
AVASANT

HYPER-SUSTAINABILITY

A GUIDE TO 10X TRANSFORMATION

Technology today is nearly ubiquitous and still rapidly advancing. The possibilities with technology for not only our businesses, but for social good, are endless. However, organizations today are not able to purposefully harness the power of technology because they cannot break away from habitual and legacy processes. One might argue that enterprises have focused only on incremental gain to drive utility and revenue, forgoing opportunities which support those breakthrough innovations required to fundamentally transform and disrupt.

*Incremental improvement is the enemy of true innovation, and businesses must be willing to dare to dream in order to transform themselves into a truly digital enterprise. By daring to dream organizations can unlock the Digital Singularity rubric and use the technologies to create a hyper-transformative opportunity to solve the socio-economic challenges faced by businesses, governments and society, and achieve **Hyper-Sustainability** – the degree of 10X transformation to empower humanity.*

The three key tenets of Hyper-Sustainability – Individual Innovation, Enterprise Disruption and Government Transformation will enable us to foster a 10X mindset within ourselves and drive an innovative culture throughout our organizations to solve challenges and develop solutions which are necessary to thrive in the Digital Singularity era.

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10X TRANSFORMATION

Invention loomed during the industrial age and soared in the early 20th century with the “dot-com” revolution. In the past fifty years we have witnessed the pace of innovation increase at an exponential rate, with groundbreaking innovations across all sectors, from communications to transportation. The challenge for humanity will be to maintain this pace of creativity into the next century. One might argue that we have reached a plateau with certain technologies and grown comfortable with incremental improvements, rather than revolutionary change. Consider air travel, an industry that remains largely unchanged in the past 60 years. It still takes the same time to travel between Los Angeles to London as it did in years past. Of course, the aircrafts are more efficient and quieter, but the changes have been subtle at best. We see the same in mobile communications and in personal computer products.

We remain satisfied with annual updates and improvements. So, while these enhancements seem to be continuous, they are also increasingly incremental. Where are the “Moonshots” from days before when we were unafraid of “breaking the rules.” Have we not been fully utilizing the technology tools and thinking creatively to generate new opportunities? We have focused only on incremental gain to drive utility and revenue, forgoing opportunities which support those breakthrough innovations required to profoundly empower and advance humanity. It is time to dream again and regain our hunger to achieve the unimaginable. Today's technology empowers us to solve the grand challenges and have a real impact.

WHY DO WE NEED TO DREAM?

What are the forces driving the necessity to dream again? As the proverb goes, “*Necessity is the mother of invention.*” Need, drives us to create, in order to fulfil. But have we been meeting the needs which can empower, and advance humanity in a truly disruptive, transformative, and non-incremental manner? Have we been meeting the needs of a select few or unleashing the power of our technology tools to address fundamental challenges endured by millions globally?

Global conflict, poverty, hunger, energy crises, inequality, climate change are some of the grand challenges which drive the need that individuals, enterprises and governments ought to fulfil. In an era marked by unprecedented technological opportunity, interconnectivity, and unlimited access to information, there remains:

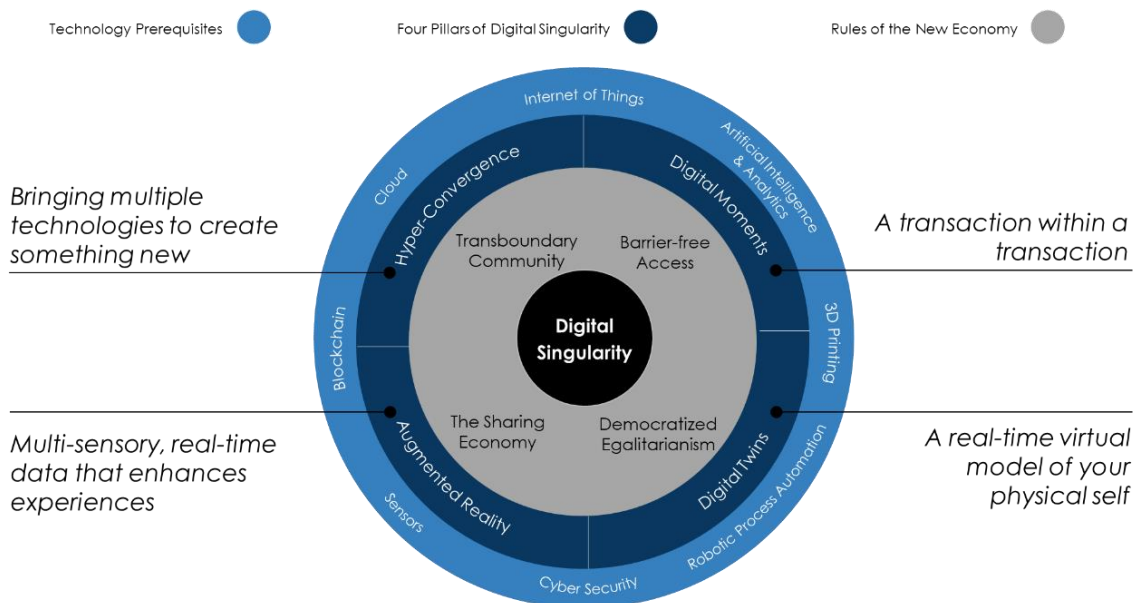
- **Limited access to energy** - 3 billion people rely on wood, coal, charcoal or animal waste for cooking and heating, with 13% of the global population unable to access modern electricity.
- **Hunger and malnutrition** - 795 million people do not have enough food to lead a healthy active life, and 1 in 3 persons suffer from some form of malnutrition
- **Poverty** – 1 in 10 persons are extremely poor, with 783 million persons living below the international poverty line of US\$1.90 a day
- **Lack of education** - Nearly 1 billion youth lack basic mathematics, literacy, and business skills

And the list goes on. If we are willing to dare to dream we can create a hyper-transformative opportunity to solve these global, social and economic challenges.

DIGITAL SINGULARITY UNLOCKS OUR POTENTIAL

Digital Singularity - the point where technological omnipresence and human experience converge - signals the onset of an era of human creativity and innovation, enabling us to solve the grand challenges and build a more sustainable world.

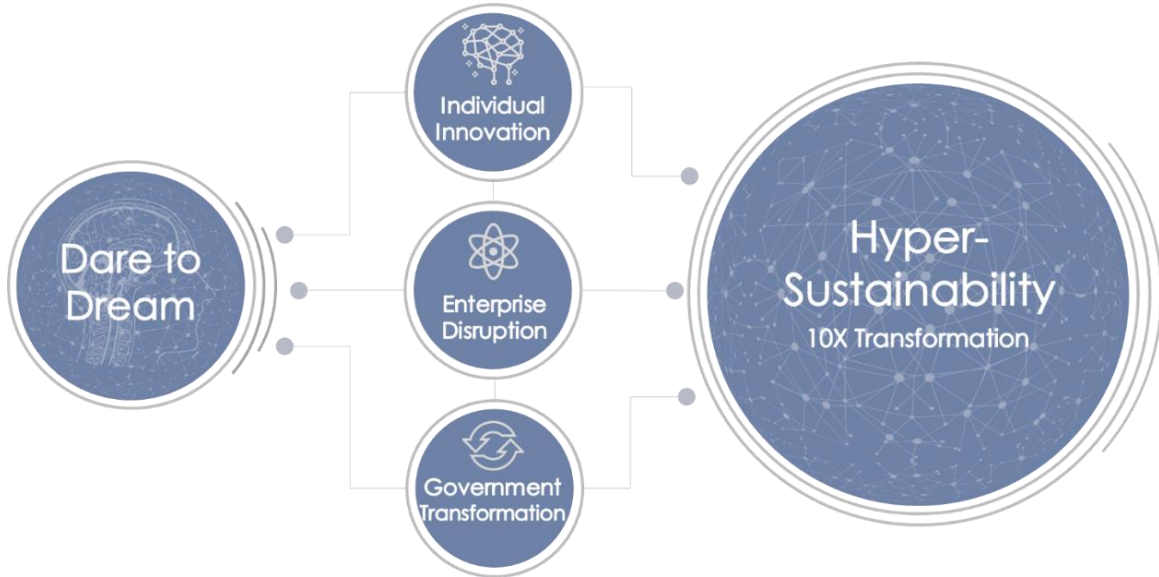
Digital Singularity unlocks our potential



With society geared towards Digital Singularity, we have witnessed the highly disruptive capabilities of the technology prerequisites. Blockchain, Automation, Artificial Intelligence, IoT, Cloud, Sensors, 3D Printing, have reshaped the way individuals, enterprises and governments operate to thrive in the Digital Economy. As we tend to Singularity, we are presented with immense opportunities to harness these technology prerequisites, complemented by our creativity and innovativeness to solve the grand challenges.

By daring to dream, we fulfil the basic needs, and requirements unavailable to millions globally. As we open our minds again, we can achieve a state of **Hyper-Sustainability** – the degree of 10X transformation to empower and advance humanity.

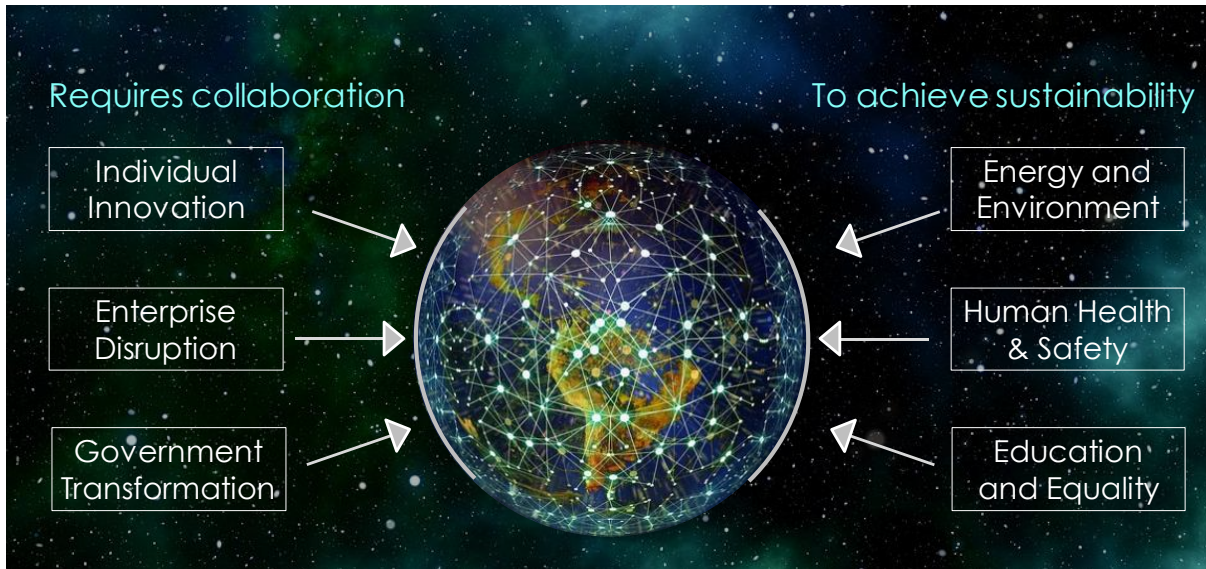
Hyper-Sustainability – the degree of 10X transformation to empower and advance humanity



ACHIEVING HYPER-SUSTAINABILITY

Hyper-Sustainability will enable us to solve the grand challenges and create an all-encompassing digital experience to support socio-economic development and build sustainable, resilient and inclusive societies.

Hyper-Sustainability requires the collaboration, and 10X transformation of Individual Innovation, Enterprise Disruption and Government Transformation. With the amalgamation of these three key societal groups, and the application and integration of the technology prerequisites, hyper-sustainability can be achieved to solve the world's most fundamental challenges and empower humanity through three channels - Energy and Environment, Human Health and Safety and Education and Equality.



INDIVIDUAL INNOVATION

Since the 1990s, American creativity has been in a steady and persistent decline¹. Total Factor Productivity, an indicator of innovation and competitiveness has declined since the 1970s,² and expenditure on research and development has stagnated³. Some might argue that the decline in creativity coincides with an increase in digitalization. This raises a fundamental question - have we become too consumed with the digital world, and losing touch with the physical world? Consider the following Legos and iPad scenario to depict the physical versus digital dilemma.

In the pre-iPad age, where children and adults weren't imbibed by electronic mediums, there was time for thinking, time for creating, and time for social interactions. There was time for our minds to be free. We played, and we learned. For those of us who played with Legos, we unknowingly, at the time, developed critical skills to not only spark our creative capabilities, but to enable us to successfully perform in today's economy. We ideated, and designed how we envisioned our Lego home, or our Lego car to be. We created and built based on our visions. And, if either along the way, or at the end of it all we did not like the final product, we broke it apart, and built again. We were not afraid to fail. With over 915 million ways to combine six Lego bricks⁴, the possibilities were endless.

¹ KH Kim, "The Creativity Crisis: It's Getting Worse," Idea to Value, April 28th, 2017, <https://www.ideatovalue.com/crea/khkim/2017/04/creativity-crisis-getting-worse/>.

² Ezra Klein, "Technology is changing how we live, but it needs to change how we work," Vox, <https://www.vox.com/a/new-economy-future/technology-productivity>.

³ David R. Johnson, "With federal funding for science on the decline, what's the role of a profit motive in research?" The Conversation, June 5, 2018, <https://theconversation.com/with-federal-funding-for-science-on-the-decline-whats-the-role-of-a-profit-motive-in-research-93322>

⁴ "Lego Facts," National Geographic, 17 August 2011, <https://www.nationalgeographic.com.au/history/lego-facts.aspx>

Possibilities are also undoubtedly limitless based on the computing power of an iPad. However, everything we do with it, is limited to the four corners of the device. There is little room for creativity. We download an app, we play a game, we read a book, we watch a show. We can do whatever we want, whenever we want, within the confines of that device. But what time do we have to think? How do we 'break' or 'build'? How do we fail? The challenge of working solely with electronic mediums, is that we miss that creative break. The machine always works. It limits out-of-the-box thinking.


Why is it important to cultivate creativity, innovation and out-of-the-box thinking?

The challenges that we experience today, and the challenges we will face tomorrow will require us to think unconventionally, much different than the way we currently do. What grand challenges have we been able to solve, given the technological power that we have? We have the digital tools to drive solutions. What's required is a change in our thinking, and our mindset.

As we transcend towards an increasingly globalized and digitalized economy, it is imperative to stir a vigorous focus on creativity, curiosity and innovation from within ourselves. Fundamental shifts are continuously occurring as we approach Digital Singularity. The way we do things today is profoundly different than we did five years ago. In an era marked by disruption, transformation and digitalization, we must remember the underlying factor of our ability to thrive – innovation.

TENETS OF INDIVIDUAL INNOVATION


How do we encourage our teams to unleash their creativity? How do we create that need to solve our challenges? Creativity propels innovation. The tenets of Individual Innovation guide us to open our minds again and develop the disruptive and transformative thinking required to innovate and take giant leaps.



**10X
Mindset**

10X Mindset

10X thinking requires *improvements by a factor of 10 times, rather than by 10 percent*⁵. Adopting a 10X mindset forces us think radically different than we otherwise would, thereby enabling us to create something fundamentally different. We must challenge ourselves to think 10X, to design transformative, sustainable solutions, rather than having a mindset which focuses only on short-term solutions for incremental gain. Organizations must encourage individuals to think 10X, to not only solve common business challenges, but develop disruptive solutions to accelerate business growth and enhance competitiveness.



Curiosity and Open-mindedness

Many of the world's greatest inventions were born from simple questions – why, and how? Newton, Edison, Bell and the long list of great innovators were

⁵ A key principle of Google's innovation strategy, made popular, and advocated by Google's CEO and co-founder, Larry Page

Curiosity and Open-mindedness

absorbed by curiosity, enthralled by why the apple fell, or how can an issue be solved.

The Digital Age characterized by unlimited access to information, has stifled our curiosity. Even if we are curious, a Google search negates us asking further questions, asking why, or how, as the answers are available once we hit 'Enter'. Very few are gratified with web responses, and will be willing to go one level deeper, and actually think – rather than have the answer appear within milli-seconds.

We need to retrain our minds, to be curious, solve problems and think critically. We need to lessen reliance on digital mediums to solve our challenges. We need to think independently, to create solutions which are uniquely tailored to solve the challenges of today.



Willingness to Fail

Willingness to fail

Thomas Watson, founder of IBM, once said that *to accelerate your success is to double your failure rate*. Willingness to fail is a key criterion for creativity and innovation. Failure is a prelude to success, with many of the world's greatest successes bred from initial failure. Henry Ford's first car company was unsuccessful, while Bill Gates' first company failed. These men, and many others never planned to fail, but instead they strove to succeed.

Individual innovation requires a 10X mindset to create something new, to take risks. To allow yourself to take risks, it's imperative to be willing to fail. By creating something new, failure will be inevitable. We must teach people to be willing to fail. Organizations should create a culture of constructive failure. Failure needs to be recognized as key component of the creative and innovation process. Organizations must create an environment where persons feel free to express their ideas, eager to try, and willing to fail.



Necessity is the mother of invention

Necessity is the mother of invention

Difficult situations inspire ingenious solutions. It is important to create that need within ourselves, and within our employees, which prompts them to create and innovate. Given the major technological disruptions occurring, we risk being disrupted. If we don't fundamentally change, we will be out of business, persons out of jobs. These disruptions are creating a need for us. The grand challenges have created a need for us. It is imperative that we drive the need and create that passion for individuals who work with us. We need to innovate, to meet these needs, and think 10X to solve the challenges.

ENTERPRISE DISRUPTION

The rules of the new economy are fundamentally changing the business landscape. *Barrier-free Access* gives us direct access to compete in the global, digital economy and gives rise to the gig economy. *Democratized Egalitarianism*, the ability of technology to further the equality of all voices, breaks down the walls between individuals and CEOs, challenging businesses to act differently. *The Sharing Economy* involving collaborative sharing of talents, products and services, and non-traditional employment is on the rise. And *Transboundary Communities* provide new types of places where individuals decide how to allocate their time and talents to earn a living, work with others, compete and start new businesses.

As we move towards Digital Singularity, organizations are frantically putting together a strategy which will enable them to thrive in the new digital economy. Digital has become the new status quo, with technology leveling the playing field. Business cycles are shortening. Barriers to entry are increasingly declining, with many large, traditional organizations being disrupted by smaller, tech-savvy start-ups. The business ecosystem now operates in a 'Switching Economy,' with competition like never before. Executives are continuously challenged. Are their competitive differentiators, truly competitive? How do they ensure they stay ahead of the curve? How do they minimize risk of being disrupted?

To remain relevant companies must forge creativity and continuously innovate. Enterprise Disruption is the technological disruptions across business models and value chains, driven by innovation, to fundamentally transform how businesses operate and remain competitive. Innovation lies at the core of truly disruptive enterprises, with many of the world's leading companies not just embracing innovation, but actively and aggressively institutionalizing innovation within their organizations, and constantly challenging the status quo. Amazon, Google, Apple, Uber and Netflix are just some examples of disruptive enterprises which have mobilized innovation and integrated technology to not only transform business models, but the entire consumer experience and expectations. This has set a new precedent for the way we operate and engage in the digital economy.

TENETS OF ENTERPRISE DISRUPTION

The tenets of Enterprise Disruption describe the actions required by organizations to support 10X transformation. These tenets include – identification of new customers and value chains, transformation of core business processes, preparation for new competition and development of new products and solutions. Organizations which actively and progressively incorporate these tenets into their business strategies, underpinned by driving a culture of innovation, are well positioned to become a disruptor, and succeed in the digital economy.



Identification of new customers and value chains

- **Identification of new customers and value chains**

Traditional value chains have evolved from a supplier to customer value stream, to an individualized value stream where, individuals generate the demand which is fulfilled by businesses and delivered at the individual's location. Individuals driving demand will need a new supply chain with the customer at the heart of the supply chain. These supply chains and their repercussions on partners and suppliers will drive the new digital organization. B2B models will start becoming more B2C where the customer drives the product or service.



Transformation of core business processes

- **Digital Transformation of core business processes**

To succeed in the digital era, firms will need to become digital enterprises, rethinking every aspect of their business and aligning their operating model in order to create digital experiences. Digital transformation revolves around three layered pillars that work in concert to enable an end to end digital experience for everyone – customers, partners, vendors, employees, and key stakeholders. This includes:

- *Digital Operating Models* - Creating an agile organization with a culture of innovation and end to end digital integration
- *Digital Business Models* - Pivoting the business model to drive digital revenue and proactively address market disruption
- *Digital Experiences* - Driving deeper engagement through intuitive and ubiquitous user experiences that enhance digital entanglement

Enterprises need to identify the transformation opportunities by prioritizing the business processes which require immediate attention. Leveraging emerging technologies to create an engaging and consistent digital experience is the key to business process redesign. The evolution of organizational structure that supports innovation and disruption is a key characteristic of digital organizations.



Preparation for new competition

- **Preparation for new competition**

Enterprises need to identify and counter competition coming from any direction, within the industry, and externally. It is not only startups that are a risk; nimble large enterprises are also becoming disruptors. Established businesses are being threatened by a new wave of digital upstarts that capitalize on technology changes, customer behavior and data availability to create more customer-friendly and innovative solutions.

Almost all major industry verticals have seen digital technologies disrupting the established competitive dynamics. From YouTube and Netflix in the Media Industry, Amazon and Groupon in Retail, Airbnb and Hipmunk within Travel and Transportation to CVS Health in Healthcare, no industry is spared.

With many large, traditional organizations being disrupted by smaller, tech-savvy start-ups, it is essential for businesses to adopt a 'disruptor mentality' to avoid falling behind. Enterprises must remember, *"when you don't prepare, you become reactive."*



Development of Innovative Products and Solutions

- **Continuous development of innovative products and solutions**

Disruptive enterprises are continuously developing new products and solutions to keep up with evolving technologies and customer expectations. The most successful companies today release new products and updated versions of existing products each year to ensure they are up to speed on latest market developments. The truly disruptive companies are the ones which continuously innovate - Google, Apple, Tesla, to list a few, by developing completely new product features to cement their competitiveness.

The development of innovative products and solutions also has great business impact on growth and profitability. This creates an opportunity for new target markets, new customers, and even new industries being served. Enterprises should prioritize product development and innovation if they are to ensure business growth and profitability, and successfully compete in the digital age.

DRIVING A CULTURE OF INNOVATION TO SUPPORT 10X TRANSFORMATION IN ENTERPRISES

Building a culture of innovation is key for achieving the core tenets of Enterprise Disruption. Today's leaders view innovation as a key to success, with 79 percent considering innovation as one of their top three priorities⁶. In relation, 84 percent of consumers say it's somewhat or very important that the company they buy from is innovative⁷. A culture of innovation within an organization will:

- Support an effective growth strategy - Companies with an innovative mindset have an agile mindset. They can adjust to the market using technology and hire more easily

⁶ Robert B. Tucker, "How Does Amazon Do It? Five Critical Factors That Explain Amazon's Incredible Success," Forbes, November 1, 2018, <https://www.forbes.com/sites/robertbtucker/2018/11/01/how-does-amazon-do-it-five-critical-factors-that-explain-amazons-incredible-success/#7f63cd4c41b9>

⁷ Johnathon Pirc, "Why brand innovation is a vital consumer selling point," Quirk's Media, July 2015, <https://www.quirks.com/articles/why-brand-innovation-is-a-vital-consumer-selling-point>

- Create new markets and revenue streams - Businesses can create new products and services to create new revenue streams to capitalize on new markets previously out of reach
- Enhance traditional business models and improve brand recognition and value - Ensures continuous growth as companies must continuously improve their business processes/ systems to remain competitive
- Deliver greater value for customers
- Improve Productivity and form new partnerships and relationships
- Avoid risk of becoming obsolete and becoming disrupted - Innovation enables companies to disrupt as opposed to being disrupted

How can organizations foster a 10X Innovative Culture?

Fostering an innovative culture requires changes which encourage organizations, and the people that work for them to develop new ideas, take risks and work in new ways. Managers and executives must build and curate an internal innovative ecosystem which is centered around employee development and aligned to business models and prospects for business growth. Fostering a 10X innovative ecosystem, will require the following:

- **10X Disruption requires 10X Leaders** - Innovation within enterprises should start at the top. 90% of executives believe that the long-term success of their organization's strategy depends on their ability to develop new ideas.⁸ Business leaders must create the "need" and prioritize innovation to drive business growth by recognizing that it can achieve the four tenets of enterprise disruption – help identify new customers, transform business processes, enhance competitiveness and develop new solutions. Executives must ensure that leaders throughout the business, including senior managers and team leads, prioritize the development and exchange of new ideas among teams. Adopting an open-door policy lends to an environment of trust, one that encourages employees to interact and engage.




Leaders themselves must also be curious, as curiosity drives creativity. Continuously thinking and engaging with employees to determine how business challenges can be solved, or processes and products improved are important characteristics of a 10X leader. 10X leaders must also be risk-takers, and willing to fail. A study conducted by Harvard Business School estimates that 95 percent of new products fail.⁹ Business leaders who fail to innovate and stir a culture of innovation within the organization, fail the business.

To develop an innovative culture, executives should ask the following questions based around three core steps in the innovation adoption process:

⁸ Sareen Babu Madupu, "Innovation Management: Importance, Ideas, And Examples," Acuvate, November 14, 2018, <https://acuvate.com/blog/innovation-management-importance-ideas-examples/>

⁹ Carmen Nobel, "Clay Christensen's Milkshake Marketing," Harvard Business School, February 14, 2011, <https://hbswk.hbs.edu/item/clay-christensens-milkshake-marketing>

Fostering Innovation – Questions for Business Leaders

	<p>Discovery</p>	<ul style="list-style-type: none"> • What does an innovative organization look like? • Which forces which have the potential to disrupt their businesses and industries? • What change is required to bring the business into alignment?
	<p>Adoption</p>	<ul style="list-style-type: none"> • What are the key assets, people and systems that are constraining the transition to an innovative culture within my organization? • What is the leadership characteristics and employee engagements strategies required to enable an innovative culture?
	<p>Assimilation</p>	<ul style="list-style-type: none"> • How can the organization support employees in generating innovative ideas? • How can leaders reinforce and embed the innovation culture within the organization?

Jeff Bezos – A 10X Leader: Founder and CEO of Amazon, Jeff Bezos, believes that a continuous stream of ideas fuels growth. He sees his function as creating the cultural alignment to value and respect ideas at all levels and acts with a sense of urgency to speed their implementation. He sees his job as identifying and refining the Innovation Roadmap to take company from its current position, to where he wills it to be in the future, on time and on schedule, delegating to trusted lieutenants the implementation of ideas. His leadership and prioritization of innovation would have enabled Amazon to become the disruptor that it is today.

Source - Robert B. Tucker, "How Does Amazon Do It? Five Critical Factors That Explain Amazon's Incredible Success," Forbes, November 1, 2018, <https://www.forbes.com/sites/robertbtucker/2018/11/01/how-does-amazon-do-it-five-critical-factors-that-explain-amazons-incredible-success/#7f63cd4c41b9>

- **10X Disruption requires 10X Teams** – Driving innovation among teams is the mainstay for a successful company. Organizations must create avenues for creativity and opportunities which enable continuous sharing of ideas amongst employees, and supervisors. If employers do not encourage employees to be creative and develop new solutions, they face a serious risk of their organization becoming mundane and being disrupted. They must develop channels to support 10X innovation within their teams. This can be done through the following:



Make Innovation Everyone's Responsibility - Innovation should be treated as one of the organization's strongest assets and leaders must ensure that everyone in the company works to develop their innovative capabilities. This can be done by including innovation, ingenuity and idea development in employees' annual performance targets, so that there is an obligation amongst staff to think creatively. This entails allowing employees to "develop a new program/product/solution each year which addresses..." To drive a desire for employees to innovate rather than having it as a mandate, business leaders can provide incentives, including innovation spaces, and create policies to actively engage employees to innovate.


	<p>3M is an iconic innovative company with 55,000 products, releasing 25 new products per week and over 3,000 global patents each year. To enable this, innovation is prioritized across the company¹⁰. 3M's 15 percent time allows employees to spend up to 15 percent of their time working on projects that they are passionate about, even if there is no immediate benefit¹¹. 3M's innovation center creates a space where people can discover new ways of thinking and learning, observing, and doing work that impact people and reach mutual goals¹².</p>
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¹⁰ 3M Research and Development, https://www.3m.com/3M/en_US/company-us/about-3m/research-development/

¹¹ Harvey Wade, "Five Innovation Lessons from 3M," Innovative Thoughts, October 30, 2017, <https://innovativethoughts.net/2017/10/30/innovation-lessons-from-3m/>

¹² 3M Innovation Center, https://www.3m.com/3M/en_US/company-us/about-3m/innovation-center/

Encourage Experimentation and Risk Taking – Innovation is about trying new things, and this requires risk taking. Organizations must encourage teams to take smart risks, think outside the box, and be leaders of change, rather than having it come from management alone. They must create an environment for employees to experiment, one that allows for mistakes, some failure, and lessons learned. A company's unwillingness to promote risk-taking alienates innovators and bypasses the opportunity to foster potential. In work environments where risk taking and entrepreneurial thinking are encouraged, and ideas are welcomed, more ideas will be generated as employees are motivated, which can potentially lead to the next groundbreaking innovation. job satisfaction and employee development, has a significant impact on business as a whole.

	<p>To protect its organization from risk aversion, Amazon has employed a rule that business leaders should consider emulating: “the institutional yes.” Amazon tells its managers that their default answer must be “yes” when employees propose new ideas and experiments. In order to say no, the manager needs to explain why with a two-page thesis.¹³ Amazon has created friction for saying no, resulting in more ideas being tested (and thus implemented) throughout the company¹⁴.</p>
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Encourage Open Communication – One of the best ways to inspire innovation is to create an ongoing conversation among employees and business leaders. Organizations must create a boundaryless idea sharing environment, to share ideas freely across the business hierarchy. They must create a culture which supports brainstorming of ideas, with experienced leaders providing mentorship and advisory to support innovative thinkers. Organizations must also prioritize employee engagement as engaged employees are more creative and more willing to accept innovative ideas from others. For 60 percent of leaders, growth strategies based on democratizing innovation led to increased engagement.¹⁵


Benefits of encouraging open communication and increased employee engagement include:

- Increased staff morale, passion and motivation
- Increased problem solving and productivity
- Increased team bonding and collaboration


¹³ Everwise, “Encouraging Smart Risks in the Workplace,” March 17, 2016, <https://www.geteverwise.com/leadership/encouraging-smart-risks-in-the-workplace/>.

¹⁴ Salim Ismail, “3 Ways Companies Can Encourage Smart Risk Taking,” Entrepreneur, October 16, 2014, <https://www.entrepreneur.com/article/238543>

¹⁵ PageUp, “Driving a Culture of Innovation - Insights from PageUp's Global HR Innovation Study,” 2017, https://www.pageuppeople.com/wp-content/uploads/2017/02/Innovation-Whitepaper-Digital-small_v1_1.pdf.

	<p>Google partnered with researcher Spencer Harrison to study how ideas from new employees don't get far. The research found that when a new employee partnered with a seasoned employee, their good ideas were more likely to develop, thanks to the extra context, support, and connections of the seasoned employee. To encourage and surface interdepartmental connections, any Googler can recognize another Googler with a peer bonus, with the approval of both managers¹⁶.</p>
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Reward Creativity – Recognizing and rewarding innovation is key for building a culture of innovation. It is important for business leaders to acknowledge the innovators throughout the organization, and share the ideas and lessons learnt. This is important for boosting employee morale and encouraging teams to strive for such rewards. Smart failures should also be recognized. The objective is to let employees know that their efforts are appreciated, and provide the encouragement and motivation required to further spur innovative thinking.

	<p>Tata InnoVista is a unique 'One Tata' platform for recognizing and celebrating innovations of the companies at the group level. Participating in the group-wide initiative encourages and motivates the teams and promotes a culture of collaborative innovation, learning and sharing, and demonstrates the ability of teams to solve real business problems with innovative solutions. Including in its list of awards is the "Dare to Try" award aimed at facilitating risk taking by recognizing teams who did not initially achieve the desired results¹⁷.</p>
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An organization's innovative culture can be measured by:

- ❖ Organization's reputation for Innovation
- ❖ Organization's ability to attract innovative talent
- ❖ Creating an internal ecosystem to support creativity & innovation
- ❖ Organization's willingness to accept new ideas
- ❖ Motivating and rewarding innovators within the organization
- ❖ High Morale and Retention of innovative talent

¹⁶ ReWork, "Guide: Foster an innovative workplace - Build connections between people," <https://rework.withgoogle.com/guides/foster-an-innovative-workplace/steps/build-connections/>.

¹⁷ Tata Innovista, <https://www.tatainnovista.com/>.

Innovation to Market Strategy

Companies should define an innovation to market strategy to bring ideas into business reality. Implementation of ideas is what truly makes an organization innovative. Enterprises should develop an innovation roadmap. This roadmap will consist of challenges which are faced not just within businesses, but throughout society. Businesses can identify which of the global goals they are capable of working with in designing a solution. The roadmap will identify where innovations are required, based on the challenges outlined. This will provide businesses with a guide and help ensure that innovation is prioritized within the organization and set business leaders expectations and employee requirements. There should be a select team to assess the progress along the innovation roadmap to ensure goals are being met.

GOVERNMENT TRANSFORMATION

The shifting dynamics and technological revolutions brought on by the digital age are placing extraordinary pressures on governments to transform. While the emergence of new technologies provides immense opportunities to improve public service delivery and value for citizens, there are growing risks to individual privacy, increasing trends in data breaches and cyber-espionage in government agencies. Such security threats, coupled by the complexity of societal problems including growing social and income inequality, rapidly changing demographics and demands and increasing fiscal austerity calls for strategic improvements to how governments frame problems and develop solutions.

Government Transformation, fueled by innovation, requires restructuring and modernization of archaic governance policies, regulations and structures to keep pace with technology advancements and create open, participatory and trustworthy public sectors. It is based on the belief that technological disruptions can be harnessed purposefully to reconcile growth with equality, people, economics and the environment, and drive a more affluent, connected, open, accessible, equal and sustainable society.

To create a competitive advantage and a conducive business environment to support investments and growth, requires governments to generate new, innovative solutions underpinned by new principles. While innovation has, to a lesser extent, supported public sector development, with the occurrence of fundamental digital disruptions, the sector is now compelled to focus on innovation and create new opportunities to embed innovative processes.

"Innovation in government is about finding new ways to impact the lives of citizens, and new approaches to activating them as partners to shape the future together. It involves overcoming old structures and modes of thinking and embracing new technologies and ideas." – Organization for Economic Cooperation and Development, Innovation in Governments

TENETS OF GOVERNMENT TRANSFORMATION

The tenets of Government Transformation include care, and protection of citizens, provision for the stability of public institutions, provision of platforms which can effectively support business and commerce and legislation of new laws to support society in the digital economy. By adhering to these core tenets, and continuously fostering innovation, governments can achieve 10X Transformation.



**Protect
People**

- **Protect People**

One of the most fundamental roles of governments is to protect and provide for its people. Traditionally, this encompassed protection against crime and violence, and the provision of public goods and services. However, as we tend

towards Digital Singularity, and with the emergence of new technologies, new threats now require citizen protection. The traditional threats of violence and conflict now extend to challenges related to data privacy and security, fake news, and runaway technologies (e.g. self-driving cars, and genetic technologies).

Governments must enact the legislation to protect its people from the challenges which emerge in the digital age, by designing laws to protect individual privacy, safeguard data loss, regulate financial transactions and guard individual rights.

- **Provide for the stability of public institutions**



Provide for the stability of public institutions

With the new wave of technological growth and unprecedented changes occurring across countries, it is necessary to promote stability in public institutions. Stable public institutions is a measure of strong governance and an indicator that despite the shifts occurring globally, governments have ease in its ability to adapt. Given a stable foundation, individuals and enterprises can invest and produce the vibrant standard of living that meet the changing needs and wants of society.



Provide platforms to support business and commerce

- **Provide platforms to support business and commerce**

How we do business in this new digital economy is dependent on the new rules and controls imposed by governments. Businesses are increasingly investing in the technology prerequisites to develop the next advancements and innovations. Overregulation of new technologies can suppress growth and innovation.

It is imperative for governments to enact balanced policies designed to ensure and manage growth. These regulations will materialize and help stabilize digital business models.



Define new laws to support society in the digital economy

- **Define new laws to support society in the digital economy**

The challenge we face in the new digital economy is building a regulatory framework. The digital revolution is likely to generate many unforeseeable transactions. These will invariably be followed by government entities establishing enlightened regulatory frameworks for many advancing technologies. With the establishment of enlightened regulatory frameworks: governments will

- Consumer Regulation - Protect people from abuses and runaway technologies
- New Taxation Regulation - Regulate digital transactions to minimize tax evasion
- Regulation of Digital Transactions - Regulate digital payment methods and cryptocurrencies
- Regulation of Privacy - Extend individual protections of data and personal information

FOSTERING PUBLIC SECTOR INNOVATION

Driving creativity and innovation in the public sector will be necessary to support economic growth, business growth, employment and social development. Innovation will enable improvements in internal operations, improving efficiency and effectiveness, and create public value for citizens, and society.

An increasing number of governments are investing significantly in their innovation ecosystems in order to take a leadership position in the global digital economy. The Consumer Technology Association 2019 International Innovation Scorecard identifies 16 countries which are Innovation Champions including Australia, Canada, Denmark, Estonia, Finland, Germany, Israel, Luxembourg, the Netherlands, New Zealand, Norway, Singapore, Sweden, Switzerland, the United Kingdom and the United States.¹⁸ These countries have embraced policies and revised federal laws to foster innovation and invention across categories which include R&D investment, unicorns, resilience, drones, ridesharing and self-driving vehicles, enabling them to emerge as successful digital leaders.

Governments must foster innovation to enable transformation and achieve the core tenets. This requires governments to:

- Make innovation a priority
- Encourage the public sector workforce
- Create policy incentives to support innovation

Make Innovation a Priority

It is imperative for public service leaders to incorporate innovative policies in their mandate and prioritize such. Given the technological disruptions presented by the digital age, governments have a responsibility to citizens and businesses to ensure they are able to effectively compete, provide opportunity and enhance location and investment attractiveness.

¹⁸ Consumer Technology Association, "2019 International Innovation Scorecard," <https://www.cta.tech/Policy/Innovation-Scorecard/International.aspx>.

Innovation should be prioritized as a national policy objective to drive an overall innovation ecosystem throughout the country. An innovation strategy should be developed to guide countries in their medium and long term planning, to address the many challenges faced within governments, and across society.

Public Sector Innovation in Canada – The Impact Canada Initiative

Announced in its 2017 Budget, the Impact Canada Initiative is a Government of Canada-wide effort aimed at supporting innovation in the economy and in the public sector. The comprehensive set of initiatives will help departments accelerate the adoption of innovative funding approaches to deliver meaningful results to Canadians. The Impact Canada platform allows Government of Canada departments to issue challenges on a common site and reach a diverse group of problem solvers and innovators to generate innovative solutions to some of the biggest issues that face Canadians and their communities.

The Government of Canada launched two signature program streams as part of Impact Canada:

- A Smart Cities Challenge to help communities to improve the lives of their residents through innovation, data and connected technology. This stream is delivered by Infrastructure Canada and will contribute \$300M in funding over 11 years.
- A clean technology program stream to drive new solutions which is delivered by Natural Resources Canada and will contribute \$75 million in funding over four years.



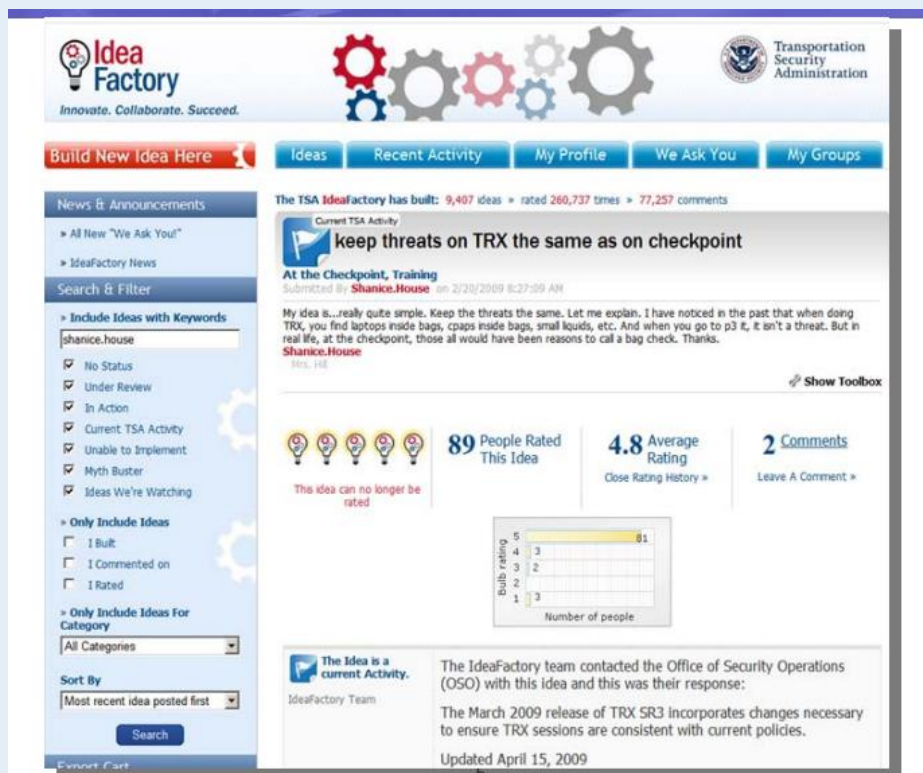
Sources:
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Encourage the Public Sector Workforce

Public service leaders must acknowledge that fundamentally transforming government organizations will require engaging employees at all levels and should promote innovation as a responsibility for all workers. Governments should equip civil servants with the opportunities to explore new ideas and to see them through to final execution, and with the skills and capabilities required for innovating. Public service leaders should ask - How the internal environment be transformed and what incentives can be created to support idea generation? What tools should be made available to motivate employees to deliver their best?

Public Workforce Empowerment – TSA’s IdeaFactory

IdeaFactory is participatory, collaborative and transparent. It is a website that allows TSA employees to develop, promote, and improve innovative ideas for programs, processes, and technologies and share them directly, without filter, to the entire TSA community. IdeaFactory has led to the implementation of more than 40 innovative ideas in two years—ideas that have improved TSA culture and operations—including changes to Standard Operating Procedures and new initiatives that have improved job satisfaction, increased retention and improved the quality of work life. To date, there are almost 9,000 ideas on the site and more than 25,000 employees have visited the site.



Source: IdeaFactory, <https://obamawhitehouse.archives.gov/open/innovations/IdeaFactory/>

Create Policy Incentives to Support Innovation

Governments should offer incentives to individuals and organizations developing innovative products and solutions and undertaking experimentation which are geared to solving their challenges. The Congress of the United States on Federal Policies and Innovation identified that the government can influence innovation through two channels: spending and tax policies, and the legal and regulatory systems.¹⁹ Policymakers have a variety of options for expanding government's contribution to innovation. This includes:

- Funding for programs which support innovation and research and development (R&D);
- Designing laws and legislation to support innovation and the advancements of new technologies
- Provision of incentives such a preferential loans or loan guarantees to organizations/ agencies which bring innovative products to market
- Implementation of tax policies which encourage innovation across agencies/ firms.

The Technology Modernization Fund

The U.S. General Services Administration (GSA) inter-agency Emerging Citizen Technology Office collaborates with more than 1500 federal managers at agencies and programs across government, startups, small businesses, and civic organizations to develop government-wide public service modernization initiatives through the evaluation, testing, and development of emerging technologies including:

- Artificial Intelligence for Citizen Services
- Blockchain
- Virtual and Augmented Reality
- Social Technology

The Technology Modernization Fund (TMF), a funding model for Federal technology modernization projects gives agencies additional ways to deliver services to the American public more quickly, better secure sensitive systems and data, and use taxpayer dollars more efficiently. The TMF received \$100 million in FY 2018 to fund modernization projects, and another \$25 million in FY 2019. The President's FY 2020 Budget requests an additional \$150 million.



Source: The Technology Modernization Fund, <https://tmf.cio.gov/>.

¹⁹ Congress of the United States, "Federal Policies and Innovation," <https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/49487-Innovation.pdf>

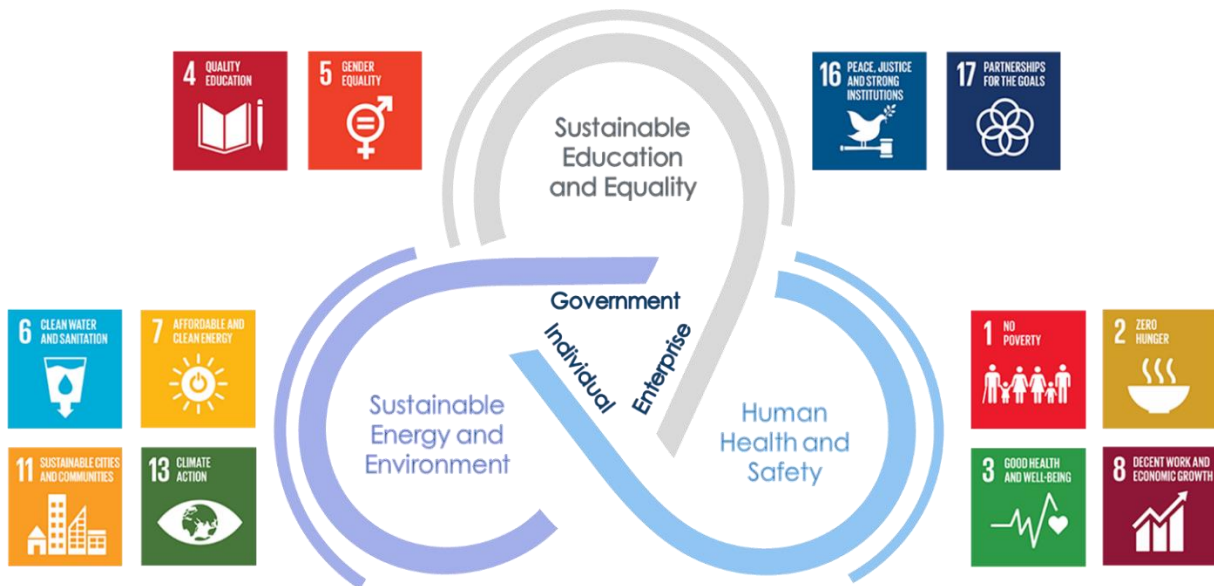
UN SDGs - A BLUEPRINT FOR SOCIO-ECONOMIC EMPOWERMENT

As stakeholders, we must work to create new ways to pursue the Global Goals as part of our strategic business agenda—not only internally, but with our clients and partners as well. We must lead by example and challenge our competitors and customers to do what is best for a sustainable future-- by partnering with companies working towards those goals. Businesses can be part of the solution in supporting non-profits and governments in reaching their sustainability goals. Businesses must be viewed as respected partners, instead of corrupt entities, with an understanding that we are all working towards the same goals.

The United Nation's (UN) Sustainable Development Goals (SDGs) provides the blueprint to achieve a sustainable future for all, and addresses fundamental global challenges related to poverty, inequality, climate change, environmental degradation, prosperity, and peace and justice. Using the SDGs as a guide, with the partnerships and collaboration of individuals, enterprises and governments, supported by the technology prerequisites, hyper-sustainability can be achieved across three core areas necessary for social and economic growth and development. These include:

1. Sustainable Education and Equality
2. Human Health and Safety
3. Sustainable Energy and Environment

Hyper-Sustainability will enable us to solve the grand challenges



CONCLUSION

As we transcend towards an increasingly globalized and digitalized economy the challenges that we experience today, and the challenges we will face tomorrow will require us to think unconventionally, much different than the way we currently do. To therefore survive in the digital age, individuals, enterprises and governments must build continuous innovation into their DNA. They must work to create new ways to

- I. improve operational efficiency and effectiveness,
- II. enhance consumer and citizen experience and
- III. purposefully solve society's grand challenges.

Fostering a culture of innovation within individuals, businesses and government agencies – through developing a 10X transformative mindset – is crucial to drive these requirements. Fostering an innovative culture at these levels to develop innovative solutions to challenges, paves the way to enable significant social impact and economic benefit to society, that is, hyper-sustainability.

Hyper-Sustainability will enable us to solve the grand challenges and create an all-encompassing digital experience to support socio-economic development and build sustainable, resilient and inclusive societies, to empower humanity. All stakeholders, at the individual, enterprise and government level, must work to create new ways to achieve hyper-sustainability as part of their strategic objectives. Each must admit responsibility, and lead by example, challenging competitors, customers and citizens to do what is best for a sustainable future.

Businesses can be part of the solution in supporting non-profits and government agencies in achieving their sustainability goals. Businesses must be viewed as respected partners, with an understanding that we are all working towards the same goals for a hyper-sustainable future.

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About Avasant

Avasant is a leading management consulting firm focused on translating the power of technology into realizable business strategies. Specializing in digital and IT transformation, sourcing advisory, global strategy, and governance services, Avasant prides itself on delivering high-value engagements through industry focused innovation and flexible client based solutions.

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