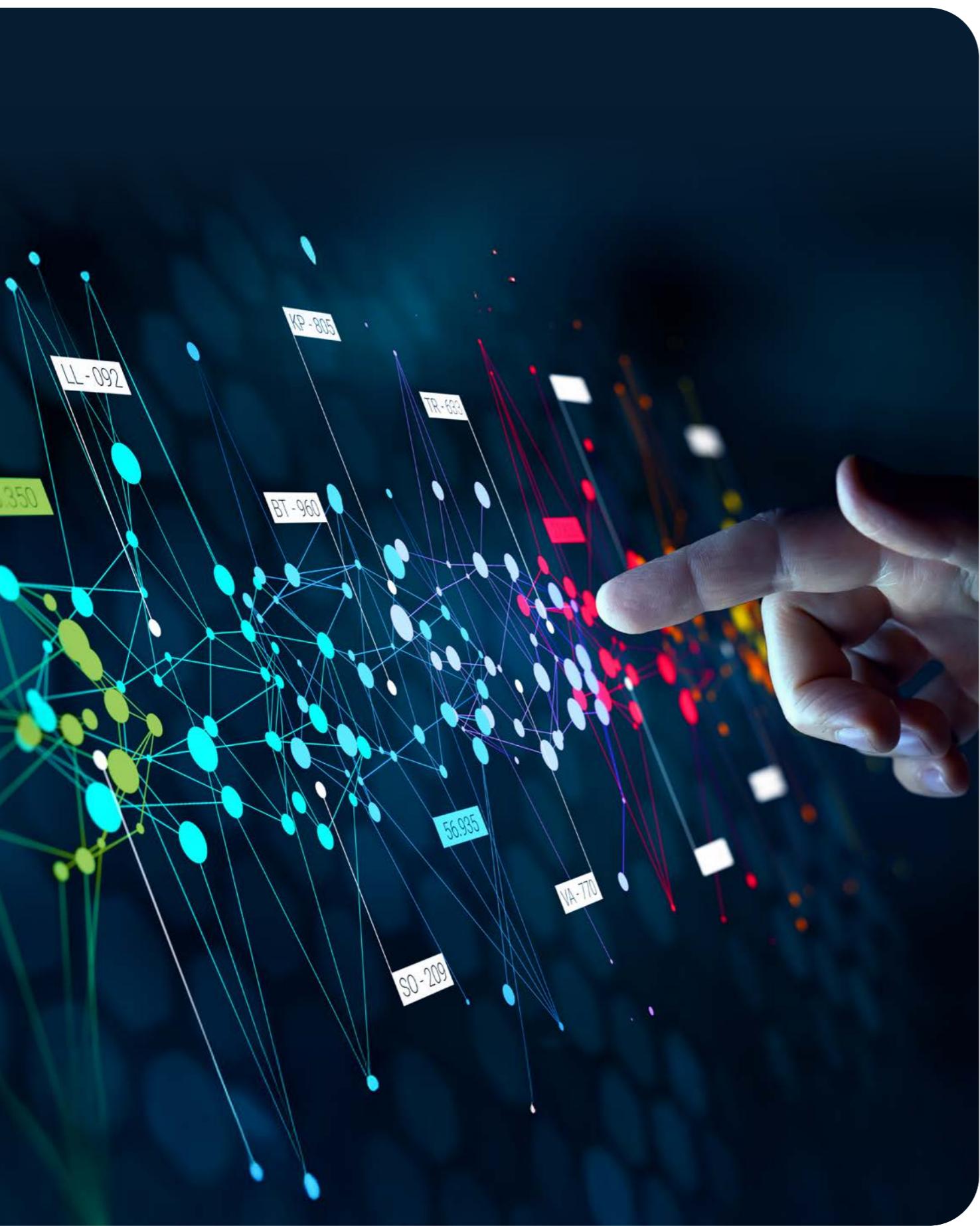
and telecommunications & technology sectors appear to be exploring a variety of technologies, whilst the industrial and manufacturing sector appears to have invested to grow their footprint.

The average scores of these sectors on the Innovation Index spectrum do not directly correlate with their technological footprint. This suggests that the industry dynamics at play might influence how quickly a sector adopts technologies.

Different tools and technologies for sector-specific use cases might become available at different times. Without an innovation process to test new use cases for emerging technologies and a discipline to adopt those with potential, organisations need to wait for these tools to become available in the market before onboarding them.

EXTENT OF INVESTMENT IN NEW TECHNOLOGIES





Adoption of different technologies

South African corporates have a clear focus on optimisation and efficiency gains through their technological investments. This is reflected in the technologies already in use as well as the use cases prioritised for investments over the short- and medium-term.

Cost reductions through simplified, digital workflows obtained via robotic process automation, the cloud, and the Internet of Things can help organisations scale. Indeed, local companies have already adopted these technologies and continue to invest in new technologies to further optimise their processes, gain efficiency, and continue growing.

Cybersecurity technologies protect organisations' valuable data and systems from threats while inviting customer trust. Many South African corporates have already adopted advanced cybersecurity measures, with investments made to further manage risks and protect their operations.

Green technologies allow organisations to improve their environmental footprint, which can help attract

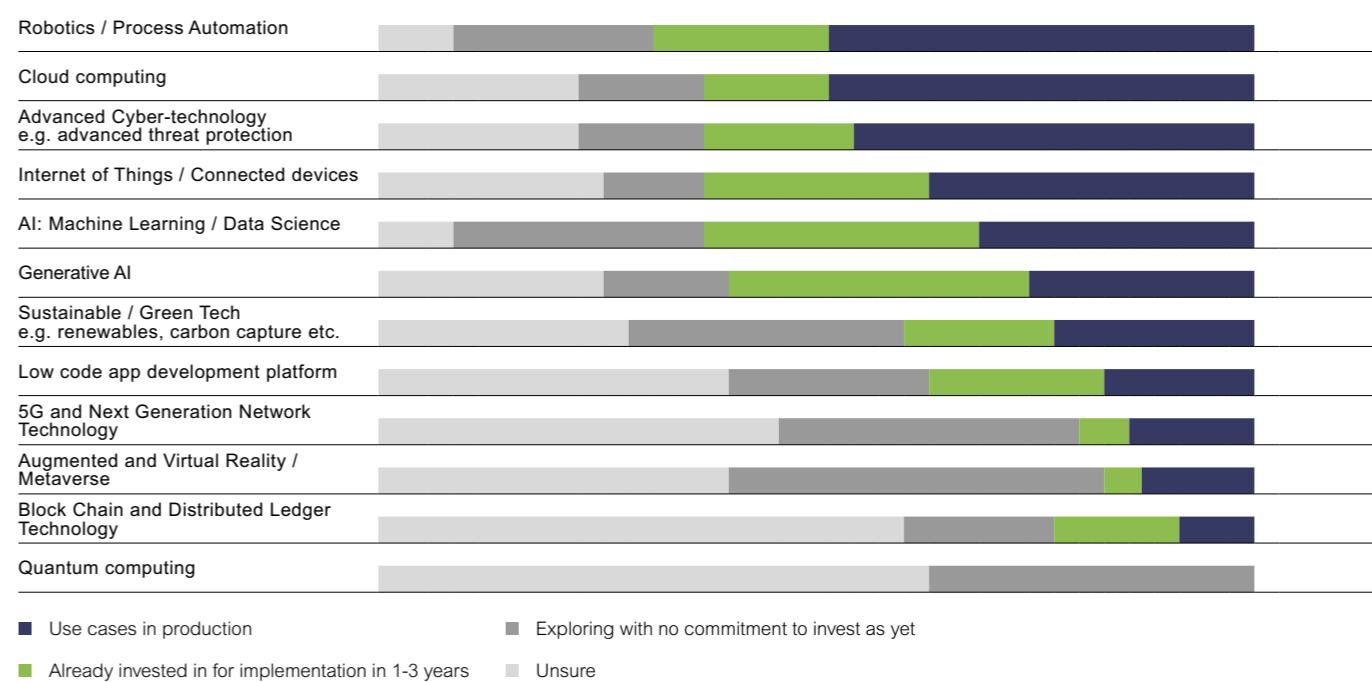
and retain climate-conscious customers. In a digital, data-driven world where data-intensive uses such as machine learning and artificial intelligence (AI) are also energy-intensive, organisations must balance how they architect their digital capabilities whilst minimising the environmental impact of their activities.

Perhaps in line with the hype in AI and generative AI, companies have invested heavily in this technology across use cases spanning the entire business. This ranges from operational optimisations and cost efficiencies to distribution management, risk management, new products and services, and customer experiences. It remains to be seen whether these organisations are able to capture long-term value from these investments.

South African organisations have also invested in low-code app development platforms across a range of use cases.

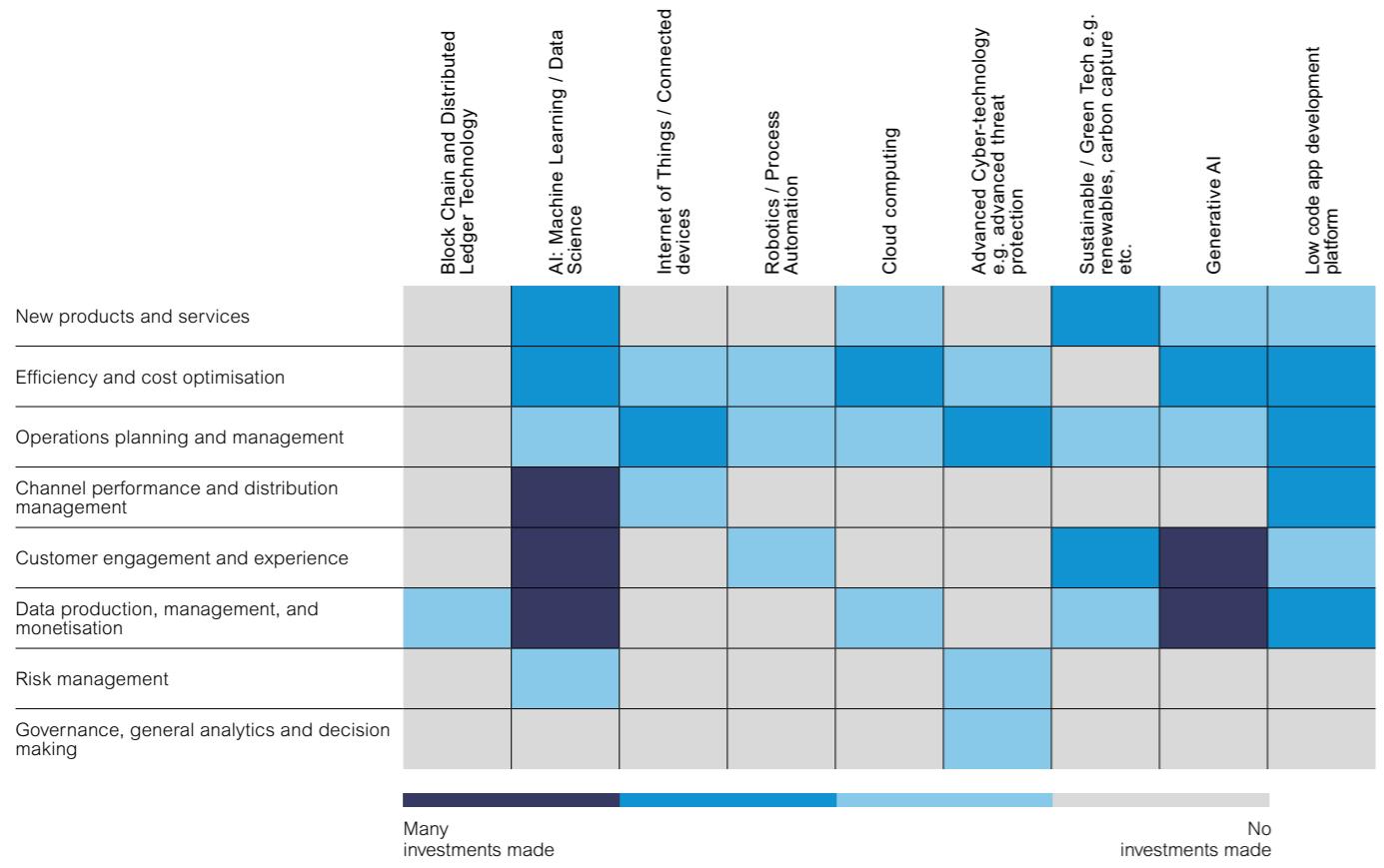
This indicates that speed to business value might be a priority. Through these platforms, organisations can empower their employees to test and get insights from business solutions quickly. Through this, organisations can evolve and grow at the speed required by operators on the ground.

ADOPTION OF DIFFERENT TECHNOLOGIES IN SOUTH AFRICAN CORPORATES



8 Digital Factors and Opportunities

USE CASE INVESTED INTO BY RESPONDENTS



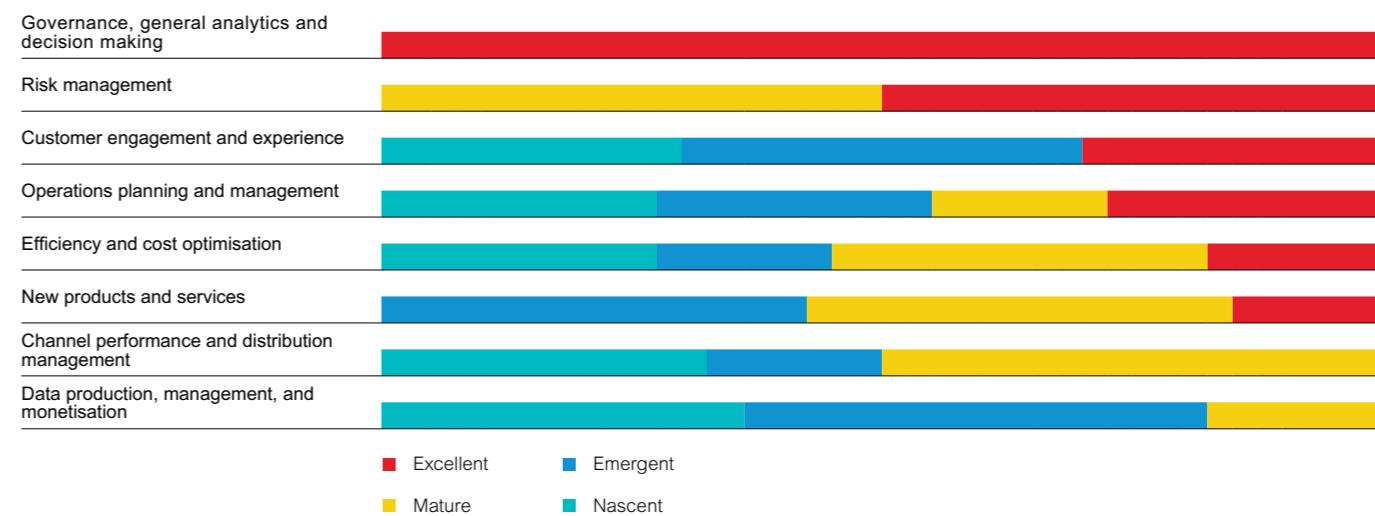
Organisations across the Index spectrum appear to prioritise different use cases for investment. Across the board, efficiency gains, cost optimisation, and operations planning are high on the agenda with companies investing in these use cases. Customer engagement and experience as well as new products and services are also popular investment use cases.

Organisations in the 'Nascent' category appear to have prioritised efficiency gains, data production and management, and customer engagement for their short- to medium-term technological investments. This indicates a focus on building a strong foundation on which they can build and onboard emerging technologies in the future.

Only organisations in the 'Mature' and 'Excellent' categories have prioritised risk management and governance use cases. Technological investments for channel performance and distribution management, and data production and management appear to not have been an investment priority for these organisations. This may indicate an internal level of maturity in these functions, which form the foundations for business growth. These organisations have also evolved to begin the allocation of a portion of their technological investments into governance and risk management functions, i.e. internal control measures.



USE CASES INVESTED INTO BY ORGANISATIONS ACROSS THE BCX INNOVATION INDEX SPECTRUM



In light of these findings, it is clear that South African organisations are navigating a complex landscape of digital transformation and innovation. While challenges such as regulatory uncertainty, talent constraints, and the need for robust infrastructure remain, the commitment to leveraging emerging

technologies to drive efficiency, enhance customer experiences, and ensure long-term growth is evident. The success of these efforts will depend on an organisation's ability to balance strategic investments with the agility required to adapt to an ever-evolving digital environment.

Conclusion

9

The 2024 BCX Digital Innovation Index provides a comprehensive view of the current state of innovation in South Africa. But more than that, it should act as a call to action for companies to harness the power of digital technologies and drive meaningful change in a rapidly evolving landscape.

The pursuit of innovation in South Africa over the past year can be described as a combination of ambition and challenge. Organisations classified as 'Excellent' have successfully incorporated innovation into their business strategies. They foster a culture where experimentation, agility, and forward-thinking are encouraged. However, the journey toward innovation excellence is far from straightforward. Legacy systems, a limited talent pool, and a risk averse culture continue to temper the pace at which many organisations can innovate.

Investment remains a critical enabler of innovation. The 2024 Index shows that many companies are still finding it difficult to measure the true impact of their investments. Traditional financial metrics often fall

short of capturing the long-term value generated by innovative initiatives. This is where the importance of strategic external partnerships becomes evident. Collaborating with external experts and entities not only augments internal capabilities but also accelerates the innovation process, providing organisations with the necessary expertise to navigate the complexities of the digital age.

While companies are focusing more on innovation than in previous years, external factors do represent significant hurdles. These include the country's socio-economic challenges and infrastructural issues such as loadshedding. Additionally, regulatory uncertainty further complicates the landscape. All these see organisations needing to adopt a flexible approach when it comes to innovation that sees them able to adapt rapidly to any change whether this comes from compliance or using new technologies.

Yet, within these challenges lie immense opportunities.

The focus on digital transformation and the adoption of emerging technologies like AI, cloud computing, and low-code platforms provide businesses with the means to reinvent themselves. Those businesses that can effectively integrate these technologies into their operations, while fostering a culture of experimentation and collaboration, will be well-positioned to drive sustained growth and create long-term value.

The journey towards innovation excellence is demanding. However, with the right approach companies can benefit from transformative outcomes that can strengthen their operations while also contributing to the broader economic resilience of South Africa.

The insights from the 2024 BCX Digital Innovation Index serve as a roadmap for organisations looking to navigate the complexities of innovation. It comes down to all stakeholders needing to commit to building a more agile, innovative, and resilient South Africa.





10 Appendix

We would like to extend our deepest gratitude to all organisations that have participated in this year's BCX Digital Innovation Index.

Your invaluable contributions have not only enriched our understanding of the innovation landscape in South Africa but have also illuminated the pathways and challenges that lie ahead. Your openness in sharing insights, challenges, and best practices provides a nuanced tapestry from which businesses across sectors can learn and adapt. It has been a true pleasure for BCX and EY-Parthenon to partner with and learn from South African business leaders in this endeavour.

Looking ahead, we strongly encourage more organisations in South Africa to partake in upcoming editions of the BCX Digital Innovation Index. Participation in this important survey amplifies the collective voice of the South African business community and enables us to provide an even more robust and comprehensive view of innovation.

As we strive for progress and resilience, your input is not just beneficial – it's essential for shaping a more innovative and competitive South African economy.

11

Author & contributor profiles



● Ella Engelbrecht

Ella Engelbrecht is a Marketing Executive at BCX. She is an accomplished executive with over 26 years of experience driving innovation and excellence across both B2B and B2C sectors. With a proven track record in developing impactful marketing strategies, optimising product offerings, and enhancing customer experiences, she is known for her ability to implement data-driven insights.



● Melvin Reynolds

Melvin is a highly experienced ICT professional with over 25 years of industry expertise. Throughout his career, he has successfully launched multiple products for leading Telco and IT companies.



● Georgina De Felsoeori Nagy

Georgina is a leader in the EY Parthenon Strategy team, working on strategy, innovation and digital projects. Georgina has broad experience in innovation strategy and process development for large organisations.



● Sajag Arora

Sajag Arora drives consulting growth in the Telco, Consumer Products, and Retail sectors. An expert in digital technology and TMT, he advises businesses on navigating digital transformation, optimising technology investments, and transforming business models in the digital world.

➤ Author & contributor profiles



● Heather Orton

Heather leads Strategy for EY Parthenon Africa. She has over 20 years of experience in delivering strategy and operating model design, leading complex transformation projects, creating and setting up shared service centres, launching new service offerings and driving innovation, and doing it in a sustainable way.



● Thabi Malatji

Thabi is a leader in the EY Strategy and Transformation Team based in South Africa. She is known for her passion for applying innovation, digital capabilities and disruptive technologies to unlock productivity improvements. Thabi also drives the implementation of innovation projects and new business models across organisations in the African market.



● Iman Carrim

Iman is a strategy consultant with a strong research background both from an academic and professional perspective. She has published several academic articles in reputable journals and has a core focus on market analysis and benchmarking projects within EY.



● Noorie Karimbocus

Noorie is an innovation consultant with a passion for people and data-driven decision making. She works across product and information design and agile project execution. She has broad sector experience, including finance, education, retail, the public sector and life sciences. Noorie holds a PhD in Molecular Biology from the European Molecular Biology Laboratory in Heidelberg, Germany. She also has an MSc in Biochemistry from the University of Birmingham (UK) and an MBA from the African Leadership University (Rwanda).



● Elmien Sambandan

Elmien is a leader in the Strategy & Transformation team. She assists clients to innovate their business models, design and launch new businesses, products and services; design and implement transformation programs and respond to customers' changing needs to drive profitable growth.



● Alam Kasenally

Alam brings disruptive technology innovation to solve complex board-level challenges. Alam has helped clients in Insurance, Banking, Retail, Software and Healthcare disrupt their own businesses and set new standards for their industries, giving clients an experience of Silicon Valley style execution and a first-mover advantage.



● Hulisani Muloiwa

Hulisani is a consultant in EY Parthenon's Strategy and Transactions team in Johannesburg, South Africa. Hulisani has expertise in Economic Research and Analysis, Market Analysis, and Stakeholder Engagement which he leverages to support clients across sectors.





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