



Department of
**Jobs, Tourism, Science
and Innovation**

WA: DIGITALLY EVOLVED

**DRAFT FOR STAKEHOLDER
CONSULTATION**

April 2024

CONSULTATION DRAFT



This document is a draft strategy prepared for consultation purposes and does not reflect any agreed position of the Western Australian Government.

Feedback is sought from the digital industry, businesses, and industry groups.

Contents

Contents	2
Minister’s Foreword	2
Digitally Evolved: At a Glance	4
Vision and Mission	4
Introduction and Context	5
Enabling Government Objectives	7
Building On Our Strengths	9
Case Study: DUG Technology	10
Case Study: Retrospect Labs	12
Case Study: Hyprfire	12
Always Room to Improve	13
Case Study: idoba	14
One Strategy: Three Goals	14
Case Study: MineARC	16
Supporting Our Digital Evolution	17
Priority Action Area 1: Advocacy and Education	18
Priority Action Area 2: Advisory and Technical Support	19
Priority Action Area 3: Financial Support	20
Priority Action Area 4: Data Access and Market Intelligence	21
Priority Action Area 5: Opportunity Facilitation	22
Measuring Success: Our Approach	23
References	27

The Department of Jobs, Tourism, Science and Innovation acknowledges the Traditional Custodians throughout Western Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal communities and their cultures; and to Elders both past and present.



Minister's Foreword

In an era of economic and geopolitical change it is essential that our State continues to develop our capabilities and attract investment to sustain the economic growth that has allowed us to prosper. We need to be ready to capitalise on the opportunities of tomorrow and to rise and meet challenges along the way.

We have strong foundations to build on – a skilled workforce, stable government, and excellent infrastructure. If we are adaptive, creative and embrace technology we can lay stronger foundations for the years to come. Digital innovation presents Western Australian industries with unrivalled opportunities for growth and development, unlocking more of our vast state and enabling home-grown businesses to compete on the global stage.

Directly aligning with and supporting the Government's economic framework *Diversify WA*, this strategy lays the foundation for digital transformation and technological uplift of businesses across a variety of industries, underpinning the productivity, competitiveness, and resilience of the State's economy. Digital solutions allow Government and business to improve accessibility and inclusivity, providing better services to all members of the community.

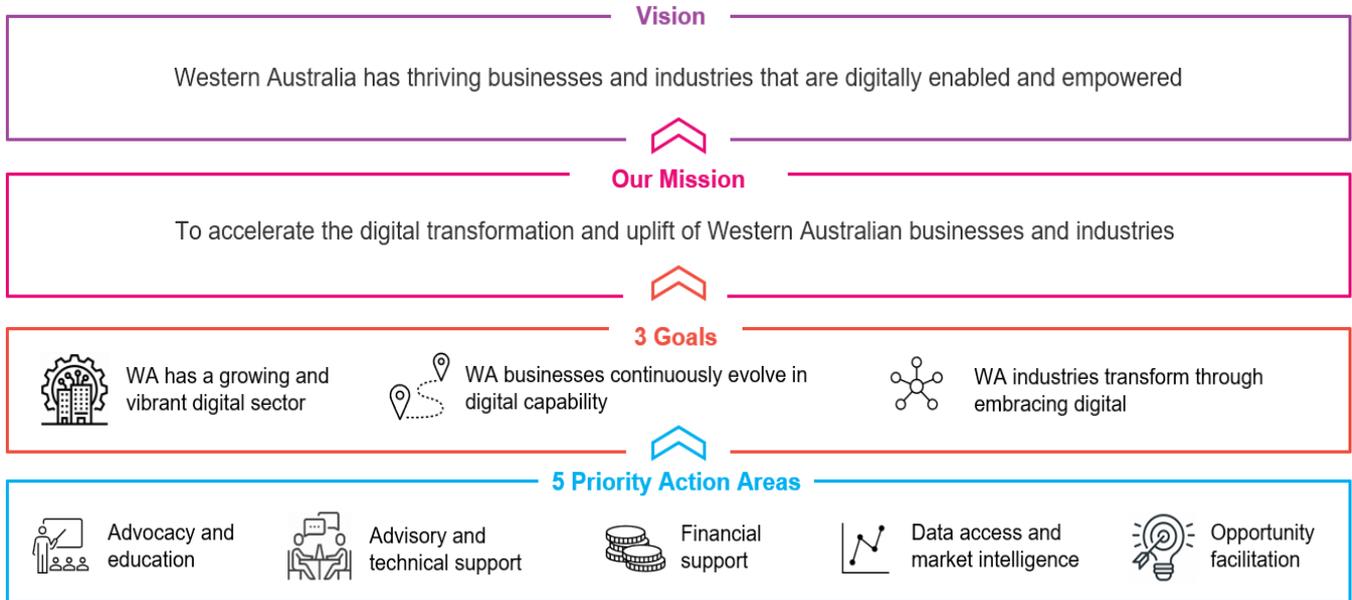
Government must be an agile and responsive partner in the digital evolution of business and industry. This is not a change we can affect alone. It will take all elements of the digital ecosystem to achieve our vision. Together, we can place Western Australia at the forefront of digital transformation, delivering a sustainable future for generations to come.

In recognition of the pace of digital transformation, this strategy will be published online, allowing us to update actions and initiatives based on technological advances and industry need.

By supporting the digitisation of business and industry, along with our promising digital sector, we are demonstrating our commitment to a diverse, resilient, and sustainable economy for the future.



Digitally Evolved: At a Glance



Vision and Mission

WESTERN AUSTRALIA HAS THRIVING BUSINESSES AND INDUSTRIES THAT ARE DIGITALLY ENABLED AND EMPOWERED

Western Australia is the proud home of over 240,000¹ businesses employing over 1.5 million² people. Our economy presents a wealth of opportunities. To ensure our ongoing prosperity we need to sustainably grow and diversify, establishing a wide range of strong industries providing stable, well-paid employment across our regions. We navigate this challenge in a constrained environment - with the ever-growing demand for labour, greater interconnectedness, and expectations around sustainability.

Productivity improvements facilitated by technological developments will allow us to achieve more with less, make best use of our resources and to do it in a way that leaves a sound environment for our future generations. Digitally enabled and empowered Western Australian businesses and industries will help us chart a course to a resilient, competitive economy. We are already world leaders in remote operation technology and are developing technology transfer across industries. This will enable us to develop new areas of expertise built from our existing advantages and help to establish a framework for ongoing success.



TO ACCELERATE THE DIGITAL TRANSFORMATION AND UPLIFT OF WESTERN AUSTRALIAN BUSINESSES AND INDUSTRIES

Our mission is to drive economic growth and diversification by boosting productivity, efficiency, innovation, and global market access for Western Australian businesses and industries. It has been estimated that \$11 billion will be invested in technology in the State by 2030, with 95 per cent of Western Australian workers having at least 20 per cent of their work affected by critical technologies³. In addition, the world needs to further develop and adopt digital technologies as a tool for reducing and controlling carbon emissions⁴, with Western Australia well positioned to lead in this area.

Introduction and Context

Digital transformation has become a fundamental driver of change in our constantly evolving world. As the Fourth Industrial Revolution unfolds, soaring flows of data and information now generate more economic value than the global goods trade⁵. Digital technology touches all aspects of society⁶ and presents an unrivalled opportunity to create a sustainable, inclusive future⁷. This is particularly important to ensuring an equitable standard of living in a State as remote and sparsely populated as Western Australia.

The Organisation for Economic Cooperation and Development (OECD) highlights that digital transformation affects economies and societies in complex and interrelated ways, demanding more strategic approaches, particularly in the context of emerging digital technologies such as AI. However, divides remain in digital capabilities and effective use.

Digital enablement is also becoming increasingly important for all businesses that are part of a supply chain. Businesses that do not keep pace with relevant technologies risk becoming isolated and unable to work as part of ever more complex supply chains for both goods and services. Research shows that highly digitally engaged businesses earn 60 per cent more revenue per employee and grow 28 per cent faster than businesses with poor digital engagement⁸.

Digital technology continues to transform business in new and unexpected ways. From artificial intelligence to quantum computing, autonomous vehicles, and the Internet of Things (IoT), there is seemingly limitless potential. While we must be mindful of how we implement these technologies, they provide the capability to address intricate challenges on an unprecedented scale.

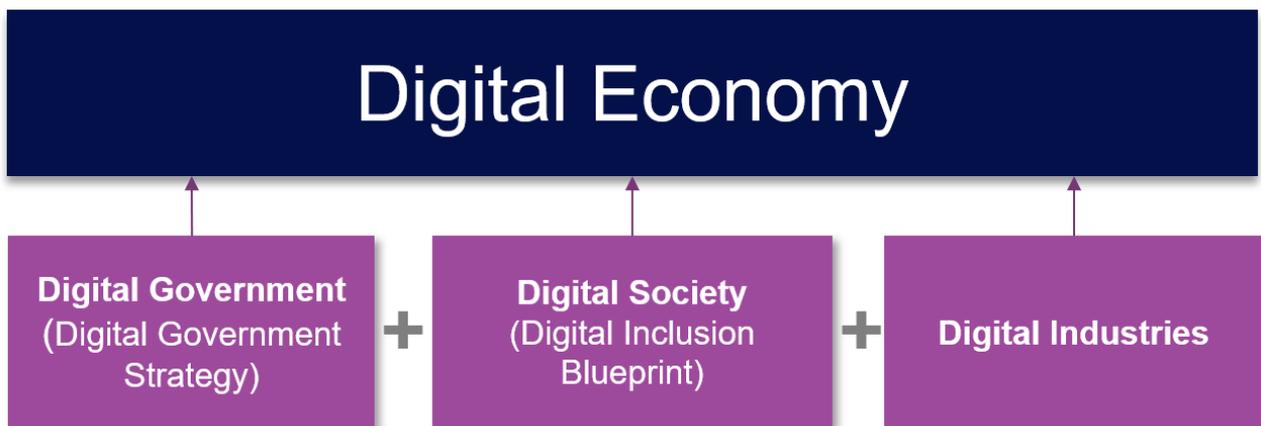
WA's emerging digital sector is making meaningful economic contributions to the State and offers significant opportunities for the future. In 2022, WA's digital sector and their providers generated an estimated \$7.3 billion in value add, and \$431 million in direct export sales.⁹ This sector employs over 60,000 workers, and its workforce is growing 2.6 times faster than WA's total workforce.



The Digital Economy

Western Australia's approach to the digital economy is based on three pillars (see Figure 1, below):

Figure 1. Western Australian approach to the digital economy



Pillar One: Digital Government

Access to digital infrastructure supported by appropriate data and digital governance underpins the digital economy and is primarily the responsibility of Government. *The Digital Strategy for the Western Australian Government 2021-2025* was developed with the aim of changing the way the community and government interact. It puts Western Australian people, businesses and communities at its centre and sets the vision for a government that provides convenient and secure online services informed by quality data insights.

Pillar Two: Digital Society

The *Digital Inclusion Blueprint* outlines a comprehensive strategy to ensure that all citizens have equal access to digital technologies and the skills needed to fully participate in the digital economy and society. It reflects the Western Australian Government's commitment to ensuring all citizens can benefit from the digital age, regardless of their background or circumstances. By addressing barriers to digital inclusion and empowering individuals with skills and resources, the government seeks to create a more equitable and prosperous society for all Western Australians.

Pillar Three: Digital Industries Acceleration

The third pillar, or missing link, is a strategy focused on digital uplift of business and industry. WA: Digitally Evolved has been developed to address this gap, supporting the growth of the local digital sector and the adoption of digital technologies across the State economy.



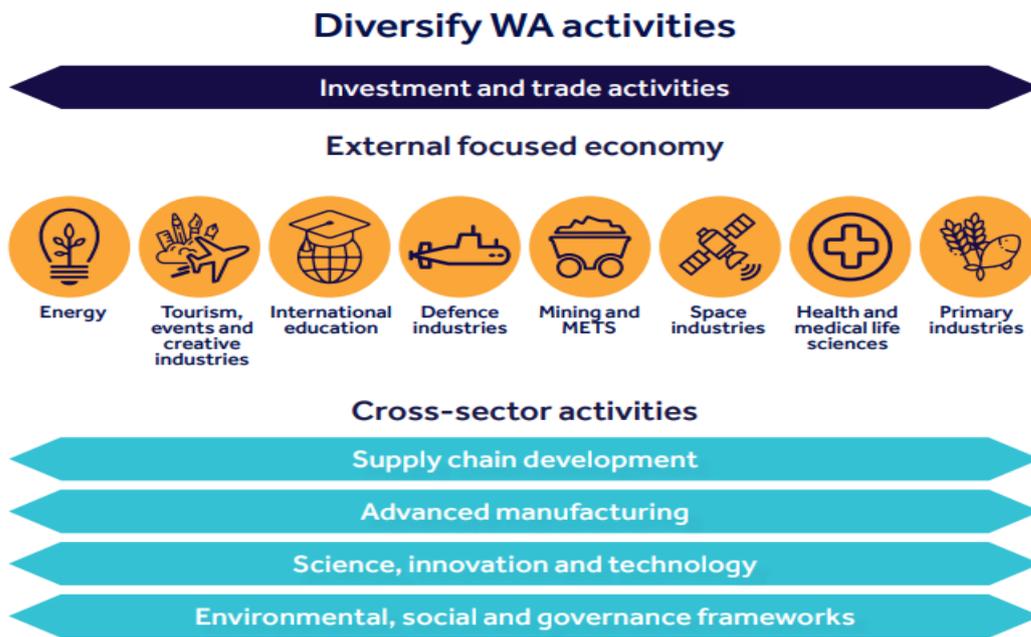
Enabling Government Objectives

The importance of sustainable economic growth in driving improved outcomes cannot be overstated. A productive, growing economy will ensure ongoing prosperity and is the key to positive social impacts. With the right enabling environment a strong and diverse economy underpins the creation of well-paid jobs, better living standards and improved social outcomes across the State. In addition, digital technologies support Government objectives by accelerating the spread of information across social and geographical divides and facilitating the provision of more equitable services to citizens in remote and regional areas.

Diversify WA

Diversify WA provides a blueprint to a more diversified economy that builds on the States’s existing competitive strengths. The uptake of digital technologies and processes is core to the ongoing improvement of all the cross-sector activities that underpin *Diversify WA* (Figure 2, below).

Figure 2. Diversify WA framework



WA: Digitally Evolved is focussed on supporting businesses and industry through their digital transformation journey, and it isn’t only ‘for profit’ businesses that benefit from digital acceleration. Digital technologies can also provide significant benefits for not-for-profit entities, as outlined in the following case study.

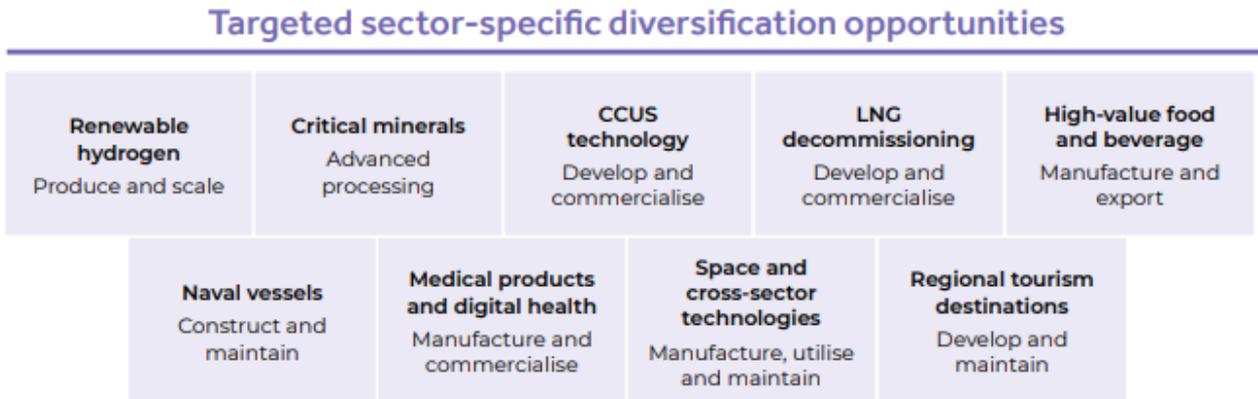
Future State: Accelerating Diversify WA

Supporting the objectives of *Diversify WA*, *Future State* sets out the investment needed to unlock opportunities and accelerate the path to economic diversification. It provides a



targeted, holistic approach to enabling Western Australian industry to become more resilient, sustainable, and diversified. Digital technology will underpin key advances across these sectors. (Figure 3).

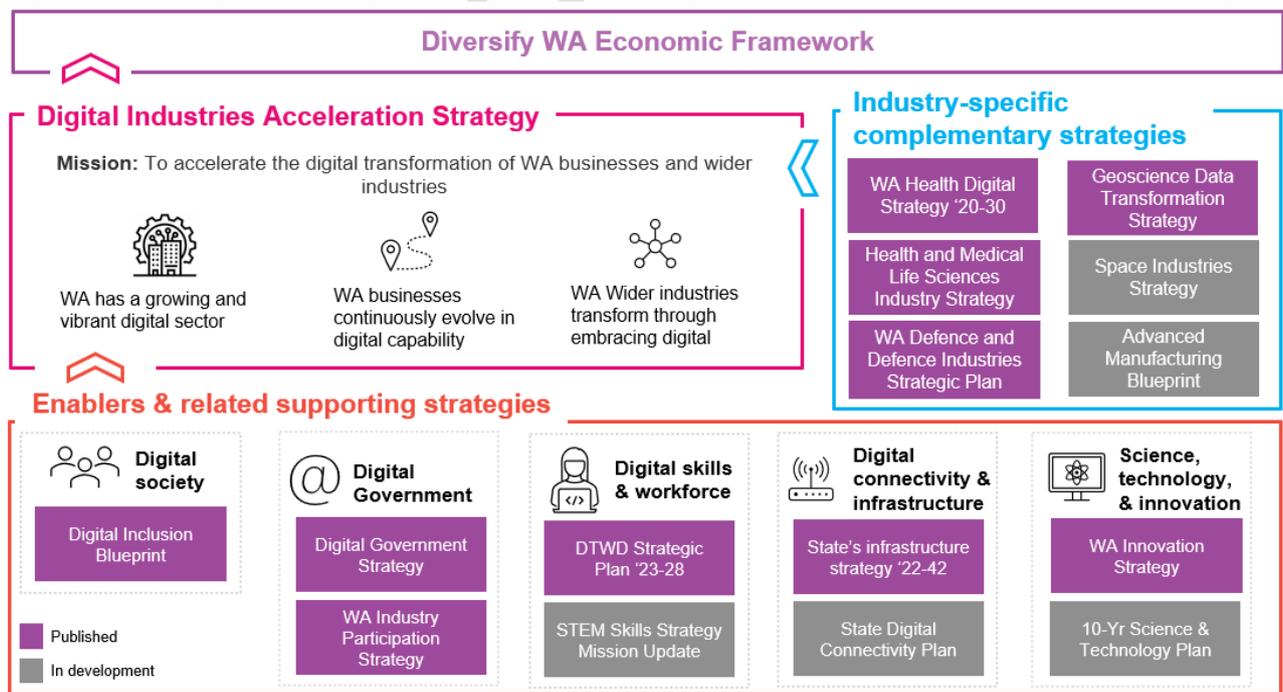
Figure 3. Targeted sector-specific opportunities identified in Future State



Complementary Strategies

WA: Digitally Evolved does not work in isolation, it has been designed to complement and connect with a range of economy wide and industry-specific strategies that support the *Diversify WA Economic Development Framework* (see figure 4, below). These connections exemplify the work that it is happening across Government to support growth and diversification across the economy.

Figure 4. Complementary strategies to the Digital Industries Acceleration Strategy





Building On Our Strengths

Western Australia is renowned for its natural resources and enviable lifestyle, but there are a range of other reasons we are a great place to do business.

Connectivity

Western Australia shares a time zone with over 60 per cent of the world's population including most of our key economic partners in China, Japan, South Korea and Singapore. Additionally, Perth is the only Australian capital city that has core business hours overlapping with Europe and the UK. We are well connected both nationally and internationally with subsea cables providing direct access to Southeast Asia, the Middle East, Europe and Sydney (Figure 5). These high capacity, low latency cable systems make the State an attractive investment location for providers of digital infrastructure and services

Business Environment and Global Reach

As the nation's economic powerhouse, we understand the global nature of digital supply chains and are committed to supporting local businesses in accessing both national and international markets. We have a stable regulatory environment, an extensive network of overseas offices and a dedicated 'front door' for both potential exporters and interested investors in Invest and Trade WA. In addition to being the home to a number of Australia's resource giants, there are many major international digital providers with established operations in WA, including Microsoft, Cisco, IBM, HCLTech and Amazon Web Services.

Energy

Digital infrastructure, particularly high-end technology supporting AI and machine learning is intensely energy hungry, with one study¹⁰ suggesting that the carbon dioxide generated by training a large-scale AI model is equivalent to that generated by five cars over their lifetime. Western Australia's lower cost, green energy potential make it an ideal location for energy intensive digital businesses. A vast landmass (more than 2.6 million km²) and enviable amounts of sunshine provide Western Australia with significant renewable energy potential. While solar is currently the most common form of renewable energy, wind is an important and growing part of the mix. This, coupled with comparatively low gas prices, have led to Western Australia being described as a low energy price 'paradise' by EnergyQuest's¹¹ September 2022 Energy Quarterly.

High Performance Computing Capability and Radio Astronomy

WA is home to leading high performance computing (HPC) facilities such as the Pawsey Supercomputing Research Centre and DUG Technology. The Pawsey Supercomputing Research Centre has been officially recognised as the most powerful supercomputer in the southern hemisphere, as well as one of the greenest. Meanwhile, DUG's proposed data centre in Geraldton will be the world's first carbon-free HPC facility and amongst the largest in the world.

Western Australia is also the designated home of SKA-Low, part of the Square Kilometre Array (SKA), a global mega-science project aimed at building the world's largest and most



sensitive radio telescope. The SKA telescope in Western Australia's Murchison region is designed to explore the universe in unprecedented detail and will revolutionize scientists' understanding of astrophysics, cosmology, and astrobiology.

Case Study: DUG Technology

High-performance computing (HPC) is the assembly of many computers to perform complex calculations of a size that would otherwise be impossible. It is essential not only in research settings but also for applications across a diverse range of sectors, from early bushfire detection and combating neurodegenerative diseases, to enhancing the efficiency and performance of defence vessels.

Despite its importance, deploying HPC presents significant challenges, primarily due to the level of craft and support it demands, alongside its high energy requirements—an aspect of HPC increasingly under scrutiny as industries transition towards adopting low-emission technologies to align with global sustainability goals.

[DUG technology](#), a WA-based company, designs, owns, and operates a network of some of the largest and greenest supercomputers on Earth. DUG has developed a patented solution called DUG Cool, which enables industrial immersion cooling at scale. DUG Cool reduces the power consumption of the Company's supercomputers by over 50% and uses 85% less synthetic refrigerants. It increases computer hardware performance, density and



lifespan, while reducing complexity and maintenance costs, positioning DUG at the forefront of green HPC operations. DUG Cool is employed in the company's latest offering, DUG Nomad—a mobile, modular, data-centre solution in a single, secure container that enables putting HPC wherever it's needed.

Founded in 2003, DUG has grown to become a global company with offices in Perth, London, Houston, Kuala Lumpur

and Abu Dhabi. The company supports a diverse industrial client-base that includes radio-astronomy, biomedicine and meteorology, as well as the resource, government and education sectors.

DUG has been granted A\$5 million from the Investment Attraction Fund to assist in building a new climate-positive HPC campus in Geraldton. At capacity, the campus is expected to be one of the largest HPC facilities in the world, turbocharging Australian innovation and placing WA on the global supercomputing map.



Leading remote operations capability

WA is regarded as a world leader in remote operations, with the resources sector driving and adopting technologies in relation to automation, robotics, and advanced data analytics. There are similarities between the challenges facing space technologies and those experienced by many sectors on earth. WA's global reputation in remote operations capability has attracted several staff from NASA in the US to relocate to Perth. WA is home to the Australian Remote Operations for Space and Earth (AROSE) Consortium, the Australian Space Automation AI and Robotics Control Complex (SpAARC) and the Australian Automation and Robotics Precinct (AARP).



Cybersecurity

Cybersecurity incidents pose significant risks to businesses and the overall economy, as resulting disruptions and financial losses tend to reverberate across organisations. As cyber threats rapidly evolve, incidents have grown more sophisticated, frequent, and increasingly damaging.

Edith Cowan University (ECU) in Perth is a world-leader in cyber security research and education, recognised by the Australian Government as an Academic Centre of Cyber Security Excellence. ECU is home to:

- The national Cyber Security Cooperative Research Centre, which helps grow Australia's capability in cyber security and deliver solutions to ensure the safety of Australian businesses online.
- The southern hemisphere's largest university Security Operations Centre, which provides students with real world training in monitoring, detecting, and responding to cyber security threats.

There are a number of businesses that have emerged from Western Australia's cybersecurity capabilities, the following case studies provide examples of such businesses.



Case Study: Retrospect Labs

Cybersecurity exercises are considered one of the most effective strategies to ensure that organisations are well-prepared to protect their critical assets and to minimise cybersecurity incident impacts. However, developing meaningful cybersecurity exercises can be difficult, costly and time consuming. Retrospect Labs recognised this gap and set out to address it.

[Retrospect Labs](#) is a Western Australian-based startup specialising in developing and delivering cybersecurity exercises that simulate real-world scenarios. Having participants practice incident response, threat detection and crisis management, allows organisations to test their cybersecurity capability and identify areas of improvement.

Retrospect Labs offers tabletop (discussion-based) and functional (hands-on) exercises using [Gauntlet](#) – their bespoke subscription-based exercise platform. Through Gauntlet, organisations can access and design custom exercises, execute simulations and self-evaluate their performance. Additionally, the Retrospect Labs team can co-design and conduct exercises tailored to meet specific requirements.

Building on years of experience as incident responders for the Australian Government, Jason Pang and Ryan Janosevic founded Retrospect Labs in 2019. Since then, Retrospect Labs has grown to a team of 14 staff that supports cybersecurity preparedness across a wide range of sectors nationally. Their clients include the Australian Federal and State Government departments, Synergy, the Australian Energy Market Operator, Monash University, and many other critical infrastructure providers subject to the regulations of the *Security of Critical Infrastructure Act 2018* (SOCI).

Case Study: Hyprfire

Network Detection and Response (NDR) cyber security technologies are designed to monitor and detect anomalies, suspicious activities, and potential threats in networks, enabling rapid incident response and network resilience. They form part of an organisation's core cyber defences, alongside endpoint and perimeter security solutions. However, legacy NDR solutions tend to be slow to deploy, costly and complex to use.

[Hyprfire](#) is a WA-based cyber security company that launched “Firebug” – a next-generation NDR with behavioural-based detection for superior network threat identification, based on research developed at Curtin University. Firebug has been found to increase accuracy in intrusion detection, while being more affordable and faster to deploy than legacy NDRs. Through network intelligence, this technology provides actionable optimisation recommendations for IT teams, reducing their response time.

Since its 2021 inception, Hyprfire has grown to a national team with strategic partners in Europe and the United States. Its customers include critical infrastructure, manufacturing, government, healthcare, education, and public venues.

Hyprfire was recognised as the Network Cybersecurity Business of the Year at the 2023 Australian Cybersecurity Awards..



Always Room to Improve

Costs associated with digitisation

From upfront costs to integration expenses and licensing fees, digitisation can be expensive. In addition to financial costs, the cost of time taken to upskill employees and update systems processes can often result in businesses delaying or forgoing the benefits of digital uplift. Reducing these cost barriers, including through provision of relevant, accessible advice will increase the adoption of digital technology with the associated flow-on effects to the State economy.

Workforce

The rapid growth in demand for skilled digital workers is outstripping supply globally, with the impact being more acutely felt by small to medium enterprises. Attraction, development and retention of relevant expertise is crucial to maintaining pace with the evolving digital landscape.

In addition, women and First Nations Australians are underrepresented in the digital workforce. Tapping into these underutilised segments and improving diversity in the digital sector will provide businesses with access to a broader range of skills and more diverse perspectives fostering inclusivity, creativity and innovation.

Digital Connectivity and access

While not the focus of this strategy, the importance of improving digital connectivity and access in our regions will impact our ability to achieve our vision. The State has committed \$48.6 million to co-invest with the Australian Government, in Regional Digital Connectivity, including under the national Regional Connectivity Program and the national Mobile Network Hardening Program.

Digital connectivity across WA will be further addressed in the forthcoming State Digital Connectivity Plan. The Plan is intended to guide the State's long-term, strategic investment in digital connectivity, including a prioritisation framework to expand and improve service quality and digital inclusion outcomes for all citizens and businesses in WA.

Commercialisation of new technologies

Significant expertise in technology domains resides in WA's university research labs and/or not-for-profit research institutes, the potential of which is often untapped. Better translation and commercialisation of this knowledge presents an opportunity for the State to create new jobs, companies and wealth. This issue is addressed in both the *Innovation Strategy* and the forthcoming 10-year Science and Technology Plan.

Data

Often referred to as the new gold¹², the vast amounts of data generated through electronic communication, e-commerce and web-based activity hold great value potential for those who can utilise it effectively. Data analytics and artificial intelligence offer businesses the ability to better understand customer preferences, optimize operations, and develop new



products and services tailored to market demands. However, like most computer-based models, an AI engine is only as useful as its underlying data. If the input data is of poor quality, incomplete, inaccurate or poorly structured the resulting output or analysis will also be flawed or unreliable.

Case Study: idoba

High sunk costs, commodity price volatility and potential hazards to people and the environment have traditionally made technology adoption in mining challenging. This is changing as the industry addresses significant pressure to decarbonise and run more efficiently and effectively in an era of constrained labour and capital. In the last few years, mining companies have started to harness data and technological innovations to boost their operations' efficiency, productivity, and sustainability.

[idoba](#) is a WA-based, digital software company supporting the digital transformation of the mining industry by combining data science and AI with its inhouse mining expertise. Its DiiMOS™ platform provides the mining industry with real-time analytics, simulation and optimisation tools that allow monitoring, analysis, and evaluation of existing and proposed mining operations. This facilitates timely and accurate information to



Photo: idoba team collaborating in the creation of new products

support decision-making from early-stage mine planning to supply-chain optimisation. In a recent example, idoba improved a mine's train loadout point and supply chain resulting in 350,000 tons of additional output for the mine. This equated to approximately \$27 million of additional revenue per year with no significant capital expenditure required.

idoba is part of the leading mining services provider Perenti Group, and has key partnerships with leading digital companies such as Microsoft and Amazon Web Services. Currently, idoba has over 120 employees, including software engineers, data scientists, , and subject matter experts based in Perth. Its clients include large mining companies such as BHP, Rio Tinto, FMG, South 32 and Roy Hill.

One Strategy: Three Goals

Our goals under this strategy are simple:

WA has a growing and vibrant digital sector.

Providing the environment in which Western Australia's nascent digital sector can flourish.



WA's digital sector has the capacity to address pressing societal challenges in areas including healthcare, education, transportation, and environmental sustainability. By supporting the development of the digital sector, we can drive innovative solutions to these challenges, leading to better public services, improved social welfare and sustainable development.

WA businesses continuously evolve their digital capability.

Enabling businesses in Western Australia to use the digital environment to drive growth, productivity and employment.

Incremental improvements across many firms, resulting from the adoption of even foundational technologies, can make a significant impact to State productivity. Doing this continually enables businesses to stay ahead of the competition and meet evolving customer needs. Embracing continuous improvement through agility and responsiveness will fuel the ongoing prosperity and sustainability of our State.

WA industries transform by embracing digital.

Digital evolution within and technology transfer between Western Australian industries supports the ongoing growth and diversification of the economy.

Digital technologies are known to deliver significant spillovers of knowledge into other areas of the economy¹. Western Australia has been at the forefront of digital uplift in the mining sector; from remote operations to geological mapping and safety equipment. By harnessing these technologies and applying to a broader range of industries we can garner global competitive advantages across the economy, supporting economic growth, diversification and jobs.

Digital technologies possess the flexibility to permeate various sectors and regions worldwide, offering effective problem-solving tools that transcend national and industrial borders.



Case Study: MineARC

Situated in Perth, MineARC System is known as a leading manufacturer of Refuge Chambers in Australia. Building on decades of experience in mining sectors (including tunnelling, petrochemical and disaster relief), MineARC has expanded its technology into safety uses, such as The Guardian Intelligence Network. Designed to provide real-time monitoring, communication and diagnostics, the Guardian Intelligence System uses gas monitoring, Smart Lighting Navigation and underground personnel tracking to meet site goals of creating a safe working environment.



Photos: Left: Refuge chamber and smart lightning in an underground mine. Right: Internal of plant growth chamber

In more recent years the company has used technology to form innovative ways of reaching new industries and sectors such as biotechnology and agriculture. They have created various controlled environments under the brand name Biora, using same real-time monitoring and chamber-like housing as mining refuge chambers but combining it with controllable elements to manipulate the internal environment of the chamber, such as temperature, humidity, lighting and more. These chambers have been part of ongoing research in the pharmaceutical sector and other groundbreaking projects like vertical farming.

Recently MineARC secured a \$3.1 million grant from the WA Investment Attraction Fund to bolster their technology manufacturing endeavours and further their work in the biotechnology sector which will allow them to develop a new market-leading range of Biora Reach-In chambers from their premises in Perth.

Currently, MineARC operates offices and manufacturing facilities across Australia, South Africa, Chile, China, Europe, and the United States. In Perth, they conduct research and development (R&D), manufacturing and utilise an in-house Surface Mount Technology (SMT) line, enhancing flexibility in designing and manufacturing technological products.



Supporting Our Digital Evolution

The Western Australian Government has a proud history of providing infrastructure and incentives to support the development of business and industry in the State. At this time of unprecedented change, it is essential that we provide the physical and policy frameworks to deliver the economic growth and stable jobs that are essential for our way of life.

While digital transformation has predominantly been market-driven, there is a role for Government to promote and support the uptake of digital capabilities to support local economic development. This is particularly true at a time when geopolitical technology rivalry is reshaping global supply chains and increasing the focus on sovereign capability. Government can also catalyse digital transformation through the provision of digital services, leading or mandating digital approaches and facilitating connections and technology transfer between industry sectors. This ongoing sharing of information will create changes to the digital landscape.

Achieving our digital goals will be a collaborative effort including government, industry and academia. Partnering with innovation hubs, business support bodies and existing service providers is central to the success of this Strategy. By leveraging expertise and resources already working in this area the State can provide the best value for money for the people of WA.

Our actions under this strategy are focused on five priority areas.

Note: This consultation draft outlines a vision, goals, and action areas for accelerating digital adoption among businesses and industries in Western Australia. While various initiatives to support this transformation are currently in progress or under development, stakeholder feedback is essential to determine the role of government vis-à-vis industry and other stakeholders in this process. It is anticipated that a range of initiatives, whether government-led or not, will be incorporated into the final version of this strategy upon its launch.



Priority Action Area 1: Advocacy and Education

Building awareness of the importance of digital transformation and the capability of businesses to use digital technologies and data.

The Australian Productivity Commission's 5-year Inquiry found that limited awareness and uncertainty about costs and benefits are amongst the most common barriers to technology and data adoption. Facilitating access to timely, relevant information through investments in education, training, and specialised hubs is essential for addressing this challenge.

Current Initiatives

Fee-Free TAFE and vocational education and training

In partnership with the Australian Government, the Western Australian Government offers fee-free TAFE and VET training across a variety of courses including information technology and digital disciplines. These courses range from basic digital literacy skills through to Certificate IV and Diploma level. The Digital Workplace Job Ready Program in particular is a great opportunity to gain valuable entry-level skills and links with employers to help participants enter the digital workforce.

CyberWest (Cyber Security Innovation) Hub

Jointly funded by the Western Australian Government, Edith Cowan University and the City of Joondalup part of the WA Cyber Security Innovation Hub's brief is to build awareness of cybercrime and the capability of businesses to both reduce their risk and respond to incidents.

WA Data Science Innovation Hub (WADSIH)

The WA Data Science Innovation Hub is a Western Australian Government initiative, and supported by Curtin University, which aims to ensure the State remains at the forefront of the digital revolution by increasing the uptake, education, training and awareness of data science.

WA Creative Industries Innovation Hub

The WA Creative Industries Innovation Hub is funded by the Western Australian Government and focused on supporting creative industries such as design, music, advertising, film, and media, as well as emerging technologies including gaming, digital software development and immersive technology.

WA Life Sciences Innovation Hub

The WA Life Sciences Innovation Hub is accelerating the growth of the State's MTP (MedTech and Pharm) sector and has a key focus on technology.

New Initiatives

To be developed through the consultation process.



Priority Action Area 2: Advisory and Technical Support

Providing access to guidance and support to businesses.

Digital transformation can feel overwhelming, particularly for time-poor small businesses. The ongoing proliferation of digital solutions has made it difficult to determine the best value options for a specific business. In addition, finding the time to separate legitimate providers from ‘cowboys’, particularly in an online environment, can be challenging. Enabling better engagement with relevant technologies through expert assistance will accelerate digital adoption.

Current Initiatives

Small Business Development Corporation (SBDC)

A State Government agency, the SBDC provide a range of small business support services including advice, online information and business skills workshops designed to help small businesses not only establish well but to survive and thrive

Business Local

Business Local is a free service funded through the SBDC offering advisory support and workshops to small businesses located throughout regional Western Australia.

Digital Solutions - Australian Small Business Advisory Services (Commonwealth)

The Digital Solutions – Australian Small Business Advisory Services program works with small businesses to make the most of digital tools and offers broader advice specific to business needs. The program offers up to 4 hours of one-on-one tailored support as well as unlimited attendance at group workshops or webinars.

Regional Tech Hub (Commonwealth)

The Regional Tech Hub provides regional, rural and remote businesses with independent and free advice about available telecommunication technologies, and can assist with troubleshooting digital, phone and internet issues.

Small Business Mentoring Services

The Small Business Mentoring Service provides businesses locally and across Australia with low-cost mentoring to help them with marketing, finance, planning and all aspects of small business.

New Initiatives

To be developed through the consultation process.



Priority Action Area 3: Financial Support

Helping businesses overcome the barrier of technology cost.

The costs associated with implementing, upgrading and supporting digital systems can be significant. Supporting particularly small and medium enterprises to manage the costs associated with digital transformation increases digital adoption thereby enhancing productivity, competitiveness, and resilience.

Current Initiatives

These are only a sample of State Government programs that are currently available – it is intended that the final online version of this Strategy include links to as many initiatives as possible to improve business' awareness of these programs.

Local Capability Fund

The Local Capability Fund (LCF) helps small and medium enterprises in Western Australia to increase their capability, capacity, and competitiveness as suppliers of products, services and works to the Western Australian Government, major projects and other important markets.

Digital Games Pre and Post-Production Fund

The Screenwest Digital Games Pre and Post-Production Fund provides grants to Western Australian companies and key creatives to develop and release high-quality, diverse and engaging digital games.

Defence Ready Initiative

The Defence Ready Initiative provides funding support to Western Australian small to medium enterprises (SMEs) that operate in the defence sector to enhance their business capability, capacity, and competitiveness to participate as suppliers of products, services and works to the Defence market.

New Initiatives

To be developed through the consultation process.



Priority Action Area 4: Data Access and Market Intelligence

Unlocking access to data and information that can support and improve operations and service delivery.

The sharing of data between public sector agencies and appropriate third parties can support more informed policy development, program management, research, evaluation and service planning. A secure and responsible data-sharing ecosystem can facilitate better decision-making as well as providing a more efficient service delivery for citizens and business.

Current Initiatives

Shared Location Information Platform (SLIP)

Central collation of spatial based datasets sourced from across the public sector to enable efficient and effective data sharing and accessibility.

Data WA

Launched in 2015, Data WA seeks to improve the management and use of public sector data to improve service delivery and unlock innovative opportunities to data-driven businesses in WA.

PeopleWA

PeopleWA is a linked data asset for government agencies, researchers, and non-profit organisations, which connects multiple sources of information to create richer, more comprehensive datasets for research and policy development purposes.

New Initiatives

To be developed through the consultation process.



Priority Action Area 5: Opportunity Facilitation

We will propel businesses to take advantage of opportunities and promote the capabilities of Western Australia to the world.

Operating in a global marketplace can be daunting for Western Australian business owners, yet it is increasingly important to provide growth opportunities and reduce reliance on domestic markets. By assisting companies to position themselves globally we can showcase Western Australia, driving economic growth, diversification, and prosperity.

Current Initiatives

Investment Attraction Fund (IAF)

The IAF was established to encourage new investment in WA to create local jobs and contribute to a more diversified economy. It provides grants to support activities that enhance value and productivity across multiple sectors of the economy, aligned with the Diversify WA strategy.

WA Investments

Established in 2022 by the Chamber of Commerce and Industry of Western Australia Limited (CCIWA), in partnership with the WA Government, launched WA Investments, this initiative is a digital platform designed to promote specific regions and industry sectors in WA as a destination for investment.

Invest and Trade Western Australian global network

Invest and Trade WA has multiple offices overseas to create people-to-people connections that facilitate investment into the State and assist local industry to access priority export markets.

The Data Centre Prospectus (2022)

Aimed at attracting and positioning Western Australia in the global industry, the WA government prospectus highlights WA's competitive advantages for data centre investment. In addition, interested companies are offered facilitation support.

New Initiatives

To be developed through the consultation process.



Measuring Success: Our Approach

As we embark on our journey accelerating the digital transformation of WA businesses and industries, it is crucial that we establish a robust framework for measuring success at various time horizons: long, mid, and short term. This is to enable continuous improvement, as well as provide transparency and accountability around the actions developed to support this strategy.

Our approach centres around a program logic that connects inputs, actions, outputs, outcomes, and impacts in the frame of the main objective or mission set for this strategy (see Figure 6, below).

Following this program logic, short-term progress will be assessed against tangible outputs derived from actions established in each of the five priority areas, outlined in previous sections. As such, output measurements will be highly specific and crafted once specific actions are defined.

Outcomes, or mid-term progress, will be assessed against how close we are to achieving the three goals set for this strategy. Noting that outcomes tend to be less tangible than output measures, as they build on the combined effects of all actions undertaken under the strategy, we have proposed eight outcome measurements listed in the table 1, below.

Meanwhile, impacts are the ultimate, long-term effect of this strategy. Considering the multiple intervening factors that may affect the long-term results of the strategy, impacts are difficult to measure, however, two broad measures are being proposed (see table 1, below) to help identify the extent to which the strategy's vision is achieved as time progresses.

These measurements are set as a battery of measurements for consultation, based on data that is available and/or can be gathered as part of the strategy's evaluation process. These are expected to evolve as new datasets become available and specific initiatives and actions are defined as part of the strategy development process.

Figure 6. Program logic for measurements of success – Digital Industries Acceleration Strategy

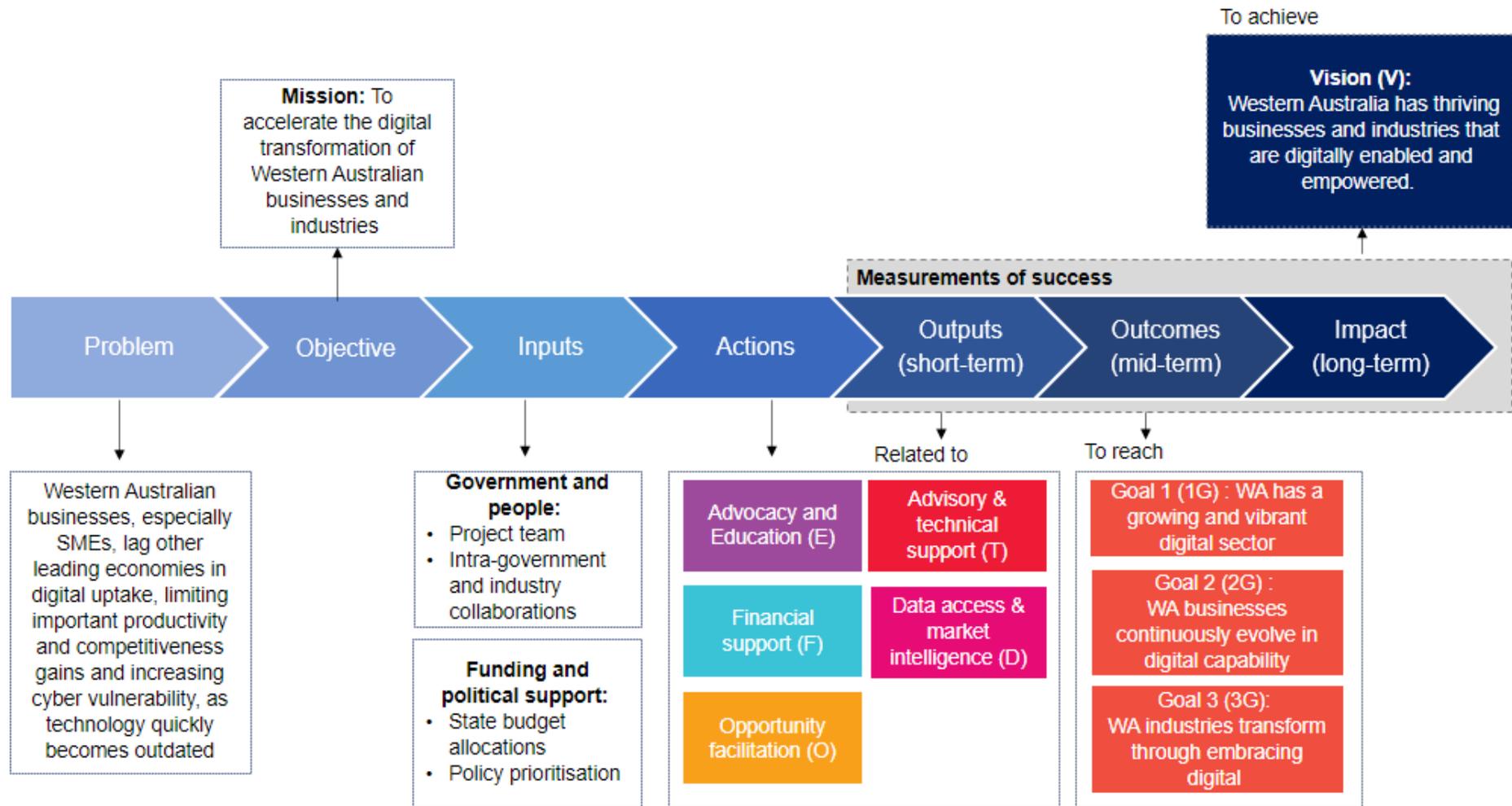


Table 1. Proposed measurements to assess strategy success: Outcomes and impacts.

Tier	Priority Area	Proposed measure of success	Input data
Outcomes	Goal 1: WA has a growing and vibrant digital sector (1G)	1G1. The number of WA's digital workers increase	Number of digital workers in WA
		1G2. The number of businesses in WA's digital sector grows	Number of digital businesses in WA
Outcomes	Goal 2: WA businesses continuously evolve in digital capability (2G)	2G1. WA's score and rank in the Digital Readiness Index 2022 increases	WA's Digital readiness rank and score
		2G2. The adoption of essential digital technologies across WA businesses, particularly SMEs, grows	Number of WA businesses that have adopted essential digital tech (e.g. cybersecurity software, cloud tech and digital platforms)
		2G3. The adoption of advanced/specialised digital technologies across WA businesses grows	Number of WA businesses that have adopted advanced/specialised digital techs (e.g. AI, radiofrequency identifications, 3D printing, block-chain).
		2G4. Losses from Business email compromise and other cybercrimes reduces	Number of Business email compromise and other cybercrimes in WA
Outcomes	Goal 3: WA industries transform through embracing digital (3G)	3G1. The number of industry digital transformation strategies and/or successes/outcomes achieved through existing strategies increase	Existing strategies in Diversify WA sectors with digital transformation components

Tier	Priority Area	Proposed measure of success	Input data
		3G2. Sector-specific collaborations to support their digital transformation increase	Number of collaborations (e.g. meetings, forums, joint projects) in Diversify WA sectors aiming to support their digital transformation
Impact	Vision: WA has thriving businesses and industries that are digitally enabled and empowered (V)	V1. Digital adoption supports growth in business productivity	Number of businesses that linked digital adoption to: <ul style="list-style-type: none"> Improved efficiency in work flow, inventory management or ordering systems. Better coordination of staff and business activities Introduced goods or services not possible without ICT
		V2. Digital adoption supports business competitiveness and resilience	Number of businesses that linked digital adoption to: <ul style="list-style-type: none"> New opportunities to enter or expand markets Improved responsiveness to customer needs



References

¹ CISCO report *Smart Zero: Using advanced networks to accelerate progress towards Net Zero*

² <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/latest-release>

³ Australia's Digital Pulse – Western Australian edition, available at <https://www.acs.org.au/insightsandpublications/reports-publications/digital-pulse-2023.html>. Retrieved 26 February 2024

⁴ CISCO report *Smart Zero: Using advanced networks to accelerate progress towards Net Zero*

⁵ McKinsey Global Institute report (2016): *Digital globalisation: The new era of global flows*. Available at: [Digital globalization: The new era of global flows | McKinsey](#)

⁶ OECD. (2020). *OECD Digital Economy Outlook*. Available at: [OECD Digital Economy Outlook 2020 | en | OECD](#)

⁷ World Economic Forum. *Fourth Industrial Revolution*. Available at <https://www.weforum.org/focus/fourth-industrial-revolution> . Retrieved 12 February 2024

⁸ Department of Foreign Affairs and Trade. *Business Envoy*. Available at <https://www.dfat.gov.au/sites/default/files/business-envoy-april-2021-digital-trade-edition.pdf>. Retrieved 26 February 2024

⁹ Refer note 3

¹⁰ ¹⁰ Strubell, E., Ganesh, A., McCallum, A.: Energy and Policy Considerations for Deep Learning in NLP. In [ArXiv:1906.02243](#) (2019).

¹¹ See [How To Make Use Of The New Gold: Data \(forbes.com\)](#)

¹² Draca, M., Martin, R., & Sanchis-Guarner, R. (2018). The evolving role of ICT in the economy. *Report by LSE Consulting for Huawei*, 4.