

The Australian Supply Chain Tech Survey

A collaborative industry analysis by the SCLAA and Swinburne University of Technology

APRIL 2018

Prepared by Charles Edwards & John Hopkins



SUPPLY CHAIN & LOGISTICS
ASSOCIATION OF AUSTRALIA



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ABOUT THE SURVEY

PURPOSE

Supply chains are facing a period of significant disruption driven by advances in technology which are increasing both operational efficiencies and customer expectations.

This survey aims to better understand the attitudes and actions being taken by supply chain practitioners across Australia to these emergent technologies today.

Which technologies will truly change the industry landscape? Which are just hype? Should we be focusing our efforts in one area or another to remain competitive?

This survey is the first of its kind in Australia. We hope the findings provide insights into your sector, the future and possible ways forward.

COLLABORATION

This paper is a result of a collaborative partnership between the SCLAA and Swinburne University. Together we hope to engage the industry nationally, understand its direction and better meet its needs in both education and thought leadership.

APPROACH

This paper analyses the results of an Australian survey of Supply Chain and logistics practitioners. The Survey was conducted in February 2018 and distributed across the SCLAA and Swinburne national databases.

Participants responded to a series of questions across nine major technology streams expected to impact the industry, covering:



3D Printing



AI



Driverless



Big Data



Blockchain



Drones



IoT



Robotics



VR

188

No. of Participants

13

No. of Supply Chain & Logistics Sectors covered

ABOUT THE AUTHORS

Charles Edwards

PRESIDENT SCLAA VIC/TAS



Charles reports to the board of directors and works with the VIC/TAS committee to coordinate activities and partnerships which drive member value and further develop the SCLAA in Victoria. Outside the SCLAA, Charles is a Senior Consultant with GRA. He has worked with clients across the Australian Defence Force, MRO, automotive, telecommunication and retail industries to enhance their supply chain performance. Charles is particularly interested in strategy and the impacts of disruptive technologies on business.

John Hopkins

DISCIPLINE LEADER SWINBURNE



John is Discipline Leader (Supply Chain and Logistics Management) for Swinburne University of Technology. He has worked extensively in industry, for organisations such as General Motors and Cadbury, in addition to academic institutions in the UK, USA, Ireland and Australia. John's experience in industry has been critical to his academic career and he enjoys working at the interface of academic theory/knowledge and real-world industry practice. John is also the Program Director for Swinburne's new Master of Supply Chain Innovation course.

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EXEC SUMMARY

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This paper reviews the supply chain and logistics industry's perceptions and actions towards nine key emerging technologies expected to shape the industry over the coming decade.

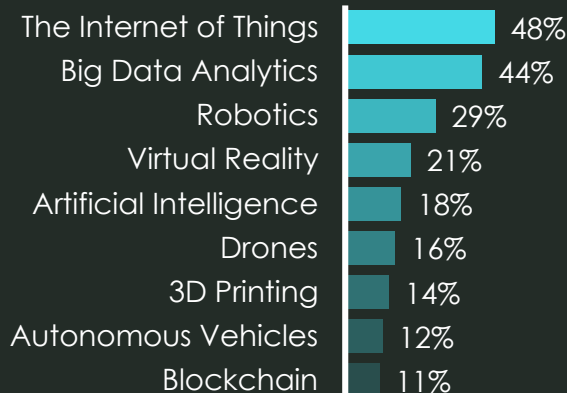
Most of the technologies reviewed have similar levels of utilisation today, with 10-30% of respondent organisations using each technology. Currently, the Internet of Things is the most used technology for the respondents, with 48% of supply chain and logistics organisations using it.

Perceptions and investments vary across the technologies. However, in all cases the expected impact of the technology was greater than the investment each respondent expected their firm would make, with most respondents expecting their firm to take a "wait-and-see" approach to financial investment.

Big Data Analytics took the award for the technology expected to have the greatest impact on the supply chain industry over

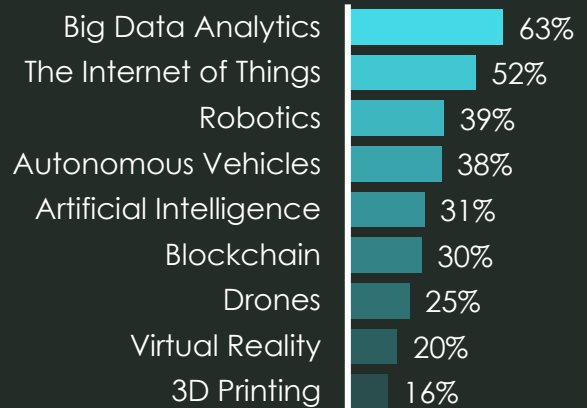
UTILISATION TODAY

of each technology by respondent firms



EXPECTED IMPACT

The percentage of respondents who expect each technology to have a significant or great impact on their firms over the next 10 years



the coming decade, with 63% of respondents expecting it to have a significant or great impact on their firms. While 70% of respondents expect continued spend in this area, only 20% expect significant or great spend in Big Data Analytics.

Virtual reality and 3D printing were expected to have the least impact on Supply chains over the coming decade.

The gap in expected impact-to-investment suggests there may be an opportunity for firms which are ahead of the curb in harnessing these technologies. Those who invest in the big impact technologies may leap-frog their competitors over the coming decade.

If expected impacts are lived out, Australian companies are not investing enough in developing capabilities across these technologies to remain competitive.

EXEC SUMMARY

2 OF 2

The greatest differential between expected impact and investment existed in Big Data Analytics, followed by the Internet of Things and Blockchain, suggesting these technologies may offer the biggest disruptive opportunities.

There was a high level of interest across the technologies, with informal research and self-education being the most popular approach to technology preparation. For each technology, at least 19% of respondents were keeping themselves educated.

Commentary provided by respondents correlated closely with the areas of greatest anticipation. Big Data Analytics drew the greatest response rate by a significant margin, central themes running through responses included: **“Big Data Analytics is essential for market leaders to maintain their position” ... “our first step is getting more consistent and modernised system to capture the data” and “the BI tools are there but they are still not in front of key decisions”.**

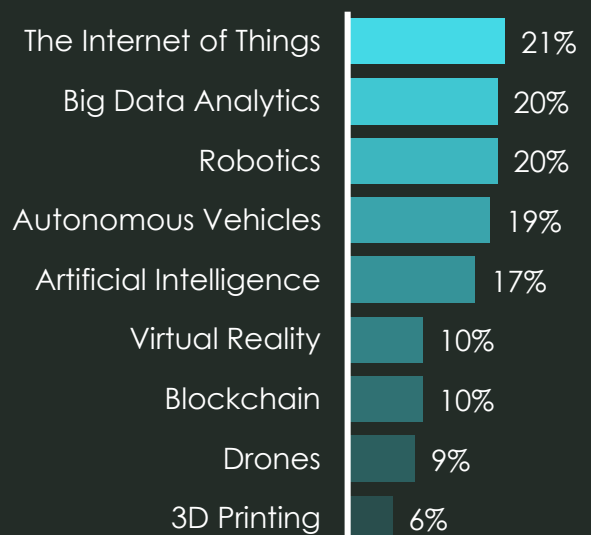
““ The greatest opportunities for competitive disruption today in technology may lie within Big Data Analytics, the Internet of Things and Blockchain.

Blockchain drove the second most commentary, with sentiment reflecting its early days: **“once the hype around cryptocurrencies settles, then the true benefits of blockchain will be recognised” ... “[it is a] very exciting development with potential that is not yet understood”** and remains a technology which is **“still very much misunderstood in the workplace”.**

The results of this survey suggest that the nine emergent technologies are still very much in their infancy today. However, given the expected impacts, and noting the ever shortening lifespan of companies, which has reduced from average 67 years in the 1920s to just 15 years in 2012 (source: BBC), ignoring these technologies for too long could be a very costly decision to make.

EXPECTED SPEND

The percentage of respondents who expect their firms to make significant or great investment into each technology over the next 10 years



THE SURVEY RESULTS

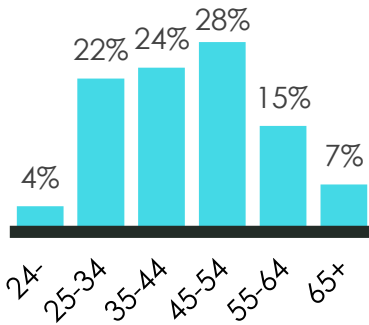


WHO DID THE SURVEY?

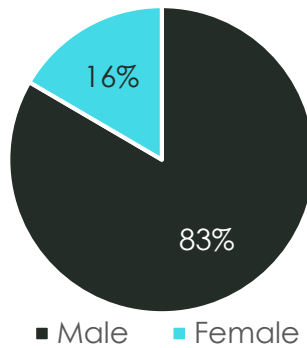
THE PARTICIPANTS

The participants were array of supply chain and logistics professionals, spanning 13 different sectors, with representation across all workforce age brackets and supply chain sectors.

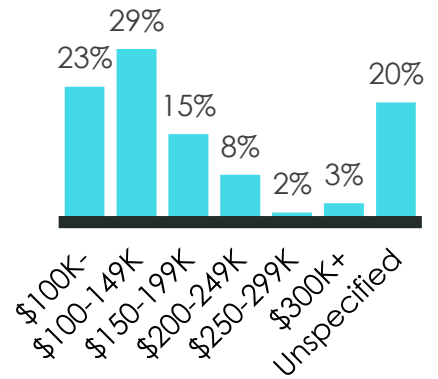
AGE



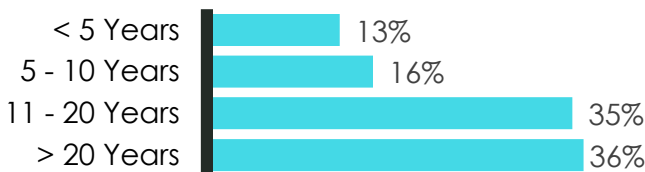
SEX



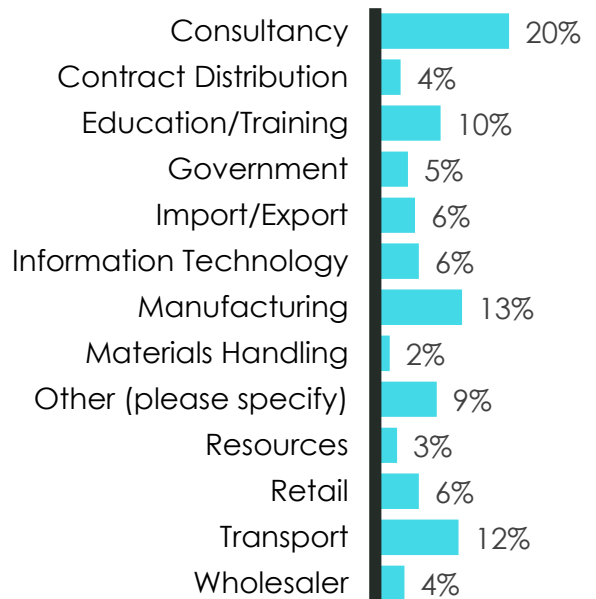
INCOME



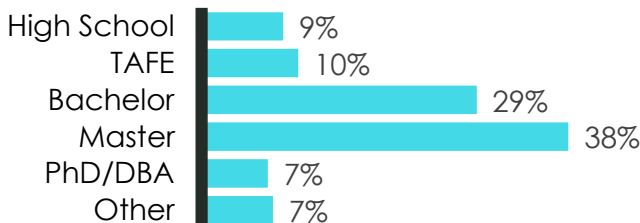
YEARS IN SUPPLY CHAIN



SECTOR

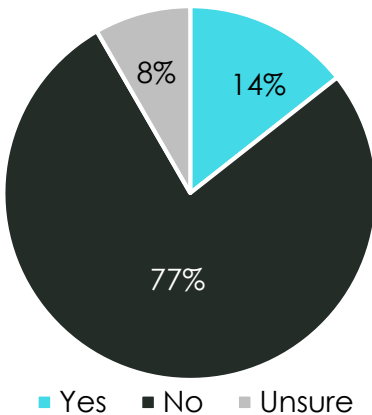


HIGHEST QUALIFICATION



3D PRINTING

Organisations using 3D printing today



WHAT IT IS

3D Printing is an additive manufacturing process used to create three-dimensional objects based on digital models or scans. Three-dimensional components are 'printed' from raw materials, layer-by-layer.

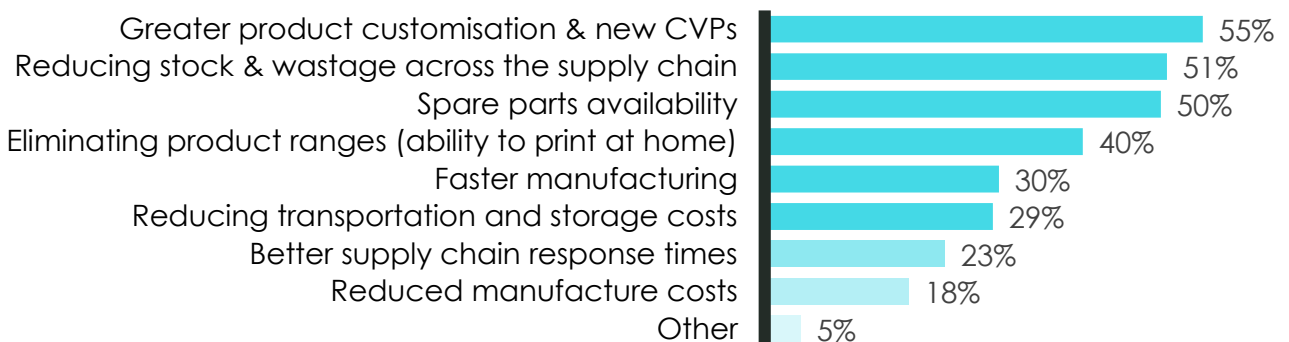
The industry has been growing at a whopping 25%+ over the last 30 years and the technology has evolved significantly in recent times, enabling printing of various alloys, metal, plastics, ceramics and wood.

FUN FACT

If you think 3D printing is just for novelty plastic gadgets, think again. The aerospace industry has some of the most stringent manufacturing requirements and is already utilising the technology to produce approved parts faster, stronger, lighter and cheaper than traditional manufacturing techniques.



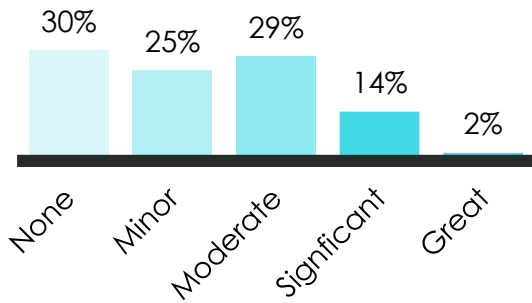
WHERE THE TECHNOLOGY IS EXPECTED TO HAVE THE GREATEST IMPACT



3D PRINTING

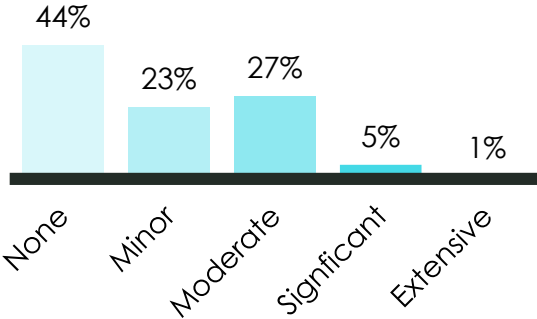
EXPECTED IMPACT

Expected impact on respondents organisations over the next 10 years



EXPECTED SPEND

Expected firm spend over next 10 years



KEY FINDINGS

14% of those surveyed are already investing in 3D printing. Major benefits of 3D printing are expected from better spare parts availability and reduced inventories (think risk pooling: needing less safety stock because more products can be printed from less materials). More significantly, 3D printing's greatest expected impact is in **allowing for greater customer value propositions**. It is interesting that the most highly perceived value of 3D printing lies in further meeting the ever demanding customer's needs.

Despite these findings, only 16% of respondents see 3D printing as having a significant or great impact on their firms over the next 10 years, with only 6% expecting to invest significantly in the technology.

Of all the technologies surveyed, **respondents are investing in 3D printing the least**, with 49% undertaking no preparatory activities today. 3D printing also scored as the technology expected to have the least impact on supply chains over the next decade.

CURRENT PREPARATIONS

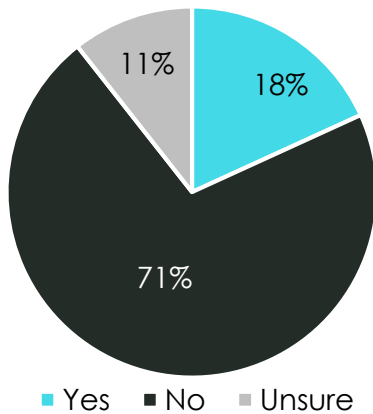
Preparation activities currently being undertaken



ARTIFICIAL INTELLIGENCE

1 OF 2

Organisations using artificial intelligence today



WHAT IT IS

Software algorithms that are capable of performing tasks that traditionally require human intelligence, such as visual perception, speech recognition, decision-making and language translation.

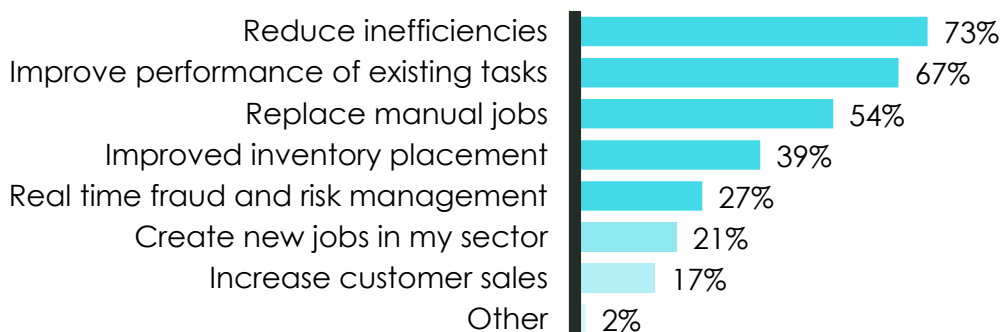
AI is an “umbrella” concept that is made up of numerous subfields, including machine learning, which focuses on the development of programs that can learn when exposed to new data. When boiled down, a machine learning algorithm learns by self-optimising its parameters to achieve least error outputs to observed training data. This can involve a variety of techniques from linear regression to neural networks.

FUN FACT

In 2016 Google's “Alpha Go” AI beat the World's second best Go player Lee Chang-ho, 4 games to 1. Go is a seriously complex board game – with more move combinations than there are atoms in the universe. A year later, newer version “Alpha Go Zero” taught itself without any data from human games. From zero knowledge it beat the original “Alpha Go” 100 games to 0 after just three days of training!

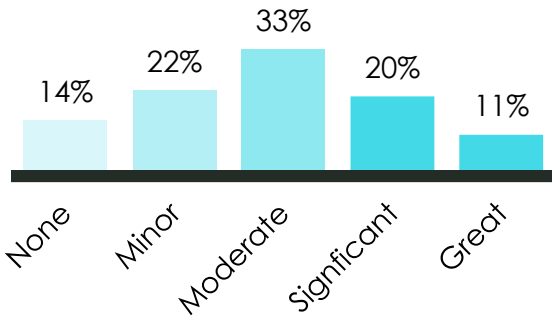


WHERE THE TECHNOLOGY IS EXPECTED TO HAVE THE GREATEST IMPACT



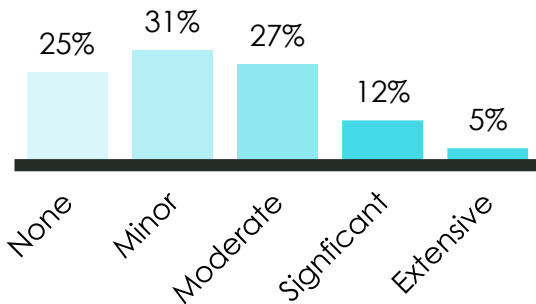
EXPECTED IMPACT

Expected impact on respondents organisations over the next 10 years



EXPECTED SPEND

Expected firm spend over next 10 years



KEY FINDINGS

A promising field still in its infancy. While 18% of surveyed organisations are using the technology today, **64% expect AI to impact their organisation over the next 10 years**. AI's potential is wide-spread and encompassing. Expect this figure to grow.

Far and away the highest perceived benefit of AI is increasing process efficiencies and performance, as agreed by over 70% of respondents.

The greatest impact is currently expected across the IT sector, with 67% expecting a significant or great impact on their organisation in the next 10 years. **Yet only 33% of IT respondents expect their organisation to make a significant investment** over the same period. Similarly, only 6% of consultant respondents anticipate significant investment in AI. Such investment-impact gaps could present competitive opportunities for early adopters.

Informal research and self education is the primary source of preparation for AI today.

CURRENT PREPARATIONS

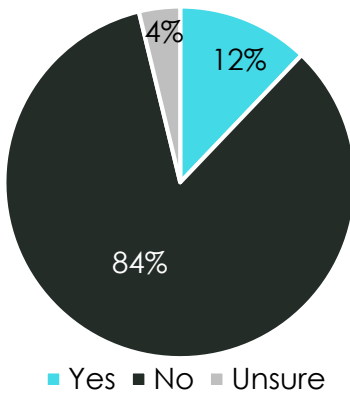
Preparation activities currently being undertaken



AUTONOMOUS VEHICLES

1 OF 2

Organisations using autonomous vehicles today



WHAT IT IS

Autonomous vehicles are unmanned ground vehicles that are capable of sensing their environment and navigating without human input. Autonomous vehicles are expected to have significant impact in the logistics industry over the next 5 – 10 years from reducing trucking freight costs and improving customer service offerings, with the ability to transport 24 hours a day.

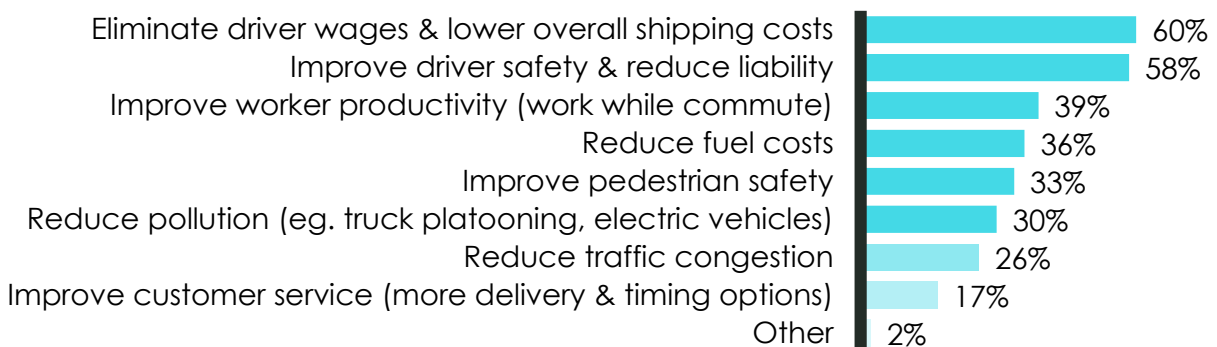
The Autonomous Vehicles sector (along with many of the other technology streams) does cross over into the Robotics technology stream somewhat (for example, warehousing autonomous guided vehicles). Expect the borders separating these technologies to blur further into the future, as many of the streams cross pollinate.

FUN FACT

Autonomous trucks are not far off hitting Australian roads. Autonomous trucks have been operating on Australian mines for over 9 years and the Australian government is supporting the roll out of autonomous vehicles on to our roads. Australian Transport Ministers and the NTC are busily working on having an end-to-end regulatory system in place by 2020 to support the safe, commercial deployment.



WHERE THE TECHNOLOGY IS EXPECTED TO HAVE THE GREATEST IMPACT

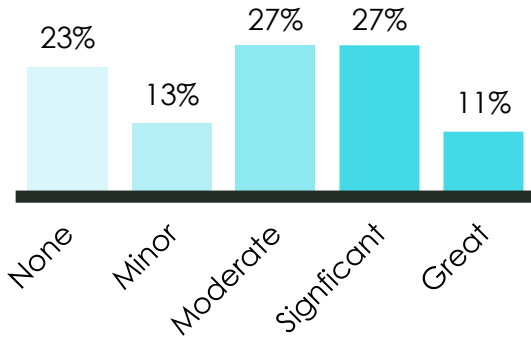


AUTONOMOUS VEHICLES

2 OF 2

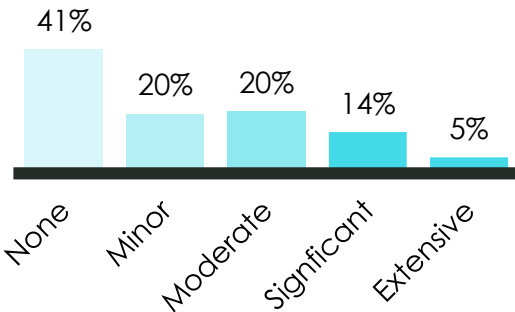
EXPECTED IMPACT

Expected impact on respondents organisations over the next 10 years



EXPECTED SPEND

Expected firm spend over next 10 years



KEY FINDINGS

The high portion of respondents indicating use of Autonomous vehicles in 2018 is accounted for across Automotive (transport), IT and manufacturing industries. Possible utilisation today could include Tesla autopilot, automotive R&D and other automated guided vehicles within warehousing & manufacturing businesses.

Impact is greatly anticipated with 38-45% of survey respondents expecting significant impact on their business and sector. Unsurprisingly, **69% of Transport sector respondents believe autonomous vehicles will have a great or significant impact on their organisation**, with 77% expecting their sector to be impacted.

Over 60% of firms have negligible or no investment into Autonomous Vehicles today, but those who are investing are utilising an array of approaches from partnerships to formal consultancy research.

19% of respondents anticipate heavy financial investment into the technology over the next decade.

CURRENT PREPARATIONS

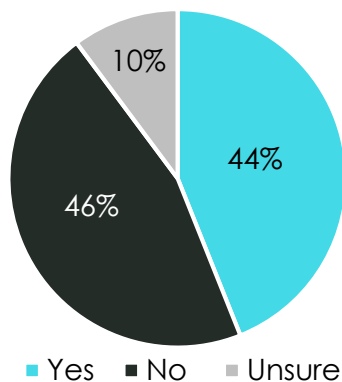
Preparation activities currently being undertaken



BIG DATA ANALYTICS

1 OF 2

Organisations using Big Data Analytics today



WHAT IT IS

Perhaps one of the more developed and integrated of the nine technology streams today, Big Data Analytics is the process of examining large datasets, containing a variety of data types, to uncover patterns, correlations, market trends, customer preferences and other useful business information.

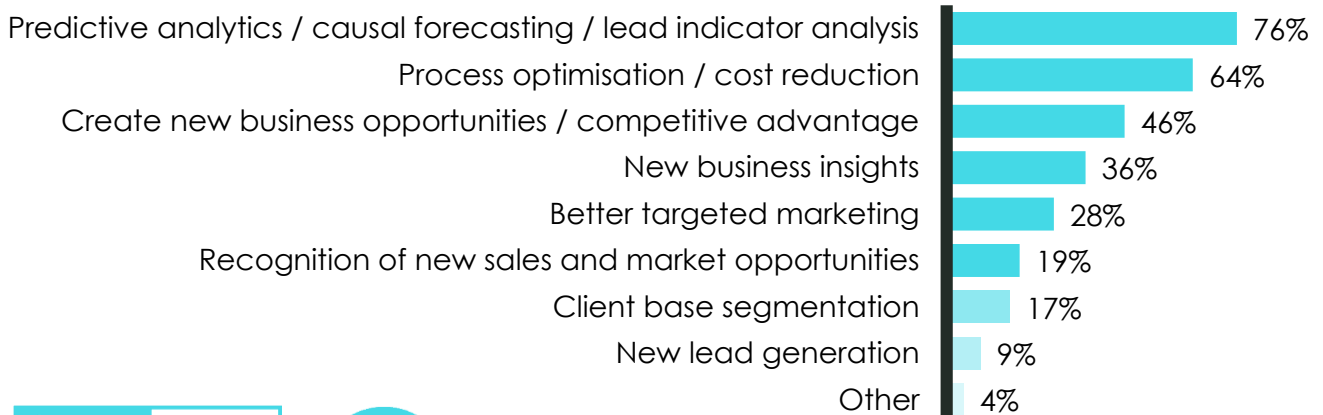
In many regards, Big Data Analytics can be considered a stepping stone to wider adoption of Machine Learning. While traditionally humans would find cause and effect relationships, this capability is progressively being handed over to AI which requires large data sets and significant processing power.

FUN FACT

The quantity of data is doubling every 3 years. This growing sea of data is creating countless knowledge driven opportunities. Information is enabling organisations to not just drive content and products to you (for example, shortlisting the Netflix movies and Amazon books you will very likely enjoy), but in many cases big data analytics platforms already know more about you than you do, based off your online behaviour, including if you are sick or even pregnant!



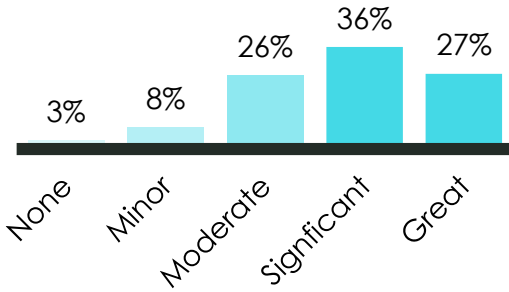
WHERE THE TECHNOLOGY IS EXPECTED TO HAVE THE GREATEST IMPACT



BIG DATA ANALYTICS

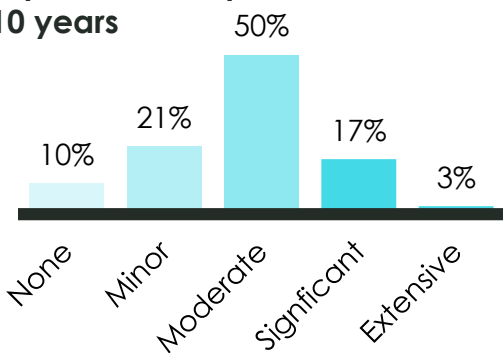
EXPECTED IMPACT

Expected impact on respondents organisations over the next 10 years



EXPECTED SPEND

Expected firm spend over next 10 years



KEY FINDINGS

Big Data Analytics is one of the leading technology streams with **44% of respondents already using the technology today**. The greatest benefits are expected across process optimisation, cost reduction and most significantly; causal forecasting and predictive analytics. **89% of organisations expect the technology to impact their business over the next 10 years**, with 63% expecting that impact to be significant or great.

100% of IT, Materials Handling, Resources, Retail and Wholesaler sector respondents see Big Data Analytics impacting their organisation over the next 10 years.

Correspondingly, Big Data Analytics is seeing the most preparation, with **64% organisations taking action today**, with internal training & development being the primary approach (41%). 70% of organisations expect financial investment to continue over the next 10 years.

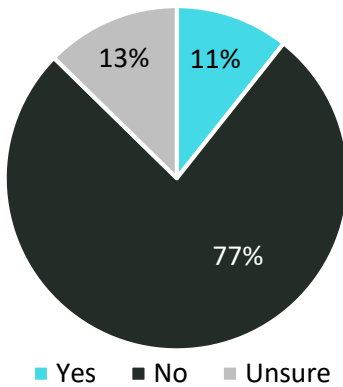
CURRENT PREPARATIONS

Preparation activities currently being undertaken



BLOCKCHAIN

Organisations using Blockchain today



WHAT IT IS

Blockchains are distributed electronic ledgers that use software to record and confirm transactions with speed and certainty. The ledger is backed up across multiple computer systems which must agree to new transactions. This process allows for certainty and immutability in data, all with the latest in cryptographic security.

Blockchain becomes exciting when taken beyond just a record of transactions, and overlaid with computer programs built into the 'blocks'. These 'Smart Contracts' allow for extremely efficient process automation, from processing payments, legal contracts and insurance claims, to certifying loans and company funding via Initial Coin Offerings (ICOs).

FUN FACT

It's not just Bitcoin and cryptocurrencies. Real world functional applications exist and are rapidly growing in scope and feasibility. Companies using the technology today include Maersk to automate shipping admin processes, Chai Vault to tackle the counterfeit wine industry, Walmart to track meat produce from China to the US and BHP to tracking material samples across the supply chain.

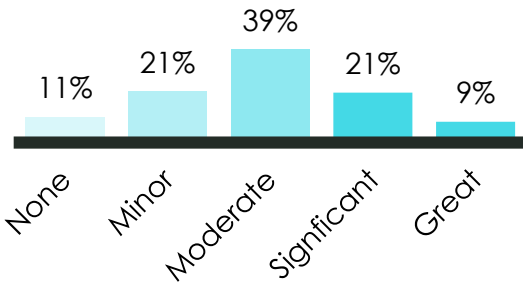


WHERE THE TECHNOLOGY IS EXPECTED TO HAVE THE GREATEST IMPACT



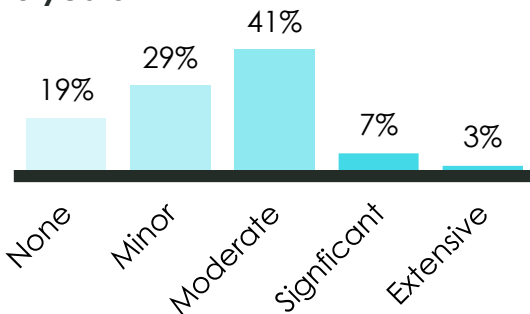
EXPECTED IMPACT

Expected impact on respondents organisations over the next 10 years



EXPECTED SPEND

Expected firm spend over next 10 years



KEY FINDINGS

While **only 11% of organisations are using Blockchain technology today**, the lowest recorded usage the technologies studied (followed closely by Autonomous vehicles), given the relatively high expected impact of Blockchain (**69% of participants expect it to impact their businesses over the next 10 years**) it is safe to say **Blockchain is still very much in its infancy**.

30% respondents expect that impact to be significant or great in nature, a figure that rises to 41% amongst younger participants (those under 35).

The key applications for Blockchain were identified as being improved supply chain collaboration and transparency.

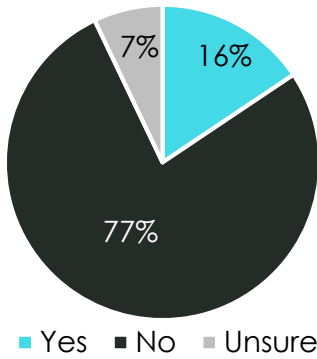
51% of organisations expect moderate to extensive financial investment over the next 10 years, with particular significance in the Education and Training sector, where this figure rises to 77%.

CURRENT PREPARATIONS

Preparation activities currently being undertaken



Organisations using Drones today



WHAT IT IS

Drones cover unmanned air- or water-based devices and vehicles. Drones can operate autonomously, via a predefined flight plan or be controlled remotely.

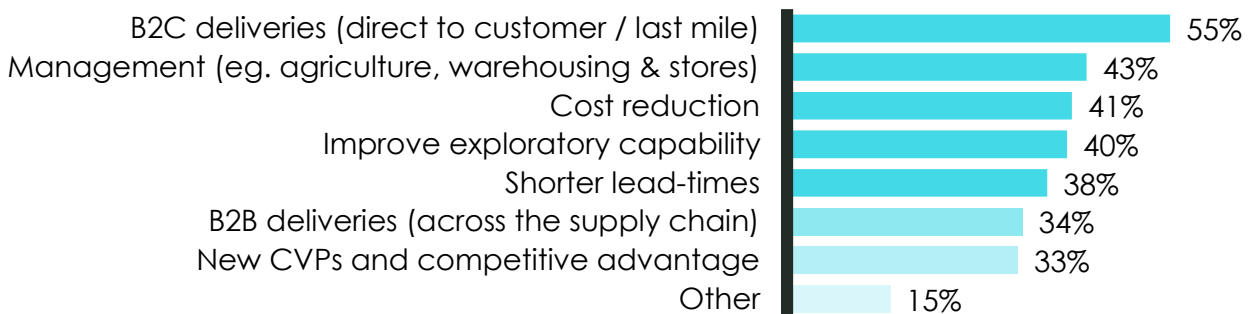
In supply chain and logistics, Drones are being highly considered as a bridging solution for the 'last-mile' in delivering products to the customers doorstep, backyard or balcony. Other current supply chain use cases for Drones include agricultural crop monitoring, and warehouse stock counting.

FUN FACT

In December 2016, Amazon CEO Jeff Bezos confirmed that the company had completed its first fully-autonomous drone delivery. It happened in the UK, where a customer named Richard ordered an Amazon Fire Stick and a bag of popcorn, and had the goods delivered to his doorstep, in the Cambridgeshire countryside, just 13 minutes after submitting the order.



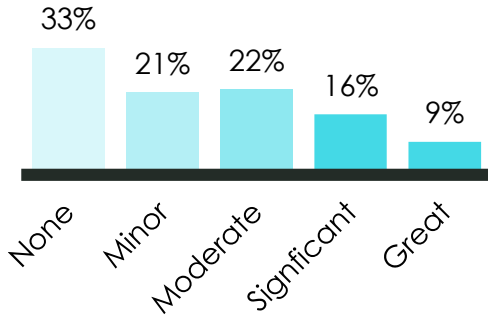
WHERE THE TECHNOLOGY IS EXPECTED TO HAVE THE GREATEST IMPACT



DRONES

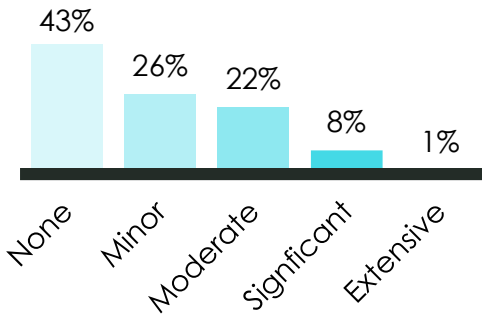
EXPECTED IMPACT

Expected impact on respondents organisations over the next 10 years



EXPECTED SPEND

Expected firm spend over next 10 years



KEY FINDINGS

16% of organisations are already using drone technology, with the highest level of adoption being in the Resources sector. **67% of participating Resources organisations are using drones already.**

The greatest potential impact of Drones is expected to be in B2C deliveries, with **55% of respondents seeing it as a possible solution for last mile delivery.** This is followed closely by Drones playing management roles (e.g. crop surveillance and warehouse/store stock counting).

Although **only 31% expect drone related spending from their organisation over the next 10 years**, some sectors forecast heavy investment. In line with current investment, **83% of the resources sector respondents expect financial investment to continue into the future.**

CURRENT PREPARATIONS

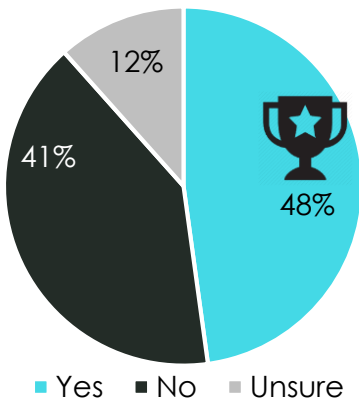
Preparation activities currently being undertaken



THE INTERNET OF THINGS

1 OF 2

Organisations using IoT today



WHAT IT IS

Networks of objects (devices, vehicles, containers, etc) embedded with sensors, software, network connectivity and compute capability, that can collect and exchange data over the Internet.

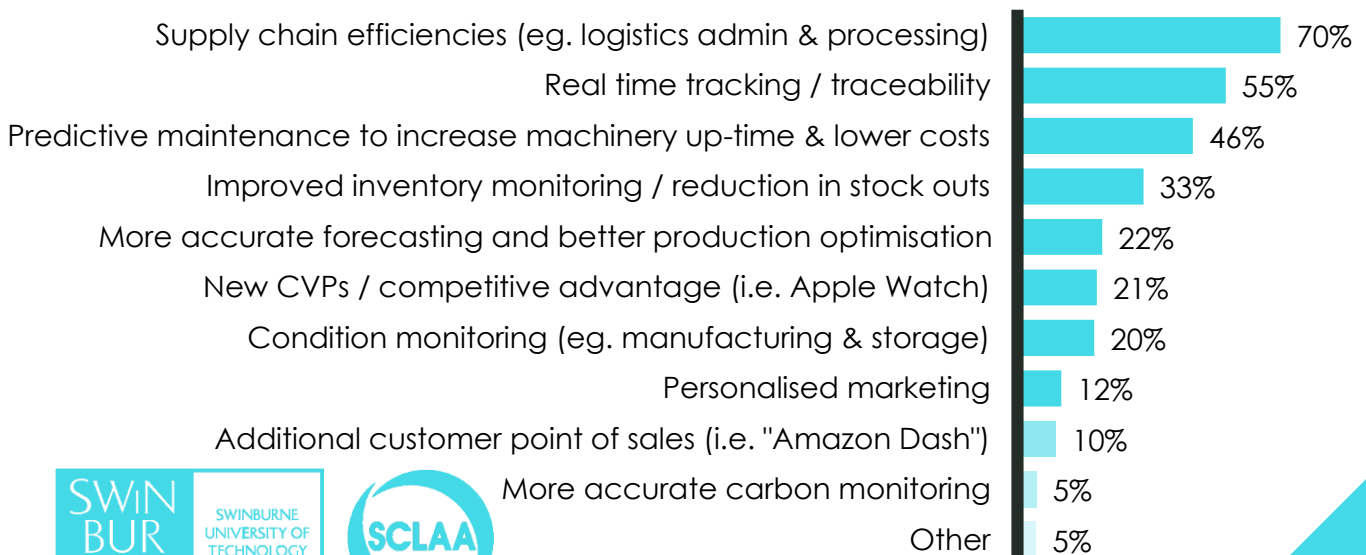
IoT enables devices to be connected and remotely monitored or controlled. The term IoT has come to represent any device that is now "connected" and accessible via a network connection. The quantity of IoT devices is projected to explode over the coming years, with McKinsey estimating a 32.6% CAGR and General Electric predicting investment in the Industrial Internet of Things will exceed \$60 trillion within 15 years.

FUN FACT

In 1982 a modified Coke machine at Carnegie Mellon University became the first internet-connected appliance, able to report on inventory levels and temperature conditions. This concept is taking off. IoT integration into Blockchain is enabling tracking of the authenticity, storage and temperature conditions of food, beverages and other premium products across the supply chain.



WHERE THE TECHNOLOGY IS EXPECTED TO HAVE THE GREATEST IMPACT

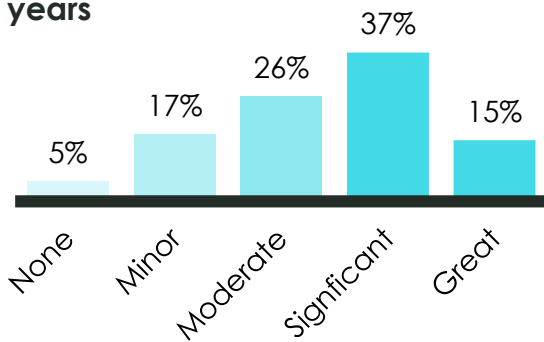


THE INTERNET OF THINGS

2 OF 2

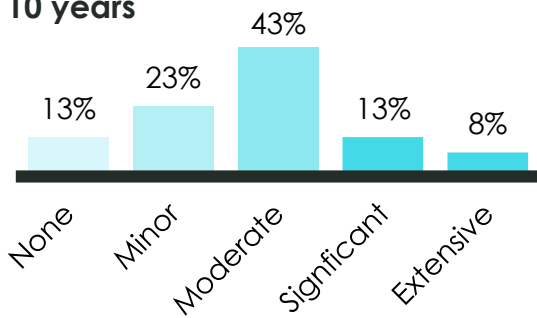
EXPECTED IMPACT

Expected impact on respondents organisations over the next 10 years



EXPECTED SPEND

Expected firm spend over next 10 years



KEY FINDINGS

IoT was found to be the most highly integrated of the nine technologies examined in this study, with 48% of respondents indicated that they already employed it in some way (closely followed by Big Data Analytics with 44%). For the survey respondents, the **Transport (64%) and Manufacturing (56%) sectors currently utilise IoT the most.**

IoT is expected to have the greatest impact in the improvement of supply chain efficiencies, real-time tracking and predictive maintenance. **20% of participating supply chain organisations have already establishing partnerships with specialist firms.**

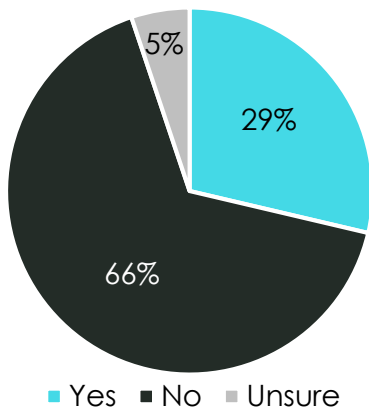
64% of respondents predict moderate to extensive financial investment from their organisations in IoT technology over the next 10 years. **IoT is expected to see the most financial investment from the Retail, Import/Export, Transport & Materials Handling sectors over the next 10 years.**

CURRENT PREPARATIONS

Preparation activities currently being undertaken



Organisations using Robotics today



WHAT IT IS

Electro-mechanical machines or virtual agents that automate, augment or assist human activities, autonomously or according to a set of instructions. Robots, including Autonomous Guided Vehicles (AGVs), can significantly reduce reliance on intensive and repetitive labour; leading to safer workplaces, increased throughput volumes and reduced expenses.

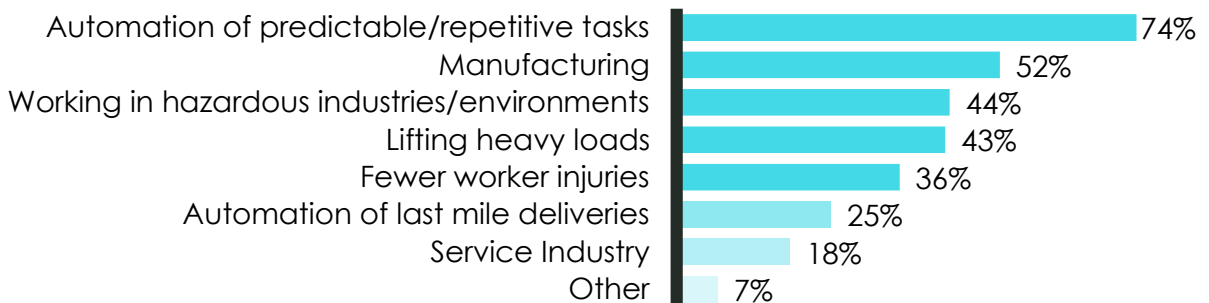
Due to these benefits, and the lowered costs of implementation today, more and more manufacturing, warehousing, distribution and storage companies are turning to automation technologies to innovate their organisations.

FUN FACT

Amazon's revolutionary "Kiva Robots" boast autonomous routing algorithms that allow quicker picking processes in their DCs. Since acquiring Kiva Systems in 2012, Amazon have installed over 30,000 Kiva Robots. Kiva Robots are a form of AGV capable of picking up entire shelves, they take the shelves to packing stations where humans simply select the item required at arm's reach, the robot then takes the shelf back to its original position without any human command or interaction.



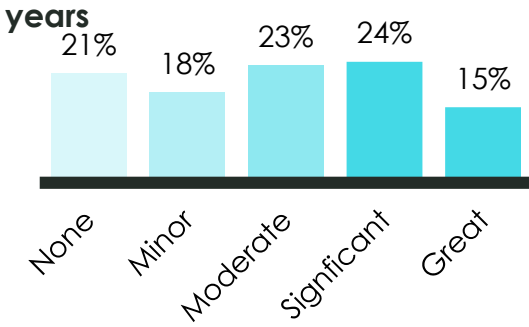
WHERE THE TECHNOLOGY IS EXPECTED TO HAVE THE GREATEST IMPACT



ROBOTICS

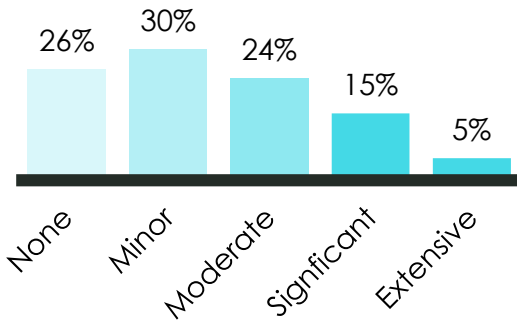
EXPECTED IMPACT

Expected impact on respondents organisations over the next 10 years



EXPECTED SPEND

Expected firm spend over next 10 years



KEY FINDINGS

29% of organisations are already using robotic technology today. Unsurprisingly **robotics is most commonly found in manufacturing, where it is employed by 69% of participating companies.**

76% of participants expect robotics to have an impact on their organisations over the next decade, particularly in the manufacturing process, in the automation of repetitive tasks, and for work that needs to be carried out in hazardous environments.

44% of organisations expect to make investments in Robotics over the next 10 years. Again most significantly in the manufacturing sector where 90% are taking some action today and 75% expect a moderate to extensive level of spend to continue.

CURRENT PREPARATIONS

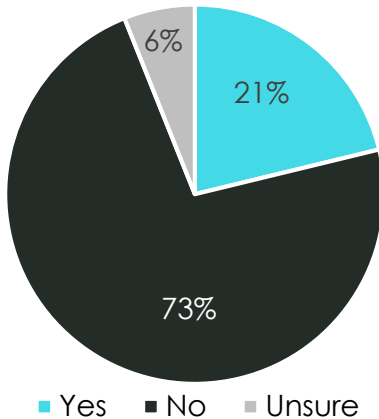
Preparation activities currently being undertaken



VIRTUAL REALITY

1 OF 2

Organisations using Virtual Reality today



WHAT IT IS

Virtual Reality (VR) involves computer-generated simulations of three dimensional spaces, within a defined and contained space that viewers can interact with in realistic ways. VR is intended to be an immersive experience and requires users wear a headset, but can include a variety of other associated equipment to further immerse the user in the virtual environment. VR experiences are already being used to take the product to the user, providing a more interactive marketing experience for retailers.

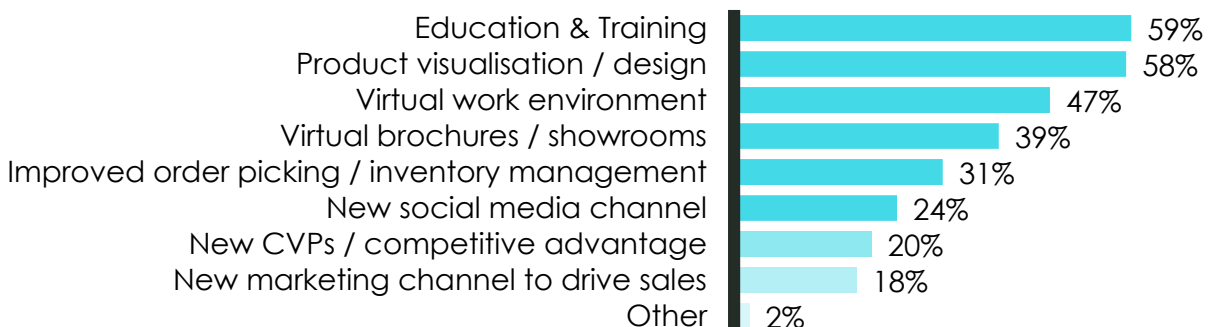
Augmented Reality (AR) combines VR with the real world. Augmented Reality is the addition of information or visuals to the physical world, via a graphics and/or audio overlay, to improve the user experience and interactive capabilities.

FUN FACT

NASA uses virtual reality to connect engineers with devices they send into space. Using Oculus, and motion-sensing equipment from the Microsoft Xbox gaming console, NASA engineers are developing ways to control a robotic arm with gestures made by an operator back on Earth.



WHERE THE TECHNOLOGY IS EXPECTED TO HAVE THE GREATEST IMPACT

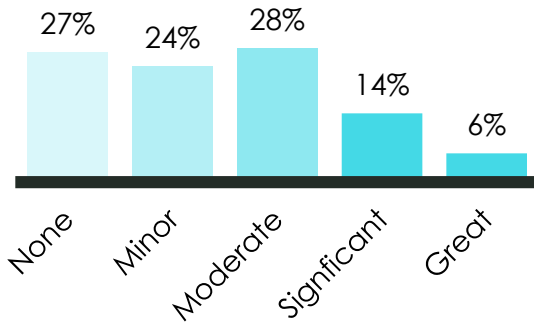


VIRTUAL REALITY

2 OF 2

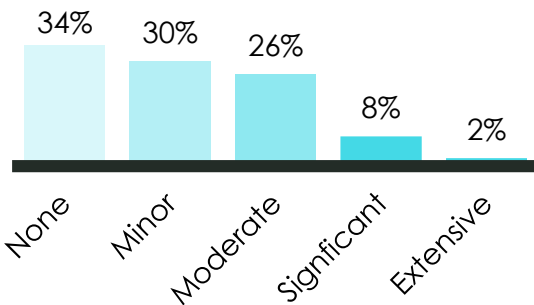
EXPECTED IMPACT

Expected impact on respondents organisations over the next 10 years



EXPECTED SPEND

Expected firm spend over next 10 years



KEY FINDINGS

21% of organisations are already using VR or AR technology today, particularly in Import/Export and Education & Training.

48% of participants expect it to have a direct impact on their organisation over the next decade, while 59% expect it to have a wider impact on their partners and sector. The most common perception of VR/AR is as a potential tool for training, product visualisation and design, and for creating virtual work environments.

40% of both the Transport and Retail sectors expect VR/AR to have a significant or great impact on their organisation. Yet less than 20% of both sectors expect to see a significant/great investment over the next 10 years.

36% of participants expect further investment in VR/AR over the decade, but only 10% expect this investment to be significant or great, and 40% indicate that no preparation activities are currently being undertaken for the emergence of this technology today.

CURRENT PREPARATIONS

Preparation activities currently being undertaken

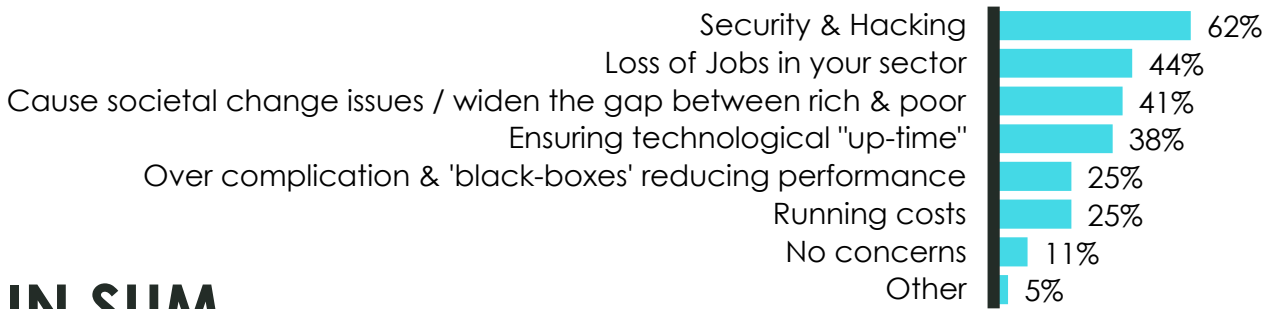


CONCLUSION

ARE WE LOSING SLEEP?

90% of respondents have one or more concerns with the emerging technologies. The top cause for concern across respondents was security & hacking. This is not surprising given the world we live in sees increasing cases of cyber crime and personal data leaks.

Following security and hacking, the next top two areas of concern centred on loss of jobs and the associated societal change issues which are at risk from technological automation and Artificial Intelligence. There are undoubtedly a number of areas governments will need to actively tackle to manage the great technology-driven economic shift we are quite likely living through. Given the expected impacts of these technologies, it may be appropriate for governments to undertake similar investments to firms in ensuring as smooth a societal transition as possible.



IN SUM

Respondents from Education & Training (85%), Transport (76%) and Consulting (64%) sectors expect the technology their firms will invest most in to be Big Data Analytics. Those working in contract management expect their highest level of investment to be in either Big Data Analytics (80%) or Blockchain (80%). Despite the below anticipations, the Retail (73%), Import/Export (83%), Wholesaler (80%) and Government (60%) sectors all expect to spend most significantly in IoT, while the largest expected spend for Manufacturing is Robotics (75%).

SECTOR	MOST ANTICIPATED	LEAST ANTICIPATED
Consulting	Big Data Analytics	Virtual Reality
Contract Distribution	Autonomous Vehicles	Virtual Reality
Education / Training	Big Data Analytics	Drones
Government	Big Data Analytics	Virtual Reality
Import/Export	Big Data Analytics	3D Printing
Information Technology	Big Data Analytics	Robotics
Manufacturing	Big Data Analytics	Virtual Reality
Materials Handling	Robotics	3D Printing
Others	Big Data Analytics	Drones
Resources	Big Data Analytics	3D Printing
Retail	Big Data Analytics	3D Printing
Transport	Autonomous Vehicles	3D Printing
Wholesaler	The Internet of Things	Virtual Reality

THE COLLABORATORS



SUPPLY CHAIN & LOGISTICS ASSOCIATION OF AUSTRALIA

The Supply Chain and Logistics Association of Australia (SCLAA) is Australia's largest association for Supply Chain and Logistics SMEs, professionals and practitioners. The SCLAA draws on a network of industry professionals, educators and students with the purpose of driving opportunities, thought leadership, and the general advancement of the profession in Australia. Run by member volunteers, the SCLAA hosts a variety of networking, educational and business problem solving events throughout the year. To get involved or ask a question, reach out to us via the below details.

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