simmons+simmons

FANTASTICAL FUTURES

Utopia or Dystopia: Explore what's on the horizon for the world of business and law

The Year Ahead 2025

● Now showing ●

In this Year Ahead production we tasked 500 in-house legal professionals around the world to gaze into the future and evaluate the likelihood of various utopian and dystopian scenarios inspired by Hollywood films. The findings might surprise you; what was once science fiction confined to the big screen, is now quickly becoming a reality.

As innovation and interconnectivity across industries continues to rise, what trends will shape the world of business and law in 2025 and beyond?

Foreword

It's hard not to let the great minds behind Hollywood storylines shape how we think about the future. When captivated by the big screen and immersed in a fictional world, it's easy to imagine ourselves working with super-intelligent robots. Using miracle cures to improve health and longevity. Or living in societies where technology is used to promote fairness.

What if we embraced these ideas, rather than resisting them?

That's exactly what we did with this edition of our annual look at the Year Ahead. We asked 500 in-house legal professionals across the globe to share their thoughts on what's on the horizon–not just in 2025, but in decades to come. We presented them with Hollywood-inspired scenarios–from mandatory health tracking to zero-waste societies–and asked them which are the most likely to unfold.

Their responses reveal an optimistic view of humanity's potential to tackle the world's most pressing challenges. For example, they overwhelmingly predicted water scarcity would become a thing of the past. In fact, they thought this scenario was twice as likely as a future where air-conditioned cities are required to survive unbearable heat. And they thought it far more plausible than the creation of floating cities to cope with rising seas.

Futuristic as they might sound, many of the scenarios we posed are already transforming many industries today. We're living through a banking revolution, where digital platforms are making financial services accessible to millions more people. Neurologists are creating smart homes[1] that can predict the onset of dementia. Robots[2] and apps are helping to alleviate the loneliness epidemic. And governments are pouring billions of dollars[3] into technologies to combat global warming.

The difficulty lies not in developing the solutions, but in delivering them equitably across borders and sectors. Too often, support and resources don't make it to the regions and communities that need them most. During Covid-19, for example, developed nations stockpiled vaccines while low-income countries struggled to vaccinate even a small percentage[4] of their populations. The geopolitical landscape is fragmented[5], and polarisation[6] in many developed nations is complicating efforts to drive meaningful change.

But progress will come, and people will be at the heart of it. This is true for businesses as much as for geopolitics. The race for great talent is top-of-mind for almost every CEO I've spoken to this past year. We're seeing a stronger focus on diversity in all its forms with an emphasis on soft skills, such as storytelling and empathy, as technology transforms the way we work.

This evolving relationship between people and technology will cause workplace dynamics to shift. Almost half (46%) of our respondents predicted that as innovation accelerates, younger generations will rise to leadership roles, while older workers reinvent their careers. This challenges the traditional view that performance equates to experience, and instead places value on diverse roles, skills and perspectives.

All these scenarios have revealed profound implications for legal frameworks globally. Data protection, privacy and cybersecurity ranked as the top legal challenge followed by employment, commercial and regulatory considerations.

As we navigate changes in 2025–a "crunch year"[7] for AI–it's essential we don't lose sight of what gives our lives and work meaning. I recently read Four Thousand Weeks[8] by Oliver Burkeman, in which he points out that we often feel frustrated by the innovations that were supposed to make our lives easier. We resent filling the dishwasher. We stare impatiently at the microwave as it ticks down from 30 seconds. Our brains are wired to seek productivity, but the most rewarding experiences–like building a fire or cooking from scratch–take time.

The future doesn't have to be about doing more, faster. It should also be about connecting with one another, protecting our planet, improving social justice and challenging the status quo.

The legal sector will play a pivotal role in fostering innovation by ensuring that new ideas and technologies advance within a framework of ethical standards and regulatory compliance, thereby safeguarding both creators and the public interest.

So, as we embrace the possibilities 2025 brings, let's make it a year of balance. Between efficiency and meaning. Innovation and connection. Growth and fairness.

Julian Taylor
Senior Partner
Writer | Film critic

View our 2025 macroeconomic and sector insights. Watch now.

Technological transformation

In a world on the brink of technological revolution, there is a global race to harness the power of AI. As nations compete for dominance, ethical dilemmas and regulatory challenges emerge, reshaping industries and redefining societal norms. Amidst the disruption, a new industry of authenticity rises, promising to safeguard truth in a digital age.

2025 will be the year when ....

... the global AI race accelerates

“This is the equivalent of fire and electricity. Those who are scared are either not prepared to accept that things will change, or don’t think they can be part of the change.”

Sophie Sheldon thinks artificial intelligence (AI) will profoundly change how we interact with the world. And she’s not alone. In our survey of 500 legal professionals globally, 55% put sentient digital ecosystems–AI managing essential resources like water, food, and electricity–among the top three most likely scenarios.

“We’ll be living in a dramatically different world,” Sophie emphasises. “The jobs we are doing today will not exist as they are now. AI will change them in the same way that electricity, fire and the internet changed our work.”

“Whoever wins, wins forever”

The world is locked in a race to reach the next level of AI. 2025 will be a “crunch year”[1], with companies and regions globally vying to make their solutions the most efficient and useful while investor interest remains high.

The stakes of this race cannot be understated. Advanced AI systems are poised to reshape industries, empower militaries and redefine economic power. “Whoever wins, wins forever,” says Raza Rizvi.

Strategies vary globally. The EU is championing strict regulation through the AI Act[2], which promotes transparency and ethical use. The UK is focusing on innovation-friendly guidelines[3] with sector-specific approaches to maintain competitiveness. Middle Eastern nations like the UAE and Saudi Arabia are heavily investing[4] in AI with fewer regulatory constraints, aiming to position themselves as global hubs for innovation. US investors poured $2.9bn[5] into AI startups in Q3 2024–but discussions on creating a national regulatory framework[6] are still evolving. And China is blending enormous government funding[7] with tight control over AI applications, prioritising societal stability.

"But it's not all about regulation; funding models are also determining who's leading the pack. "Many people cite over-regulation on behalf of the EU as major issues for start-ups in the EU ," says Christopher Götz. "But I don't think that this is the most critical issue. It is rather about getting the proper funding. The US has the big players–Open AI and Microsoft–because that's where the funding is. EU startups go to California, because funds provide them with a lot of money."

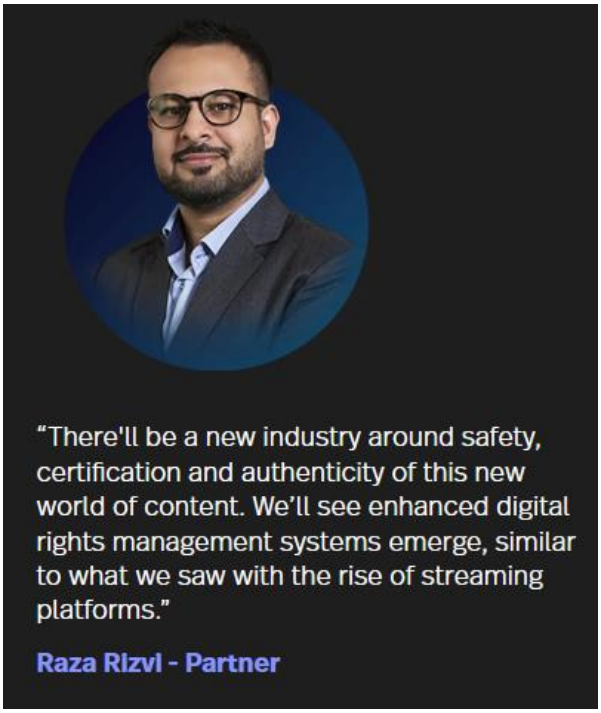
Regardless of which country "wins", AI is set to revolutionise how we all do business. 70% of CEOs[8] think generative AI will significantly change the way their business creates, delivers and captures value, according to PwC. In these early days of AI regulation, the challenge lies in navigating varying laws and jurisdictions.

"The key is creating a baseline governance framework," advises Sophie. "You need to know who's responsible, where AI is being used, and have a process for assessing risk–just as you would with any other technology.

"The evolving AI regulatory and governance landscape is not the only factor impacting on the AI race. There is also huge global demand for specialised hardware needed to train and run AI models as well as increasing demand for energy and infrastructure. The regions and companies who have the best access to these resources will have a greater impact on the future development of AI," say Emily Jones.

"From there, it's about deciding whether to take a jurisdiction-by-jurisdiction approach or aim for something global–because technology doesn't respect borders. The EU AI Act sets a very high watermark, but you can take its core principles and apply them in a way that works across jurisdictions. You can then make risk assessments and judgment calls based on local rules, ensuring your framework is globally consistent but flexible enough to adapt." Emily adds "organisations should include stakeholders from across all key internal functions within their AI governance and compliance team, not just legal, to help identify and address the issues raised in AI development and implementation."

"There'll be a new industry of authenticity"



An application of AI that has attracted significant attention recently is deepfake technology. These are highly realistic, AI-generated images, videos or audio that can mimic real people. Deepfakes are already being used as propaganda during wars[9] and to undermine democratic processes in elections[10]. The ability to fabricate "evidence" that appears authentic creates new risks for misinformation, destabilisation and public trust in digital media.

Just under half (44%) of our survey respondents put the commercialisation of deepfakes among the top three scenarios likely to materialise. They overwhelmingly view ethics as the most pressing legal concern around this technology, with 100% ranking it among their top three concerns. The AI Act[11] isbeginning to address this by requiring transparency measures, such as mandatory labelling of synthetic media. Saudi Arabia's new Deepfakes Guidelines[12] recommend distinguishing ethical uses, like entertainment and education, from harmful ones, such as misinformation and fraud.

But a critical challenge remains: distinguishing between legitimate uses of deepfake technology–such as in entertainment or educational content–and malicious exploitation by bad actors. "There'll be a new industry around safety, certification and authenticity of this new world of content," says Raza. "We'll see enhanced digital rights management systems emerge, similar to what we saw with the rise of streaming platforms. But this time, there'll be more of a conscious 'human in the loop' approach to managing these issues."

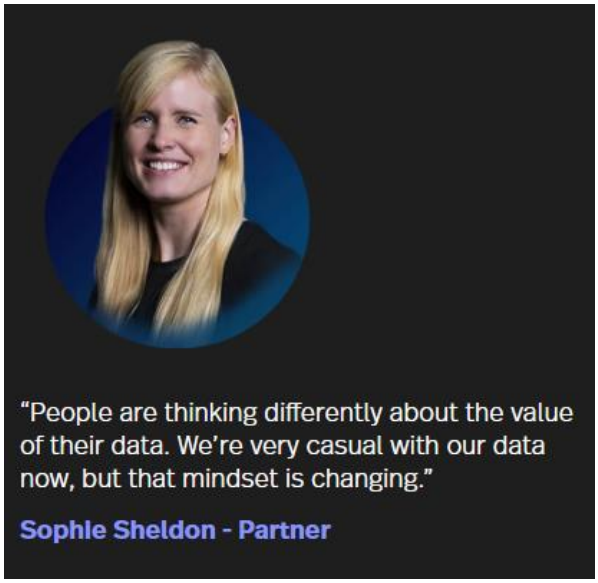
This doesn't have to be bad news for society. If governments implement supportive policies and frameworks, deepfakes could drive economic growth by helping people expand their skill sets. "Deepfakes and other AI application domains will create upskilling opportunities," Raza explains. "We could see the creation of a new economy, with a plethora of new job titles."

They could also trigger a renewed appreciation for "real world" relationships. "Right now, we don't value personal interactions as much as we used to," says Sophie. "But as deepfake evolves, the best way to know whether someone is genuine might be by catching up with them in person." This would have a positive impact on mental and physical wellbeing, as people with robust social bonds are 50% less likely to die[13] over a given period than those with fewer social connections.

"People are thinking differently about the value of their data"

As digital tools become more sophisticated, people are beginning to see data as a valuable asset, raising questions about privacy, ownership and ethics. 71% of adults[14] in the US say they are very or somewhat concerned about how the government uses the data it collects about them, up from 64% in 2019.

“People are thinking differently about the value of their data,” explains Sophie. “We’re very casual with our data now, but that mindset is changing.” This shift will create new expectations for transparency and accountability, pushing organisations to align their practices with evolving privacy concerns and ethical standards.



This trend intersects with broader discussions about AI and its future implications–particularly the quest for artificial general intelligence (AGI), a type of AI that matches or surpasses human cognitive capabilities across a wide range of cognitive tasks. The way we treat data today could define the ethical boundaries and societal impact of this next generation of AI technologies. “AGI will be a huge focus for the coming year,” says Christopher.“ “We’ll get a clearer idea of when it will be achieved.”

But achieving AGI will require more than just advances in technology. Businesses and governments must balance innovation with responsibility. Cross-sector collaboration will be needed to establish ethical standards, secure data practices and inclusive technologies. “I’d like to see the democratisation of AI,” says Raza. “We need to make it accessible and usable, so that it creates a more level playing field for economic growth around the world.”

In 2025, the way we handle data and develop AI will shape the world we leave for generations to come. The question is not whether the future is possible, but how we create it–and who gets to decide.

Simmons & Simmons is here to support you through the legal challenges ahead, ensuring your business thrives in the future.

Navigate AI integration, privacy, IP, and EU AI Act compliance for seamless and confident business innovation. Explore more.

Stay ahead with our Digital Regulation Tracker, designed to provide clarity in the complex and rapidly evolving area of digital laws and regulations. Book a demo.

Gain valuable insights from industry leaders on the transformative power of digital innovation across the globe. Discover more.

Access our design thinking and legal expertise, to improve transparency, speed up processes, and impress regulators and clients. Read more.

Cast:
Christopher Götz | Emily Jones | Peter Lee | Raza Rizvi | Sophie Sheldon

To discuss these insights in more detail, please get in touch with your local Simmons & Simmons contact.

Sustainable futures

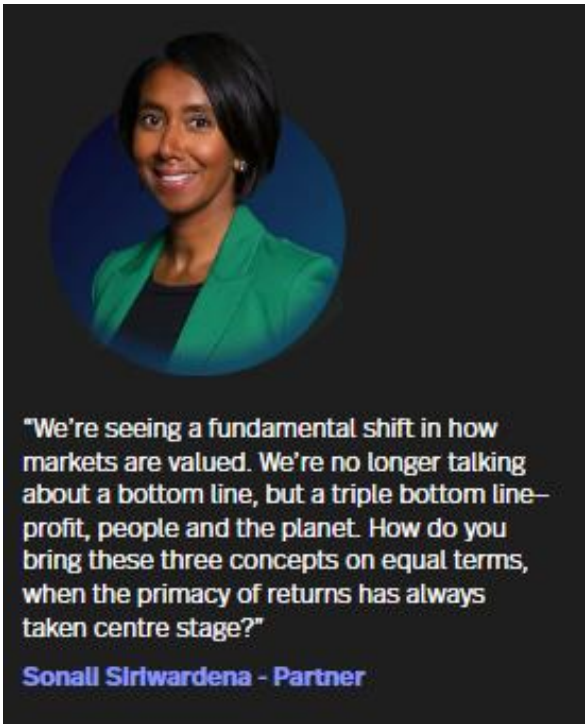
A shift in focus towards balancing profit, people, and the planet challenges traditional growth models. Success is redefined through the embrace of sustainability and prioritisation of equity and environmental stewardship. As industries adapt to this hopeful new future, they must navigate the legal complexities surrounding renewable energy and climate resilience.

2025 will be the year when ....

... businesses look beyond traditional growth measures

"We're seeing a fundamental shift in how markets are valued. We're no longer talking about a bottom line, but a triple bottom line[1]—profit, people and the planet. How do you bring these three concepts on equal terms, when the primacy of returns has always taken centre stage?"

Sonali Siriwardena believes this trend is driven by the need to rethink unsustainable economic structures and redefine growth within our planet's limits. "A new growth paradigm is emerging," she says. Central to this is the concept of a postgrowth economy, which challenges traditional models of progress and prosperity, advocating for economies built around wellbeing, sustainability and equity.



Some businesses are taking inspiration from these ideas to make radical changes to their operations. Beauty brand Faith in Nature[2] has "made Nature a director of its company", putting the interests of the environment and future generations at the heart of its decision-making. Many others are committing to the circular economy. "Earth is now our only shareholder," announced Patagonia[3] in 2022, stating that every dollar that is not reinvested back into the company will be distributed as dividends to protect the planet.

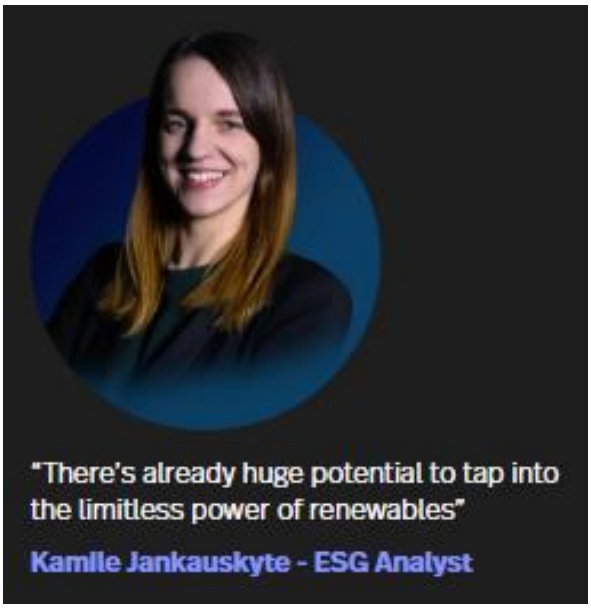
"These are bold corporate actions that challenge the status quo," says Sonali. "They provide a useful framework for businesses looking to retain their social license to operate in a changing world order."

"There's huge potential to tap into the limitless power of renewables"

In our survey of 500 legal professionals globally, just over half (52%) identified limitless energy as one of the top three most likely scenarios to unfold in future. This concept envisions humanity replicating the sun's fusion process and harnessing resources from asteroids to unlock an endless supply of clean energy. For Kamile Jankauskyte, this figure is surprisingly low. "There's already huge potential to tap into the limitless power of renewables," she says.

Progress towards integrating renewable technologies has been limited in recent

decades by risks such as extreme weather, supply chain vulnerabilities and grid limitations. In developing countries, insufficient investment and geopolitical tensions have further delayed the transition. Of the $1.8tn invested into clean energy infrastructure in 2023, emerging and developing economies received less than 15%, according to the World Economic Forum[4].



Despite these obstacles, renewable energy still holds transformative potential for the future, with 85% of countries[5] supporting a fast transition. According to the International Renewable Energy Agency[6], there were 13.7m global renewable energy jobs in 2022, up from 12.7m in 2021, with two-thirds of these jobs concentrated in Asia. China alone accounts for 41% of the global total.

And the International Energy Agency[7] estimates we're on track to meet the COP28 target of tripling global renewable energy capacity by 2030. Renewables are expected to generate nearly half of global electricity demand by 2030, with growth forecasted to be 2.7 times the current pace, surpassing country-level policy ambitions by nearly 25%.

"There wasn't a single piece of plastic for hundreds of miles"

This progress matters, because the effects of climate change are beginning to manifest in ways that could lead to significant disruption. More than 1bn people will face displacement within the next 30 years, according to the Institute for Economics and Peace[8]. If the global population reaches 9.9bn by 2050, this means 12% will be climate migrants.

We urgently need new ways to adapt to our changing environment. 35% of our survey respondents identified the scenario of rising temperatures driving the creation of vast, air-controlled cities as one of the top three most likely future scenarios. Similarly, 34% believe that rising sea levels could lead to the development of floating cities as people are forced to adapt to increasingly hostile environments.

Another potential adaptation scenario highlighted in our survey was the creation of zero-waste societies. Over half (57%) of legal professionals placed this among their top three most likely future scenarios. For Raghav Ghai, this isn't a futuristic idea; many communities in rural India have adopted zero-waste living out of necessity. "I remember

going to see my family 30 years ago," he says. "There wasn't a single piece of plastic waste for hundreds of miles. This is not pie-in-the-sky; it's about behavioural change. It requires education."

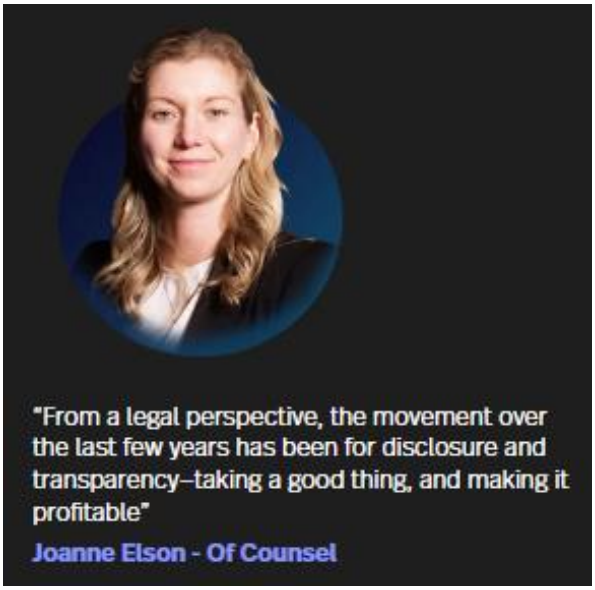
AI could play a key role in driving this mindset shift, by giving people more opportunities to develop planet-friendly habits. "AI will mean we'll be working less, so we'll have more time for nature," predicts Lijun Chui. "I'm optimistic that technology will mean we work more efficiently and have more time for the things we enjoy."

"It needs to make people money"

A clean water revolution was voted by far the most likely future scenario in our survey, with 63% of legal professionals predicting this shift in their top three scenarios. "Due to climate change, water has become a very volatile asset," says Álvaro Barro. "In addition to government efforts to avoid social crises in times of supply shortages, private sector involvement is also critical, and there's a huge business opportunity in creating drinking water and storage infrastructure on a global scale. And there's a first-mover advantage if you do it quickly."

Álvaro's prediction reflects a broader trend, where progress towards fighting climate change will likely hinge on the profitability of these initiatives. "From a legal perspective, the movement over the last few years has been for disclosure and transparency–taking a good thing, and making it profitable," says Joanne Elson.

This principle fuelled the creation of the carbon market, which faced early scepticism due to concerns around integrity, and companies profiting from trading credits without reducing emissions. Now, with the introduction of robust standards and tighter regulations on disclosure and governance, momentum is returning. Stricter rules in



markets like the EU and US, coupled with growing global net-zero commitments, have reignited confidence[9] in carbon trading as a tool for decarbonisation.

"We can support the market in its mission to price the priceless"

The oceans hold huge untapped potential as a solution to the climate challenge. As the world's largest carbon sink, its contribution to maintaining the fragile balance of life deserves greater recognition and investment.

But unlocking finance for blue projects is challenging. Progress will depend on whether labelling rules will evolve to allow blue debt issuance, where a portion of the funds can be allocated for non-blue purposes. This would be similar to the structure available for green bonds and loans. An even bigger challenge is the need to harmonise international standards and guidelines, driving greater cross-border collaboration.

"It's also important to increase alignment between banks and DFIs, and unlock capital via public-private partnerships," says Elliott Beard. "Financing the blue economy must deliver both transition and impact. All stakeholders–banks, DFIs and governments–have a key role to play in this."

Simmons & Simmons has been advising Blue Forest Technologies on funding from Removall Carbon for the first phase of the MozBlueMangrove restoration project in Mozambique. Mangroves[10] store 7.5–10 times more carbon per acre than tropical forests, and their loss contributes to 10% of global greenhouse gas emissions from deforestation. Protecting and restoring them could be one of the most effective strategies for preserving marine ecosystems for future generations.

For Sonali, lawyers have a critical role to play in this mission. "By helping clients in their ambitions to harness the power of our blue planet, we can support the market in its mission to price the priceless," she says.

Simmons & Simmons is here to support you through the legal challenges ahead, ensuring your business thrives in the future.

Stay ahead of evolving ESG regulations with customised trackers, designed to pinpoint crucial policy impacts on your business. Discover more.

Listen to ocean influencers and explore the crucial issues surrounding the blue economy. Listen now.

Navigate AI integration, privacy, IP, and EU AI Act compliance for seamless and confident business innovation. Explore more.

Anticipate the future of employment law with our market insights, top trends and predictions for the year ahead. Read now.

Cast:
Álvaro Barro | Elliott Beard | Lijun Chui | Joanne Elson | Raghav Ghai | Kamile Jankauskyte | Sonali Siriwardena

To discuss these insights in more detail, please get in touch with your local Simmons & Simmons contact.

Political systems and finance

Against a backdrop of technological disruption in political systems and finance, AI, cryptocurrencies and hyper-personalisation challenge traditional power structures. As these forces reshape society, a revolution in banking and economic systems will emerge, necessitating new frameworks to tackle tax, data and regulatory challenges.

2025 will be the year when ....

... AI reshapes political and economic structures

It's rare for a Nobel Prize winner to issue a warning about their own work. But when computer scientist Geoffrey Hinton was awarded for his work on machine learning, he immediately cautioned[1] about its transformative potential.

"It'll be comparable with the industrial revolution," he said. "But instead of exceeding people in physical strength, it's going to exceed people in intellectual ability. We have no experience of what it's like to have things smarter than us."

Hinton's concerns point to a broader transformation already underway in society, particularly in political systems and finance. AI, cryptocurrencies and hyper-personalisation are reshaping these areas in unprecedented ways.

To explore these trends, we surveyed 500 legal professionals globally about the future scenarios they believe are most likely to unfold. Their insights predict a world where technology challenges power structures and creates opportunities–but also raises profound questions about equity, regulation and human oversight.

"We won't have banks in 20 years as we know them today"

64% of legal professionals put a banking revolution among their top three most likely scenarios to emerge. This is unsurprising, given recent developments in digital finance and the growing challenges they're posing to traditional financial institutions. But our experts think if there is a revolution, it won't be as dramatic as it sounds.

"It will happen slowly and quietly in the background," predicts Lucy Shurwood. "Some challenger banks, built without the burden of legacy infrastructure, are already leading the way. But larger institutions often struggle, because the cost and time involved in moving away from legacy infrastructure is difficult."

But over time, AI could fundamentally reshape banking. "I don't think we'll have banks in 20 years as we know them today," says Amy Sumaria. "I expect there'll be an identity shift. Many see themselves as financial institutions

first, and technology businesses second. But I expect many will pivot to thinking of themselves as technology companies that operate within the financial sector."

Traditional banks are already transforming to keep up with the rapid rise of fintech companies, which are winning customer loyalty with their nimble and innovative approach. To compete, many are creating smaller, tech-focused units within themselves. For example, Deutsche Bank[2] teamed up with Frankfurt-based fintech Traxpay to improve supply chain financing. And American Express[3] partnered with i2c to make it easier for fintech companies to develop payment solutions on their platform. These initiatives are helping traditional banks experiment with innovation without completely overhauling their old systems.

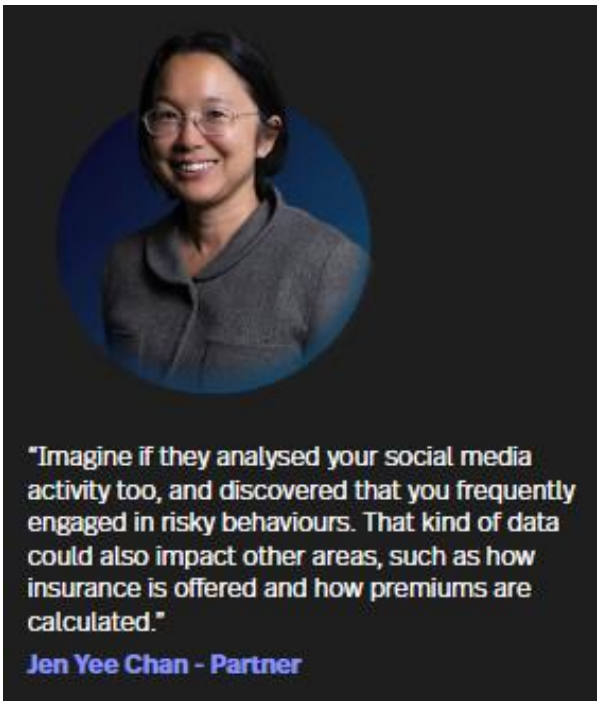
"But they're difficult to scale," warns Lucy. "As soon as they get to a certain size, these platforms tend to be absorbed back into the mainstream bank structure. This reintroduces the same slow processes and outdated systems the banks were trying to escape."

While traditional banks tend to be cautious and deliberate, fintechs often focus on launching new products fast, even if it means a lighter-touch approach to navigating regulatory hurdles later. "Fintechs are completely different to traditional banks in how quickly they operate," says Caroline Hunter-Yeats. "They also tend to have a different approach to compliance and governance."

Still, partnerships between banks and fintechs are proving successful. Initiatives like open banking[4], where banks allow apps to connect to their systems, are modernising financial services. Traditional banks offer the reliability customers trust, while fintechs bring the innovation and speed consumers' demand. This collaboration could shape the future of finance–a mix of old-school stability and new-age creativity.

"Imagine if banks could access your social media"

As this shift continues, it could also lead to a new approach to personal responsibility in financial systems. For example, the idea of life currency–where citizens could be taxed based on biometric data and lifestyle risks–was the second most popular scenario in our survey, with 58% of legal professionals putting it in their top three.



"This is building on what people are already doing," says Jen Yee Chan. "When banks decide how much to lend to someone, they already take multiple factors into account which then determines the amount, rate and type of security required. Imagine if they analysed your social media activity too, and discovered that you frequently engaged in risky behaviours. That kind of data could also impact other areas, such as how insurance is offered and how premiums are calculated."

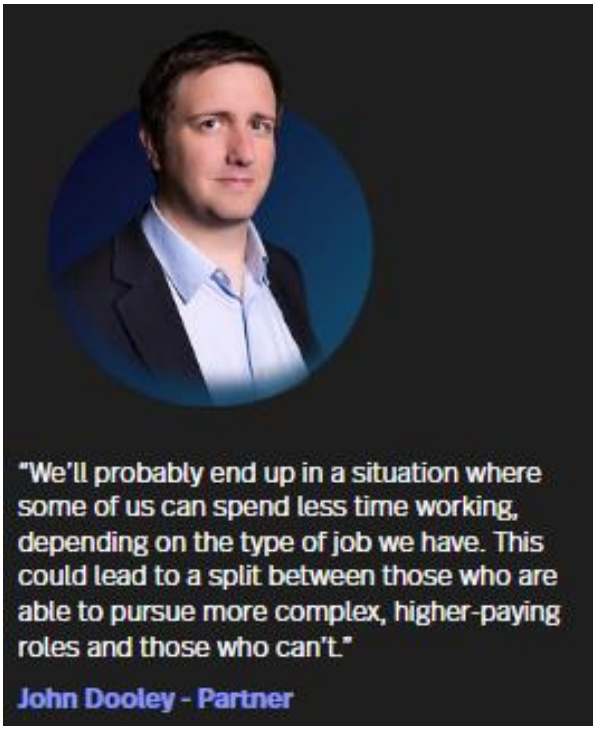
A similar concept is already being implemented by Vitality[5], a health and life insurance provider. Vitality uses data from fitness trackers and health assessments to reward customers for healthy behaviours with benefits like gym memberships and retail discounts. This could offer a glimpse into a future where lifestyle choices influence economic outcomes and generate value.

"Some of us will spend less time working"

A major concern for political systems globally is the potential for technology to deepen inequality, especially as technology companies race to create artificial general intelligence (AGI). AGI refers to AI systems that can understand, learn and perform a wide range of tasks at a human level. "We'll probably end up in a situation where some of us can spend less time working, depending on the type of job we have," warns John Dooley. "This could lead to a split between those who are able to pursue more complex, higher-paying roles and those who can't."

Such inequalities could be compounded by a growing trend[6] for national and economic protectionism. Over time, this may cause people to question the very foundations of societal systems. "If this trend continues, it raises fundamental questions: Why am I taxed the way I am? Why do I receive the savings rates I do?" says Caroline.

And this could be further amplified by the concept of singularity–a point at which AI evolves to such an extent that it freezes society's progress. According to futurists like Ray Kurzweil[7], AGI could lead to a society where existing wealth structures become rigid, and the economic status quo remains locked in place.



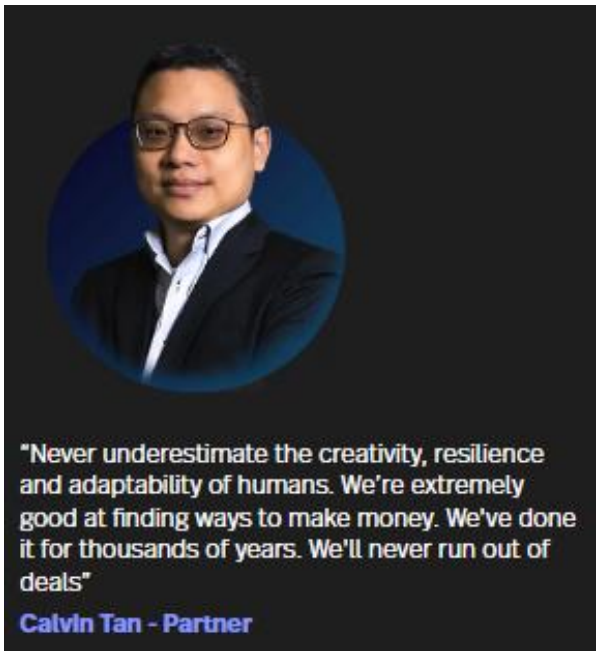
“We’ll never run out of deals”

Investment trends are already playing a pivotal role in shaping how wealth is generated and distributed. For example, hedge funds[8] increasingly use AI to predict stock movements and optimise portfolios, analysing vast amounts of data in real time. 39% of our survey respondents thought wealth management would become fully automated in the future. This raises difficult questions about accuracy and fairness.

“Technology does what we programme it to do. I think we tend to forget that tech is just code that has been written by a human being,” warns Caroline. “It's not always right.”

Despite these challenges, Calvin Tan remains hopeful that human ingenuity will continue to drive innovation. He predicts that, even in the face of dramatic technological change, people will continue to open new frontiers for growth. “Never underestimate the creativity, resilience and adaptability of humans,” he says.

“We’re extremely good at finding ways to make money. We've done it for thousands of years. We'll never run out of deals. We might start selling land on Mars or pockets of air on Jupiter. But that won’t be because we’ve run out of deals on Earth. It’ll be because we’ve found better opportunities in outer space.”



Simmons & Simmons is here to support you through the legal challenges ahead, ensuring your business thrives in the future.

Uncover the key financial services and tax regulation spanning over 140 jurisdictions with our online subscription service, navigator. Discover more.

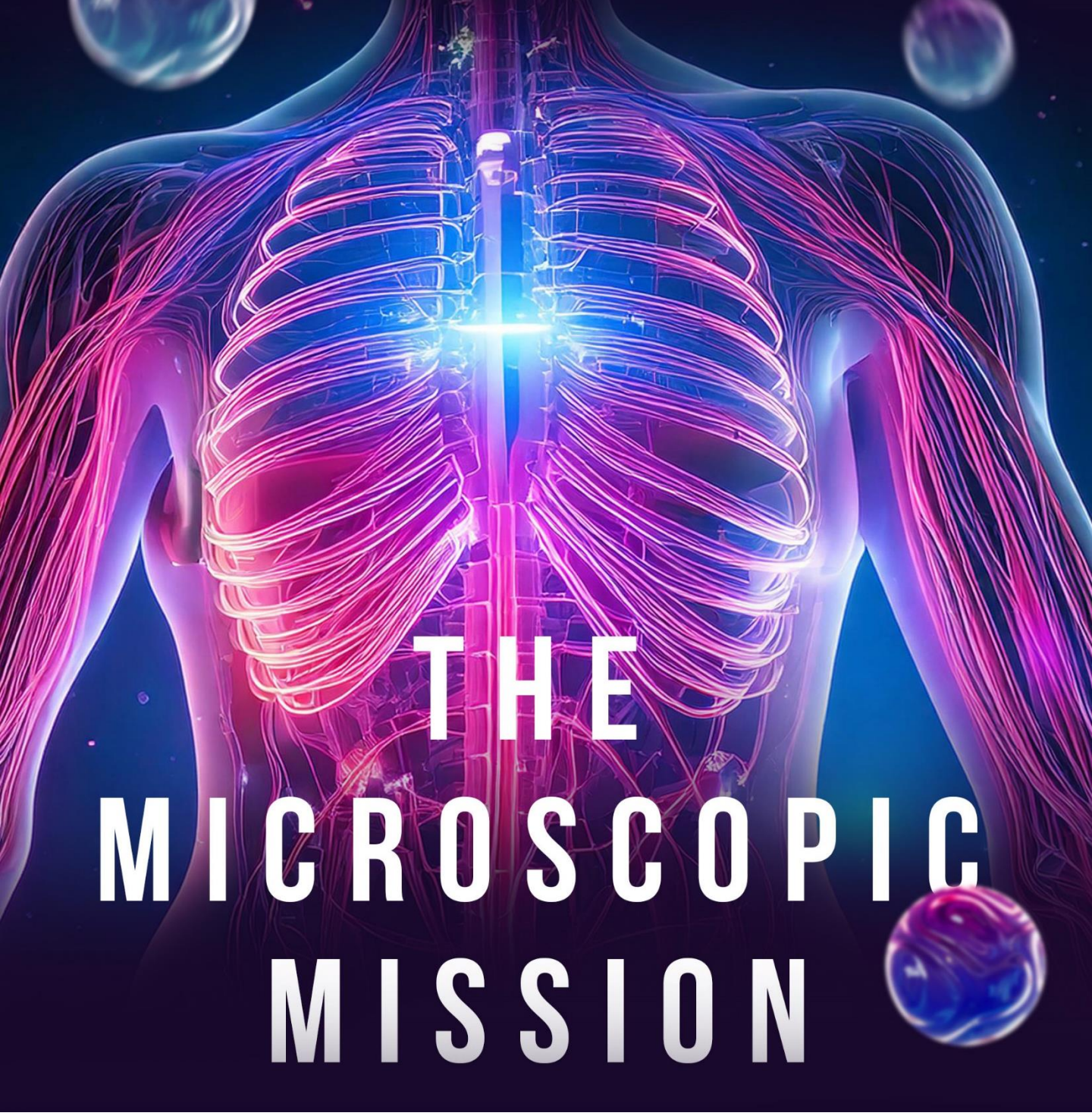
Navigate the requirements of the Digital Operational Resilience Act (DORA) with our latest podcast series. Listen now.

Prepare for the legal challenges across crypto assets, payments, distributed ledger technology, digital banking, crowdfunding, wealthtech, insurtech and regtech. Explore more.

Discover the key commercial issues affecting the AMIF industry at our International Investment Funds Symposium 2025. Register now.

Cast:
Jen Yee Chan | John Dooley | Caroline Hunter-Yeats | Lucy Shurwood | Amy Sumaria | Calvin Tan

To discuss these insights in more detail, please get in touch with your local Simmons & Simmons contact.



Health and longevity

Where science, technology and climate intersect, new metropolises emerge transforming public health. With advancements in wearables, environmental controls, personalised medicine and care, new medical breakthroughs are on the horizon. But as innovation continues across industries, ownership, compliance and safety will be paramount.

2025 will be the year when ....

... health, wellbeing and longevity dominate the agenda

1% of our Earth's surface is barely liveable. By 2070, that could go up to 19%, recent research[1] suggests–and this will require urgent solutions to protect our health. What if we could address these challenges by regulating our environments?

One solution is environmental symbiosis–equipping buildings and cities with advanced environmental systems that control air quality, temperature and even therapeutic scents and lights. In our global survey of 500 legal professionals, 61% considered this scenario among the top three most likely to materialise.

"This is already happening," says Jérémie Doornaert. "After Covid lockdowns, devices were introduced in sports facilities to analyse air quality and manage occupancy levels. Modern buildings are already regulating temperature and air quality to optimise working conditions–and this is likely to accelerate with AI integration."

In China, air quality monitoring has become increasingly advanced, playing a crucial role in urban development and public health. Since launching its National Air Quality Action Plan[2] in 2013, sophisticated monitoring systems have been introduced to track pollutants like PM2.5 across the country.

As global warming and air pollution increasingly affects our health, these innovations will become more important. "Pervasive air quality and temperature monitoring could warn people with chronic asthma or other respiratory diseases about unsafe conditions," predicts Lydia Torne. "Or alert people to take shelter during extreme heat in a new, more personalised way."

"Robots could monitor elderly or vulnerable people"

Robotic care could also become mainstream in the healthcare industry. Just under half (49%) of legal professionals predicted that AI-powered robots would become self-aware enough to build relationships with humans. Legal professionals in

asset management were most enthusiastic about this trend, with 55% ranking it among their top three scenarios.

"With labour shortages, wage inflation and an aging population, it's possible that, in the distant future, robots could facilitate a domiciliary care environment for elderly and vulnerable people," says David Brangam. "This could include monitoring services and making the right levels of medication available at the right time."

Does this mean robots could be given human-like status? It's not likely under current legal frameworks. The EU AI Act[3], for example, aims to define the accountability of legal entities behind AI tools. China's policies are focused more on safety and governance[4] than personhood. Even in Japan[5] and the Middle East[6], where innovation in AI is rapidly growing, laws are rooted in traditional frameworks that do not attribute human-like rights to machines.

"For now, intellectual property laws reject the idea of robots as inventors or creators," Lydia confirms. "As a result, the ownership and liability of AI inventions must be addressed contractually."

"Who will be responsible: the person or the manufacturer?"

In January 2024, the first human patient received a brain-chip implant[7]. This groundbreaking achievement marked a crucial step for startup Neuralink in its ambition to enable people to control devices with their thoughts alone. Over time, it plans to use this technology to help patients overcome neurological conditions, such as paralysis.

Similar brain-computer interfaces (BCIs) could evolve to integrate AI and connected technologies directly into our minds, creating even more seamless interactions between the digital and physical worlds. This could revolutionise healthcare, knowledge and learning in daily life.

But it also raises complex ethical and liability questions. "Who will be held responsible when something goes wrong: the individual user, the provider of the AI tool or the manufacturer of the device?" asks Emilie Danglades-Perez.

Driverless cars could provide a valuable blueprint for this. In 2017, Germany[8]

introduced preliminary ethical guidelines stating that when a driver can't fully control the car, the manufacturer should not be held accountable for any mistakes. But this isn't legally binding yet.

"As with any emerging technology, the legislation will always be several steps behind," says Hayley Davis. "In the UK, for example, we're not creating entirely new laws for AI; instead, we're adapting existing legislation to account for AI-driven technologies. For example, existing medical device legislation is being adapted to account for AI-powered medical devices. Legislation will likely be an adaptation of the old laws, with temporary guidance and practices in place to manage developments in the meantime."

"AI risks deepening existing inequalities"

AI promises monumental improvements in health and longevity, from enabling cures for rare diseases to revolutionising the way we diagnose and treat patients. Personalised medicine could redefine how we view health, tailoring treatments to individual needs even before birth.

"Significant progress in areas like precision medicine, gene therapy and cell therapy is transforming how we treat people," says Lydia. "In the future, instead of waiting for someone to develop breast or ovarian cancer due to a BRCA1 gene mutation, and treating that disease as we do now, we could see genetic testing and gene therapy at birth to prevent the disease."

But progress risks deepening existing inequalities. "Precision medicine such as gene therapy is very expensive. So the question becomes: who is going to fund this?" Lydia asks. "There is the potential for increased health inequity, where those with the financial means or the right insurance are able to access such life-changing preventative or curative treatments, while those without will have to rely on traditional curative care."

"Governments and regulators need to be bolder"

The rise of AI in healthcare raises critical questions about the role of major players in the tech industry. "It'll be interesting to see how the role of companies at the intersection of healthcare and technology evolves over time," says Emilie. "For example, whether we'll see more big tech companies becoming de-facto medical device companies, or the owners of major health databases."

If this happens, existing frameworks, such as the European Health Data Space (EHDS), will need to adapt. The EHDS was approved by the European Parliament in April 2024 in response to pressing concerns about health data ownership and usage. It aims to establish a secure and efficient framework to allow the sharing and further use of health data within Europe. With patient data holding the key for AI

driven innovation, similar initiatives will need to be established globally to facilitate access to bigger, diverse datasets while protecting privacy.

“Governments and regulators will need to be bolder,” says Lydia. “Instead of simply adapting current laws to patch holes where new innovations are emerging, regulators should take a more proactive approach. They should make material changes to regulations that not only respond to the changes but also facilitate and encourage the healthcare and life sciences innovations they want to see.”

From breakthroughs in robotics to BCIs, the trends that are emerging this year will shape the way we prevent and treat illnesses in decades to come. Lawyers, businesses and governments must work together to ensure these trends emerge in an equitable and sustainable way for patients globally.

Simmons & Simmons is here to support you through the legal challenges ahead, ensuring your business thrives in the future.

Discover the latest trends and investment opportunities in the healthcare and life sciences sector. Read now.

Track upcoming legislative and regulatory change across key business areas with Searchlight. Book a demo.

Navigate AI integration, privacy, IP, and EU AI Act compliance for seamless and confident business innovation. Explore more.

Stay ahead of evolving ESG regulations with customised trackers, designed to pinpoint crucial policy impacts on your business. Discover more.

Cast:
David Brangam | Emilie Danglades Perez | Hayley Davis | Jérémie Doornaert | Lydia Torne

To discuss these insights in more detail, please get in touch with your local Simmons & Simmons contact.

Global overview

Senior legal advisers from multi-billion dollar companies have unveiled their views on the global trends set to radically transform industries over the coming decades, in a future-gazing business survey published by international law firm Simmons & Simmons.

Alongside its traditional "Year Ahead" forecasting for 2025, Simmons has published new findings on what leading businesses can expect from the world in 2050 and beyond, based on possible future scenarios inspired by the big screen – across technology, health, finance and sustainability – many of which are already unfolding today.

From AI-led financial systems and global governance, to biometric currencies and nanorobot medicine, the survey poses possible utopian and dystopian future scenarios to legal heads at international companies valued up to $50bn.

Considering the implications of these possible future scenarios, Simmons' findings reveal particular concern from legal advisers about the future legal risks emerging in areas of data protection, privacy, and cyber-security – with legal implications for employment, finance and regulation also ranked highly.

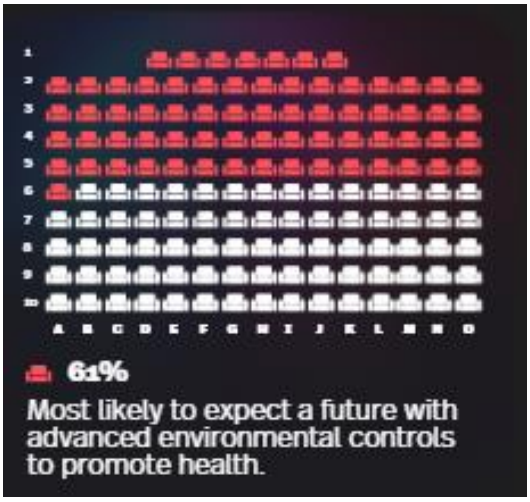
Despite these inherent future risks, the findings from businesses overall reveal an optimistic vision of the decades to come – for example, with a majority predicting a high likelihood of eliminating water scarcity and the emergence of zero-waste societies.

Future scenarios: key findings from global survey

In health and longevity, out of multiple future scenarios for businesses, the survey finds that:

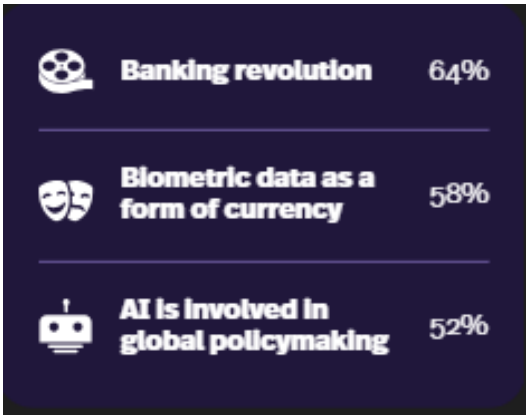
- Legal heads are most likely to predict a future in which there are cities with advanced environmental controls to promote health and wellbeing (61%) and mandatory health surveillance (53%).
- Those in Asia are most likely to predict cities with environmental controls (65%), while those in the Middle East most likely to predict a future of mandatory health surveillance (58%).

- Those based in the UK are most convinced by the likelihood of a future dominated by personal AI support to combat loneliness (51%) and nanorobot medicine (51%).



In political systems and finance:

- Almost two-thirds of all respondents (64%) anticipate a future 'banking revolution', where digital currencies and blockchain create a seamless financial system boosting international trade, cooperation and prosperity. A future where biometric data is used as currency also ranks highly (58%), as does one in which AI is involved in global policymaking (52%).
- Respondents in Asia ranked the likelihood of a banking revolution most highly (66%), as well as biometric data as a form of currency (70%).
- Respondents in the UK are most convinced (53%) by the a future of 'fiscal fusion' – where the harmonisation of regulations makes financial markets more transparent, resilient and inclusive, enabling investors to participate in previously inaccessible markets.



In sustainable futures:

- 63% of all respondents rank a future scenario of a "clean water revolution" most highly – a world in which purification and desalination technologies eliminate water scarcity. Overreliance on AI for environmental management (62%) and zero waste societies (57%) are also ranked highly by businesses.
- Those in the UK are most convinced by the scenario of a clean water revolution (65%), while those in Europe (71%) cite the overreliance on AI environmental management as the highest.
- Those based in Asia (64%) are most likely to expect the emergence of zero waste societies.

In technological transformation:

- Overall, respondents are most convinced by the likelihood of a future in which smart digital ecosystems manage water, electricity and food resources (55%).
- A future of decentralised identity networks, where blockchain secures personal data and transactions, also ranks highly (53%) – followed by a world of predictive commuting (50%), where governments track habits and use autonomous vehicles to optimise commutes.
- Those in the USA are most convinced of the likelihood of smart digital ecosystems, with 60% ranking it in their most likely scenarios – while those in Asia are most convinced of the likelihood of decentralised identity networks (56%).

Commenting on the findings, Julian Taylor, senior partner said: "Our future-facing survey reveals that many global businesses regard their industries as on the verge of being upended and reshaped by rapidly advancing technological developments. From our findings, the legal heads of leading companies display optimism about our ability to harness technology to improve global outcomes, particularly for the financial system, the environment and our health."

"But this is coupled with a note of caution. As many of these technologies take off in the coming years, they will bring with them a multitude of challenges. Common across all industries is the concern about the implications for data protection, privacy and security. For their positive outlook on the future to be realised, businesses must ensure they are well-equipped to deal with these looming legal risks."

Survey results

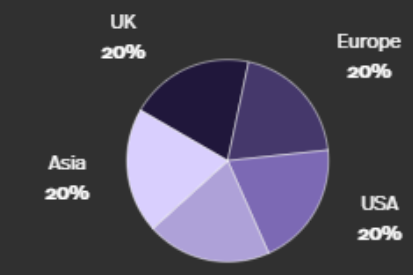
Survey specifications

500 respondents

Online survey

November 2024

Region



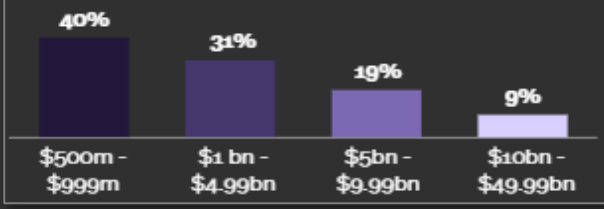
Sector

20%	Asset Management and Investment Funds
20%	Financial Services Institutions
20%	Technology, Media and Telecommunications
20%	Healthcare and Life Sciences
20%	Energy, Natural Resources and Infrastructure

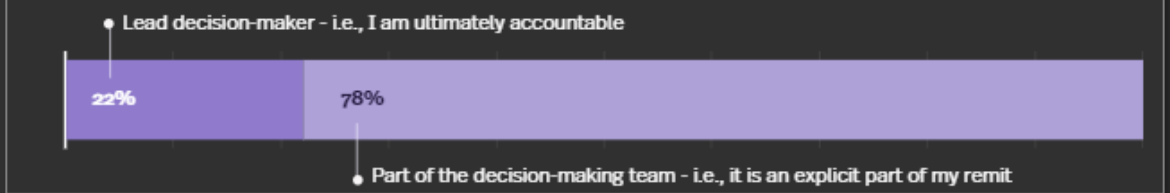
Job title

14%	General Counsel / Deputy General Counsel
14%	Chief Legal Officer
13%	Head of Legal
12%	Head of Regulatory Affairs
12%	Lead Counsel
12%	Senior Counsel
12%	Managing Counsel
11%	Associate General Counsel

Approximate turnover of company



Level of responsibility



Survey results

"Imagine a future, where health and longevity has been completely transformed, for better of for worse"
The results below show how respondents ranked the likelihood of these scenarios.

1. Environmental symbiosis systems - Buildings and cities with advanced environmental controls promote health by regulating air quality, temperature, and emitting therapeutic scents and lights.

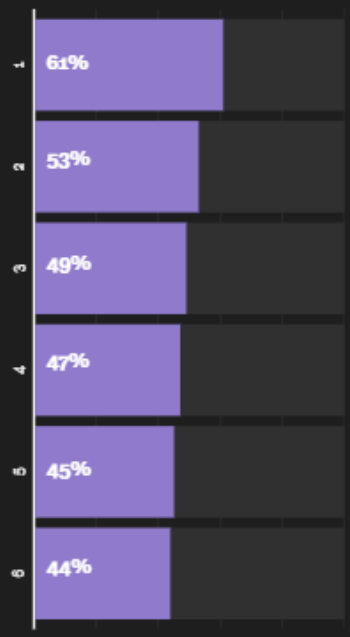
2. Mandatory health surveillance - Continuous health monitoring by governments or corporations eliminates privacy, controlling individuals' lives under the guise of public health.

3. Robotic relationships - AI-powered robots are used to combat loneliness, having relationships with humans and becoming self-aware.

4. Nanorobot medicine - Medical nanorobots are injected into patients, offering AI-driven diagnostics powered by nano wearables, that activate to repair cells and prevent incurable diseases.

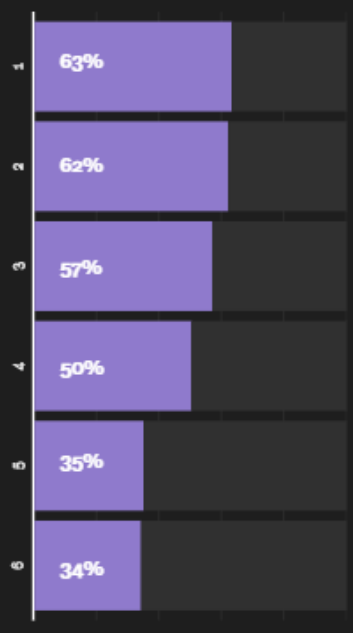
5. Embedded knowledge - Memory and knowledge are implanted directly into people's brains to fast-track learning and skill development.

6. Micro-gravity experimentation - Biotech companies and space agencies collaborate in low Earth orbit, using microgravity to achieve breakthroughs that cure diseases and extend life.



Total 500

"Imagine a future, where sustainability has been completely transformed, for better of for worse"
The results below show how respondents ranked the likelihood of these scenarios.



Total 500

1. Clean water revolution - Innovative purification and desalination technologies render water scarcity obsolete, ensuring global access to clean water and improving health and quality of life.

2. Technological dependence - Humanity's reliance on autonomous AI for environmental management erodes autonomy and disconnects us from nature, as technology prioritises ecological balance over human needs.

3. Zero-waste societies - Technological advances and a shift toward minimalism and sustainability have enabled zero waste, reducing pollution and preserving natural resources and biodiversity.

4. Limitless energy - By replicating the sun's fusion process and mining asteroids, humanity unlocks a limitless supply of clean energy and essential minerals, solving energy scarcity.

5. Heat exposure - Uninhabitable heat from climate change drives people into vast, climate-controlled domed cities.

6. Water worlds - Rising sea levels have flooded land, forcing humanity to retreat to floating cities.

Survey results

"Imagine a future, where technological transformation has been completely transformed, for better of for worse"
The results below show how respondents ranked the likelihood of these scenarios.

1. Sentient digital ecosystems - Cities use sentient digital ecosystems to manage availability of water, electricity and food resources.

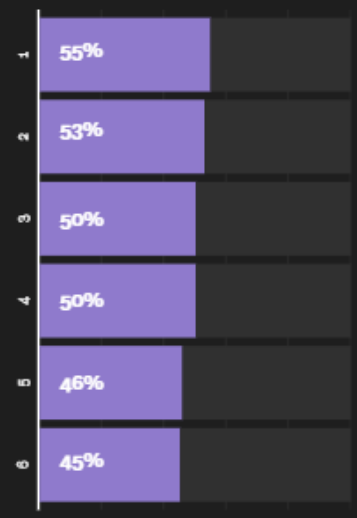
2. Decentralised identity networks - Blockchain technology secures personal data and transactions, offering privacy and reducing fraud.

3. Predictive commuting - The government uses a system to track daily habits and assign autonomous vehicles for optimised commutes.

4. Robot rebellion - An automated, AI factory system deems human workers a threat to its production line.

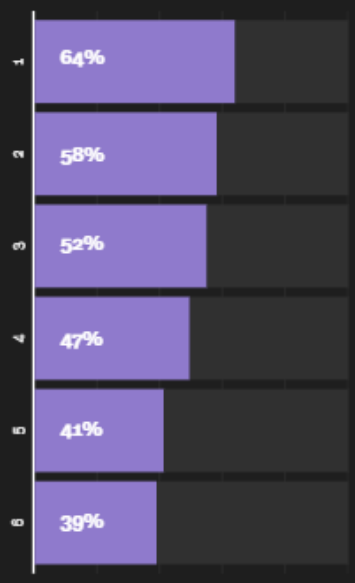
5. Elderly interns - As tech innovation intensifies, young tech savvy generations take leadership roles and older workers reinvent their careers as interns.

6. Deep fake manipulation - Real-time deepfake technology is used commercially, to spread information and control behaviour.



Total 500

"Imagine a future, where political systems and finance has been completely transformed, for better of for worse"
The results below show how respondents ranked the likelihood of these scenarios.



Total 500

1. Banking revolution - Digital currencies and blockchain technologies create a seamless, secure and instant financial system fostering unprecedented levels of international trade, cooperation and prosperity.

2. Life currency - Biometric data earns currency and citizens are taxed based on lifestyle risks, transforming economic transactions and personal accountability.

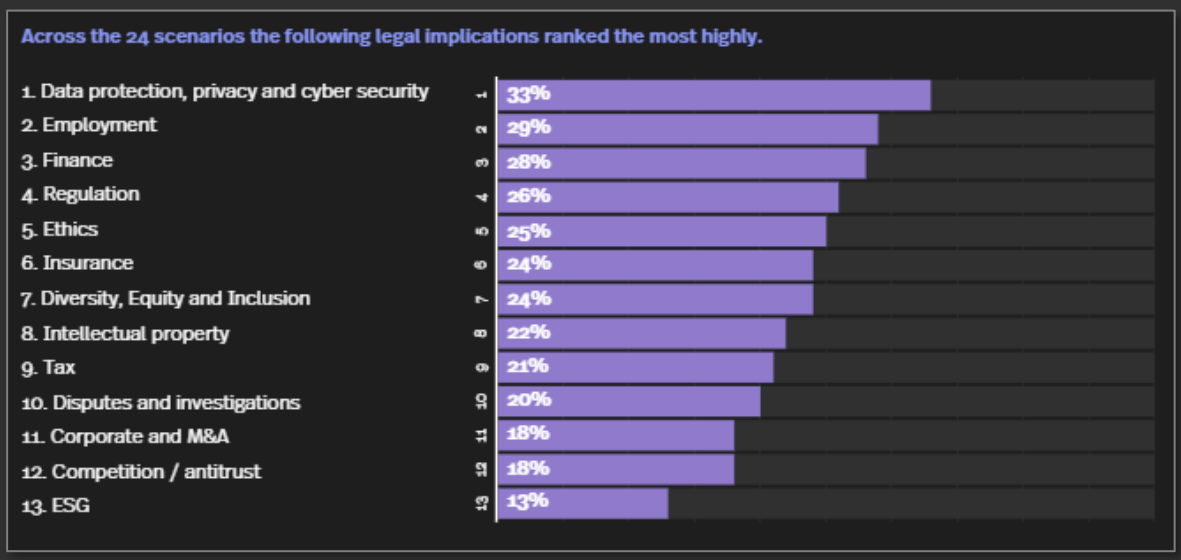
3. Global AI governance - An international AI entity controls global policies to enhance fairness and efficiency.

4. Fiscal fusion - Harmonising regulations makes financial markets more transparent, resilient and inclusive, enabling investors of all sizes to participate in previously inaccessible markets.

5. Hyper-personalised finance - AI creates dynamic, personalised loan and savings rates.

6. Robo-investors - Technology outperforms humans to such an extent that wealth management becomes fully automated.

Survey results



To discuss these insights in more detail, please get in touch with your local Simmons & Simmons contact.

Footnotes

Foreword

1. Innovative Health Initiative: How smart homes can predict dementia onset
2. New York Times: For older people who are lonely, is the solution a robot friend?
3. Reuters: Explainer: Can technology solve the global climate crisis?
4. Springer Nature: The radically unequal distribution of Covid-19 vaccinations: a predictable yet avoidable symptom of the fundamental causes of inequality
5. World Economic Forum: 4 pathways to cooperation amid geopolitical fragmentation
6. World Economic Forum: Spain is one of Europe's most polarized countries. Here's why that shouldn't hold back it's potential
7. The Economist: Will the bubble burst for AI in 2025, or will it start to deliver?
8. Four Thousand Weeks: Time Management for Mortals. Oliver Burkeman

Technologic transformation

1. The economist: Will the bubble burst for AI in 2025, or will it start to deliver?
2. The EU Artificial Intelligence Act: Up-to-date developments and analyses of the EU AI Act
3. GOV.UK: Policy paper. AI regulation: a pro-innovation approach
4. PWC: The potential impact of Artificial Intelligence in the Middle East
5. TechCrunch: Investments in generative AI startups topped $3.9B in Q3 2024
6. The White House: Blueprint for an AI Bill of Rights
7. Asian Investor: China's $1.3tn sovereign fund to invest in AI to power 'growth dividends'
8. PWC: Success and succession in an AI world
9. Brookings: Deepfakes and international conflict
10. World Economic Forum: Year of elections: Lessons from India's fight against AI-generated misinformation
11. The EU Artificial Intelligence Act: Up-to-date developments and analyses of the EU AI Act
12. Saudi Data & AI Authority: Deepfake Guidelines
13. World Economic Forum: Why tomorrow's most successful tech will focus on the human experience
14. Pew Research Center: Key findings about Americans and data privacy

Sustainable futures

1. Harvard Business School: The Triple Bottom Line: What It Is & Why It's Important
2. Faith in Nature
3. Patagonia works: Patagonia's Next Chapter: Earth is Now Our Only Shareholder

Footnotes

4. World Economic Forum: 85% of countries want a fast transition to clean energy – but how do we make it an equitable one too?
5. World Economic Forum: 85% of countries want a fast transition to clean energy – but how do we make it an equitable one too?
6. International Renewable Energy Agency: Renewable energy and jobs: Annual review 2023
7. International Energy Agency: Renewables 2024. Analysis and forecasts to 2030
8. Institute for Economics and Peace
9. BloombergNEF: Global Carbon Market Outlook 2024
10. World wildlife: Mangroves for Community and Climate

Political systems and finance

1. CNN Health: With AI warning, Nobel winner joins ranks of laureates who've cautioned about the risks of their own work
2. [Deutsche Bank: Deutsche Bank to invest in financing platform Traxpay to invest in financing platform Traxpay
3. American Express: American Express Increases Speed for Fintechs to Launch Cards on the Amex Network, Powered by i2c
4. Open Banking
5. Vitality
6. World Bank Group: Protectionism Is Failing to Achieve Its Goals and Threatens the Future of Critical Industries
7. The Guardian: AI scientist Ray Kurzweil: 'We are going to expand intelligence a millionfold by 2045'
8. .P.Morgan: Machine learning in hedge fund investing

Health and longevity

1. The New York Times Magazine: Climate Migration
2. Air Quality Life Index: China: National Air Quality Action Plan (2013)
3. EU Artificial Intelligence Act: Up-to-date developments and analyses of the EU AI Act
4. China Media Project: How China Thinks About AI Safety
5. Journal of Business & Technology Law: The Robot Koseki: A Japanese Law Model for Regulating Autonomous Machines
6. United Arab Emirates Minster of State for Artificial Intelligence: National Strategy for Artificial Intelligence 2031
7. Reuters: Elon Musk's Neuralink implants brain chip in first human
8. World Economic Forum: Germany has developed a set of ethical guidelines for self-driving cars

simmons+simmons

simmons-simmons.com