Technology Vision 2022

Survey Findings – Travel

August 2022



About the surveys

Business Executive and Consumer Surveys



Accenture Research conducted a global survey of **24,000 consumers** to capture insights into their use of, interactions with and beliefs about technology in their everyday lives. In addition, Accenture conducted a survey of **4,650 C-level executives and directors** across **23 industries** to understand their perspectives and use of emerging technologies across their organizations. The surveys were fielded from December 2021 through January 2022 across 35 countries.

| 1 | Argentina |
|----|-----------|
| 2 | Australia |
| 3 | Austria |
| 4 | Belgium |
| 5 | Brazil |
| 6 | Canada |
| 7 | Chile |
| 8 | China |
| 9 | Colombia |
| 10 | Denmark |
| 11 | Finland |
| 12 | France |
| | |

| 13 | Germany |
|----|-------------|
| 14 | India |
| 15 | Indonesia |
| 16 | Ireland |
| 17 | Italy |
| 18 | Japan |
| 19 | Malaysia |
| 20 | Mexico |
| 21 | Netherlands |
| 22 | Norway |
| 23 | Poland |
| 24 | Portugal |
| | |

| 25 | Russia |
|-----------|-----------------------------|
| 26 | Saudi Arabia |
| 27 | Singapore |
| 28 | South Africa |
| 29 | Spain |
| 30 | Sweden |
| 31 | Switzerland |
| 32 | Thailand |
| 33 | United Arab Emirates |
| 34 | United Kingdom |
| 35 | United States |

Global Demographics

Executive Demographics (N=4,650)

| INDUSTRIES | |
|------------------------------|----|
| Aerospace & Defense | 2% |
| Automotive | 2% |
| Banking | 9% |
| Capital Markets | 3% |
| Central Government (CA) | 2% |
| Chemicals | 2% |
| Communications | 6% |
| Consumer Goods & Services | 9% |
| Energy | 2% |
| Federal Government (US) | 4% |
| Healthcare Payor (US) | 2% |
| Health Provider | 6% |
| High Tech | 4% |
| Higher Education | 2% |
| Industrial Goods & Equipment | 7% |
| Insurance | 8% |
| Media & Entertainment | 2% |
| Natural Resources | 2% |
| Public Service | 7% |
| Retail | 9% |
| Software & Platforms | 2% |
| Travel | 2% |
| Utilities | 4% |
| | |

| ROLES | |
|------------------------------------|-----|
| Chief Digital Officer | 1% |
| Chief Executive Officer | 4% |
| Chief Finance Officer | 7% |
| Chief Human Resources Officer | 3% |
| Chief Information Officer | 16% |
| Chief Information Security Officer | 3% |
| Chief Innovation Officer | 14% |
| Chief Marketing Officer | 6% |
| Chief Operating Officer | 7% |
| Chief Purchasing Officer | 1% |
| Chief Security Officer | 2% |
| Chief Strategy Officer | 5% |
| Chief Supply Chain Officer | 1% |
| Chief Technology Officer | 16% |
| Director of Business Function | 3% |
| Director of Technology | 6% |
| Director, IT | 5% |
| Director, Line of Business | <1% |
| | |
| REVENUE (USD) | |
| \$50 billion or more | 3% |
| \$20 to \$49.9 billion | 6% |
| \$10 to \$19.9 billion | 16% |
| | |

26%

48%

\$5 to \$9.9 billion

\$1 to \$4.9 billion

Consumer Demographics (N=24,000)

| GENDER | |
|--|-----|
| Male | 40% |
| Female | 59% |
| Non-binary/Other | 1% |
| | |
| GENERATION | |
| Gen Z (born 1998 to 2004) | 25% |
| Gen Y Millennials (born 1979 to 1997) | 35% |
| Gen X (born 1965 to 1978) | 25% |
| Baby Boomers (born 1946 to 1964) | 15% |
| Silent Generation (born prior to 1946) | 1% |

| HOOSEHOLD INCOME | |
|-------------------|-----|
| Low | 33% |
| Medium | 30% |
| High | 29% |
| Prefer not to say | 8% |
| | |
| ETHNIC MINORITY | |
| Yes | 16% |
| No | 80% |
| Prefer not to say | 4% |
| | |
| DISABILITY | |
| Yes | 24% |
| No | 76% |

HOUSEHOLD INCOME

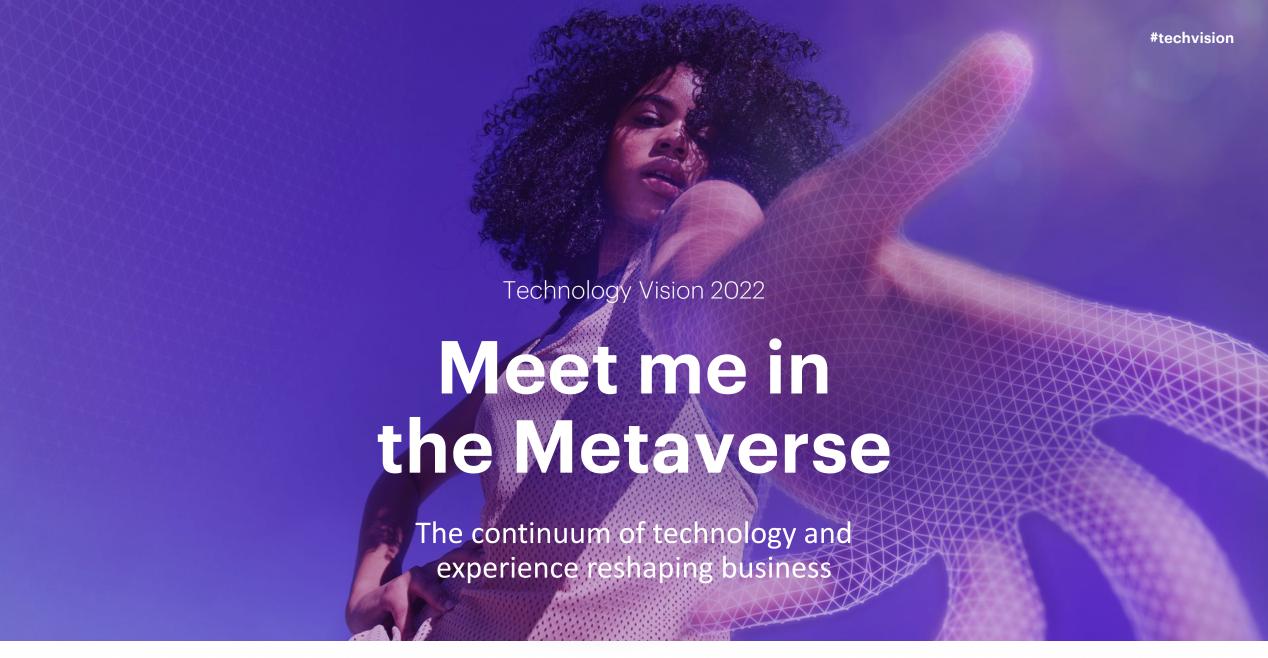
Demographics - Travel

Executive Demographics (N= 109)

| ROLES | |
|------------------------------------|-----|
| Chief Digital Officer | 1% |
| Chief Executive Officer | 1% |
| Chief Finance Officer | 7% |
| Chief Human Resources Officer | 3% |
| Chief Information Officer | 6% |
| Chief Information Security Officer | 5% |
| Chief Innovation Officer | 20% |
| Chief Marketing Officer | 3% |
| Chief Operating Officer | 10% |
| Chief Purchasing Officer | 1% |
| Chief Security Officer | 4% |
| Chief Strategy Officer | 2% |
| Chief Supply Chain Officer | 1% |
| Chief Technology Officer | 25% |
| Director of Technology | 7% |
| Director, IT | 4% |
| Director, Line of Business | 1% |

| REVENUE (USD) | |
|------------------------|-----|
| \$20 to \$49.9 billion | 4% |
| \$10 to \$19.9 billion | 16% |
| \$5 to \$9.9 billion | 29% |
| \$1 to \$4.9 billion | 51% |
| | |
| TRAVEL | |
| Passenger airlines | 60% |
| Hospitality | 40% |
| | |

| COUNTRIES | |
|----------------------|-----|
| Argentina | 9% |
| Austria | 3% |
| Belgium | 3% |
| Brazil | 14% |
| Chile | 6% |
| Italy | 9% |
| Mexico | 9% |
| Netherlands | 5% |
| Russia | 5% |
| United Arab Emirates | 6% |
| United States | 32% |
| | |







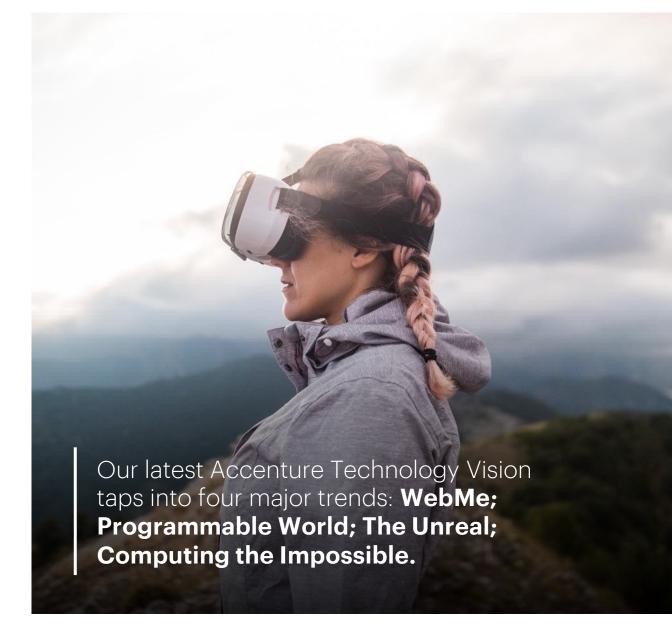
Are you ready for the metaverse?

The next wave of technology disruption driving the future is here, bringing new technologies and worlds of experiences.

Over the next decade, ambitious travel players will shape new physical and digital realities and transform their businesses. It offers opportunities for travel companies through innovation and strong execution.

Travel companies need to prepare now to understand how these emerging technologies are critical for future growth and competitiveness.

How can travel companies successfully navigate volatility and uncertainty about the future, with blurred boundaries between humans and machines across multiple platforms?

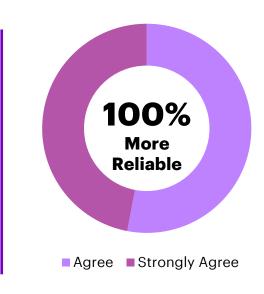


Executive Summary

Technology advances are becoming more reliable than other factors in informing long-term strategy.

100%

of Travel executives believe continuous advances in technology are becoming more reliable than economic, political or social trends in informing their organization's long-term strategy.



<u>Technology Vision 2022 Global Business and IT Executive Survey</u>. **Travel N=109** (Agree Net = Agree/Strongly Agree)



Technology Trends for 2022



WebMe

Putting the Me in Metaverse

The internet is being reimagined as metaverse, and Web3 efforts transform the underpinning and operation of the virtual world.



Programmable World

Our Planet, Personalized

Control, customization and automation are being enmeshed into the world around us, making the physical as programmable as the digital.



The Unreal
Making Synthetic,
Authentic

As Al-generated data and synthetic content convincingly mimic what is "real," authenticity is the new north star.



Computing
The Impossible
New Machines, New
Possibilities

A new generation of computers is solving some of the world's most intractable problems leading to one of the biggest technological disruptions of our time.



Technology Vision 2022

Travel – Key Findings

WebMe

Putting the Me in Metaverse

53% of Travel

executives state that the Metaverse will have a positive impact on their organizations, with **25%** as a breakthrough or transformational impact.

Programmable World

Our Planet,
Personalized

75% of Travel

executives believe programming the physical environment will emerge as a competitive differentiation in their industry.

The Unreal

Making Synthetic,
Authentic

96% of Travel

executives agree that their organizations are committed to authenticating the origin of their data and genuine use of AI.

Computing the Impossible

New Machines, New Possibilities

76% of Travel

executives are planning to partner with others in the next three years, while another **58%** plan to invest in technology or startups to address previously unsolvable problems using next generation computing.







Putting the Me in Metaverse

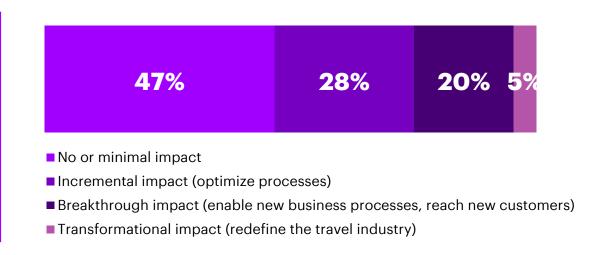
WebMe explores how the internet is being reimagined for the future of Travel. The last two years spurred travel enterprises to explore new modes of digital experiences, pushing people to live virtually to an extent they never expected. Now the metaverse is emerging as a natural evolution that reconciles how the internet is designed today with the demands of travel and hospitality tomorrow. The advent of the metaverse, and underlying efforts to reimagine how

data shapes our digital experiences, will challenge travel and hospitality businesses to rethink their presence online and become a part of shaping the next platform revolution. As the internet becomes a future critical system of engagement and experience before a prospective traveler interacts with someone at the airport, airline crew or hotel staff, building new ways to connect to customers, partners and the digital workforce is more important than ever.

The internet experience is being reimagined, and enterprises need to be ready for what comes next. Travel companies might be skeptical about getting on the metaverse bandwagon as the business feasibility may be difficult to comprehend.

53%

of **Travel** executives state that the *Metaverse will have a positive impact* on their organizations, with **25%** seeing it as a breakthrough or transformational impact.



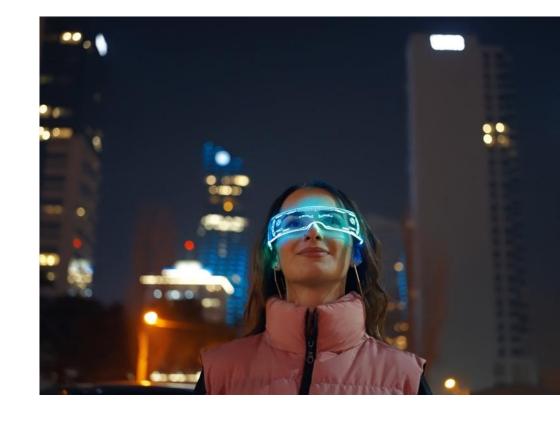
<u>Technology Vision 2022 Global Business And IT Executive Survey</u>. **Travel N=109**



Welcome to the metaverse continuum

Travel in the metaverse

Metaverse technologies are evolving the next generation of the internet and boundaryless new opportunities. Think of it as a continuum, spanning the spectrum of digitally enhanced worlds, realities and business models. Expect to see it touch all facets of every business, from consumer to worker and across the enterprise; from reality to virtual and back; from 2D to 3D; and from cloud and AI to extended reality, blockchain, digital twins, edge technologies and beyond. In 2022, this way of life seems surreal, but the Metaverse Continuum is on its way and companies need to prepare now.



The future of Travel

The Metaverse Continuum enables people to immerse themselves within a universal shared experience that connects our real world to a fully virtual one—and everything in between.



The Metaverse Continuum is already transforming travel companies in five ways, changing...

- ...how travel companies interact with customers
- ...how work is done
- ...which services travel companies offer
- ...how they make and distribute them
- ...how they operate their organizations

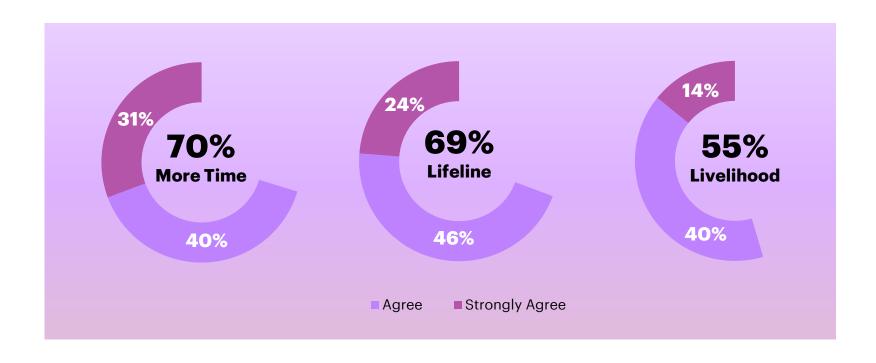
"While we are at the early days of the metaverse, it will advance very quickly. If companies don't act now, they'll find themselves operating in worlds designed by, and for, someone else."

— PAUL DAUGHERTY,
Group Chief Executive – Technology
& Chief Technology Officer

Consumers are finding a new digital way forward, and not turning back.

Consumers agree that compared to before the pandemic:

- They are spending substantially more time online (70%)
- Technology has become a lifeline for connecting with others in their daily interactions (69%)
- More of their life and livelihood is moving into digital spaces (55%)

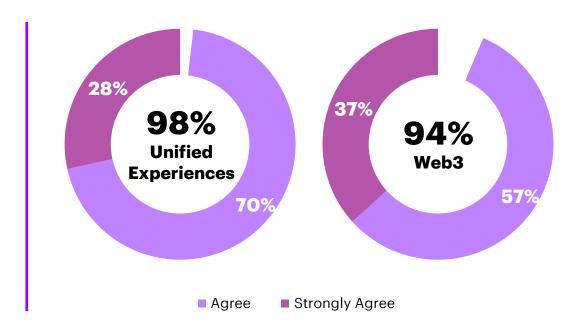


<u>Technology Vision 2022 Global Consumer Survey</u>. N=24,000. (Agree Net = Agree/Strongly Agree)



Unified experiences and Web3 will reshape tomorrow's internet.

Travel executives agree that future digital platforms need to offer unified experiences, enabling interoperability of customers' data across different platforms and spaces (98%), and that the realization of Web3 over the next decade will fundamentally change how businesses engage with users online (94%).



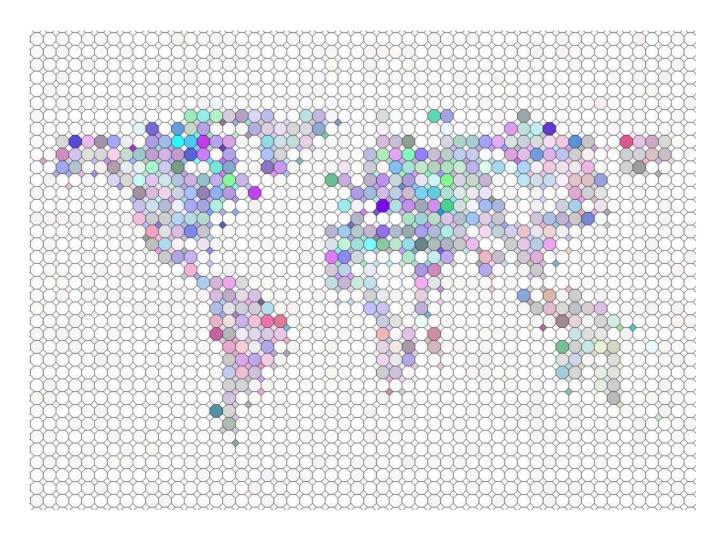
<u>Technology Vision 2022 Global Business and IT Executive Survey</u>. **Travel N=109** (Agree Net = Agree/Strongly Agree)



For many consumers, the lines between digital life and "real life" are blurring more and more.

38%

of consumers agree their digital life is increasingly becoming their "real life."



<u>Technology Vision 2022 Global Consumer Survey</u>. N=24,000. (Agree Net = Agree/Strongly Agree)



WebMe in Travel

Traveler experience in the metaverse: from inspiration to planning, booking, experience and sharing



Many travel businesses are enticing travelers with "try before you buy" experiences using the next wave of technology. Be it a hotel room, a coveted destination or travel activities, extended reality (XR) offers customers an interactive glimpse of reality.



Truly immersive experiences allow prospective guests to discover a new place virtually with real-time interactions. Imagine a holographic image of yourself visiting a real art museum, for example, with a live guide to answer your questions. Along the way, discover interaction points, such as virtual booking, sales and travel planning for your journey. After your real-life trip, connect with virtual customer service to help resolve any problems that occurred and find unique brand promotions, products and experiences.



hospitality experiences that can provide access for people to meet remotely and physically at events and business meetings, increasing attendance and participation in live exchanges and interactions.



WebMe in Travel

Moving the needle on employee experience

The metaverse has the potential to change how people meet and regroup, as well as how they perform real-life activities, such as guiding customers through a hospitality experience, cultural destination, or remotely managing operations in real-time via a digital twin, like a mixed-reality command center.

The metaverse will change how travel companies enable, engage and invent.

Enable: Leverage augmented reality (AR), XR and virtual reality (VR) technologies to create travel experiences within the metaverse that elevate employee experiences.

Key areas: Next-gen employee experiences, immersive engineering, digital fleet management, remote portfolio management, etc.

Engage: Reimagine how to connect with guests and passengers, deliver personalized experiences, elicit empathy and build trust.

Key areas: Next-gen passenger, tourism 3.0, one-stop-shop, etc.

Invent: Tap into the metaverse's burgeoning economy as a source of growth with novel products and services.

Key areas: Inclusion and diversity, sustainability, customer loyalty, repurpose space, etc.

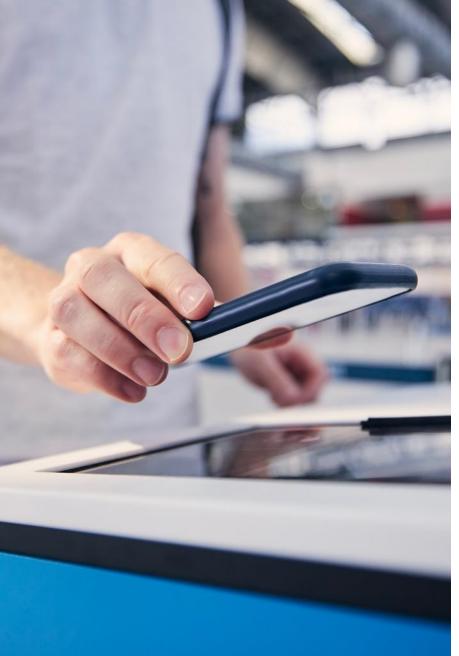


Our Planet, Personalized

The Programmable World tracks how technology is being threaded through our physical environments in increasingly sophisticated ways, including shaping the future of Travel. It projects how the convergence of 5G, ambient computing, augmented reality, smart materials and more are paving the way for businesses to reshape how they interact with the physical world.

As technology becomes part of the fabric of our environment, it allows us to treat our environment more like technology—unlocking an unprecedented fidelity of control, automation and personalization. Expect to see this touch everything, from improving customer service to providing immersive experiences for guests and employees across all segments of hospitality and Travel.





Programmable World in Travel

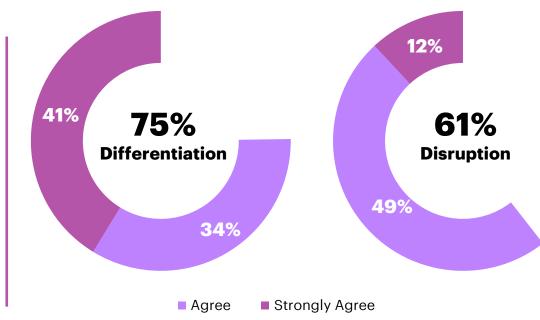
Building an interconnected environment in the travel ecosystem can enable new ways to augment, customize, automate, alter and otherwise "program" our physical environments:

- **Augment:** Increase connectivity for travelers and interconnectivity of IoT devices enabled by 5G to enhance interactive hotel, resort and airport elements, personalization and intelligent journeys.
- Customize: Use 5G-enabled AR and VR applications to develop realistic simulations of crisis situations for fail-safe design, employee/mass training, product testing, immersive navigation, augmented reality gamification or destination tours.
- **Automate:** Use robotics to automate redundant operations in airports and hospitality, faster real-time updates, and even large-scale safety and security at airports and resorts, etc.
- **Alter:** Opportunity to reconfigure your airline seat, bed or showerhead in the hotel room, neck rest for business class lounges, etc., to truly adapt to your needs.

Programming the physical world will be a competitive differentiator and AR industry disruptor.

75%

of **Travel** executives believe programming the physical environment will emerge as a competitive differentiation in their industry and **61%** agree that AR will disrupt their industry in the next three years.



<u>Technology Vision 2022 Global Business and IT Executive Survey</u>. **Travel N=109** (Agree Net = Agree/Strongly Agree)



IoT and edge devices are proliferating in the Travel industry.

78%

of **Travel** executives report the number of IoT/edge devices deployed in their organization significantly or exponentially increased over the past three years.

Level of increase in **IoT/edge devices deployed** over the past three years



Technology Vision 2022 Global Business and IT Executive Survey. Travel N=109

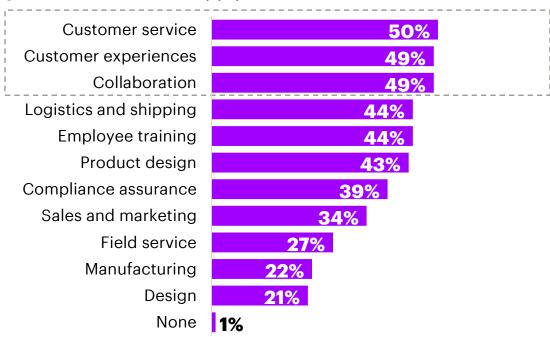


Organizations see potential in a wide range of AR use cases.

99%

of **Travel** executives report that their organization would consider using AR in the next three years, with the top three areas being: customer service **(50%)**, customer experiences **(49%)** and collaboration **(49%)**.

Q. Which of the following would your organization consider using Augmented Reality (AR) for in the next 3 years? Select all that apply.



Technology Vision 2022 Global Business and IT Executive Survey. Travel N=109



Executives expect AR to unlock benefits across the enterprise.

Travel executives report that their organizations would expect AR technologies to bring them improved operations **(94%)**, talent related benefits **(83%)** and increased revenue/cost savings **(51%)** in the next three years.

Q. Which of the following benefits would your organization expect in the next three years from Augmented Reality (AR) technologies? Select all that apply.



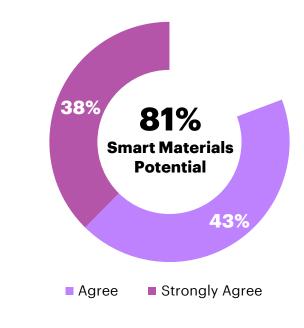
- Improved Operations Net = Increased employee efficiency, improved real-time collaboration, improved design and manufacturing processes, reduced employee errors, more engaged employees, increased workplace safety
- Talent Related Benefits Net = Increased employee efficiency, improved knowledge transfer between experts and novice employees, improved professional development, reduced employee errors, more engaged employees
- Revenue/Cost Savings Net = New revenue streams, cost savings



Executives see the potential of smart materials to open new business opportunities.

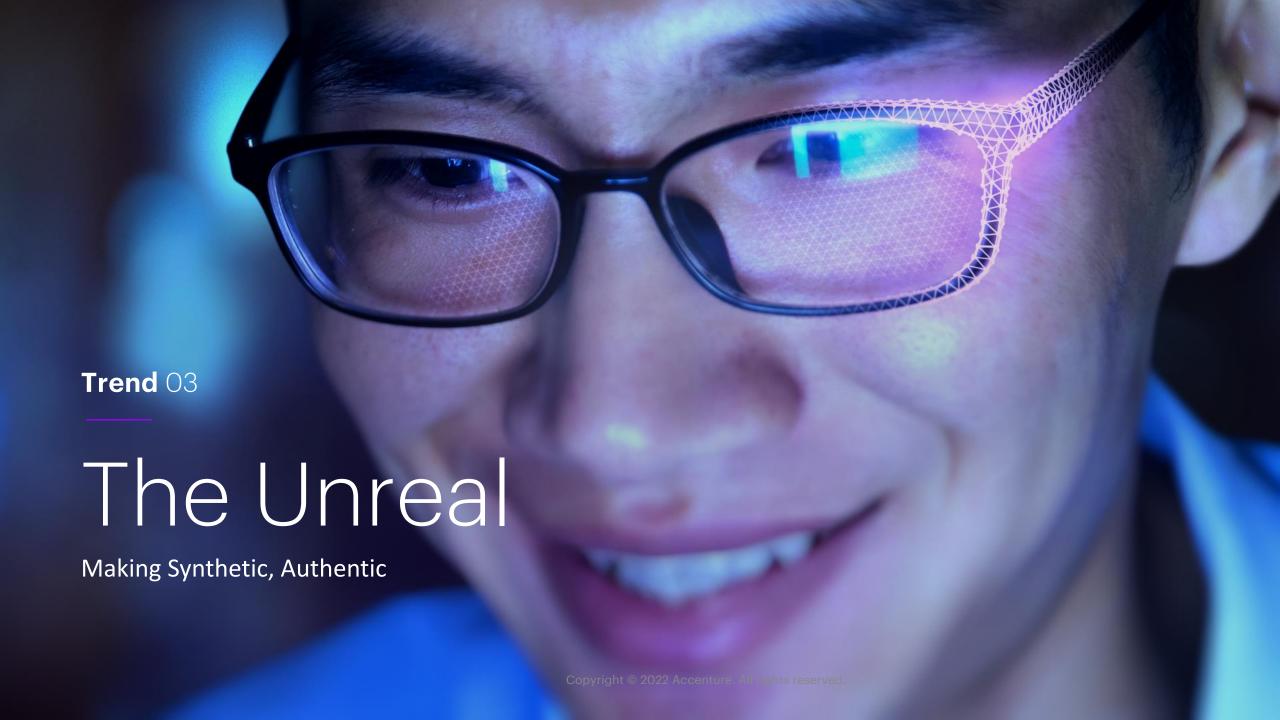
81%

of **Travel** executives agree that smart materials have the potential to create new business opportunities for their industry and drive a new generation of capabilities, properties and form factors.



<u>Technology Vision 2022 Global Business and IT Executive Survey</u>. **Travel N=109** (Agree Net = Agree/Strongly Agree)





Making Synthetic, Authentic

When it comes to populating new worlds, humans are the primary residents. But here on earth, we are also tracking the emergence of The Unreal, a trend where our environments and businesses are increasingly filled with machines that are passably human. Artificial Intelligence is becoming more synthetically real, and the benefit of synthetic data and digital persons will be a critical mission across all functions and segments of Travel.

At the same time, people are coming face-to-face with bad actors using this technology—from deepfakes to bots and more—igniting a growing concern that may turn into the biggest hurdle for hospitality and travel enterprises looking to grow their use of Al. Like it or not, enterprises have been thrust into the forefront of a world questioning what's real, what isn't, and if the line between those two really matters.



Travel companies need to double down on protecting customers' privacy to allow them to navigate safely and confidently.

- Trust in technology and information sources across all media is heavily challenged. At has played a major role in accelerating this sense of mistrust.
- Artificial intelligence has evolved to become more reliable and attractive as a business solution.
 Businesses in the travel industry are taking advantage of AI to perform administrative, operational and customer service tasks.
- On the other hand, some travelers might not trust the virtual human aspects of travel, such as bots, humanoids and unreal personas as social influencers.
- When it comes to synthetic reality, everyone will have to decide what is acceptable and not. Brands opting into synthetic reality must take measures to protect the confidentiality and privacy of real customer data. Customers and brands should agree to a new social contract that grants brands "permission" to utilize synthetic data.
- Brands that are cognizant of and transparent with the authenticity of the unreal world will be able to regain trust from customers in order to leverage this information to unlock new opportunities.

Amongst consumers, there is some reluctance to fully trust AI and its use.

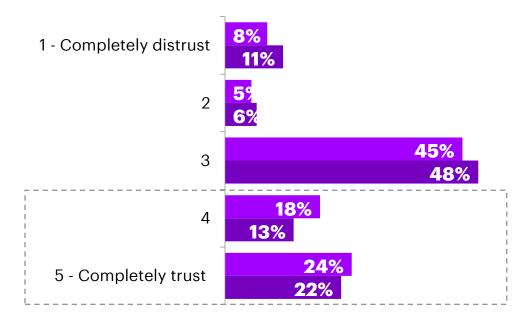
42%

of consumers trust that AI technology is being used to improve their lives and experiences.

35%

trust how it is being implemented by organizations.

Q. In general, which of the following best describes your level of trust in artificial intelligence?



- Trust AI to improve my life and experiences
- Trust how AI technology is being implemented by organizations

<u>Technology Vision 2022 Global Consumer Survey</u>. Global N=24,000 (Trust Net = 4/5)



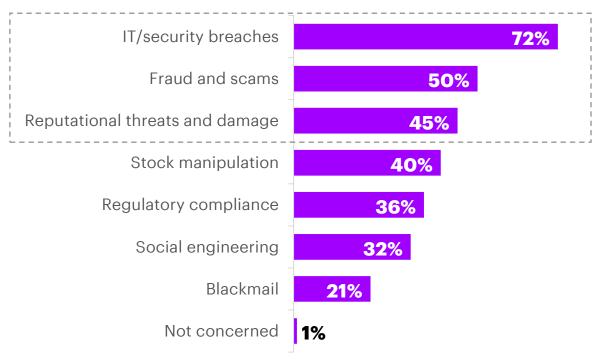
The risk of malicious AI raises security concerns amongst organizations.

99%

of **Travel** executives report concern over deepfakes and/or disinformation attacks, with the top three areas of concerns being:

- IT/security breaches (72%)
- Fraud and scams (50%)
- Reputational threats and damage (45%)

Q. What are your organization's primary concerns about deepfakes and/or disinformation attacks? Select top three.



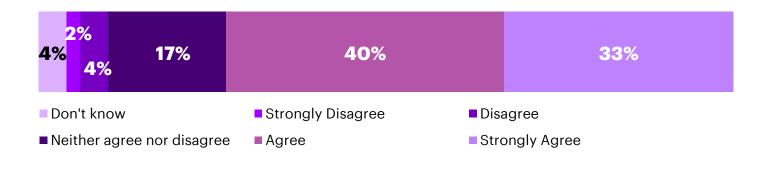
Technology Vision 2022 Global Business and IT Executive Survey. Travel N=109



Consumers expect transparency and accountability to prevent misuse of AI.

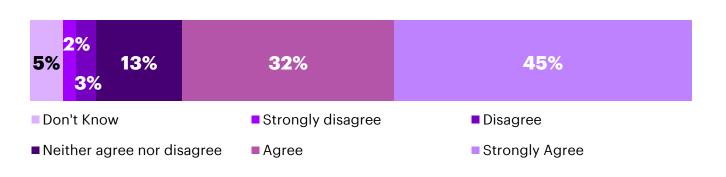
73%

of global consumers expect businesses to clearly communicate their use of AI as it pertains to the consumers' interactions with them.



77%

of global consumers agree and **45%** strongly agree that organizations must be held accountable for their misuse of artificial intelligence.

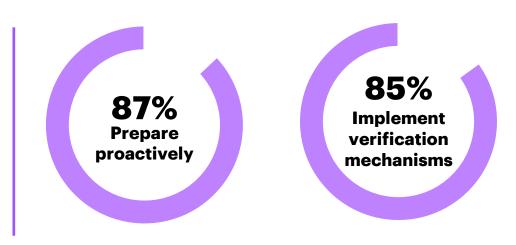


Technology Vision 2022 Global Consumer Survey. Global N=24,000 (Agree Net = Agree/Strongly Agree)



Organizations are taking a multiprong approach to mitigate risks of deepfakes and misinformation attacks.

Travel executives report that their organizations are planning to mitigate the risk of deepfakes and/or misinformation attacks by preparing proactively **(87%)** and implementing verification mechanisms **(85%)**.



- Prepare Proactively Net = Update our business continuity plans (e.g., demarcating clear lines of responsibility in case of an attack), train employees
- Implement Verification Mechanisms Net = Adopt blockchain technology solutions to verify the provenance of digital content, implement "trust but verify" organizational protocols

Technology Vision 2022 Global Business and IT Executive Survey. Travel N=109







New Machines, New Possibilities

We are on the precipice of resetting the boundaries across all industries as we begin Computing the Impossible. The outer limit of what is computationally possible is being disrupted as a new class of machines emerges, impacting the way hospitality and travel industries adapt to new technologies. Quantum, biologically-inspired and high-performance computers are each allowing companies to tackle grand challenges that once defined and shaped the very core of their industry. Hotel, airline and travel industries can use the technology to address operational issues, improve customer service and enhance employee experiences. As problems once considered impossible become ever more solvable, business leaders will be pushed to reimagine some of the most basic assumptions about their enterprise.

Organizations are pivoting due to unprecedented computational power.

97%

of **Travel** executives agree that their organization is pivoting in response to the unprecedented computational power that is becoming available.



<u>Technology Vision 2022 Global Business and IT Executive Survey</u>. Travel N=109 (Agree Net = Agree/Strongly Agree)

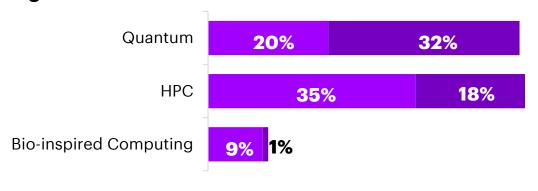


As the technology continues to improve, industry application developers will grow the scope of use cases and leverage quantum computing for business advantage in the travel industry. New computing technologies will evolve to meet the developing complex environment created by the metaverse and programmable world.

52%

of **Travel** executives say quantum computing will have a breakthrough or transformational positive impact on their organizations in the future, while **53%** say the same for high-performance computing (HPC) and **10%** for bio-inspired computing.

Q. What level of positive impact do you believe Quantum/HPC/Bio-inspired computing will have on your organization in the future?



- Breakthrough impact (enable new business processes, reach new customers)
- Transformational impact (redefine your industry)

Technology Vision 2022 Global Business and IT Executive Survey. Travel N=109



Executives recognize that next-generation computing has the potential to make the impossible possible.

In the next 20 years, air travel is expected to double, increasing operational complexity. Quantum computing will play a crucial role in solving airlines' complex business problems. It will produce new opportunities, mainly through higher computational speed, greater accuracy of data-driven actions, and the creation of new algorithms and systems capabilities to address challenges that classical systems cannot solve.

For example, it will help manage untangling operational disruption (e.g., due to climate disruptions or the rise of air taxis), enhance contextual personalized services, optimize network planning globally, provide better safety or optimize fuel consumption.

Travel executives recognize that next-generation computing has the potential to address previously unsolvable problems:

- Quantum 98%
- HPC **99%**
- Bio-inspired computing **56%**

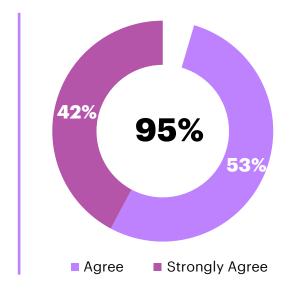
<u>Technology Vision 2022 Global Business and IT Executive Survey</u>. Travel N=109



Solving complex problems such as network planning while minimizing the environmental impact and improving profitability will be the key. Next-generation computing has a major role to play in reaching organizational sustainability goals.

95%

of **Travel** executives agree that next-generation computing will become essential to their organization's ability to reach its sustainability goals.





Read more: Accenture,
GitHub, Microsoft and
ThoughtWorks Launch the
Green Software
Foundation with the Linux
Foundation to Put
Sustainability at the Core
of Software Engineering

Technology Vision 2022 Global Business and IT Executive Survey. Travel N=109 (Agree Net = Agree/Strongly Agree)



To solve intractable problems with next-generation computing, organizations' plans include partnering with others and investing in technology or startups.

76%

of **Travel** executives are planning to partner with others in the next three years, while another **58%** plan to invest in technology or startups to address previously unsolvable problems using next-generation computing.

Q. Which of the following actions is your organization planning to take in the next three years to address previously unsolvable problems using next-generation computing? Select all that apply.



- Partner Net = Establishing industry-wide consortia, partnering with academia, government agencies or national labs
- Invest in Technology or Startups Net = Investing in technology, investing in startups

Technology Vision 2022 Global Business and IT Executive Survey. Travel N=109



Now is the time to shape the future of travel technology

We are at a crossroads. Not only because there are new technologies to master, but rather that competition in the next decade will require much more than technical skills and innovative strength. Travel companies will need a truly competitive vision. A clear vision of what the future worlds will be like and a vision of where the travel business needs to go to thrive. Technology is pointing us in the right direction. Everything else is in your hands.

The metaverse continuum is waiting for you.



Technology Vision Research Methodology

For more than 20 years, Accenture has developed the Technology Vision report as a systematic review across the enterprise landscape to identify emerging technology trends that will have the greatest impact on companies, government agencies and other organizations in the coming years. This year the trends look further out into the future than ever before, while remaining relevant across industries and actionable for businesses today.

Accenture Labs and Accenture Research collaborate on the annual research process, which this year included:

- Input from the Technology Vision External Advisory Board, a group of more than two dozen experienced individuals from the public and private sectors, academia, venture capital and entrepreneurial companies. In addition, the Technology Vision team conducts interviews with technology luminaries and industry experts, as well as many Accenture business leaders from across the organization.
- A global consumer survey to capture insights into the use of, interactions with, and beliefs about technology in people's everyday lives. In addition, Accenture conducts a global survey of C-level executives and directors to understand their perspectives and use of emerging technologies across their organizations. The surveys were fielded from December 2021 through January 2022 across 35 countries.
- Experiential research and data science to analyze technology developments and advancements.

As a shortlist of themes emerges from the research process, the Technology Vision team works to validate and refine the set of trends. The themes are weighed for their relevance to real-world business challenges. The Technology Vision team seeks ideas that transcend the well-known drivers of technological change, concentrating instead on the themes that will soon start to appear on the C-level agendas of most enterprises.



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Appendix – Executive Summary

Travel vs. Global Highlights

- 100% | 98% of executives believe continuous advances in technology are becoming more reliable than economic, political or social trends in informing their organization's long-term strategy.
- While 22% | 14% of executives report the pandemic is continuing to disrupt their organization's business plans and operations, another 78% / 86% report that their organization has adapted to the disruption of the pandemic and has found a new normal.
- 100% | 98% of executives state that emerging technologies are enabling their organization to have a broader and more ambitious vision.

<u>Technology Vision 2022 Global Business and IT Executive Survey</u>. Global N=4,650. Travel N=109.



Appendix - WebMe

Travel vs. Global Highlights

- 53% | 71% of executives state that the metaverse will have a positive impact on their organizations, with 25% | 42% as a breakthrough or transformational impact. Of those, 93% / 91% believe that the impact will be within the next four years.
- As of January 2022, **65%** of consumers have either never heard of the metaverse or have heard the term but don't know what it means. At the same time, **55%** of consumers are either currently using or plan to use or invest in cryptocurrencies.
- Consumers agree that compared to before the pandemic, they are spending substantially more time online (70%), technology has become a lifeline for connecting with others in their daily interactions (69%), and more of their life and livelihood is moving into digital spaces (55%).
- 38% of consumers agree their digital life is increasingly becoming their "real life." 72% of consumers state, "The next technology revolution needs to be led by people-centric experiences, giving me more control over my data." 57% of consumers state, "I expect companies to help me unify my digital experiences."
- Executives agree that future digital platforms need to offer unified experiences, enabling interoperability of customers' data across different platforms and spaces (98% | 95%), and that the realization of Web3 over the next decade will fundamentally change how businesses engage with users online (94% | 91%).

Technology Vision 2022 Global Business and IT Executive Survey. Global N=4,650. Travel N=109. Technology Vision 2022 Global Consumer Survey. Global N=24,000.



Appendix - Programmable World

Travel vs. Global Highlights

- 75% | 79% of executives believe programming the physical environment will emerge as a competitive differentiation in their industry, and (61% | 67%) agree that Augmented Reality will disrupt their industry in the next three years.
- 78% | 74% of executives report the number of IoT/edge devices deployed in their organization significantly or exponentially increased over the past three years.
- 100% | 92% of executives agree that leading organizations will push the boundaries of the virtual world to make it more real, increasing the need for persistence and seamless navigation between the digital and physical worlds.
- 99% | 98% of executives report their organization would consider using AR in the next three years, with the top three areas being: customer service (e.g., using AR for customer support and service inquiries) (50% | 46%), customer experiences (e.g., using AR to reimagine consumer experiences) (49% | 46%) and collaboration (e.g., using AR to drive interactive video conferencing) (49% | 44%).
- Executives report that their organizations would expect AR technologies to bring them improved operations (94% | 93%), talent related benefits (83% | 87%) and increased revenue/cost savings (51% | 43%) in the next three years.
- 81% | 89% of executives agree that smart materials have the potential to create new business opportunities for their industry and drive a new generation of capabilities, properties and form factors.
- Improved knowledge of the technology (39%) is among the top three factors that would increase the value of using emerging technologies such as AR and VR for consumers.

Technology Vision 2022 Global Business and IT Executive Survey. Global N=4,650. Travel N=109. Technology Vision 2022 Global Consumer Survey. Global N=24,000.



Appendix - The Unreal

Travel vs. Global Highlights

- 80% | 79% of executives report that their organization is dependent on AI technologies to function effectively. 96% | 95% of executives agree that "AI is becoming pervasive across my organization's business processes."
- 42% of consumers trust that AI technology is being used to improve their lives and experiences. 35% trust how it is being implemented by organizations.
- 35% of consumers are confident or very confident they can recognize or identify deepfake videos or synthetic content.
- 99% | 99% of executives report concern over deepfakes and/or disinformation attacks, among the top three areas of concerns being:
 - IT/security breaches (72% | 65%)
 - Fraud and scams (50% | 55%)
 - Reputational threats and damage (45% | 50%)
- 73% of consumers expect businesses to clearly communicate their use of AI as it pertains to the consumers' interactions with them. 77% of consumers agree and 45% strongly agree that organizations must be held accountable for their misuse of artificial intelligence.
- 96% | 96% of executives report that their organizations are committed to authenticating the origin of their data and genuine use of Al.
- Executives report that their organizations are planning to mitigate the risk of deepfakes and/or misinformation attacks by preparing proactively (87% | 85%) and implementing verification mechanisms (85% | 81%).
- 91% | 85% executives report that blockchain is going to be critical to their organization's ability to verify the origin of digital content.

Technology Vision 2022 Global Business and IT Executive Survey. Global N=4,650. Travel N=109. Technology Vision 2022 Global Consumer Survey. Global N=24,000



Appendix - Computing the Impossible

Travel vs. Global Highlights

- 97% | 91% of executives agree that their organization is pivoting in response to the unprecedented computational power that is becoming available.
- 52% | 69% executives say quantum computing will have a breakthrough or transformational positive impact on their organizations in the future, while 53% | 66% say the same for high performance computing (HPC) and 10% | 22% for bio-inspired computing.
- 97% | 94% of executives agree that their organization's long-term success will depend on the next-generation computing they leverage to solve the seemingly unsolvable problems not addressable by classical computing.
- 58% | 64% of executives believe that next-generation computing has the potential to destroy their organization's current business model.
- Executives recognize that next-generation computing has the potential to address previously unsolvable problems:
 - Quantum 98% | 98%
- HPC 99% | 99%
- Bio-inspired computing 56% | 65%
- 95% | 93% of executives agree that next generation computing will become essential to their organization's ability to reach its sustainability goals.
- 62% of consumers expect the companies they do business with to help them live their values through their purchases.
- 67% of consumers agree they expect companies to use technologies to solve society's large, complex problems because it will benefit them and their communities.
- 76% | 75% of executives are planning to partner with others in the next three years, while another 58% | 59% plan to invest in technology or startups to address previously unsolvable problems using next-generation computing.

Technology Vision 2022 Global Business and IT Executive Survey. Global N=4,650. Travel N=109. Technology Vision 2022 Global Consumer Survey. Global N=24,000



Sources

Technology Vision 2022 Global Business And IT Executive Survey | 2022 |
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• <u>Technology Vision 2022 Global Consumer Survey | 2022 | Accenture</u>



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Accenture Labs incubates and prototypes

About Accenture Labs

new concepts through applied R&D projects that are expected to have a significant impact on business and society. Our dedicated team of technologists and researchers work with leaders across the company and external partners to imagine and invent the future. Accenture Labs is located in seven key research hubs around the world: San Francisco. CA; Washington, D.C.; Dublin, Ireland; Sophia Antipolis, France; Herzliya, Israel; Bangalore, India: Shenzhen, China and Nano Labs across the globe. The Labs collaborates extensively with Accenture's network of nearly 400 innovation centers, studios and centers of excellence to deliver cutting edge research, insights and solutions to clients where they operate and live. For more information, please visit www.accenture.com/labs.

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