

Will the Australian property sector seize the upside of disruption?

■ ■ ■ ■ ■
The better the question.
The better the answer.
The better the world works.



EY
Building a better
working world

“We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten. Don't let yourself be lulled into inaction.”

Bill Gates¹



The importance of looking to the **future**

For Australia's biggest industry, responding to these dramatic shifts is particularly challenging because of the extended life of buildings. The cities and infrastructure we build today will serve generations of Australians to come.

We don't claim to have a crystal ball. We do, however, believe in the fundamental importance of thinking critically about the implications embedded in disruptive forces as well as scanning the horizon for new developments.

The Property Council of Australia, Green Building Council of Australia and EY will continue to contribute to megatrend thinking for the property industry. We present this report as an introduction and will follow with more in-depth thought leadership and events to inform the industry, so that it may embrace the upside of disruption.

We hope the report is the catalyst for the industry to challenge its assumptions about the future so that it is preparing for change on all fronts.

Doug Bain

Market Segment Leader for Real Estate,
Ernst & Young, Australia

Ken Morrison

Chief Executive,
Property Council of Australia

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Chief Executive Officer,
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¹ Bill Gates, Nathan Myhrvold and Peter Rinearson, *The Road Ahead* (Viking Penguin, 1995).

Setting the **scene**

Disruptive innovations are rapidly gaining acceptance around the world - and as they do, they are becoming business-as-usual at light-speed.

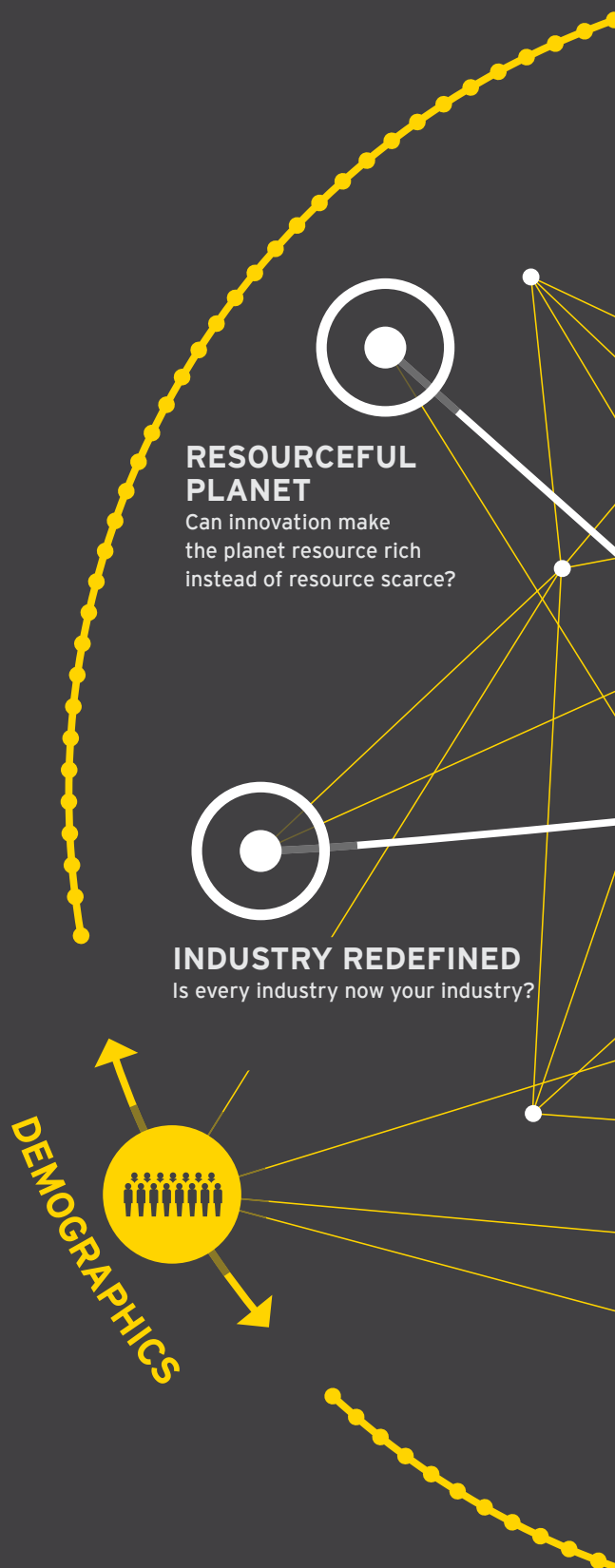
Behind disruption lies three root causes: **technology**, **globalisation** and **demographics**.

While these forces are not new - indeed, they have been around for centuries - how they evolve and interact will drive the waves of disruption.

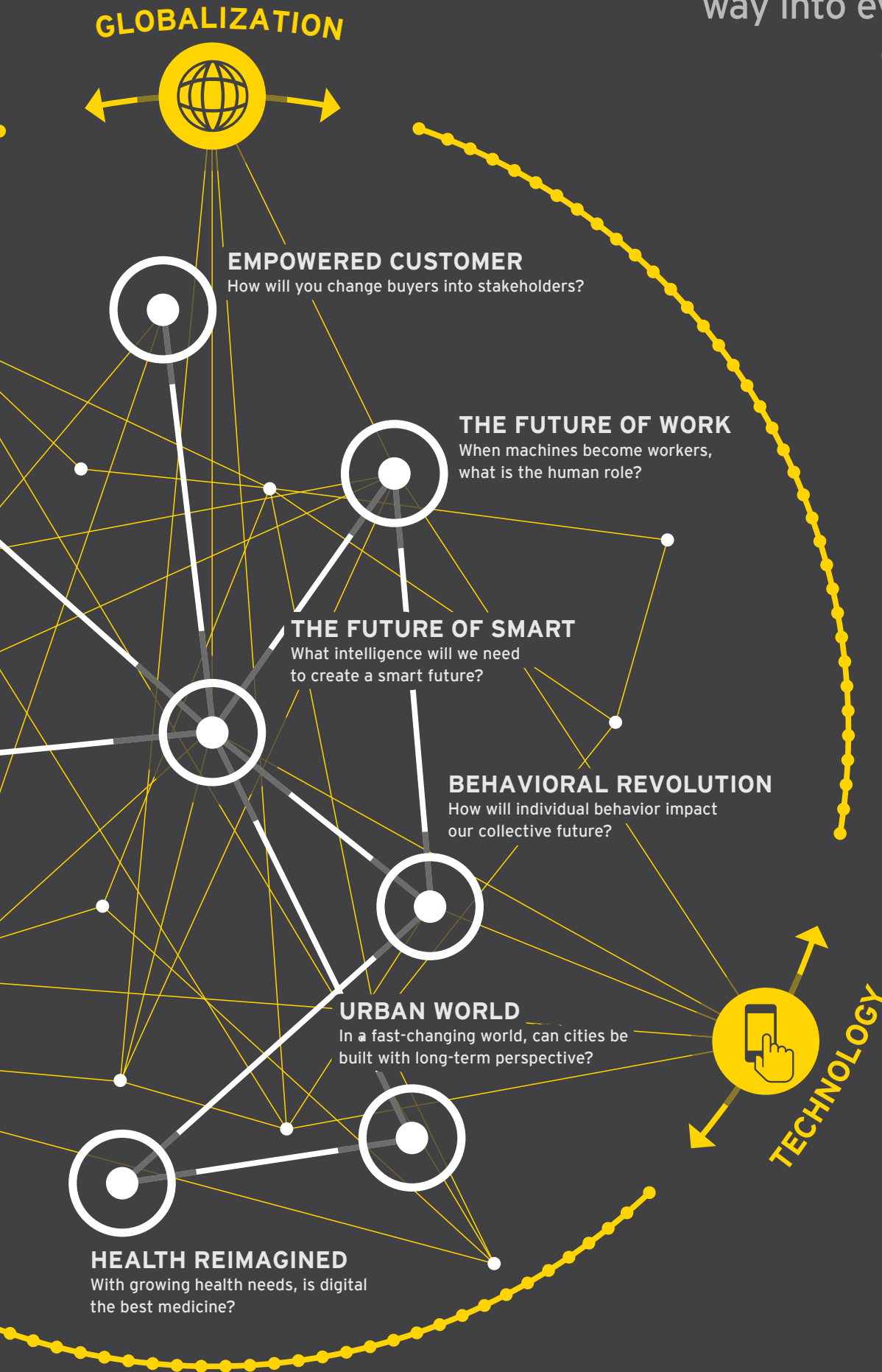
By understanding the interaction between these three forces, we've identified eight global megatrends that are shaping the future.

These are large, transformative trends that define the present and determine the future through their impact on businesses, economies, industries, societies and individual lives and are explored in an EY Global report *The Upside of Disruption*.

Increasingly, companies are aware that they need to rethink the way they operate. Despite this, just a handful of companies have successfully disrupted their own business models. Netflix, for instance, switched its business model from one centred on DVD home deliveries to one built on streaming. More recently, auto giant Daimler has begun experimenting with moves into car-sharing and ride-sharing. Meanwhile, hundreds, perhaps thousands, of firms - from Blockbuster to Kodak - failed to adapt in time.



Disruption has worked its way into every sphere of our lives.



Safe as houses?

With physical assets that are built to last, the property industry can feel immune to the rapid innovations disrupting other sectors. While bricks and mortar can feel 'safe', the processes required to create a building, the business model which delivers it and the societal norms which drive it can all be disrupted.

The way property is constructed, transacted, valued and invested can all change, and all can affect profitability and returns.

"In retrospect, all revolutions seem inevitable. Beforehand, all revolutions seem impossible." This observation, attributed to Michael McFaul, former US Ambassador to Russia, is just as applicable to business and economic revolutions as it is to political ones.

Our research suggests that the industry may underestimate the impact of the disruptive forces starting to emerge. The difference between those businesses that thrive in the new economy, and those that risk irrelevance and unprofitability, may hinge on one deciding factor: their ability to proactively seize the opportunities unearthed in the disruptive power of these megatrends - or at the very least quickly react to such disruptions.

The industry sees itself in the business of creating, selling and managing assets. But is it really?

The property industry creates the places where people live, work and play. So, what happens when technology and disruption fundamentally shift how we live our lives and therefore the kind of spaces we need and desire?

Steve Jobs famously said, "A lot of times, people don't know what they want until you show it to them." What happens if an Apple or a Google - a world-class disruptor with brand of such power and influence - moves into the property space? Will this redefine what consumers want?



Smarter cities

come with

cyber risks

with more connected buildings and infrastructure creating new risks, as cyber-threats enable profound disruption to cities and to companies.

The study

EY conducted research in association with the Property Council of Australia and the Green Building Council of Australia. More than 550 of the industry's executives and senior managers responded to a survey with 40 possible scenarios relating to the megatrends most likely to impact property.

Participants were asked:

- ▶ Each scenario's likelihood of occurrence by 2030
- ▶ Its expected level of impact
- ▶ How prepared are you?

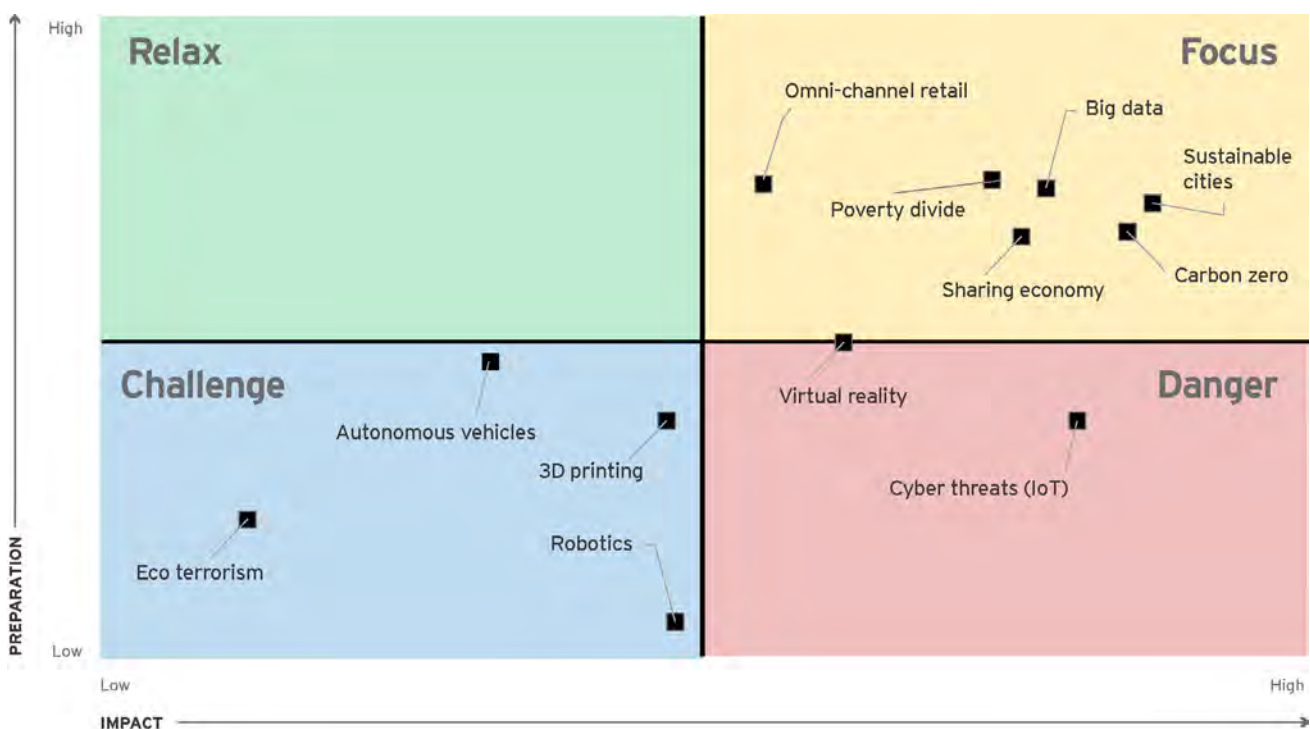
EY also conducted in-depth interviews with 15 real estate CEOs to gain insight into the future developments they are actively preparing for and how they believe these disruptive forces will play out.

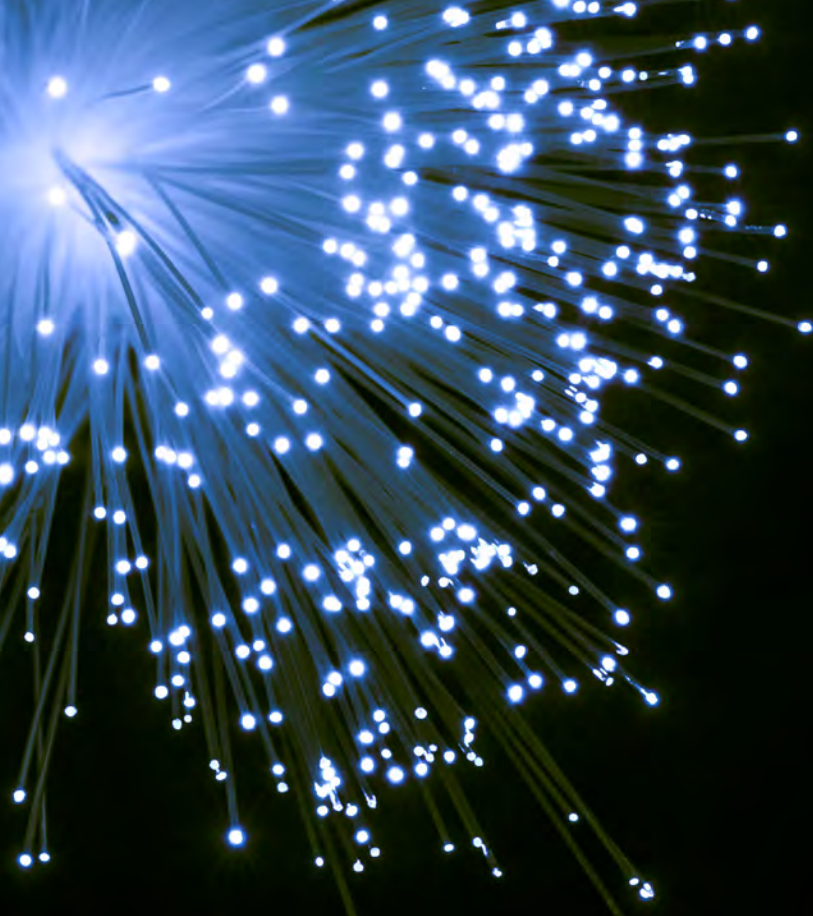
Disruption is requiring all industries to respond to shifts that would have seemed unimaginable even a few years ago.

Disrupted or disruptor?

When disruption upends incumbent business models, it challenges many of the most basic assumptions underpinning those models.

The first, and most important, step in self-disruption involves challenging long-held assumptions about matters as fundamental as the nature of your business, customers and competitors. The below graphic takes the results of the survey and plots them on the EY Threat Matrix to assess the impact and preparedness of disruptive forces. These results are relative to how they relate to one another which subsequently reflects how the sector perceives immediate risk and impact. Based on the 550 survey responses we have plotted the key disruptive forces and the industry's assessment of their likely impact and the level of preparedness for them. The quadrants show how the industry sees these forces relative to each force.





An alternate perspective

Autonomous vehicles



We believe there are still big question marks around timing however when it comes, this will have a vast impact on the sector and what people require from their built environment.

The level of preparedness is logical given the timing and implementation is unknown.

We wonder whether the impact of this technology is properly recognised?

Robotics



We believe robotics will have a high impact on the sector from back office impacts through robotic process automation, to the impact of cognitive and artificial intelligence in transforming the roles humans play.

It will also initiate societal shifts around what people and companies need from their places of work. This technology is a new force for all industries and as it is applied the impact may be re-assessed.

Big data



It is positive to see the importance the industry is placing on big data recognising its impact and the need to address this trend. Our view however is that the industry is only at the tip of the iceberg in terms of how they use big data to drive commercial and customer insight and, significantly, how they may leverage this to have significant contributory impact to revenue.



Growth or innovation?

Our world is changing rapidly - and as it does many companies are grappling with how to embrace innovation.

We believe innovation needs to become synonymous with growth. And this demands an approach that allows ideas to be created, tested and 'deployed or destroyed' at a rate that allows property companies to lead new thinking - or at least follow fast.

New technology, delivery solutions and business models should all be considered. Innovation should not be restricted to digital and technology - it should apply to all aspects of planning, delivering and operating assets.

This includes funding and financing mechanisms, business processes, supplier management, community and stakeholder engagement, revenue generation and security. The role of the public sector in catalysing and supporting innovation is important. A more collaborative approach is essential.


While the potential impact and trends are many and ever-changing, we think there are a number that require the industry's debate, interrogation and creative thinking.

☞ The convenience and cost savings of on-demand fully autonomous vehicles, especially in cities, will mean that consumers will decide to forego personal vehicle ownership in as little as 10 years. For real estate companies, this means disruption to the way we connect with home, office and leisure destinations. Garages, petrol stations and car parks will need to be repurposed and those ready for this shift will have an advantage. ☞

Kristin Schondorf
EY Global Automotive and Transportation Lead for Mobility



The upside of disruption


Blockchain which **streamlines** the real-time transfer of any asset in a **secure and cost effective** way, could **increase** the **speed and transparency** of transferring title in property transactions verifying permits and qualifications.

Machine learning


and **artificial intelligence** could predict everything from **project delays** to **property price fluctuations** and aid the design and delivery elements of construction.


Additive manufacturing

could change the way buildings are constructed, maintained and upgraded with the simplicity of producing parts whilst contractors are onsite. Bespoke design for **better** aesthetic, ergonomic and safety outcomes, **reducing** supply chains and delays becomes **cost effective**.

Wearable cameras could be worn on construction sites to **manage behaviour, promote safety and compliance** and **reduce disputes** arising from building inspections.

IoT sensors on building sites could lead to **fewer safety incidents**, better co-ordination of contractors and **'just in time'** delivery and work, and **increased transparency and accountability**.

3D laser mapping could **enhance** site inspections, progress reports, maintenance requests and proof of work.


Digital convergence in retail shopping will become **seamless** as retailers and property managers use digital technologies to converge the online with the in-store experience.

Robotics could aid in construction and has the potential to make onshore manufacturing viable again, creating industrial property opportunities.

Offsite production and prefabrication will continue and **grow** and could include medium as well as small buildings.

Drones will beam **bird's-eye real time images** to maintenance worker's smart phones to show the issues that need to be addressed and could have application for site monitoring and surveying.

Motion sensors could be placed throughout facilities to allow building managers to **understand the space utilisation of their buildings in real time** and manage controls and cleaning and maintenance services.

Visitor analytics will be used to collect data to create bespoke experiences for customers.



Trends in property

Digital technologies

Blockchain technology has the potential to streamline and accelerate business processes, increase cybersecurity and reduce or eliminate the roles of trusted intermediaries or centralised authorities. It will also impact transparency in purchase and sale transactions, thereby reducing or eliminating property fraud and risk and potentially increasing attractiveness of 'riskier' markets.

Blockchain: is being piloted in land title registries in Honduras, Greece, Sweden, Ghana and Georgia.

Additive manufacturing (3D printing): could change the way buildings are constructed, maintained and upgraded with the simplicity of producing parts while contractors are onsite. Bespoke design delivering better aesthetic, ergonomic and safety outcomes, reducing supply chains and delays, becomes cost effective.

Compromised cybersecurity

The average time to detect a cyber attacker's presence in a company's system is 140 days, compromising not only its proprietary business information, but also sensitive customer data.

With more connected buildings and infrastructure there are new risks, as cyber-threats enable profound disruption to cities and companies.



Robotics

Robotics could predict everything from project delays to property price fluctuations and aid the design and delivery elements of construction. There are three key layers:

Rule-based automation: robots that follow a set of pre-defined rules that describe tasks

Enhanced/intelligent process automation: robots that can understand unstructured data, human communication and draw conclusions from data cross-checking

Cognitive platforms: robots that learn from experience in the same way as humans do in order to perform complex tasks without human interference

Robots have already been deployed in the property industry in roles including receptionist and cleaner, and they are being trialled for monitoring and surveillance.

Industry views

“ There's been no innovation in construction methodology and it's ripe for disruption. Prefabrication, less on-site work, less injury, a safer, faster environment... we see that as a really important disruptor into the building space. And we want to be part of that, not victim to that.”

CEO
Australian construction company

“ If people can print their own clothes and print their own items, that has a pretty profound impact on shopping.”

CEO
Australian REIT

“ I am convinced there are only two types of companies: those that have been hacked and those that will be.”

Robert Mueller
Former Director, FBI

“ We look at it in the smartest buildings we have. We always keep complete manual overrides so you can still operate manually. Systems can be hacked. It's making sure you build up really strong firewalls and redundancy. And making sure your systems aren't too interconnected... that you can create breaks.”

CEO
Australian construction company

“ The big retailers will use robotics for logistics because they have the size and the scale and the dollars to invest into it.”

COO, Australian REIT

“ There are many cases where an AI system will augment the intelligence, knowledge and awareness of an expert like a finance executive ... with big, important and complex decisions, you may see AI systems providing advice or recommendations to help the human decision-maker, and back up those recommendations based on its ability to gather, ingest and make sense of vast amounts of structured and unstructured data.”

Loren Williams, Chief Data Scientist,
EY Global Analytics Center of Excellence

Smart future

Connectivity: It is estimated that more than one billion “things” excluding smartphones, tablets and PCs, will be connected in commercial buildings alone by 2018. This is up 35 per cent from 2015 (377m).

Use: The ability to assimilate, analyse and make decisions in more complex and scalable ways than ever before enhances effectiveness, enabling the optimal use of assets, power grids, transportation networks, production lines, supply chains, and cities.

Smart assets will link to analytics that collect data to create bespoke experiences for customers and build revenue-generating data streams.

Smart assets focus on delivering better health outcomes with wellness being a key buying and investment criteria.

Collaboration: The private sector will drive the acceleration of ‘smart cities’ strategies in precincts where an industry sector has had control and the smart concept is proven. Scaling it to entire cities will require sectors such as technology, finance, real estate and energy working cohesively with governments to see major gains in citizen benefits and productivity.

The sharing economy

Empowered customer: The sharing economy enables people to participate in enhanced leisure experiences, business opportunities and conveniences that were, in the recent past, out of reach for many.

We are moving rapidly towards a more self-service focus, creating intense competition in the service industries. Understanding and adopting the technologies disrupting the brokerage and leasing space can complement the traditional model.

Asset utilisation: A lot of high-value enterprise assets such as CT scanners, MRI machines and office space, have fairly low utilisation rates.

Asset-intensive industries where assets are not highly utilised will experience the biggest levels of disruption and supply shocks. Construction and mining equipment manufacturer Caterpillar’s alliance with US start-up Yard Club allows contractors to rent machinery to each other between jobs, converting slack periods into cash.

Autonomous transport

Vehicles: Autonomous vehicles trials are occurring in more than 40 cities around the world.

- ▶ Australia has commenced trials in Melbourne and Adelaide.
- ▶ In the UK, members of the public trialled a driverless electric car
- ▶ Uber introduced driverless cars in Pittsburgh
- ▶ Singapore kicked off on-demand driverless taxis
- ▶ An autonomous bus transported passengers in France

Analysts predict that autonomous vehicles will eliminate up to 90 per cent of the current parking spaces in cities with remaining repurposed as charge stations to power up fleets of electric vehicles.

Drones: Heavy investment in drone technology will enable delivery with the potential to include human transportation. Drones can be used in a multitude of ways: to aid design and space visualisation; to report maintenance issues; and to provide site monitoring and surveying. Advanced algorithms, drones, delivery routes and autonomous vehicles are all well-funded technologies in different phases of market adoption. Amazon, DHL, Matternet and Flirtey all have drone trials underway.

Industry views

“My belief is that all companies today are at least 50 or 60 per cent technology companies, but none in property behave that way.”

CEO, Australian REIT

“For offices, technological innovation is enabling us to interact with clients in new ways. Tenants are increasingly requiring greater flexibility - be that through shorter-term leases or faster move-in times.”

CEO, Australian REIT

“Governments need to prepare for significant demographic shifts through improving the connectivity of infrastructure or there will be serious losses to productivity in our urban areas.”

CEO, Australian REIT

“Intermediaries are going to be most at risk of disruption from technology and vertical integration.”

CEO, Australian REIT

“The rise of the industrial Internet of Things (IoT) will transform asset utilisation rates by enabling organisations to take potentially shareable assets and put them into real-time digital marketplaces. This is where the industrial IoT becomes the ‘economy of things’.”

Paul Brody
EY Technology Sector Strategy Leader

“With the internet and mobile phone technology, I don’t think we’ve seen the same sort of productivity gains that you saw with cars and mobilisation. I wonder whether autonomous vehicles could be the next real shift.”

CEO, Australian REIT

“Most in the automobile industry agree that self-driving vehicles will be deployed by 2020.”

Richard Holman, Head of Trends, General Motors

“I really consider autonomous driving a solved problem... I think we are probably less than two years away.”

Elon Musk, CEO and founder, Tesla



Resilient cities

Rapid urbanisation and population growth are generating global pressures. We are on track for a world in 2050 of more than nine billion humans, 70 per cent of them living in cities.

“It is an inescapable fact that our cities are growing. As more people move to our cities for jobs, opportunities and prosperity, our work is to make our cities places where people, families and businesses can thrive. It’s a big job and governments will be incapable of delivering it alone. Instead, we will require new partnerships between governments and business to plan, fund and deliver the infrastructure and jobs of the future.”

Ken Morrison
Chief Executive, Property Council of Australia

We now have no choice but to design smart, connected and sustainable infrastructure to accommodate this global growth. If we are to cope with the growing strains of urban population, then cities must be liveable, competitive and sustainable – environmentally, financially and socially. They must also create opportunity. We have seen a rise in the ‘trust deficit’ being faced by governments and corporations. The relevance of this to the property sector is particularly relevant when you consider the link between property ownership, urban access and inequality.

While urbanisation generally affords economic opportunity, it also presents significant resource risks. Rapid urbanisation is contributing to global resource depletion, while some of the potential effects of climate change, such as flooding and other extreme weather events, will hit cities hardest.

One successful case study of this approach can be found in Barcelona. The city – like so many others – was searching for ways to stave off economic and developmental stagnancy following the 2008 recession. To help save money and optimise the urban infrastructure, the local government employed the latest computing

technologies and embraced “smart city” initiatives in 12 areas including water and lighting. This helped reduce congestion and emissions via sensors that led drivers to empty parking spaces; created a sensor network to monitor precipitation and humidity, allowing officials to target irrigation; and installed nearly 20,000 smart meters to measure energy consumption and improve efficiency, among other efforts.

In total, Barcelona calculates that it saved \$37 million from smart lighting, \$58 million from smart water measures, and increased cash flow from parking by \$50 million, thanks to the city’s Internet of Things implementation.

In Los Angeles a simple move of switching the city’s street lamps to LED bulbs equipped with mobile sensors is saving the city \$8 million a year.

“Real estate companies have made great contributions to cities through placemaking efforts. In the future the data they contribute will be as critical to the city’s potential as the design elements of the buildings they construct.”

Bill Banks
Smart Cities Leader, EY Oceania



The upside of disruption

Smart cities

are critical for communities



the overarching objective of any smart intervention should be to **increase** the well-being of residents and to sustain that change

100 Resilient Cities program



will facilitate the **building of a global practice of resilience** among governments, NGOs, the private sector, and individual citizens.

CBDs



will remain

critical

transformed by a combination of autonomous transportation and digital enablement. There will be continuing demand for both CBD office space and inner city residential property - requiring Australia to get to grips with higher-density living.



The future of work

includes **digital disruption changing the workforce** with embedded intelligence and increasingly powerful cognitive technologies performing tasks previously limited to the human domain, changing the functions that tenants house in CBD offices.

Driverless vehicles



will become mainstream, reducing road accidents, changing commuting patterns, bringing mobility to the elderly and disabled and making inner city parking obsolete.

Smarter cities

come with **cyber risks**



with more connected buildings and infrastructure creating new risks, as cyber-threats enable profound disruption to cities and to companies.



“Our buildings continue to present some of the cheapest and fastest opportunities to reduce our emissions - and we can do this with proven and readily-available technologies. The Green Building Council is working on a new 'net zero' label to recognise buildings, fitouts and communities that are energy, carbon or water neutral.”

Romilly Madew
CEO, Green Building
Council of Australia

The world's **smartest** building

The Edge in Amsterdam, claimed by some to be the world's smartest building, connects to each of its inhabitants through an evolving smartphone app enabled by more than 28,000 sensors embedded in the building. The app links to the 2,500 workers' schedules and preferences, and directs people to appropriate work spaces - whether that's one of the 1,000 sitting or standing desks, work booths or meeting rooms. It also adjusts the environment as people move around the building based on their preferences for light and heat, and powers down unoccupied rooms.

The building - which uses 70 per cent less electricity than a typical office building - is equipped with super-efficient solar panels that generate enough energy to power heating, cooling and lighting systems, and all the laptops, smartphones and electric vehicles used by employees. The same app helps users to connect with colleagues and with their gym routine, and enables the delivery of fresh ingredients for workers to take home. A robotic device patrols the grounds after hours, while activity is tracked by sensors built into light panels, so cleaning services (both human and robotic) can zero in on areas that have been used most heavily that day.

“We think we can be the Uber of buildings.”

Coen van Ooston
CEO OVG Real Estate, developer of the Edge



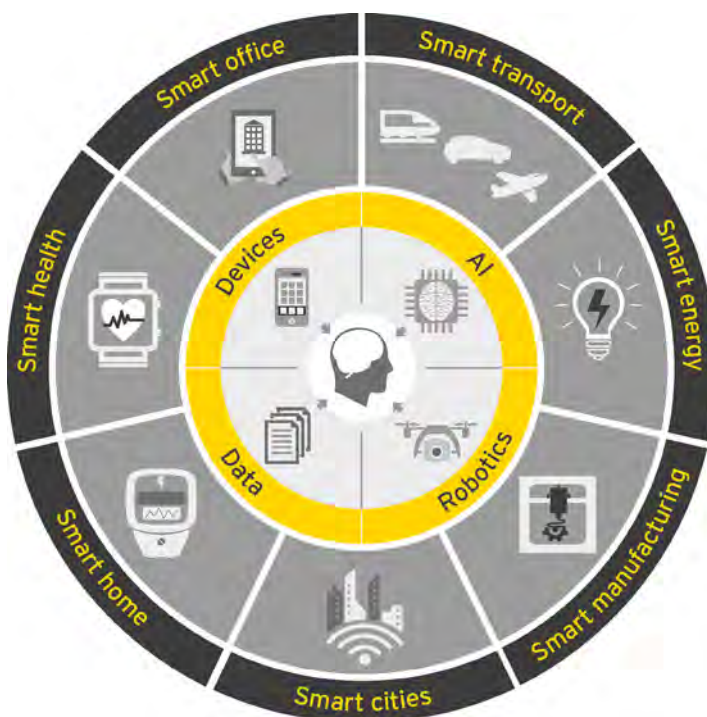


The 100 Resilient Cities program (100RC), pioneered by the Rockefeller Foundation, is helping cities around the world become more resilient to the physical, social and economic challenges that are a growing part of the 21st century. Cities selected to join the network are provided with resources to develop a roadmap to resilience along four main pathways:

1. Financial and logistical guidance to establish an innovative new position in city government, a Chief Resilience Officer, who will lead the city's resilience efforts;
2. Expert support for development of a robust resilience strategy;
3. Access to solutions, service providers and partners from the private, public and non-government sectors who can help them develop and implement their resilience strategies; and
4. Membership of a global network of cities that can learn from and help each other.

Through these actions, 100RC aims to help individual cities become more resilient, and to facilitate the building of a global practice of resilience among governments, not-for-profits, the private sector and individual citizens.

Both Sydney and Melbourne were selected as members of the first 100 Resilient Cities and are working to develop strategies that will build the strength of the community, infrastructure and economy in these cities.



Case studies

The future of drones

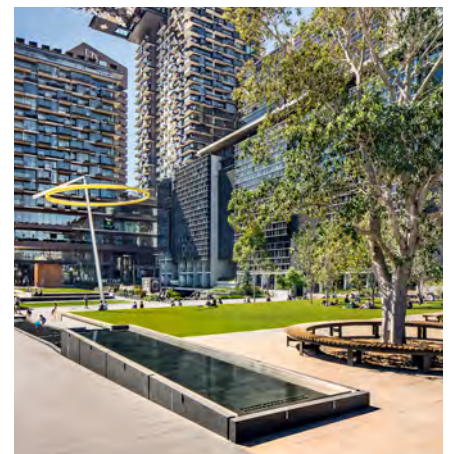
Drones are being used and trialed for everything from retail delivery and agriculture to law enforcement and traffic management. In property, applications include surveying, site monitoring, property maintenance and surveillance. "Using drones for aerial photography of properties is already commonplace, but the opportunities in construction are much greater," says Dr Catherine Ball. An environmental scientist at the forefront of drone research in Australia, Ball says "the application of drones on the building site is seemingly endless - from monitoring sites to scoping out new projects, identifying structural problems to communicating better through accurate plans and data. Drones are already spray painting, shifting and lifting, checking nuts and bolts - and all of this is preferable to having people on ropes. The health and safety benefits alone are huge, and a big driver for the construction industry." "Drones can help the industry take the people out of the loop - and in doing so remove the OH&S risk and save money," Ball adds.

The future might mean drones are used for human transportation, and drone access could be as important to property values as car parking and proximity to transport links.

Chinese drone maker Ehang debuted a new 200kg drone which can transport a single passenger of up to 100kg in weight, flying them at speeds of up to 100km per hour. The passenger inputs a flight plan and only controls the drone at take-off and landing and can use the travel time to concentrate on other tasks.

Carbon zero buildings

Designed as a 'living laboratory', the Global Change Institute at the University of Queensland is one of Australia's first net zero energy and carbon buildings. A working test case for a range of sustainability innovations, the building has a 6 Star Green Star rating. Naturally ventilated 88 per cent of the year, the building also captures and stores its own power through one of the largest solar arrays in Queensland. The Institute meets its own power needs every day in all seasons, exports power to the grid four days a week, and is the perfect workplace for a team exploring the impacts of climate change, population growth and technological innovation.



Extreme weather resilience

Lendlease's Climate Change Adaptation and Community Resilience report for Barangaroo South outlines the climate change effects that are likely to affect the \$6 billion precinct. Lendlease has adapted the design of Barangaroo South to mitigate these impacts. An expected increase in the number of extreme heat days, for instance, is being addressed by the selection of materials along boardwalks with a high solar reflectance index. Public realm areas have been modelled for sunlight exposure and wind movement to find the balance between winter and summer comfort, with tree-lined promenades, street awnings and drinking water fountains being integrated into the design. Stormwater infrastructure has been upgraded and building facades have been designed to withstand intense storms and winds, while the ground plane was raised to address sea level rises of 0.9 metres predicted by the Intergovernmental Panel on Climate Change.

Transparency

The 2016 Responsible Investment Benchmark Report finds that half of all investment in Australia - worth a massive \$633 billion of assets under management - is now considering environmental, social and governance (ESG) criteria. Nine of the top 10 largest fund managers in Australia, along with around half of the top 50 superfunds, are using ESG as core factors to inform their investments. The Global Real Estate Sustainability Benchmark (GRESB) and the Dow Jones Sustainability Index are now hotly-contested prizes in Australia. The 2016 GRESB report found that the Australia/New Zealand region "extends its unbroken streak of global leadership" despite increasing competition from other markets around the world. GRESB surveyed a record 759 real estate companies and funds, representing more than 66,000 assets and AUD \$3.7 trillion in gross asset value. In 2016 the average GRESB score of companies and funds in Australia/New Zealand was 74, compared with the global average of 60.

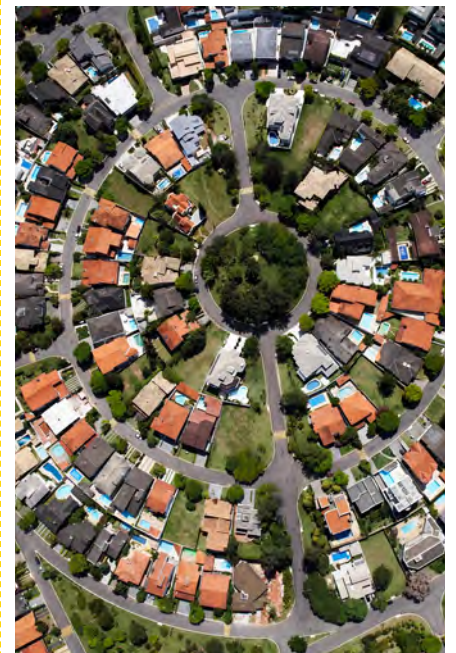


Virtual reality

The virtual reality industry is predicted to reach US\$80 billion by 2025, and Goldman Sachs predicts the virtual and augmented reality market will treble by 2020 as it rapidly moves beyond gaming and entertainment. Google, Facebook, Samsung and Microsoft have all launched virtual reality products, and property companies are looking to immersive technology to transform the sales process. Using Samsung virtual reality headsets tethered to mobile phones, customers of Sydney home builder, Metricon can now take virtual reality tours of several display homes. The tours will be gradually offered to potential buyers across the country as well as international investors overseas looking to buy house and land packages.

Gamification

The gamification of consumer habits presents a new frontier for the property industry. The finance sector has been proactive in this space, with the Commonwealth Bank of Australia an early leader. In 2011, the bank launched Investorville, a virtual world that gamified a property investment simulation based on actual property data. By gamifying the process, the players could experience investing in rental properties with none of the risks associated with using personal finances.



It's time to ask the tough questions

Property companies are well-drilled in asking themselves tough questions about the market as they strive to meet the demands of their customers. But in a world of disruptive innovation, this is no longer enough.

Here are five questions for leaders to ask themselves.



1..... What business are you in?

Disruption changes the very business that companies are in. Customers don't necessarily want to own a car. Their real need is to get from point A to point B, which can just as easily be accomplished with a ride-sharing service, self-driving car or drone. Understanding how your core activity can change is the first step in reinventing your business model.



2..... Who is your customer?

Disruption does more than empower customers. It creates entirely new customer segments, with different needs and expectations. Understanding how the customer base has changed and the needs of the new customers are critical inputs for self-disruption.



3..... Who are your competitors?

Responding to disruption requires making the right comparisons, such as assessing your company against the appropriate competitors. Since disruption attracts non-traditional entrants from other sectors, the peer group you historically identified with may no longer be relevant. For example, what happens if the complete technology integration of homes and offices causes Google to decide it is a developer of assets?



4..... Who are you aligning with?

Whether technology or innovation partners or the creation of alliances with traditional competitors to pool investments and R&D to compete with disruptors, the partnerships you create for the future will require different skillsets to the ones you have today.



5..... Is your culture playing 'safe as houses' or is it ready for innovation?

Sustainable innovation requires an understanding of how an organisation currently works and what is needed to embed innovation into the company culture. Central to this is how to link innovation to your growth agenda. Once this is achieved and you have created a culture that can actively encourage ideas, it is also critical to have an approach to triage, test and manage the innovation process adding predictive intelligence to improve outcomes.





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The Property Industry Foundation's mission is to make a tangible difference to the serious and persistent problem of youth homelessness.

EY also thanks the interview subjects for their contribution.

Members of the CSIRO and Data61 research teams as well as academics from the University of New South Wales were also interviewed and EY thanks them for their valuable contributions to this research, particularly their predictions of how the technologies will impact property.



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