LEADING TRANSFORMATION:
SHAPING THE C-SUITE FOR BUSINESS 4.0 INNOVATION

What organizational leaders need to know to attract, develop and retain top executive talent who can foster innovative cultures, digitally transform the enterprise and thrive in the Fourth Industrial Revolution.

By the Association of Executive Search and Leadership Consultants (AESC)

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Dedicated to Strengthening Leadership Worldwide

INTRODUCTION

The majority of organizations understand the imperative to embrace digital or risk relevancy to their customers. Companies are increasingly investing in innovation labs. They have also ranked attracting and retaining talent as a top business priority, while recognizing the need for the right leaders to drive digital transformation in their organizations. As a result, companies have placed more emphasis on building a strong employer brand, seeking to be a top destination for high achieving, diverse talent.

But is it working? Studies show mixed results. In *The C-Suite Challenge Survey 2018: Reinventing the Organization for the Digital Age*, The Conference Board study found many organizations continue to struggle with enterprise-wide digital transformation. Legacy processes and mindsets prevent organizations across industries from fostering innovation, achieving their digital goals, and ultimately driving their long-term vision. In *Understanding Digital Mastery Today: Why Companies are Struggling with Their Digital Transformations*, the Capgemini study found that only 35% of organizations have the right leadership capabilities to drive digital and 60% of organizations found building a digital transformation culture to be a major hurdle.

As the global association representing excellence in executive search and leadership consulting, we wanted to better understand why organizations struggle with digital transformation and how their talent strategies must continue to evolve to drive their transformation journeys. To do so, we surveyed more than 600 AESC Members worldwide—top consultants, from a diverse mix of industry, functional and geographic specialization—to glean their insights on how some organizations are successfully transforming and why others are not. We asked them how companies can innovate in today's Business 4.0 environment, what is required of leaders who can drive innovation, and how far along companies are on the path to digital transformation, by industry and functional department.

We found that too often organizational culture is not aligned with the digital vision, operational approaches are impeding opportunities for innovation, and talent strategies and mindsets have not evolved quick enough for the rapid rate of change brought on by emerging technologies.

In this report, we share with business leaders worldwide key learnings about successfully leading transformation and offer insights on how your organization can best attract, retain and develop the talent required for Business 4.0 innovation.

Sincerely,

Karen Greenbaum
President & CEO

Association of Executive Search & Leadership Consultants (AESC)

EXECUTIVE SUMMARY

Global business leaders understand the need to transform their organizations, leverage emerging technologies to get closer to their customers and identify new opportunities in the marketplace, and attract and retain the right talent that can foster innovation. What our survey of more than 600 AESC Members around the world reveals, however, is that there is misalignment of talent and organizations' innovation goals. Often the barrier is a lack of leaders who can establish the right culture for innovation and digital transformation.

TECHNOLOGIES INFLUENCING BUSINESS 4.0

- 3D Printing (Additive Manufacturing)
- Analytics
- Artificial Intelligence
- Augmented Reality
- Cloud Computing
- Internet of Things (IoT)
- Robotic Process Automation (RPA)

BARRIERS TO ENTERPRISE-WIDE DIGITAL TRANSFORMATION

- Legacy approaches continue to inhibit digital transformation
- A lack of the right talent continues to be a major business challenge
- Organizations are not investing enough in their digital transformations
- A resistance to change prevents enterprise-wide transformation
- Organizations are not actualizing their digital transformations because they haven't clearly defined what it means for their businesses

CHALLENGES TO ACHIEVING INNOVATION

- A fear of failure is common among organizations worldwide
- Legacy mindsets continue to prevent businesses from innovation
- Business leaders are overwhelmed by the rapid rate of change
- Organizations are often hindered by too much short-term focus
- A lack of the right talent continues to be a top business challenge

BUILDING A CULTURE OF INNOVATION

- Innovative organizations encourage creative thinking
- Innovative organizations foster a culture of collaboration
- Innovative organizations champion diversity and inclusion
- Innovative organizations inspire trust
- Innovative organizations are customer centric

TRANSFORMING C-SUITE ROLES IN BUSINESS 4.0 ORGANIZATIONS

- CEOs must drive the culture change
- CHROs must lead a Business 4.0 talent strategy
- CFOs must support innovation through long-term investment
- CMOs must evangelize customer centricity across the enterprise
- CTOs must become more commercial and seize opportunities in the marketplace

INSPIRING INNOVATION

- Innovators are courageous
- Innovators are emotionally intelligent
- Innovators are motivational and inspirational
- Innovators are adaptable
- Innovators are perceptive and visionary

BUILDING A TALENT STRATEGY FOR BUSINESS 4.0 INNOVATION

- Develop a strong employer brand strategy to attract and retain top talent
- Be open to talent from other industries
- Provide development opportunities to high potentials
- Talk about the future
- Bring digital talent to your board

LANDSCAPE:
TECHNOLOGIES INFLUENCING BUSINESS 4.0

Business 4.0 is the global business environment created by the Fourth Industrial Revolution and Industry 4.0 technologies. Business 4.0 extends beyond the industrial and manufacturing sectors to encompass and influence all industries, from financial and professional services to healthcare and consumer goods. Business 4.0 is influenced by the following technologies:

ROBOTIC PROCESS AUTOMATION (RPA)

DEFINITION: Robotic process automation (RPA) is the practice of automating routine business practices with "software robots" that perform tasks automatically. These tasks include transaction processing, IT management and automated online assistants. These software robots could replace human beings for common tasks. Robotic process automation makes heavy use of artificial intelligence to train these robots.

(Source: Techopedia)

TRENDS: According to a Deloitte study, 53% of organizations have started their RPA journey and that is anticipated to increase to 72% by 2020. At this pace, we could see near universal RPA adoption over the next five years.

(Source: Deloitte, "The robots are ready. Are you? | Untapped advantage in your digital workforce," 2018)

EXAMPLES: One consultant in the industrial sector shared, "We have big mining clients embracing the disruptive Business 4.0 environment. They are investing in automation. They have invested in driverless trucks and trains. They are working with automation to reduce their occupational health and safety risk, and also to increase productivity. So, they've made huge investments in cutting edge automation."

ANALYTICS

DEFINITION: Analytics is the scientific process of discovering and communicating the meaningful patterns which can be found in data. It is concerned with turning raw data into insight for making better decisions. Analytics relies on the application of statistics, computer programming, and operations research in order to quantify and gain insight to the meanings of data. It is especially useful in areas which record a lot of data or information.

(Source: Techopedia)

TRENDS: Companies continue to invest in analytics to get closer to their customers and to identify market opportunities, but they are not necessarily seeing the expected ROI. Organizations grapple with scaling use across the enterprise into the everyday environment rather than in just a few functional areas.

(Source: McKinsey, "Analytics comes of age," 2018)

EXAMPLES: A consultant with clients in the insurance sector explained, "All insurance companies today are enabled by digital technology. Digital is key in terms of how they're engaging with their customers, and how they are using data analytics to understand the customer journey. Insurance companies today might interact with customers at the point of when they win a policy, at the point of making a claim, but now they're using data analytics to understand what that customer's journey might look like. How else can they interact with their customer, how else can they create a conversation, an ongoing conversation to identify what other needs that customer may have and bring them value."

CLOUD COMPUTING

DEFINITION: Cloud computing is the use of various services, such as software development platforms, servers, storage and software, over the internet, often referred to as the "cloud." In general, there are three cloud computing characteristics that are common among all cloud-computing vendors: The back-end of the application (especially hardware) is completely managed by a cloud vendor; A user only pays for services used (memory, processing time and bandwidth, etc.); Services are scalable; Many cloud computing advancements are closely related to virtualization. The ability to pay on demand and scale quickly is largely a result of cloud computing vendors being able to pool resources that may be divided among multiple clients. It is common to categorize cloud computing services as infrastructure as a service (IaaS), platform as a service (PaaS) or software as a service (SaaS).

(Source: Techopedia)

TRENDS: Some companies are shutting down their proprietary data centers as a result of the lower costs associated with serverless cloud adoption. A report from Cloudability found that serverless adoption in the U.S. grew by 667 percent in the fourth quarter of 2017, up from 321 percent just the quarter before.

(Cloudability, " State of the Cloud Report," 2018)

EXAMPLES: Transportation: Uber uses a hybrid cloud model to ensure constant uptime, an indivisible relationship between product and deployment. Asset Management: Blackrock built an investor research application using Kubernetes on cloud software.

3D PRINTING (ADDITIVE MANUFACTURING)

DEFINITION: 3D printing is a manufacturing process through which three-dimensional (3D) solid objects are created. It enables the creation of physical 3D models of objects using a series of additive or layered development framework, where layers are laid down in succession to create a complete 3D object. 3D printing is also known as additive manufacturing.

(Source: Technopedia)

TRENDS: 3D printing is being used in product development to reduce time-to-market and shorten product development cycles; in manufacturing to reduce process time through improved tools and reduced waste; in engineering and maintenance via more flexible maintenance processes and reduced maintenance costs; in logistics and warehousing to reduce inventory, logistics and logistics costs; and in aftermarket to increased flexibility in delivery of spare parts and reduce costs of spare parts production.

(Source: EY, "Why 3D printing needs to be on the agenda now," 2016)

EXAMPLES: Aviation: GE's GE Catalyst, a turboprop engine developed using 3D printing. The engine's designers were to combine 855 separate parts into just 12. Pharmaceuticals: 3D printing is being used for injectable drugs. MIT researchers have invented a new printing technique to develop microparticles that deliver multiple, time-staggered doses of a drug from a single vaccination.

(Source: CBInsights, "25 Industries 3D Printing Could Transform," 2018)

ARTIFICIAL INTELLIGENCE
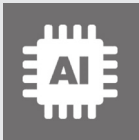
DEFINITION: Artificial intelligence (AI) is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans. Some of the activities computers with artificial intelligence are designed for include: Speech recognition; Learning; Planning; Problem solving.

(Source: Techopedia)

TRENDS: A Gartner study identifies three trends impacting AI over the next few years: Better communication through natural-language processing; Deeper and broader integration with existing applications and IoT projects; and richer ecosystem interaction. As AI becomes more common, applications that employ it must work effectively with others employing similar technologies.

(Source: Gartner, "Build the AI Business Case," 2018)

EXAMPLES: Financial Services: PayPal uses a form of AI technology called deep learning to improve cybersecurity. PayPal's fraud rate is 0.32 percent of revenue, significantly lower than the 1.32 percent average reported in a study by LexisNexis. One consultant in France shared, "R&D teams in healthcare, with a lot of elements taken from diagnostics and taken from a lot of information they get from patients, are trying to identify the types of molecules that cure diseases. So, there is a lot of massive information, data, to be analyzed. This is where AI is about to become very significant in healthcare."

INTERNET OF THINGS (IOT)

DEFINITION: The internet of things (IoT) is a computing concept that describes the idea of everyday physical objects being connected to the internet and being able to identify themselves to other devices. The term is closely identified with RFID as the method of communication, although it also may include other sensor technologies, wireless technologies or QR codes. The IoT is significant because an object that can represent itself digitally becomes something greater than the object by itself. No longer does the object relate just to its user, but it is now connected to surrounding objects and database data. When many objects act in unison, they are known as having "ambient intelligence."

(Source: Techopedia)

TRENDS: BI Intelligence expects there will be more than 24 billion IoT devices on Earth by 2020, or approximately four devices for every human being on the planet. $6 billion will flow into IoT solutions.

(Source: Business insider, "What is the Internet of Things (IoT)? Meaning & Definition," 2018)

EXAMPLES: Some uses of IoT include smart homes (homes automated using smart connections by mobile devices); wearables (GPS fitness bands), cars that self-drive, smart farming, and smart retail like AmazonGo.

AUGMENTED REALITY

DEFINITION: Augmented reality (AR) is a type of interactive, reality-based display environment that takes the capabilities of computer-generated display, sound, text and effects to enhance the user's real-world experience. Augmented reality combines real and computer-based scenes and images to deliver a unified but enhanced view of the world.

(Source: Techopedia)

TRENDS: According to a recent estimate by Goldman Sachs, AR and VR are expected to grow into a $95 billion market by 2025. The strongest demand for the technologies currently comes from industries in the creative economy—specifically, gaming, live events, video entertainment and retail.

EXAMPLES: Healthcare: Medical students use AR technology to practice surgery in a controlled environment. Visualizations aid in explaining complex medical conditions to patients. Augmented reality can reduce the risk of an operation by giving the surgeon improved sensory perception.

(Source: LifeWire, "Applications of Augmented Reality," 2018)

1

OBSTACLES: BARRIERS TO ENTERPRISE-WIDE DIGITAL TRANSFORMATION

As AESC Member executive search and leadership consultants advise organizations around the world, it is clear that today's business leaders understand that the Business 4.0 environment is fundamentally different than what came before. Leaders understand that they must drive digital transformation in their organizations, leverage emerging technologies to get closer to their customers and identify new opportunities in the marketplace, and attract and retain the right talent that can foster innovation. Our survey reveals that even with this understanding, organizations still struggle to actualize their digital transformations, are not investing enough in innovation and are increasingly unable to attract the right talent.

The current business environment moves at rapid speed, accelerated by new digital technologies. Business leaders see the opportunities of Business 4.0, but they struggle to keep up. Responses to our survey from AESC Members reveal the following obstacles stand in the way of achieving digital transformation and guide our analysis of top organizational challenges, how those challenges will evolve as technology evolves, and the talent strategies required to drive high performance in a Business 4.0 climate.

LEGACY APPROACHES CONTINUE TO INHIBIT DIGITAL TRANSFORMATION

Despite the investments in digital technologies, organizations still struggle to actualize enterprise-wide digital transformation. Our survey respondents ranked legacy approaches as the number one barrier to achieving digital transformation. The conversion from idea to solution, the implementation of ideas and activation of the right leaders who understand and foster the transformation is difficult. As a result, many companies continue to follow old success models, even if they increasingly do not work. One AESC Member consultant commented, "I see more and more the necessity of having a Chief Technology Officer in charge of bringing new technology to old functions of the company. Of course, that exists already more or less in R&D, but why not

in distribution? Why not in manufacturing? So, someone who can bring the technology across the entire company."

Legacy mindsets are often the result of talent that is not aligned with the new business environment. A consultant specializing in financial services shared, "Most of the banks have gone through this wave of having focus on traditional brick and mortar branches where you would go into a physical space and actually manage your transactions, to really moving focus to a much more digitized online app-based consumer banking platform. As a result, they are finding that they need to hire talent that is much more digitally conversant at the C-level across functions, not just behind the scenes."

Legacy approaches and environments are also causing talent attraction issues for organizations that are failing to adapt to Business 4.0 approaches. "The next generation of executive talent, they don't want to work in the office environments of yesterday, they want to work in a WeWork office," shared a consultant working for clients in consumer goods. "They can interact with other companies and other cultures—exchange culture between companies. They can listen to how other brands approach challenges, it's much more informal. It's become difficult to recruit talent to implement digital transformation strategies for very traditional companies because they don't attract, they are not sexy. It's a culture issue."

A LACK OF THE RIGHT TALENT CONTINUES TO BE A MAJOR BUSINESS CHALLENGE

Finding and attracting C-level talent that can facilitate the right culture for digital transformation is proving difficult across industries. One AESC Member consultant who specializes in financial services and the industrial sector commented: "There's a worldwide shortage of some of the digital skills at executive level. Data analytics for example is tricky. Finding people who have had experience at an executive level and who have managed large data analytics projects which they have turned into strategic information that can be usable, is a challenge. We also do a lot of board search

and we find it really difficult to identify sophisticated directors who understand a lot of tech innovation. It might have something to do with the maturity of the market. You don't have a whole generation of executives who can step up into boardrooms who have had lots of experience with technology, so that is another critical shortage."

One consultant based in India commented, "There is demand for people who combine different skills. I refer to it as a triangle—a triangle of sought-after skills. It combines the three aspects of data analytics, technological fluency and business acumen. There is a huge mismatch in the demand for this type of talent versus the supply."

A consultant in the Middle East commented, "There's much more focus in hiring talent with experience with big data, analytics, and artificial intelligence, functions that weren't relevant just a few years ago. We're involved in helping companies add that experience in this region. We don't really have too many people that have those sectors of expertise in data analytics and AI and those sorts of things in this region and we have hired from the West, Central and Eastern Europe, as well as from the Indian subcontinent to really bring that expertise to the region.

"The whole production of knowledge would once take days, months, years. Today it's in real time," stated a consultant specializing in the nonprofit sector. "A lot of organizations are hiring talent that understands that reality and so they are focused on AI and the digitization of business.

As a result, we're seeing less demand for the sort of transactional type leadership roles of the past, the CIOs, the information management type roles. More of those roles are now focused on 'how do we use data in a way that's going to be helpful, not just to our own organization, but to the organizations we serve.' There is a shift taking place away from information management to something much more substantive."

ORGANIZATIONS ARE NOT INVESTING ENOUGH IN THEIR DIGITAL TRANSFORMATIONS

While leaders understand the need to digitally transform, many organizations fail to invest the time and resources into ensuring that there is a sound strategy in place to make it happen. A consultant for the industrial sector shared, "We've been hearing from digital leaders that a lot of CEOs should perhaps be more humble sometimes about what their company does best and be more open to partnering with other players in the ecosystem, to be able to readily acquire available solutions and expertise. They do not always need to create themselves from scratch. They can acquire a startup or partner with a technology company to innovate on their existing products or services, rather than creating technologies completely from scratch themselves."

One consultant in Spain shared, "All the different technologies that are appearing in

the hospital environment place the customer, the patient, at the center. It's at an early stage here in Spain, but physicians are finding use for artificial intelligence in giving support to the patient. But not all organizations are prepared for this and some are not yet leveraging these new technologies."

"What's happening with AI and other new technologies is the curators, the creators, the managers, the owners, and the developers of knowledge no longer have the power," shared a consultant based in Canada. "What's happening is you're seeing a shift taking place in the knowledge economy because of AI, because of big data and big science. So, the role of the academic institutions, the role of healthcare institutions, the role of many knowledge-based industries and sectors is changing. The notion that an academic institution will be the same 100 years from now is not likely to be the case. People will gain knowledge through other sources and universities may not be the source. So, leaders have to be aware of the fundamental shift taking place. Leaders of those institutions have to start thinking creatively about how the fundamental business of their organizations and their sectors is changing and how do they get ahead of that now, because if they don't start thinking about those things, they will be challenged."

A RESISTANCE TO CHANGE PREVENTS ENTERPRISE-WIDE TRANSFORMATION

Today's leaders are managing workforces that have different levels of understanding regarding digital. An embrace of change to a digital culture requires proper support and training to ensure a uniform understanding of the process. "Businesses need to articulate the transformation they need for their company and actively work to change the culture," shared a consultant with clients in consumer goods. "What will they need to do to change the culture? To digitally transform, to innovate, organizations need to change their cultures. They're not going to succeed by just bringing in capable talent and paying high salaries. They have to shift the culture of the organization. If they don't have innovation in the blood of their company, they're not going to succeed. Transformation is not something that can just be talked about. You have to build the transformation. Transformation happens with the culture of the company."

A consultant serving the nonprofit sector shared, "From a leadership and administrative perspective, traditions and conventions are very hard to break. The reality is that organizations were too conservative and now they no longer have that option. There are forces now making them change their behaviors. Having said that, there is still a lot of tradition that's built into their systems. There's a lot of hierarchy, and until something fundamentally changes the model, the governing structures, the systems, they're really hard to break free of legacy approaches. In a healthcare education environment, for example, things move quickly. There is a growing interest in experimenting, trying new things and collaborating. At the same time, there is a culture of evidence-based decision making which sort of runs contrary to a fail fast mentality. You simply can't take a step forward unless the evidence proves or demonstrates that it's a step that you should be taking. A fail fast approach suggests that you can sort of jump and see what happens, and then adjust. That's one of the contradictions and paradoxes of this business environment we are in today. People want to experiment, they want to try new things, they want to innovate. But on the flip side, you still have ingrained cultures that demand evidence support every single decision, and therefore it's a more risk averse, slow decision making process. Those mindsets are in collision. It's creating an interesting dynamic in organizations where you have new leaders who want to push hard and do creative, risky things, and others who want to really hold on to this notion that evidence has to drive every decision."

ORGANIZATIONS ARE NOT ACTUALIZING THEIR DIGITAL TRANSFORMATIONS BECAUSE THEY HAVEN'T CLEARLY DEFINED WHAT IT MEANS FOR THEIR BUSINESSES

Many organizations lack a clear understanding of what digital transformation means. They have not defined it for their businesses. There is a lack of understanding, a lack of training, and often a perception that it is the responsibility of one department. "Organizations need to articulate what digital transformation means to their business and obviously what part people play in that," shared a consultant specializing in financial services. "Organizations have to determine

what is transformation and how do they harness talent to make it happen in their organization."

"If a company wants to position themselves as transformative, they need to put some specificity around it," stated one consultant. "They need to create their own digital transformation agenda, put resources behind it, build great teams around it and put good governance around it. Celebrate successes and mend for failures. I see organizations often describing themselves as best-in-class, innovative, and yet no—that's the employment brand they're trying to project, but behind that, there's no real substance or definition to their agenda."

Despite demand for speed, leaders can still benefit from taking a step back. "Clear thinking about what they want to accomplish or what problem they are trying to solve is necessary," shared one consultant in the food and beverage sector. "We see many organizations trying to digitally transform and speed up poor processes rather than step back and contemplate how they could use new tools to do things in a better, faster, more cost-effective way."

Greatest Challenges to Achieving Enterprise-Wide Digital Transformation

	All Industries	Consumer/ Retail	Financial Services	Healthcare/ Life Sciences	Industrial	Nonprofit/ Education	Professional Services	Technology
Legacy Approaches	1	1	1	3	1	1	1	1
Lack of Talent	2	1	2	1	2	2	2	3
Capital/Investment	3			2		3	3	
Resistant to Change	4	2	3	3	3			2
Lack of Understanding	5	3						
Culture Alignment	6							
Lack of Vision	7					3		
Adaptability	8							
Lack of Collaboration	9					3		
Lack of Development	10					2		

Chart 1.1

FUNCTIONAL DEPARTMENTS ARE AT DIFFERENT STAGES OF DIGITAL TRANSFORMATION

Our survey clearly demonstrates the continuation of departmental silos, and as a result, shows how many organizations have not actualized their digital transformation across the enterprise. AESC Members ranked technology and marketing teams the most advanced on their digital transformation journeys, while they ranked HR and legal the least advanced. Finance departments ranked in the middle.
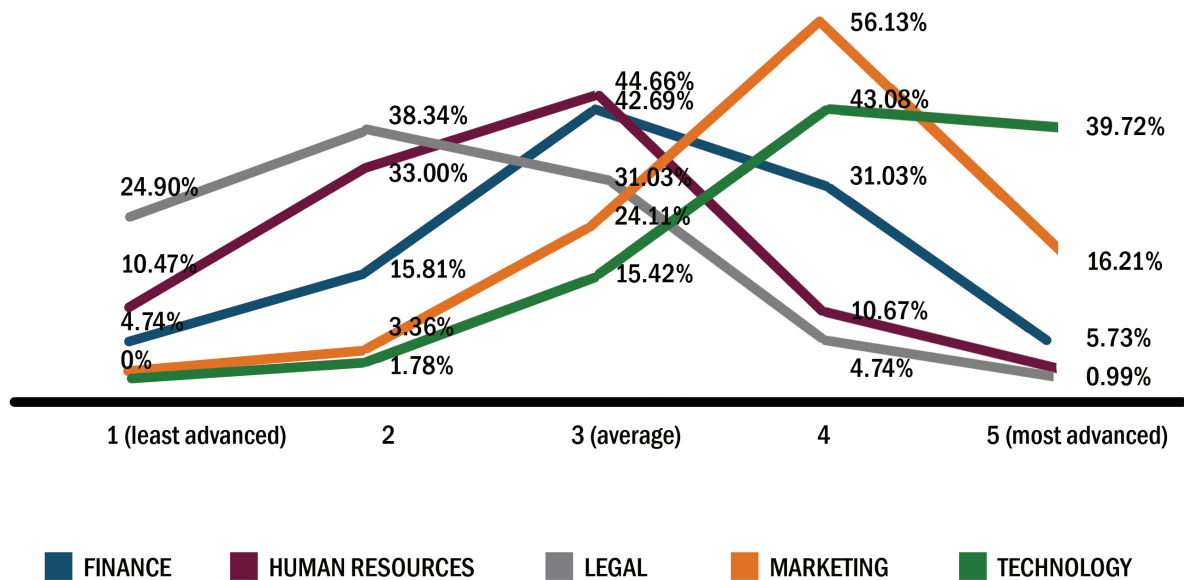
Digital Transformation by Functional Department

Legend: FINANCE, HUMAN RESOURCES, LEGAL, MARKETING, TECHNOLOGY

Data points:
- 1 (least advanced): 24.90%, 10.47%, 4.74%, 0%
- 2: 38.34%, 33.00%, 15.81%, 3.36%, 1.78%
- 3 (average): 44.66%, 42.69%, 31.03%, 24.11%, 15.42%
- 4: 56.13%, 43.08%, 31.03%, 10.67%, 4.74%
- 5 (most advanced): 39.72%, 16.21%, 5.73%, 0.99%

Chart 1.2

Digital Transformation by Functional Department - Region at a Glance

Scale 1 - 5 (1= Least advanced; 5 = Most advanced)

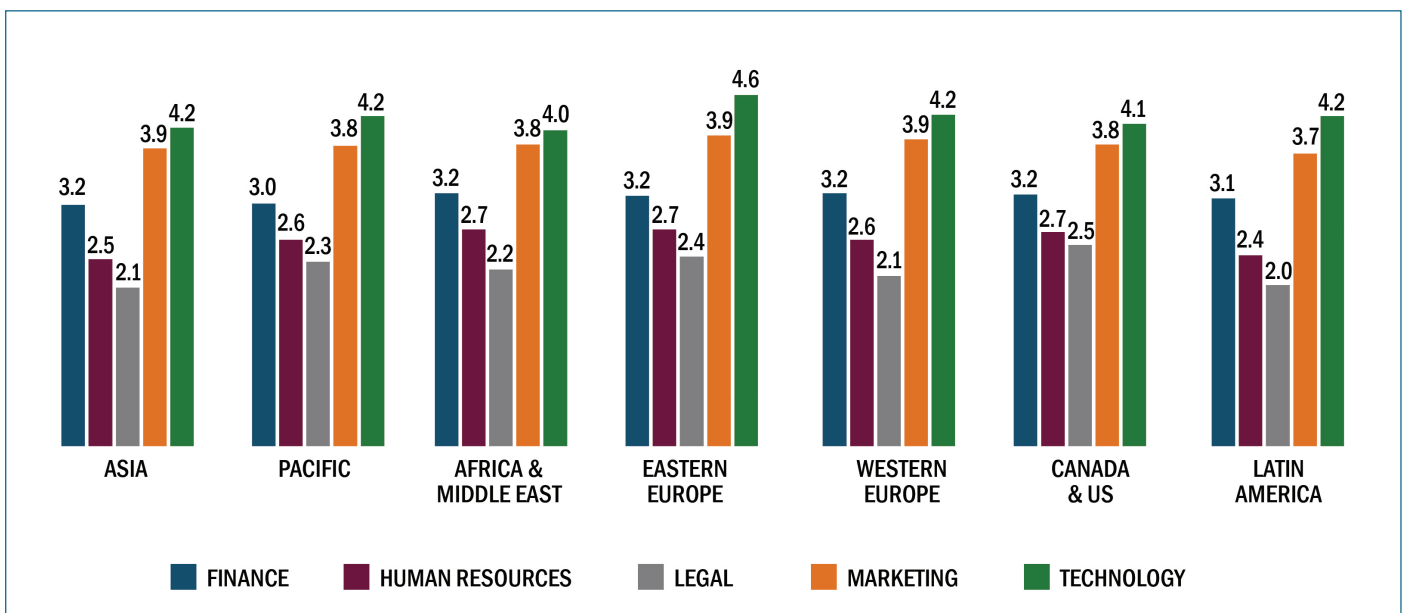| Region	FINANCE	HUMAN RESOURCES	LEGAL	MARKETING	TECHNOLOGY
ASIA	3.2	2.5	2.1	3.9	4.2
PACIFIC	3.0	2.6	2.3	3.8	4.2
AFRICA & MIDDLE EAST	3.2	2.7	2.2	3.8	4.0
EASTERN EUROPE	3.2	2.7	2.4	3.9	4.6
WESTERN EUROPE	3.2	2.6	2.1	3.9	4.2
CANADA & US	3.2	2.7	2.5	3.8	4.1
LATIN AMERICA	3.1	2.4	2.0	3.7	4.2

Chart 1.3

THE CULTURE QUESTION—WHAT DOES A HEALTHY ORGANIZATIONAL CULTURE LOOK LIKE?

In our survey, AESC Members point out that organizations struggle to achieve digital transformation because they do not have the culture to support it. Based on their experience in advising client organizations in every sector and in all business markets around the world, we asked them to share the top elements required for a healthy culture. Respondents ranked leaders who lead by example, clear communication and an empowered workforce among the top three characteristics of an organization with a healthy culture.

Top Elements of Organizations with Healthy Cultures

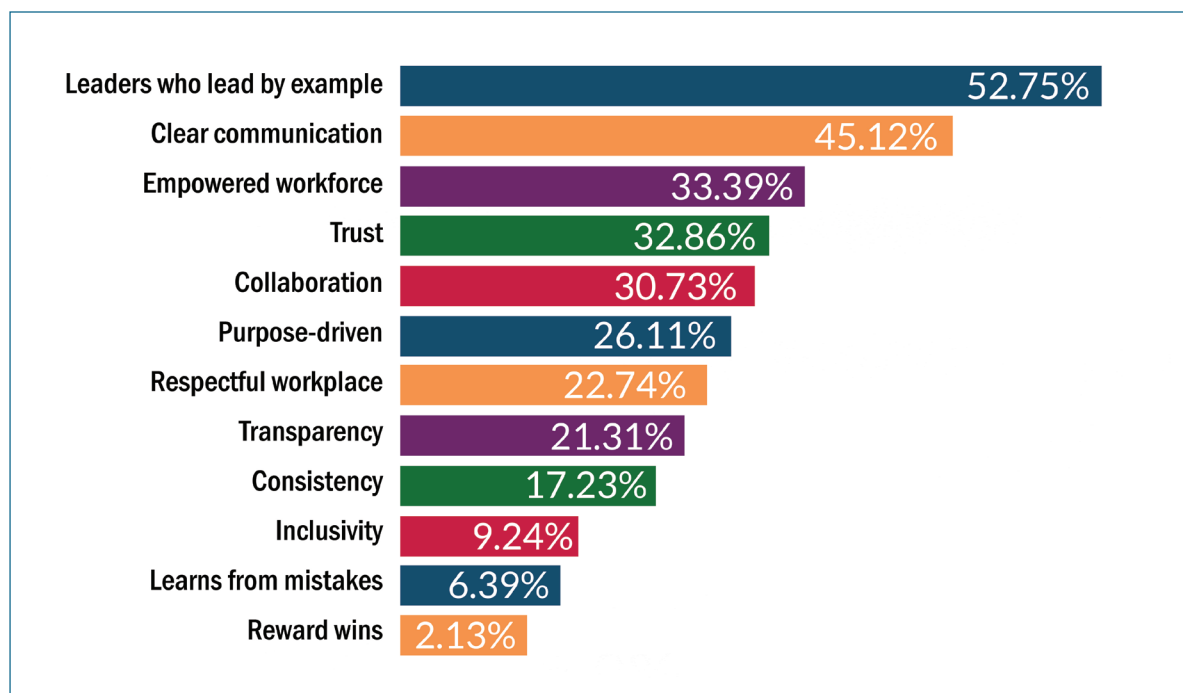| Element	Percentage
Leaders who lead by example	52.75%
Clear communication	45.12%
Empowered workforce	33.39%
Trust	32.86%
Collaboration	30.73%
Purpose-driven	26.11%
Respectful workplace	22.74%
Transparency	21.31%
Consistency	17.23%
Inclusivity	9.24%
Learns from mistakes	6.39%
Reward wins	2.13%

Chart 1.4

2

FORCES: TOP CHALLENGES TO ACHIEVING INNOVATION

A FEAR OF FAILURE IS COMMON AMONG ORGANIZATIONS WORLDWIDE

The transition from a current state of operations to the desired state is challenging and fraught with risk. A fear of failure ranked in our survey as the top challenge preventing organizations from achieving innovation. Many organizations remain too risk averse to achieve innovation for their businesses and remain locked in a cycle of reactive decision making. "Organizations have to ask, 'what is the cost of not taking a risk?' That can be very detrimental to talent and the survival of the company," shared one consultant specializing in the industrial sector. "Because not taking risks, not working toward innovation means you are no longer in the fray. Your competition will come along and take you and you will be left behind."

"Legacy businesses in this region are generally family-owned conglomerates. The owners of these enterprises are a bit more traditional in their way of thinking," commented a consultant based in the Middle East. "The appetite for risk is much less and as a result there is little experimentation which leads to innovation."

LEGACY MINDSETS CONTINUE TO PREVENT BUSINESSES FROM INNOVATION

One consultant in Australia commented, "Finding CFOs and COOs who have sufficient imagination and who have received sufficient permission from their board to start investing in innovation is a challenge. Finding a CEO who's comfortable with technology and who knows how to structure the conversation with decision makers and build the agenda for innovation can be a challenge too, because you still have very traditional executives who have traded on older skills and this is a new frontier for them. Finding people who are open to innovation and finding enough of them at an executive level so that they can all work together and drive an agenda of innovation together is tricky to do."

"The life sciences sector is heavily regulated. There is big compliance effort among all the companies in the pharmaceutical industry," shared a consultant in the life sciences sector.

"Many of the people that have been working for these companies for a long time, they have a fear of error, fear of compliance, fear of regulation. One of the main things that all the companies are trying to do is change this mindset, allowing them to do different things, test new ideas. But to do this, you must have very strong leadership to generate this culture. Otherwise you have companies that are doing the same thing for a long time. And when you are doing the same things, you get the same results. The environment is changing a lot and these companies need people who are not afraid to try something different."

BUSINESS LEADERS ARE OVERWHELMED BY THE RAPID RATE OF CHANGE

"The whole world has sped up," commented a consultant based in the US. "There's more information, there's more expectation about speed, and everyone is trying to keep up and it's a challenge."

"The general pace of technological development is startling for many leaders today," shared a consultant in the UK. "There is often a lack of agility and rapid decision making by the right people," shared another consultant in the consumer retail sector. "Balancing innovation against the everyday which is in itself moving very fast is incredibly difficult."

One consultant in India shares, "There are so many examples of companies that were prominent in India 15 years ago, but they no longer exist. Either they lost their relevance, or they were not able to innovate and come to terms with digital technology. The technology was quickly changing and they were not able to keep up with the market, come up with new products or provide different offerings for the customer. And hence, they became irrelevant."

ORGANIZATIONS ARE OFTEN HINDERED BY TOO MUCH SHORT-TERM FOCUS

"The rapid rate of change and expectation of speed has also placed too much focus on the short term," commented one consultant based in Japan. A consultant in Mexico shared, "Too

much focus on short-term, investor-driven results, quarterly performance pressure, is a killer of innovation."

"I've witnessed clients that are so wedded to the way the world was that it's hard for them to break free of that and be open to diverse perspectives, to serious debate," shared one consultant based in Canada. "You have to create space for transformation. A lot of organizations are so focused on the day to day, or the quarter, or the revenue, or the expenses, that they lose sight of the bigger picture in terms of 'okay let's think three, four, five years out. What do we need to be doing now? What do we need to prepare to do? What are some of the things that are coming up that we can really take advantage of?' Space for that type of thinking needs to be carved out." It is not only short-term focus that can cause delays in reaching innovation.

It is also regulation. One AESC Member consultant stated, "The healthcare sector is not moving—excluding biotech to some extent—extremely fast because of regulation. If you take a new compound, a new molecule, a new capsule to treat an illness, the total length of development from early stage to the patient is about 10 years. It has not decreased much from the day I started in this profession. It has not reduced tremendously, maybe by 10-15%. So regulatory affairs, it takes a lot of time, requires a lot of precautions, so it can take longer to innovate."

A LACK OF THE RIGHT TALENT CONTINUES TO BE A TOP BUSINESS CHALLENGE

"Savviness with technology is now essentially a requirement for almost all roles below C-level executive roles. At the executive level, it may only need to be an understanding of technology or digital innovation and transformation, as opposed to a practitioner of it, but it's increasingly becoming almost a necessary benchmark for C-level executives to be evangelists of technology," commented a consultant based in Japan. "They need to be able to bring the digital transformation to the everyday working environment.

One solution is to bring talent from parallel industries. One consultant specializing in life sciences commented, "In general you have talent that has been in the same industry for a long time. We need to go beyond this and look at talent in other sectors—technology, finance, consumer goods. The problem is that in general, we do not have this opportunity because talent that will work for roles in life sciences are typically from the life sciences sector. I have one client company with a new role called Digital Transformation Lead. This a good example of a position that makes sense to bring someone in from outside the life sciences sector in order to help better understand what is happening in life sciences. That experience from another sector can bring new perspectives that can be applied to life sciences."

Another AESC Member consultant commented, "It's usually very difficult to appoint someone who is not coming from the same industry. The healthcare sector in general is very conservative in that regard. As an example, if you bring a candidate from the medical device industry for a senior role in marketing, let's say for a pharmaceutical firm, you might hear, 'he's not bad but you know, he does not have the same tempo and it won't work.' So, it's very difficult sometimes to get companies to see possibilities and strengths beyond the sector."

Greatest Challenges to Innovation for Business Today

	All Industries	Consumer/ Retail	Financial Services	Healthcare/ Life Sciences	Industrial	Nonprofit/ Education	Professional Services	Technology
Fear of Failure	1	2		1	3	1	1	1
Legacy Mentality	2	1	1	2	1	3		2
Rapid Pace of Change	2	2	2	2	2	3	2	3
Too Short-Term Focused	3		3					
Lack of Talent	4					2	2	
Adaptability	5	3	3	3				
Digital Transformation	5							
Capital/Investment	6							3
Empowering Workforce	7							
Culture Alignment	7						3	

Chart 2.1

DRIVERS: BUILDING A CULTURE OF INNOVATION

## INNOVATIVE ORGANIZATIONS ENCOURAGE CREATIVE THINKING

One consultant based in India shared, "Creativity is critical for innovation. Unless companies constantly innovate, they will not survive." How do leaders inspire creativity in their organizations? "People need to be given permission to be creative, commented one consultant. "Leaders saying 'we are an organization interested in different ideas and you have permission to work together and to have a conversation just about innovation.' You can grant that permission in a number of ways. One is to have a formal strategy and carve out specific outputs you expect from innovation. They might be fairly general carve outs—contribution to productivity, bottom line or diversification. It has to be permission with some goals in mind. What I've seen happen lately is organizations putting aside a particular budget or even deciding that they have an appetite to risk some revenue to try new things. So that is one way. But also making sure that you have the people who are really interested in innovation. Sometimes this is an opportunity to draw people from different parts of the business."

"It's also inclusiveness of the workforce," commented another consultant. There's much more open access to leadership within organizations today. We have a client where the CEO had a competition in his company where any staff member could submit an idea for innovation. And if your idea was implemented, you were rewarded financially.

So that is one example where it was driven by the CEO. But unfortunately, that's not always the case. Sometimes it's just keeping the lines of communication open. Those who are not at the top sometimes see what the problem is and come up with solutions. If they're not given the opportunity to speak up and bring those suggestions to the table, then it's lost."

One consultant based in South Africa shared a perspective on creativity: "Creativity is a function of knowledge, curiosity, imagination and evaluation. In other words, it's the total sum of our knowledge. The more knowledge you have, the assumption is, the more creative you can be. So continuously enhancing your knowledge enhances creativity. So, organizations should encourage their people to share knowledge and also actively develop their skills."

Another consultant specializing in consumer goods shared an anecdote: "One school of thought that resonates with me is that there are three levels of creativity. The first level is discovery. An example is an explorer discovered a new continent. But then when she returned to where she came from, she had knowledge. And that led to innovation. If you do something that other people can also do, like Bell and the telephone—in other words, build a car, build a telephone, apply that same knowledge with a combination of effects and build a different telephone. So that is your second level of creativity. Your last level of creativity is when you actually do something that nobody else can do. In each organization, there should be

Three Stages of CREATIVITY

DISCOVERY   APPLIED KNOWLEDGE   INNOVATION
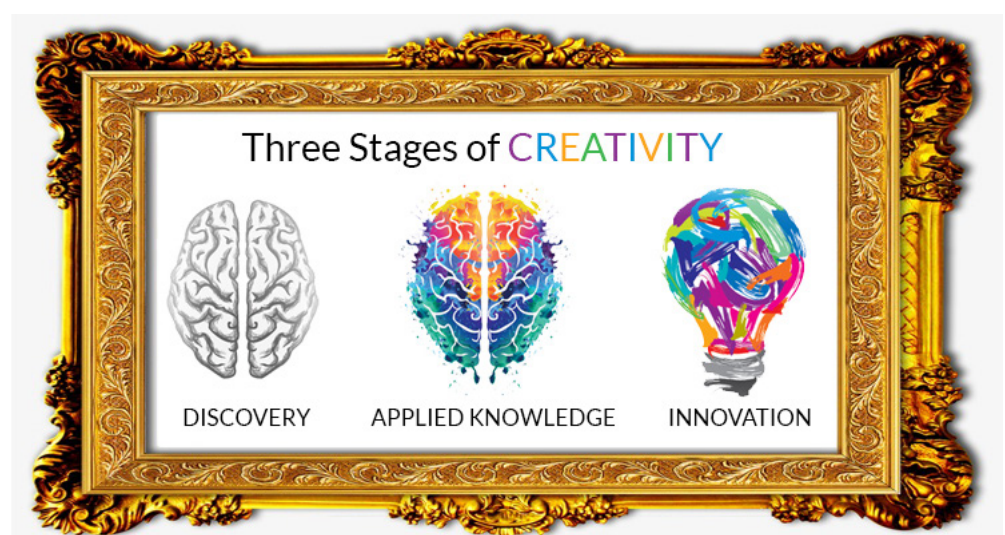
a very specific something that you can create. The question is, in a telephone company, or a car company, or a farmer on the farm, what can they create? If you can't create something out of your ideas, you will get nowhere. At some point, you have to see what you can implement. Having ideas with no implementation means nothing."

INNOVATIVE ORGANIZATIONS FOSTER A CULTURE OF COLLABORATION

"By being more creative and nimble, this is how legacy businesses can adopt a fail fast mentality. That is the culture needed across levels, across functions. Legacy businesses are not originally designed for innovation. They are basically designed for operations. But innovation can happen when functional teams start working collaboratively," stated one consultant headquartered in India. "Innovative organizations must have engaged cultures and ensure that their people participate in the innovation process. That's one way to ensure that an innovative mindset is embraced across teams, across functions, across levels. You have to ensure that people are participating in your programs."

"One thing that some of our clients have implemented as a way of driving innovation and nurturing creativity is moving leaders around an organization into slightly different functions to bring fresh perspectives and different ways of thinking," shared a consultant with clients in financial services.

"I heard an interesting term used recently in a Deloitte study, the 'symphonic C-Suite,'" shared a consultant with clients in the technology sector. "What that means is that in the past, the C-Suite was operating in siloed areas of expertise. Now they must be much more interdependent. The C-Suite must operate as a team. This is a result of the disruptive digital environment. The organization has to be more networked, more agile and team collaboration is much more crucial than ever."

INNOVATIVE ORGANIZATIONS CHAMPION DIVERSITY AND INCLUSION

"A diverse and inclusive culture provides an opportunity for everyone in an organization to contribute different ideas," shared a consultant with clients in life sciences. "If an organization is fostering diversity, that is a key ingredient for innovation—everyone is heard. One of the worst situations in a company is if the decision-making

process sits only with the CEO. A decision-making culture is important in driving innovation."

"Diversity is so important for the success of companies today," shared one consultant based in India. Look at Uber, for example. I see a firm like Tata out of India, which is a very well-known and respected brand. So obviously here are two different types of companies. One, Uber has obviously a very current, startup kind of approach, where Tata is a legacy company that has existed for more than 100 years. Both companies understand the importance of diversity and inclusion and both need to get it right. For Tata, though, being a legacy company, this is a bigger shift which is not easy to navigate, but critical to do it."

"People coming from all parts of the globe to build a new way of thinking—that sort of diversity is really important," commented a consultant based in Australia. "Organizations that exhibit their openness to letting everyone with talent thrive, those are the organizations that create a culture of innovation. If you've got an organization that's clearly open to lots of women involved, people from different ethnic backgrounds involved, people from different countries involved, that is an organization well positioned for innovation. If you say look, we want everyone who's got talent to thrive, that's a great message to get people motivated to do the best that they can and be the best that they can be. The opposite of that would be an organization that is very closed, not embracing people who don't fit the mold."

"Diversity is an advantage to an organization, but people unfortunately sometimes don't always understand each other. They don't make an effort to understand each other, shared another consultant. "So, diversity alone without inclusivity doesn't necessarily work. But once the culture has embraced it and people feel secure, then it's amazing what it can do for the business. Because you can unlock opportunities that other organizations just can't."

"Studies have proven scientifically a correlation between diversity and innovation, and also improvement in financial performance," shared a consultant based in the UK. "What's been shown is innovation increases significantly when at least 30 percent of management positions are occupied by women. Almost every client we have demands a short list with women, so there is a lot more accountability. But there is also societal accountability, to find funding in schools so that it starts at an early stage in life so that women become managers, and then senior managers and eventually senior executives. That journey is not an easy journey, especially

if society doesn't support and embrace it. The attitude and the dream must be that you can reach the top if you want to, regardless if you're born male or female. There are companies that are embracing this more and more, that sense of societal accountability through funding specific programs and supporting specific forums."

One consultant shared, "In India, the diversity conversation has been predominantly focused on gender diversity. But over the last couple of years, that conversation has expanded to include a broader range of diversity. Attitudes and laws around sexual orientation, for example, are changing in India. How we think about diversity is also changing. Now diversity is obviously about gender, but also cultural diversity, social diversity, generational diversity and also demographic diversity."

INNOVATIVE ORGANIZATIONS INSPIRE TRUST

Trust must be present for a "fail fast, learn quickly" environment. One consultant specializing in financial services commented, "The organizations that embrace fail fast well identify where they want to fail first, and then they set their agenda for trying something new. They decide how much they want to bet on the house, so how much revenue do they put into potential failures. And then they place strong metrics around it so they know early on whether the initiative is a failure or not. And they learn from it, what works and what doesn't. They are thoughtful about what they are prepared to risk, what issues they're prepared to try and solve in their innovation agenda and how they're going to learn from it."

Organizations focused on innovation should also focus on nurturing an organizational culture built on trust. "The team must be free to speak their minds regardless of seniority or experience," shared a consultant serving clients in the technology sector. "A significant trend in digital native organizations and organizations that promote a culture driven by learning have removed the fear of failure. It's important the executive team promotes new ventures and helps the staff to take some risks. Business leaders can foster creativity by encouraging experimentation." And for experimentation to happen, trust is essential.

A consultant specializing in the industrial sector shared, "The organization with a CEO who allows people to try new things and make mistakes along the way—this is the more reputable approach of the digital enterprise. I think this is an important signal that the

CEO needs to send to give credibility to a transformation agenda."

INNOVATIVE ORGANIZATIONS ARE CUSTOMER CENTRIC

"What we're seeing is that technology is obviously bringing us closer to the customer across all industries," shared a consultant headquartered in Australia.

Another consultant commented, "In financial services, in the past it was always about a product push. Companies organized their businesses around products and distribution channels. That has been turned on its head. It's now all about the customer and how do we engage, how do we put the customer in the center of everything that we think about."

One consultant specializing in the nonprofit sector commented, "If you take a major museum for example, now they have integrated systems between their tickets, their online presence, their store, their collections and their fundraising. These business units are totally integrated now, which wasn't the case a dozen years ago. It's transformed everything these institutions do and how they service their customer base."

One consultant stated, "Consumers are more sophisticated now. Companies have to be more customer centric now than in the past. They realize that they need to customize things a lot more. So, they're listening a lot more to their customers, and they are responding to that. In the past, it was, 'this is our product range, take it or leave it.' Now they say, 'well, let's see how we can accommodate you and improve things.' So, they're including their customer base a lot more in product range and product development."

One consultant specializing in healthcare commented, "I don't currently see much AI being implemented in this industry. R&D departments are trying to, with a lot of elements taken from diagnostics and information taken from patients, define the type of molecules to cure diseases. There are massive amounts of information to consider, and I think it's probably the area where AI is to become very significant in this sector. The industry is going to learn much more about how a patient behaves when taking a treatment. We see more and more studies involving electronic devices for the follow up of patients."

"I think that government doesn't always have a reputation for innovation, I think it's fair to say," shared a consultant serving the public sector. "But things are changing very rapidly now and will continue to do so. And the public sector understands that it has to innovate and be creative to keep up and to be

relevant. So, government as a whole is working to push sectors of the economy, for example, to innovate. If we look at the energy sector in the UK, government is working with the industry and sometimes pushing the industry to use and invest in technology and to produce more efficient systems, to lower prices for consumers."

"Our clients are using much more algorithm-based innovations," shared a consultant specializing in financial services. "Analyzing big changes in behavior of large groups of customers. They are able to identify very quickly changes in customer behavior. They need to understand those changes quickly and adapt their strategies accordingly. That's an area where technology and innovation is really critical to organizational strategy—being able to understand more deeply your customer."

How Businesses Can Become More Innovative

	All Industries	Consumer/ Retail	Financial Services	Healthcare/ Life Sciences	Industrial	Nonprofit/ Education	Professional Services	Technology
Encourage creativity	1	1	1	1	1	2	1	1
Foster a culture of collaboration	2	2	2	3	2	1	2	
Foster a diverse & inclusive culture	3			3		2		
Create a climate of trust	4				3		3	3
Focus on customer centricity	5	3	3	2				2
Develop staff at all levels	6					3		
Fail fast & learn quickly	7							
Move fast/seize opportunities	8							
Create a culture of mentorship/sponsorship	9							
Encourage transparency	10							

Chart 3.1

MEASURING SUCCESS

One AESC Member consultant specializing in healthcare and life sciences commented, "There are three ways to evaluate innovation. One in life sciences that is very important is the number of patents that you have filed. That could be for a new chemical entity, it could also be for new production processes. Next is the introduction of a new drug approval. It means that the new compound has been approved usually by the FDA, EMA or Japanese authorities to be tested on volunteers. If you have, let's say two R&Ds last year, it's a major step forward and that's a way to measure innovation. The third one is further down the stream, and that is new product introductions."

One consultant with clients in financial services commented, "There's always the traditional measure of ROA. Some innovation isn't going to be that tangible, but some measures obviously have to be commercial outcomes, while some measures are going to be probably more intangible in the short term. So, things like net promoter score (NPS) or customer engagement."

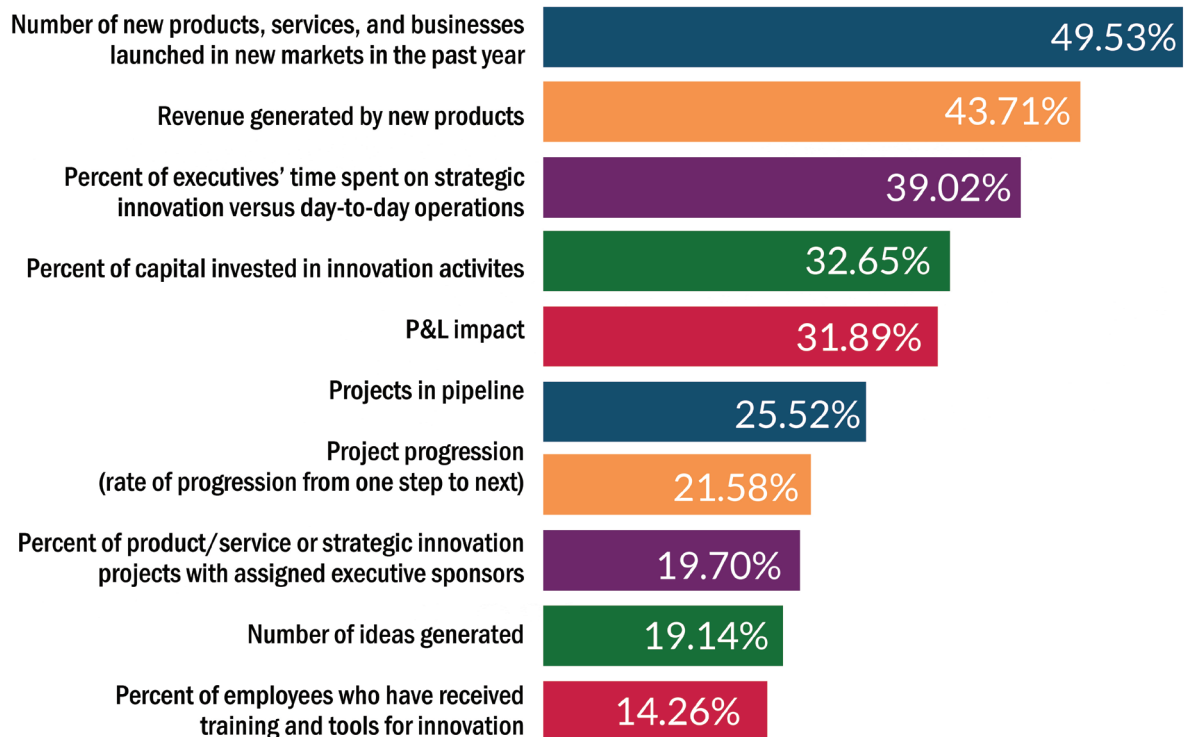## Top Metrics Among Businesses for Measuring Innovation

Metric	Percent
Number of new products, services, and businesses launched in new markets in the past year	49.53%
Revenue generated by new products	43.71%
Percent of executives' time spent on strategic innovation versus day-to-day operations	39.02%
Percent of capital invested in innovation activites	32.65%
P&L impact	31.89%
Projects in pipeline	25.52%
Project progression (rate of progression from one step to next)	21.58%
Percent of product/service or strategic innovation projects with assigned executive sponsors	19.70%
Number of ideas generated	19.14%
Percent of employees who have received training and tools for innovation	14.26%

Chart 3.2

INNOVATORS: LEADERS WHO CAN INSPIRE INNOVATION

INNOVATORS ARE COURAGEOUS

"With relentless curiosity in benchmarking what they do and thinking the unthinkable is what innovative leaders do," commented a consultant with clients in the industrial sector. "This is an exciting time. I see it as a privilege to be living in this era rather than any other because what we've seen in the past will be nothing compared to what we will see in the future," shared a consultant specializing in the technology sector. "The way I and many of my clients see it is that the Business 4.0 transformation we are witnessing is not about artificial intelligence taking over, but much more about an augmentation of human intelligence. There are two very opposing viewpoints at either end of the spectrum. On one end is fear. On the other end it is embracing the new and opening doors to resolve enormous human challenges, like the future of farming or curing cancer."

INNOVATORS ARE EMOTIONALLY INTELLIGENT

"The Middle East is a melting pot, so many different types of people with different backgrounds and different cultures managing people from all over the world," shared a consultant headquartered in the region. "It requires a leader to be flexible in the way they do things. People talk about culture fit, but I think it's more about how adaptable someone is. They have to be much more emotionally intelligent."

Emotional intelligence is critical for fostering cultures of creativity. One consultant serving clients in the technology sector, commented "It's important leaders recognize different types of creative thinkers on their teams. One is a theoretical thinker. This individual will experiment by working on different types of problems. The other is an empirical thinker. So, someone who keeps working on the same idea over a longer period of time so they can approach it from different angles of the developmental process. Recognizing that there are different types of creativity is important."

INNOVATORS ARE MOTIVATIONAL AND INSPIRATIONAL

"Leaders of innovative businesses must inspire and nurture creativity in their teams. They must motivate their teams to go beyond their limits," commented one consultant specializing in the industrial sector. "Also, be a leader who can demonstrate presence and commitment. Share a sense of purpose which enables creativity among teams. Be inclusive. Inclusion inspires critical thinking."

"Creativity starts with the leader," shared a consultant serving the nonprofit sector. "It's one thing to nurture and inspire, it's another thing to model it. I've seen many leaders speak to the importance of creativity and innovation, and yet they do things in a very sort of conservative, managerial manner. That doesn't achieve the goal of creativity and innovation. Creativity and innovation requires a leader who embodies and personifies creativity. If that person is not creative, there's a good chance that the team is going to be less creative than it can or should be. There also has to be an openness to diversity of opinion."

INNOVATORS ARE ADAPTABLE

"Organizations that want to innovate in their industries focus more time on a candidate's cultural adaptability to a particular region," stated a consultant in the Middle East. "The ability to effect change comes up in every search that we work on and its often why C-level executives fail in their roles. In the US, UK or Australia a candidate may be the best CEO in their ecosystem but place them in the Middle East and they fail because they can't adapt to new ways of doing things. They flounder because they are not able to manage relationships in the same way. That person has to be adaptable in their working style, in the way that they deal with stakeholders, in the way they lead."

INNOVATORS ARE PERCEPTIVE AND VISIONARY

"What I see is the US is moving very fast in terms of technology," shared a consultant specializing in consumer goods. "Digital technology has been central for companies headquartered there already for years—the hubs of Silicon Valley, Boston, New York. Also in some markets in Europe—Germany, Spain,

maybe the UK. Also Israel. Here in Brazil, there is a lot of influence from the US, so businesses are intensely trying to understand what is happening in the US so we can better understand what is the future here in Brazil. While we are not driving this immediate digital transformation, we also don't want to be left out of the transformation. We currently don't have a culture of digital transformation like in the US, but businesses are really trying to establish that vision here and embed this in the culture of Brazilian companies."

"The C-Suite will become in the future leaders of both human beings and machines," commented a consultant based in the UK. "So, they need to develop new skills now and a new vision of what a leader does effectively. The skills they'll need to drive human beings and machines to success will be dramatically different. There will be an interdependence between humans and machines, and as a result, there will be even more focus on critical thinking capabilities because a lot of functions and responsibilities at the moment are going to be automated tomorrow. Some jobs will disappear, but new ones will emerge. A recent study identified that the majority of those who are right now children will perform jobs as adults that don't yet exist. It's important to start understanding now how to collaborate more across cultures, across borders, and, ensure that the machines allow us to free up more time to think critically and more openly, to innovate."

What are the top attributes required of leaders today who can foster innovation?

	All Industries	Consumer/ Retail	Financial Services	Healthcare/ Life Sciences	Industrial	Nonprofit/ Education	Professional Services	Technology
Courageous / tolerant of risk	1	1	1	1	1	1	1	1
Emotionally intelligent / empathetic	2			2	2	2	3	
Motivational / inspirational	3		2				2	2
Adaptable	4	2	3		3	3		
Perceptive / visionary	5							
Disruption minded	6	3		3				
Comfortable with ambiguity	7					2		
Entrepreneurial	8					3		3
Curious	9							
Learning agile	10							

Chart 4.1

CHANGE AGENTS: TRANSFORMING C-SUITE ROLES IN BUSINESS 4.0 ORGANIZATIONS

Must some C-Suite roles change more dramatically than others to meet the demands of Business 4.0? "All C-Suite functions are impacted in one way or another," commented a consultant based in the UK. "No one function is exempt."

CEOS MUST DRIVE THE CULTURE CHANGE

"If you would like to invest in technology and innovation, and actualize the digital transformation, you need to start from the top, and that is the CEO," stated one consultant in the life sciences sector. "You need a CEO who can shape organizational strategy, be an advocate for solutions and build the trust of the board that they know what they're doing," stated another consultant based in Australia. "Then you need a CEO who feels sufficiently comfortable that they can hand over their agenda to more technical executives who have more substantive skills to lead the innovation agenda. The CEO needs to be comfortable in their skin and prepared to hand over some discretion to people who have more of the technical skills within this area. And the CEO really needs to know what innovation can deliver to make their organization more effective. They do have to have a vision. You could throw around a lot of money, fashionable ideas, but you need to have a very strong point of view about what you want to achieve and what you think you can achieve by engaging with the 4.0 opportunity."

A consultant specializing in financial services stated, "CEOs have gone from being people that sit behind desks and delegate to actually being doers and those who have to lead by example. CEOs have to become a lot more savvy with digital technology. They have to understand technology and how that can impact the business. How to use new innovative technologies is something a CEO has to have. We see a lot of organizations here in the Middle East replacing their CEOs because they lack that ability to understand digitization, artificial intelligence and how to infuse those technologies within their organizations."

"CEOs must be increasingly aware of digital channels and digital connectivity to customers," stated a consultant based in Australia. "You talk to CEOs here in Australia and it's all about customers. It's not about products or channels, it's all about the customer being at the center of everything—how do we think about and engage with them and understand what they want. CEOs now also need to be able to harness the power of digital and AI—digital in terms of, again, how do we connect and engage with customers, that's the cornerstone of their thinking. And AI, really, they need to be able to harness the power of data and how does it drive customer strategies as well as driving cost optimization and efficiency of operation. So, while CEOs have all their same focus and deliverables as before, that switch to customer at the center of everything is new."

"The mantra of the CEO is that it is lonely at the top. That doesn't change," shared a consultant based in the UK. "But more than ever before, the CEO needs to be the director of the orchestra and promote the C-Suite collaboration and continuous learning. The CEO must be looking at innovation in processes, in interactions, in offerings and promoting creative thinking and lateral thinking." Another consultant commented, "Crisis management is also becoming more critical for CEOs and they have to be more aware of cybersecurity. Today a breech can go viral in 24 hours. That's a big change from the past."

CHROS MUST LEAD A BUSINESS 4.0 TALENT STRATEGY

CHROs must embed the workforce of the future. The CHRO will have a tremendous responsibility in changing organizational culture and facilitating new ways of working. Managing changes in technology that impact people significantly will need to be navigated by CHROs. "CHROs will need to enable more continuous learning than ever before," shared a consultant serving the technology sector. "CHROs will need to become much more strategic and identify the traits and competencies required to affect significant change in the organization to transition to a Business 4.0 approach.

"Digitalization will affect CHROs the most, since a huge part of the workforce will become redundant one way or another. CHROs must prepare for this and develop alternative employment models," shared a consultant in Germany. CHROs will need to be open to finding

talent with skills that don't fit the traditional mold. They will have to look beyond the current qualifications and find people with diverse skill sets that will help achieve the organization's innovation goals.

CHROs will be key to putting in place tools, processes, organizational structure and talent pipelines to support transformation. "As the level of sophistication increases among organizations about how their people can truly accelerate the performance of their business, the need for change among CHROs will be enormous. I could see the role of CHRO and Chief Data Officer converging, leading to sophisticated people analytics that will drive business performance," shared a consultant specializing in the industrial sector.

CFOS MUST SUPPORT INNOVATION THROUGH LONG-TERM INVESTMENT

"The CFO will also need to be fluent with new automation technologies," shared a consultant specializing in the technology sector. "The CFO has become a much more strategic role, with a focus on critical thinking and problem solving. The evolution of technology also impacts the investment approach and so CFOs need to be able to devise technology-related business cases. They need to help the organization manage all the financial implications of an ongoing technology investment."

"CFOs are too much in their comfort zone," shared a consultant in the technology sector. "CFOs need to change especially as their departments are at risk of automation," shared a consultant in the UK. CFO roles will need to

explore and consider threats and opportunities and ensure these are incorporated into strategy, enabling other functions including HR, marketing and technology. They will need to understand the future company direction and translate that understanding into meaningful change related to tools, processes, and capabilities. CFOs will be on the front lines when it comes to driving and supporting the change organizations need to make.

One consultant with clients in financial services commented, "The CFO role is changing, somewhat less because of the influence of digital and artificial intelligence, and more because organizations now need finance talent that is not your typical accountant but a much more strategic CFO. CFOs now often bring other industry experience, ex-bankers for example, rather than a traditional accountant."

CMOS MUST EVANGELIZE CUSTOMER CENTRICITY ACROSS THE ENTERPRISE

CMOs will need to digitize completely to remain relevant to the contemporary customer. "We see a lot of change in the function of a Chief Marketing Officer," stated a consultant specializing in financial services. "This is across sectors, not just banking and financial services. We see traditional marketers who are experts in traditional ways of doing marketing, advertising, PR corporate communications and so on. Organizations now want to hire experts in digital marketing. We were working with a client recently to hire a Chief Marketing Officer and they wanted someone who was primarily a digital marketer to connect with customers

across platforms and drive their marketing function online."

CMOs will need to work even more in tandem with CTOs to bring new products and services to the market. The CMO will equip organizations with a deeper and more holistic understanding of customers by leveraging technology and digital platforms which is critical to a Business 4.0 organization's success.

If the customer being at the center of everything is now a major focus for CEOs, will more CMOs start to transition to Chief Executive Officer roles? Some consultants are skeptical of that. "My commentary on that would be probably not," stated a consultant specializing in financial services. One factor that goes with CEO succession is being able to demonstrate leadership at scale, P&L leadership, and that's not always something that Chief Marketing Officers will have had experience in at the same scale. There are certainly exceptions, but it's still rare and I predict that will continue at least for the near future."

CTOS MUST BECOME MORE COMMERCIAL AND SEIZE OPPORTUNITIES IN THE MARKETPLACE

"The CTO needs to constantly monitor the external marketplace and be able to keep pace with innovation," shared one consultant serving the technology sector. "This is phenomenally important. Gone are the days when a CTO can say, 'okay I've done my implementation and the technology we've adopted will be good for the next 10 to 15 years. Forget it. The technology is continuously changing."

"Tech leaders, CTOs, they're increasingly required to be commercial and customer oriented, more so than ever before, which you know, can be a challenge because not all tech leaders are necessarily orientated that way," commented one consultant headquartered in Australia. "They've gone from being back office functions to needing to be right at the front of conversations, and so by definition that has changed the nature of the CTO. There is no doubt about the type of CTO that we look for now. It's moved away from technicians to commercially savvy business focused. You can only imagine that as that evolves further, it may not be beyond the realms of possibility that that those are the kind of skills that ultimately CTOs would develop and take forward into potential CEO roles. Some say the CTO is the CEO of the future."

THERE'S NEW COMPANY IN THE BUSINESS 4.0 C-SUITE

One consultant specializing in the industrial sector shared, "New roles which have developed in the manufacturing and industrial sector are roles branching off from the Chief Technology Officer basically. But that role is now sometimes being replaced by Chief Digital Officers, a role that comprises IoT, blockchain solution architecture, and UI and UX design and dashboard for the entire firm."

"There is also the position of Chief Innovation Officer or Chief Disruption Officer," commented one consultant in India. "For the industrial sector, that includes industrial data scientists, industrial computer engineers, programmers and robot coordinators basically. Executives who manage those lines and provide the simulation techniques, a rare talent." Another consultant in Australia shared, "Chief Innovation Officer roles are relatively new. In the past, they might have been called heads of R&D. They're now overseeing innovation hubs and innovation labs. They're playing a role in what used to look like corporate strategy. So, in a way you're seeing a convergence of previously siloed roles, now fusing together elements of technology, marketing and corporate strategy."

One consultant specializing in the insurance sector shared, "More organizations will have a Chief Customer Officer. There's one organization, they're an insurance company, and their CEO for each division is the Chief Customer Officer. The chief executives of personal insurance businesses, those roles have really changed. They now include customer strategy and engagement. Chief Customer Officers are responsible for P&L. The role includes elements that once belonged in marketing and technology. I think more and more we're seeing the Chief Customer Officer role being a role that is in CEO succession."

A consultant specializing in financial services shared, "We've placed Chief Digital Officers, talent often coming from technology and marketing backgrounds. We're now seeing Chief Digital Officers being hired as CEOs for banks and real estate groups. We have hired one Chief Customer Experience Officer for a multi-format retail brand that has a presence across predominantly North Africa."

"Another new role is Customer Journey Officer," shared one consultant with clients

in the insurance sector. "These executives head all of the research on customers and understanding their journey within their business. In insurance for example, those companies want to create a better dialogue with customers on an ongoing basis. So, they hire talent responsible for mapping the entire customer journey to better understand where they might engage with those customers, how else they might add value."

How Significantly Each C-Suite Role Must Change to be Effective in a Business 4.0 Environment
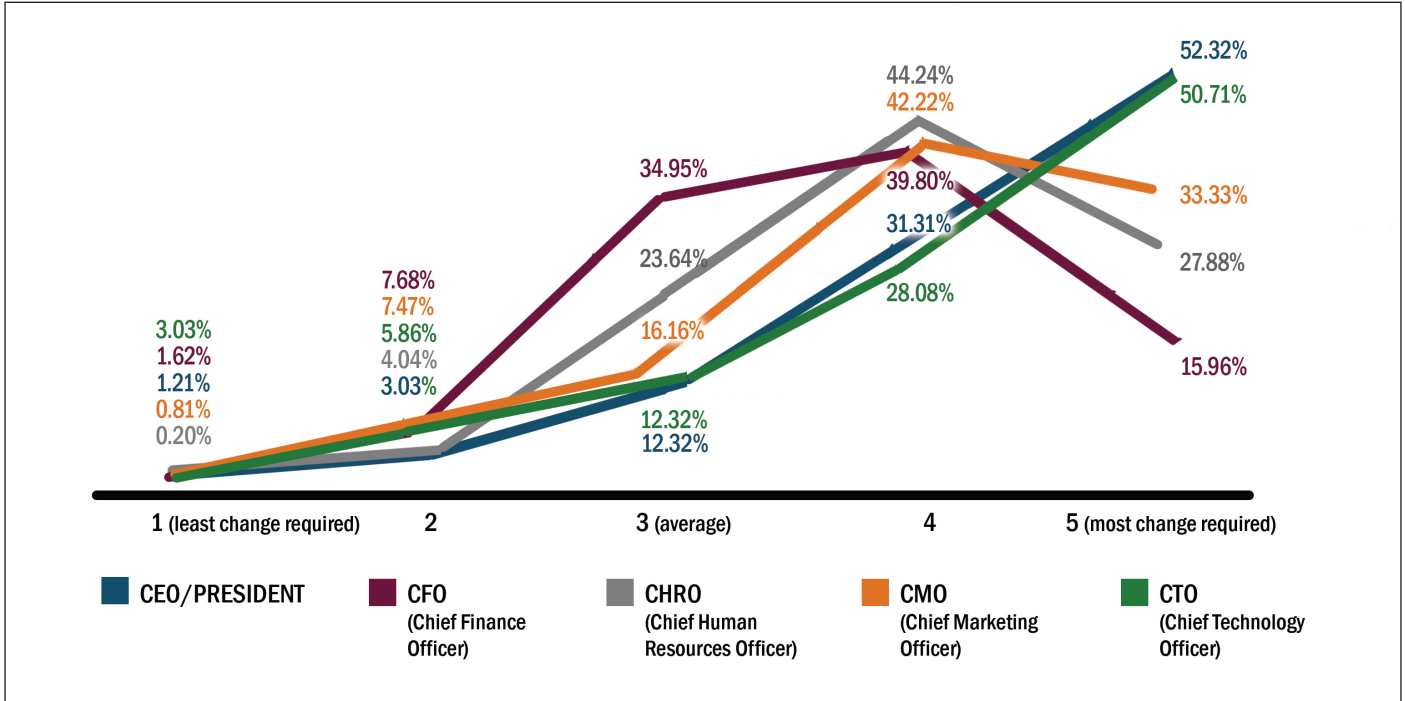

Legend:
- CEO/PRESIDENT
- CFO (Chief Finance Officer)
- CHRO (Chief Human Resources Officer)
- CMO (Chief Marketing Officer)
- CTO (Chief Technology Officer)

Data values:
- 1 (least change required): 3.03%, 1.62%, 1.21%, 0.81%, 0.20%
- 2: 7.68%, 7.47%, 5.86%, 4.04%, 3.03%
- 3 (average): 34.95%, 23.64%, 16.16%, 12.32%, 12.32%
- 4: 44.24%, 42.22%, 39.80%, 31.31%, 28.08%
- 5 (most change required): 52.32%, 50.71%, 33.33%, 27.88%, 15.96%

Chart 5.1

How Significantly Each C-Suite Role Must Change - Region at a Glance

Scale 1 - 5 (1= Least change; 5 = Most change)

Region	CEO/PRESIDENT	CFO	CHRO	CMO	CTO
ASIA	4.4	3.6	3.9	4.0	4.3
PACIFIC	4.2	3.5	3.8	3.7	3.8
AFRICA & MIDDLE EAST	4.2	3.7	4.2	4.1	4.1
EASTERN EUROPE	4.2	3.5	4.0	4.1	4.5
WESTERN EUROPE	4.2	3.5	3.9	3.8	4.0
CANADA & US	4.4	3.7	3.9	4.3	4.6
LATIN AMERICA	4.7	3.9	4.3	4.4	4.4

Legend:
- CEO/PRESIDENT
- CFO (Chief Finance Officer)
- CHRO (Chief Human Resources Officer)
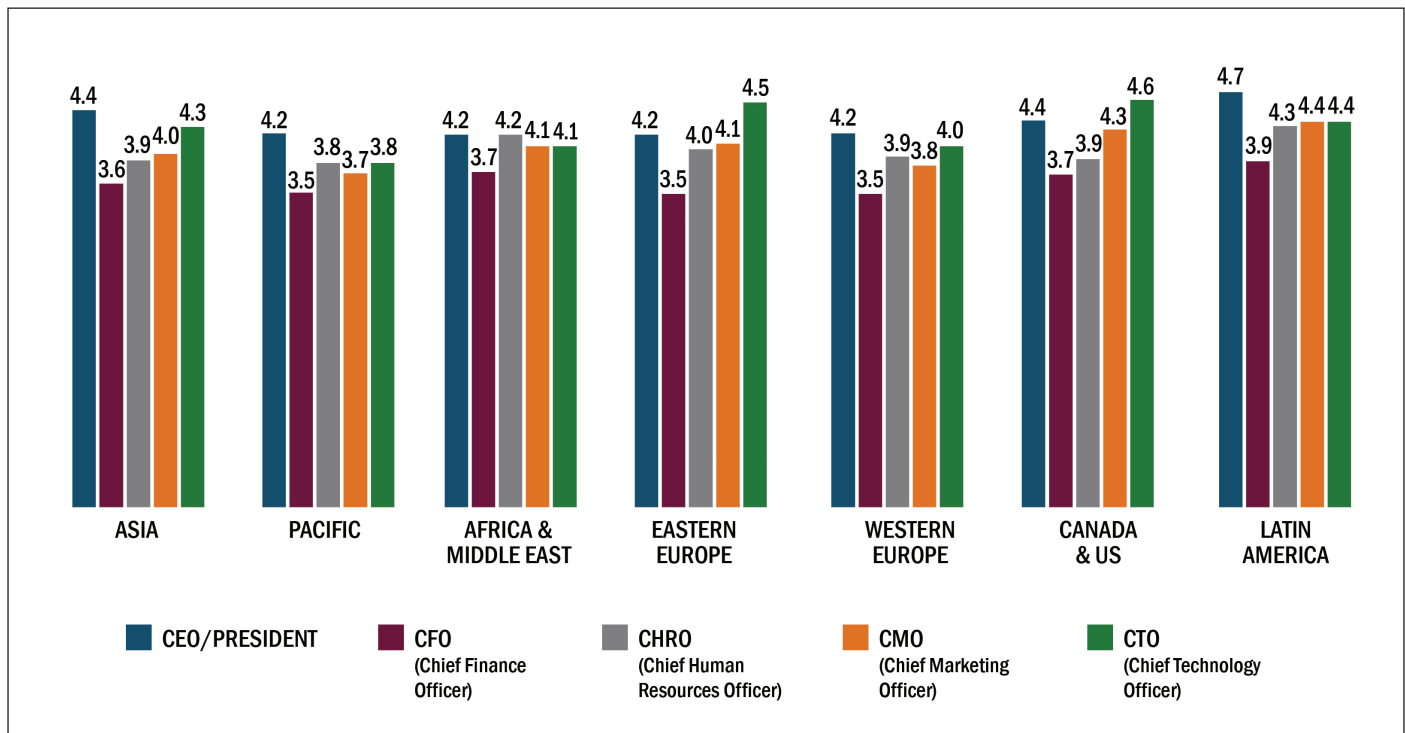- CMO (Chief Marketing Officer)
- CTO (Chief Technology Officer)

Chart 5.2

TRUSTED ADVISORS: BUILDING A TALENT STRATEGY FOR BUSINESS 4.0 INNOVATION

DEVELOP A STRONG EMPLOYER BRAND STRATEGY TO ATTRACT AND RETAIN TOP TALENT

"Too many legacy companies don't focus enough on employer branding when it comes to attracting talent," shared one consultant with clients in the industrial sector. "If you look at a firm like Google, known for its innovative products, known as an excellent place to work, that's a brand. When you place a brand like Google in front of candidates, they don't have to think about it. It's exciting. Legacy companies are not paying enough attention to building their employer brands. As a result, they are not finding as much traction with candidates in the market. It's not easy to sell those brands compared to some of the successful startups."

"In Brazil, 20 years ago, maybe 70-80% of my peers, their target companies were financial services or a multinational consumer goods company. Today in Brazil, the percentage of young talent who want to work in the financial services segment or for a major consumer company is much smaller. 70-80% of this younger generation in Brazil, they want to work for a tech company or even create a new tech company. Their career vision is different. It's not about working long hours and making a lot of money. They want to make a bigger impact on society. They want to work hard but they also want more work/life balance. It's a different way of thinking. So, some of the legacy companies here in Brazil, the financial services and consumer goods companies, they are having trouble attracting a new generation of talent. They're just not very attractive anymore."

"Having a strong brand is important for companies in the Middle East, especially when hiring talent from outside of the region," shared a consultant based in the region. "If you are hiring a top C-level executive like a CEO, CFO or CMO, to a Middle Eastern company, they want to work for an established business with a long-standing history, a solid story and a strong financial background. The brand is extremely important and customers in the Middle East, more often than not, choose to transact with businesses that have strong brands."

One consultant in Australia commented, "In a world where executive skills are in high demand and low supply, especially these new emerging skills, clients need to design a job scope, be very focused on what the offer is, and make quick decisions when they see great candidates because I think people don't realize the competition for talent right now."

BE OPEN TO TALENT FROM OTHER INDUSTRIES

"Be open to lateral ideas, more exciting ideas, intellectual ideas. Square box, square peg, square hole," commented a consultant serving clients in financial services. "As trusted advisors, we need to be able to bring lateral ideas to our clients and have a good open honest discussion around lateral ideas. Be open to talent from adjacent industries or other relevant talent pools. If it's financial services, the perfect candidate may not be someone from financial services. They might come from another heavily regulated industry, they might come from retail. And it wouldn't need to come from retail financial services, necessarily, it could come from retail telecommunications or broader retail. So, someone who understands the customer and customer propositions—having that focus rather than in the industry sector. Often our clients have the people with the big technical knowledge of their industry sector, but they may be lacking perspectives that executives from other industries could bring, and that can be refreshing and challenging to the organization."

A consultant specializing in the life sciences sector commented, "In general we are placing talent that has been working in pharmaceutical companies for a long time. But for the innovative talent organizations need, they need to go beyond the sector and look at other industries—finance, consumer goods, healthcare to bring new perspectives to the life sciences sector. The problem is that we do not have the opportunity to do this. The people that will work in the life sciences are already in life sciences. For me this is a problem. A great position would be to bring someone to life sciences from another sector

to help an organization understand better what is happening there. What's happening in the other sector can also be applied to this sector."

"The role of CEOs will be more and more focused on incorporating technologies coming from other industries," shared a consultant with clients in the healthcare sector. For instance, distribution is something becoming more important in healthcare. Early access to products. So, talent from other industries who can provide this knowledge of very quick transportation is valuable. Supply chains have blossomed in the healthcare industry and incorporating someone with supply chain knowledge from another sector would be a good choice."

PROVIDE DEVELOPMENT OPPORTUNITIES TO HIGH POTENTIALS

One AESC Member commented, "In thinking about innovation and therefore creativity, some organizations will provide retraining around things like ideation, experimentation, the types of innovation and project management skills that support thinking about innovation. Some organizations might give people the chance to take on new development opportunities in an area of particular interest or an area of mastery for them. That inspires talented people. High performers tend to be motivated by opportunities that provide sufficient challenge for personal growth. That tends to drive interest and creativity in people."

TALK ABOUT THE FUTURE

Share with your executive search or leadership consultant your long-term strategic goals. One AESC Member consultant commented: "Too many companies are talking to candidates about the first year in the role and not about future plans. If you really want to motivate a candidate who is well established where they are, it's important to talk more about the future. And not talk just about the year to come."

BRING DIGITAL TALENT TO YOUR BOARD

"Boards need to challenge management. And they do it typically by asking the right questions," commented one AESC Member consultant. "They also have a role to play in improving investments on the basis of business cases. The way that's happening in a digital board is different than what investor companies of that board is used to in terms of having a very sort of well-defined five year plan. Now you suddenly have much more focus on decisions about digital investments and challenging management. Are they doing enough? Are they fast enough? Are they changing the culture? Are they allowing room for piloting new things? Boards need to have at least one, ideally, two directors who operate in very advanced digital environments to be able to help their fellow board members ask these questions. We have seen, starting definitely in the US, an appetite to bring on board, tech executives or advanced consumer digital executives onto industrial boards to help them become more digitally savvy. We're seeing it in Europe, we're seeing it to a less extent maybe in Asia, but it's coming there as well."

AESC Member executive search and advisory firms can help your organization find, attract and develop the transformative talent you need to compete in the Business 4.0 environment. AESC Members offer the following services to help organizations worldwide leverage transformational talent:
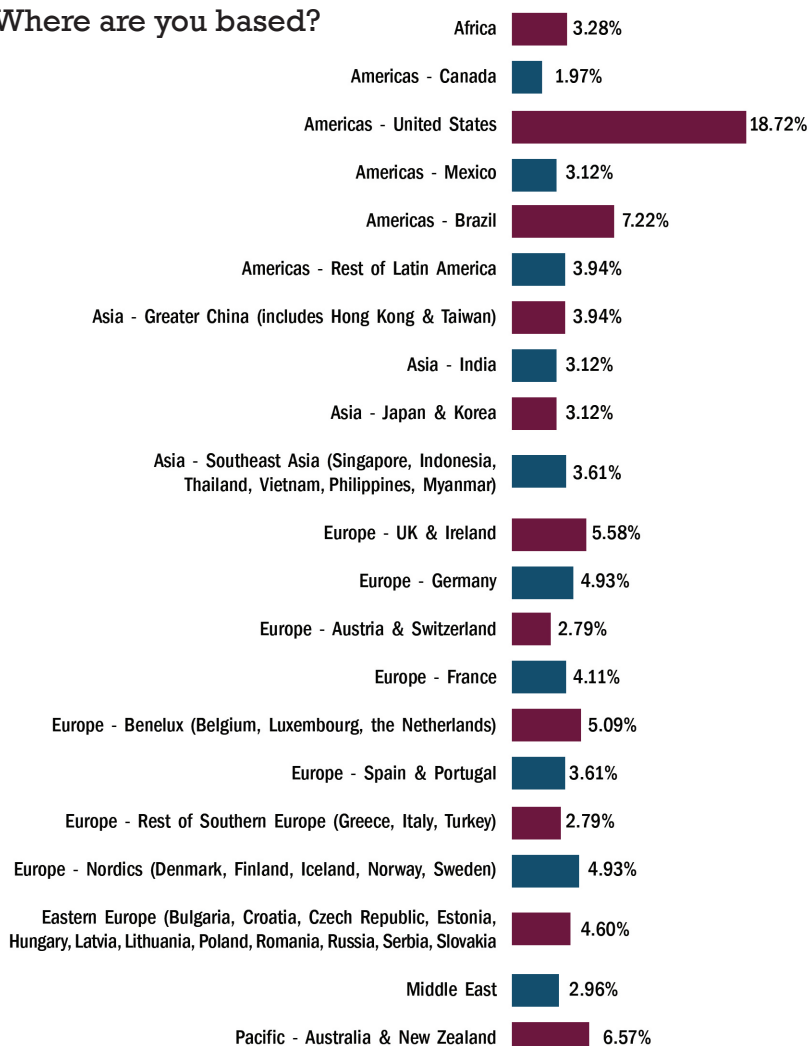
- Assessment
- Board Advisory
- Culture Shaping
- Data Analytics/Market Intelligence
- Diversity & Inclusion
- Executive Coaching
- Executive Search
- Interim Management
- Leadership Development
- Onboarding
- Organizational Effectiveness
- Succession Planning
- Talent Mapping
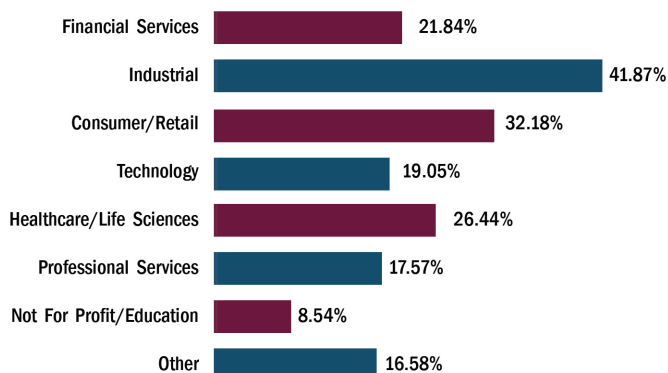
To learn more, visit **aesc.org**.

ABOUT THE SURVEY

Our survey was conducted July-September 2018 and included AESC Members from the following industry specializations, functional roles and geographies. **609 AESC Members**
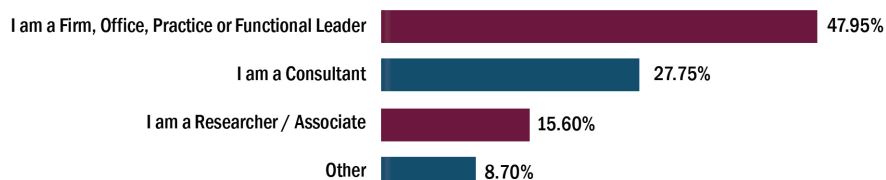
Where are you based?

Region	%
Africa	3.28%
Americas - Canada	1.97%
Americas - United States	18.72%
Americas - Mexico	3.12%
Americas - Brazil	7.22%
Americas - Rest of Latin America	3.94%
Asia - Greater China (includes Hong Kong & Taiwan)	3.94%
Asia - India	3.12%
Asia - Japan & Korea	3.12%
Asia - Southeast Asia (Singapore, Indonesia, Thailand, Vietnam, Philippines, Myanmar)	3.61%
Europe - UK & Ireland	5.58%
Europe - Germany	4.93%
Europe - Austria & Switzerland	2.79%
Europe - France	4.11%
Europe - Benelux (Belgium, Luxembourg, the Netherlands)	5.09%
Europe - Spain & Portugal	3.61%
Europe - Rest of Southern Europe (Greece, Italy, Turkey)	2.79%
Europe - Nordics (Denmark, Finland, Iceland, Norway, Sweden)	4.93%
Eastern Europe (Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Serbia, Slovakia	4.60%
Middle East	2.96%
Pacific - Australia & New Zealand	6.57%

What are your core industry specializations?

Industry	%
Financial Services	21.84%
Industrial	41.87%
Consumer/Retail	32.18%
Technology	19.05%
Healthcare/Life Sciences	26.44%
Professional Services	17.57%
Not For Profit/Education	8.54%
Other	16.58%

Which best describes your role in your firm?

Role	%
I am a Firm, Office, Practice or Functional Leader	47.95%
I am a Consultant	27.75%
I am a Researcher / Associate	15.60%
Other	8.70%

Dedicated to Strengthening Leadership Worldwide

Since 1959, AESC has set the quality standard for the executive search and leadership advisory profession. AESC Members, ranging in size from large global executive search and leadership advisory firms and networks to regional and boutique firms, represent 16,000+ trusted professionals in 70+ countries.

AESC Members are recognized leaders of global executive search and leadership advisory solutions. They leverage their access and expertise to place, find and develop more than 100,000 executives each year in board of directors and C-level positions for the world's leading organizations of all types and sizes.

AESC raises the visibility of the profession and supports its members through quality standards and best practices; advocacy; insights and education. Learn more about AESC at aesc.org.

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