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THE ECONOMIC CONTRIBUTION OF KBR AUSTRALIA

NOVEMBER 2024

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November 2024

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EXECUTIVE SUMMARY

Kellogg Brown & Root Pty Ltd (KBR), an Australian company within a global organisation focussed on science, technology and engineering solutions, is one of Australia's leading infrastructure and defence support providers. With some 65 years' experience in Australia, KBR employs nearly 1,800 people at sites across the country.¹

As indicated in this study, KBR makes a substantial contribution to the Australian economy. In calendar year 2023, KBR made a total contribution to Australian GDP worth over \$1.0 billion and sustained 6,370 jobs across the economy while contributing \$362 million in tax. This economic contribution covers the direct activities of KBR, the business generated through its supply chain spending, and the activity supported as KBR employees and others in the supply chain spent their wages. Of this total footprint, KBR's direct activities accounted for an annual contribution to GDP worth \$394 million, 1,779 jobs and \$191 million in tax.

\$1.0b

Contribution to GDP in 2023

KBR directly produces a contribution to GDP worth \$394 million and 1,779 jobs.

6,370

Total jobs sustained in 2023

KBR employees are highly productive and spread across the country.

KBR's labour productivity, as measured by GDP per employee reached \$222,000 in 2023 – 59% higher than the average for the Australian economy. High productivity (or high value add) employees are essential to raising the economy's growth rate and living standards.

KBR staff are spread across all of Australia's mainland States and Territories. Some 29% of the company's total workforce is based in Victoria with New South Wales (22%), Queensland (17%) and South Australia (15%) also accounting for substantial employee numbers.

Some 30% of KBR's workforce identify as female, with 70% identifying as male.

KBR's activity also provides support to the economy and Australian society in a variety of broader ways. In 2023 KBR purchased some \$158 million worth of goods and services from 420 small to medium sized enterprises (SMEs) across the country, helping to support such businesses during increasingly challenging times. The company also provide some \$800,000 worth of training to its employees to further STEM and other skills development and promote cultural awareness.

The output of KBR's activities helps to support the way in which Australia can address some of its biggest challenges - defence and national security, smarter, safer and more sustainable infrastructure, the clean energy transition and contributing to long-term economic growth.

The company is delivering capability through its support of the most diverse fleet within the Royal Australian Navy. In addition, it has invested in the development of world-leading technologies to provide interoperable communications in contested and congested environments. It is also supporting

¹ This report also includes activity relating to KBR's share of joint ventures (JVs) in Australia during 2023. In practical terms however no employees were separately registered under JVs and JV activities had only a small impact on overall results. References to KBR therefore include activity accounted for by its proportion of JVs. Also note that references to "KBR" refer to KBR Australia as distinct from the company's other international arms.

the design and delivery of critical infrastructure that will support both the rotation of nuclear-powered submarines in the region and the construction of submarines under the AUKUS agreement.

KBR continues to build on a 65-year legacy of Australian operations, designing and modernising critical infrastructure that supports industrial productivity and economic development. A net zero organisation since 2019, KBR supports governments and businesses to navigate the energy trilemma, delivering solutions at the intersection of energy security, affordability, and sustainability.

As well as enhancing Australia's defence capabilities, contributing experience and world leading advice on these initiatives raise productivity over the longer term. Rising productivity in turn drives economic growth, which is central to increasing living standards for all Australians.

1. INTRODUCTION

Kellogg Brown & Root Pty Ltd (KBR), an Australian company within a global organisation, and focussed on science, technology and engineering solutions is one of Australia's leading infrastructure and defence support providers. With some 65 years' experience in Australia, KBR employs nearly 1,800 people at sites across the country.²

In Australia, KBR is involved in a diverse range of activities. These include work across defence and lifecycle analysis as well as innovative solutions across the transport, water, buildings, sustainability, energy, and resources markets.

This report quantifies the significant economic contribution of KBR in calendar year 2023³. The topics covered in the following chapters include:

- The company's contribution to GDP and tax revenue;
- KBR's employment footprint;
- KBR's "catalytic effects" – its longer-term impacts on the economy and society including KBR's activities in relation to training, skills development and education, support to SMEs and technical activities.

The output of KBR's activities helps to support the way in which Australia can address some of its biggest challenges - defence and national security, smarter, safer and more sustainable infrastructure, the clean energy transition and contributing to long-term economic growth.

The company is delivering capability through its support of the most diverse fleet within the Royal Australian Navy. In addition, it has invested in the development of world-leading technologies to provide interoperable communications in contested and congested environments. It is also supporting the design and delivery of critical infrastructure that will support both the rotation of nuclear-powered submarines in the region and the construction of submarines under the AUKUS agreement.

A net zero organisation since 2019, KBR supports governments and businesses to navigate the energy trilemma, delivering solutions at the intersection of energy security, affordability, and sustainability.

As well as enhancing Australia's defence capabilities, contributing experience and world leading advice on these initiatives raise productivity over the longer term. Rising productivity in turn drives economic growth, which is central to increasing living standards for all Australians.

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³ Unless otherwise indicated all references to 2023 are to calendar year 2023 ending 31 December 2023. Likewise, unless otherwise indicated, all figures are presented in 2023 dollars.

MODELLING THE ECONOMIC CONTRIBUTION

The economic contribution of a company or industry is measured using a standard mode of analysis called an “economic contribution assessment”. In this study, we model the contribution of KBR to the Australian economy. The report quantifies the three “core” channels of contribution that comprise the organisation’s total “economic footprint”:

- **Direct contribution**— the economic benefit of KBR’s operations and activities in Australia.
- **Indirect contribution**— the economic benefit and employment supported in the company’s supply chain, as a result of the procurement of goods and services;
- **Induced contribution** — the wider economic benefits that arise when KBR’s employees and those employed within its supply chain spend their earnings, for example in local retail establishments.

These contribution channels are illustrated in more detail in the Technical Appendix (Chapter 6) at the end of this document. From these channels, KBR’s total economic footprint in Australia is presented, using three key metrics:

- **GDP** — or more specifically, KBR’s Gross Value Added (GVA) contribution to GDP;
- **Employment** — the total number of people employed, measured on a headcount basis;
- **Tax** — representing the tax receipts paid to Australian Federal and State governments.

In addition to the core economic impacts, this report examines some of the **wider effects** of the company’s services or products in providing internal training, boosting productivity and assisting small to medium sized enterprises (SMEs).

The modelling on which this report is based, computes the economic footprint of KBR in calendar year 2023, the latest year for which full economic data were available at the time of publication. Economic contributions are quantified for the whole economy of Australia, with employment, also presented individually for all Australian States and Territories except Tasmania (where no KBR employees are present).

2. CONTRIBUTION TO GDP

This section of the report describes the contribution that KBR made to Australian GDP in 2023. It details the different channels of contribution that make up the organisation's total economic footprint, its labour productivity and the industries it supports.

2.1 TOTAL CONTRIBUTION

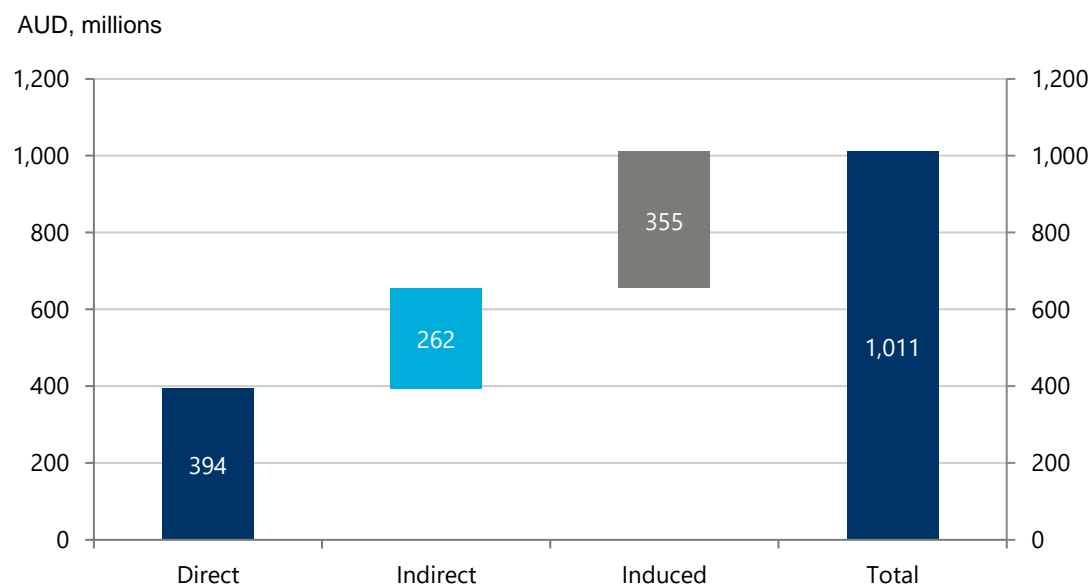
\$1.0 bn

Total contribution of KBR to Australia's GDP in 2023

KBR made a total contribution to Australian GDP worth over \$1 billion in Calendar Year 2023 (Fig. 1). The largest single portion of this came from the company's direct activity, worth nearly \$400 million.⁴ An indirect contribution of \$262 million was made through its supply chain, with a further \$355 million coming from induced consumption activity.

This analysis reveals that KBR had a GDP multiplier of 2.6 in 2023. This means that, for every dollar of direct output, the Australian economy was boosted by a total of 2.6 dollars (including KBR's direct contribution). Accordingly, as indicated, the company's contribution to the Australian economy increases from around \$400 million to over \$1 billion after accounting for supply chain and induced spending effects.

Fig. 1. KBR's contribution to GDP in 2023



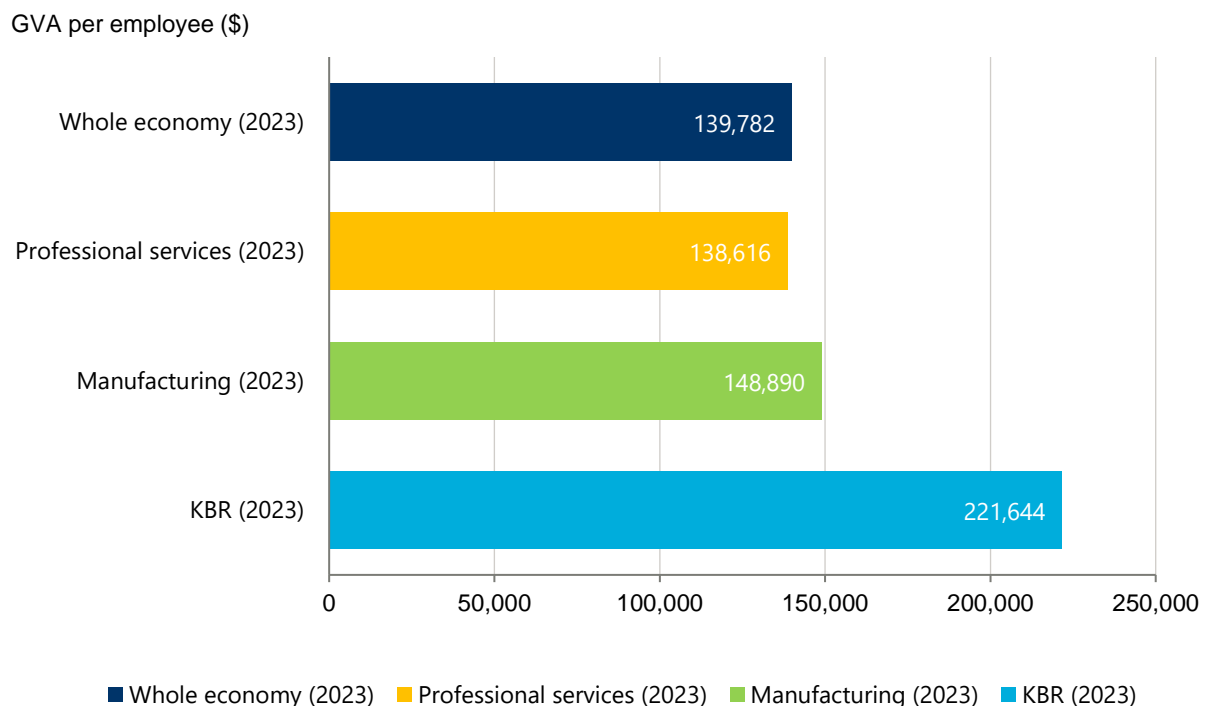
Source: Oxford Economics Australia

⁴ Full details of how these figures were arrived at are provided the Technical Appendix.

2.2 LABOUR PRODUCTIVITY

KBR employees are highly productive. In 2023, their contribution to GDP was valued at \$222,000 per employee. As Fig. 2 illustrates, this is well above the Australian economy's average productivity and well above that of the manufacturing sector, with KBR's employees being 59% more productive than the national average, 60% more productive than the professional services industry average and 49% more productive than the manufacturing average.

Fig. 2. Labour productivity of KBR, 2023



Source: Oxford Economics

2.3 SUPPLY CHAIN ANALYSIS (INDIRECT EFFECTS)

\$262m

Indirect contribution to GDP

54%

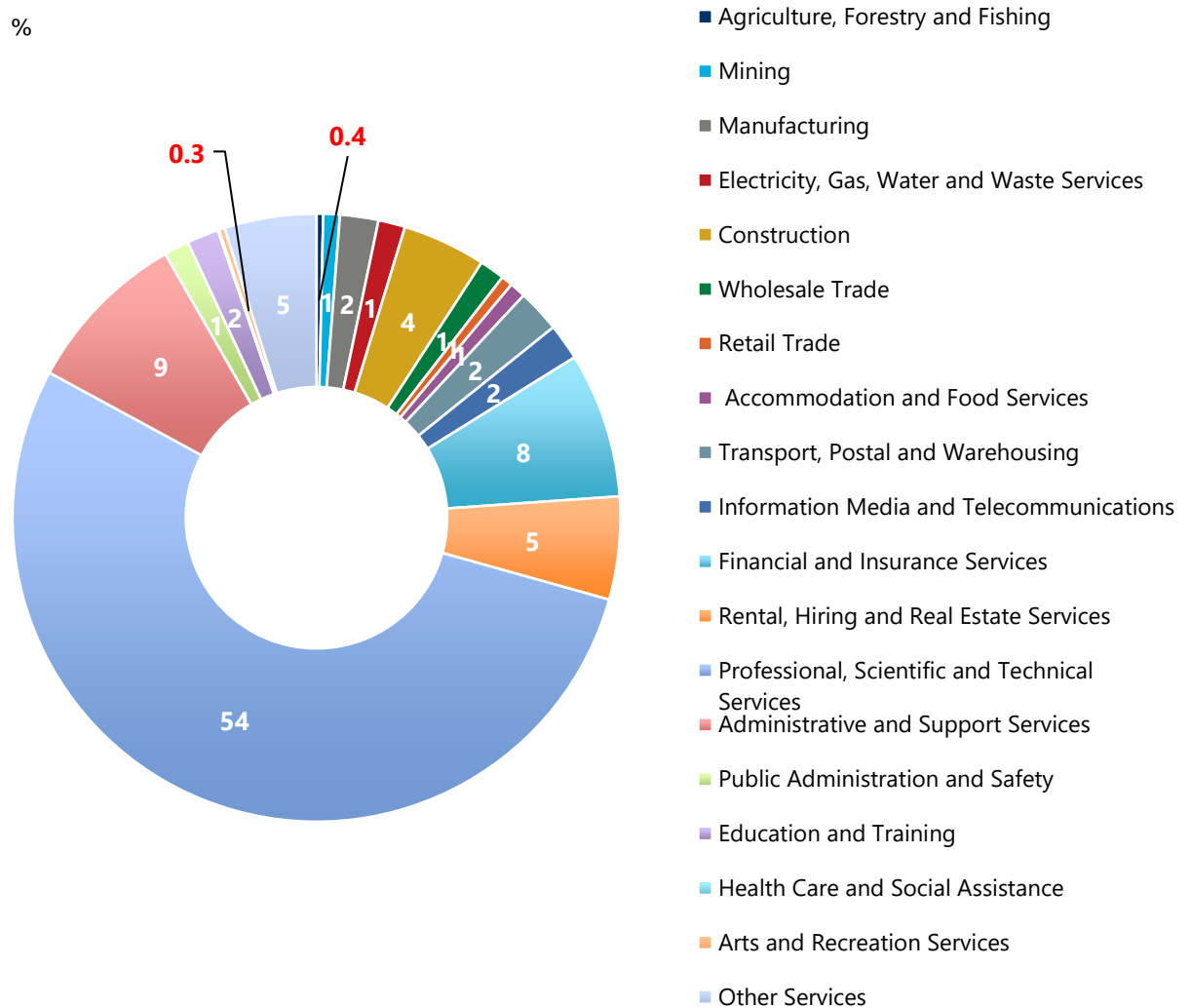
Of this contribution comes from professional, scientific and technical services

KBR's activities support a large supply chain in Australia, producing a significant amount of economic activity in a range of sectors. This activity amounted to a \$262 million supply chain (i.e., indirect) contribution to GDP in 2023.

The largest beneficiary was the professional, scientific, and technical services sector. In 2023 KBR's activity in that sector made a total contribution to GDP across the whole supply chain of \$140 million. Administration and support services, financial and insurance services and rental hiring and real estate services respectively made up the next largest industry shares.

Industry percentages of the indirect contribution are provided in the chart below.

Fig. 3. Percentage indirect contribution to GDP, by sector, in 2023



2.4 CONSUMER SPENDING ANALYSIS (INDUCED EFFECTS)

Spending by KBR employees and employees along KBR's supply chain contributed \$355 million to GDP in 2023. As might be expected, consumer-facing sectors accounted for much of this contribution. In particular, \$80 million was contributed to GDP through rental, hiring and real estate services, while \$50 million was contributed to GDP through finance and insurance spending and \$29 million via the retail trade. The breakup by industry is given in percentage terms below.

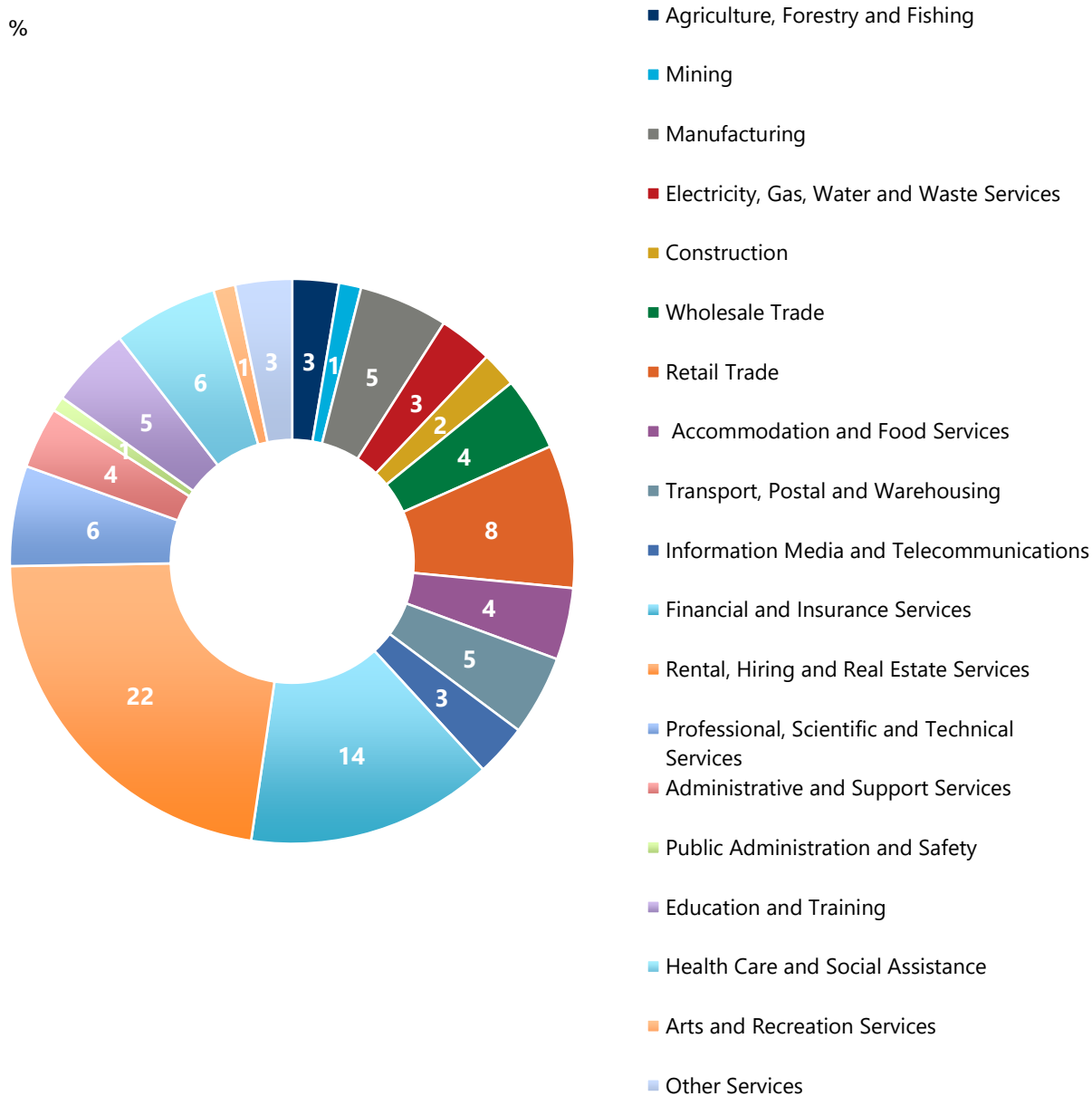
\$355m

Induced contribution to GDP.

22%

Of this contribution comes from rental, hiring and real estate services.

Fig. 4. Percentage induced contribution to GDP, by sector, in 2023



Source: Oxford Economics, KBR

2.5 TAX PAID CONTRIBUTIONS

\$362m

Total tax footprint of KBR in Australia in 2023

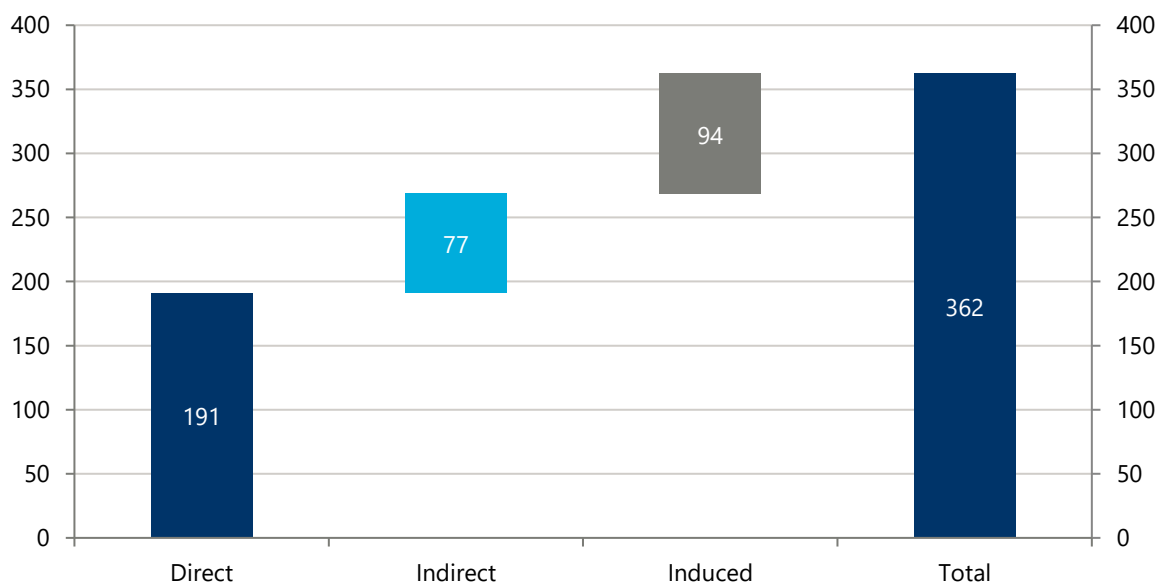
KBR's tax contribution (or tax footprint) across the Australian economy is substantial and amounted to an estimated \$362 million in 2023. Some \$191 million of this came from KBR's direct activities.⁵ A further \$77 million was derived from the indirect supply chain activity that KBR purchases support. An estimated \$94 million in tax was generated through the induced economic

⁵ This figure includes taxes paid by KBR including corporate income tax, employee income tax, payroll tax and fringe benefits tax and indirect taxes paid out of their employees' earnings in the form of sales taxes including GST.

activity as KBR employees and other employees along the supply chain spent their earnings.⁶

Fig. 5. KBR tax contribution in 2023

AUD, millions



Source: Oxford Economics Australia, KBR

⁶ These taxes included corporate income tax, employee income tax and sales taxes including GST.

3. EMPLOYMENT SUPPORTED

3.1 TOTAL EMPLOYMENT

6,370

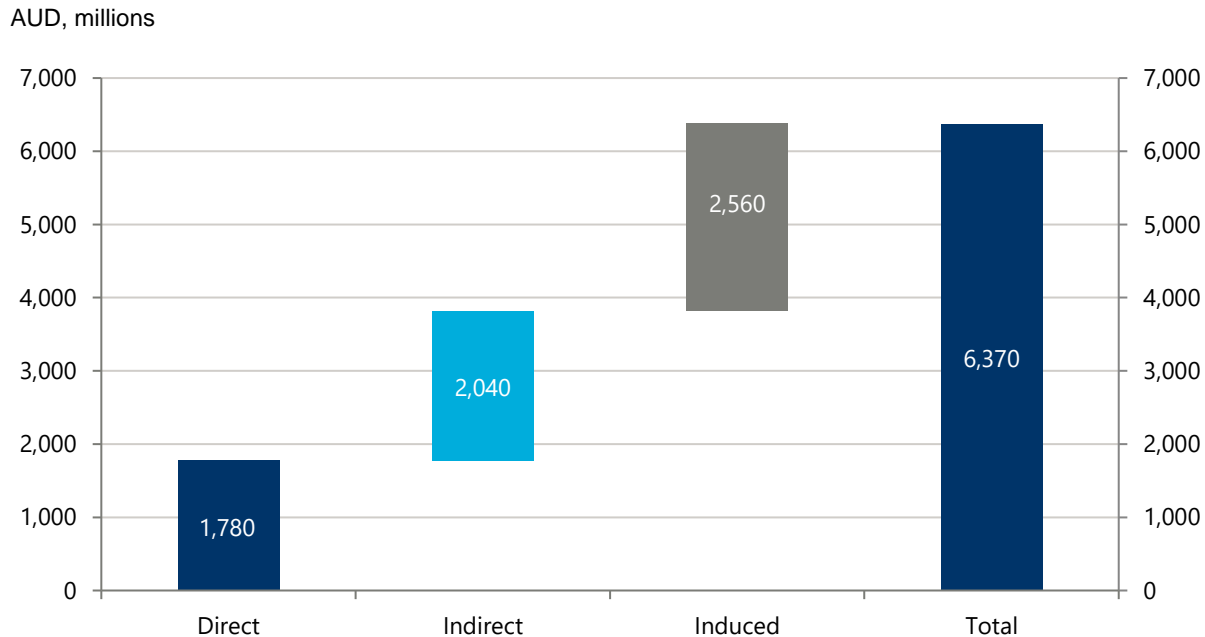
Total employment sustained
in 2023

*For every 10 direct
employees of KBR, a total of
36 jobs are supported
nationwide*

Overall, we calculate that KBR's activities in Australia in 2023 were responsible for supporting a total of 6,370 jobs. Of this, 1,780 were directly employed by KBR at its sites across Australia. An additional 2,040 jobs were supported across KBR's supply chain as a result of the company's purchases of goods and services (indirect effects), while a further 2,560 jobs were supported due to KBR employee and supply chain employee spending (induced effects).

Put another way, for every 10 employees of KBR, a total of 36 jobs were supported around the Australian economy (including the direct employment contribution by KBR): a "jobs multiplier" of 3.6.

Fig. 6. KBR's contribution to employment in Australia in 2023



Source: Oxford Economics Australia, KBR

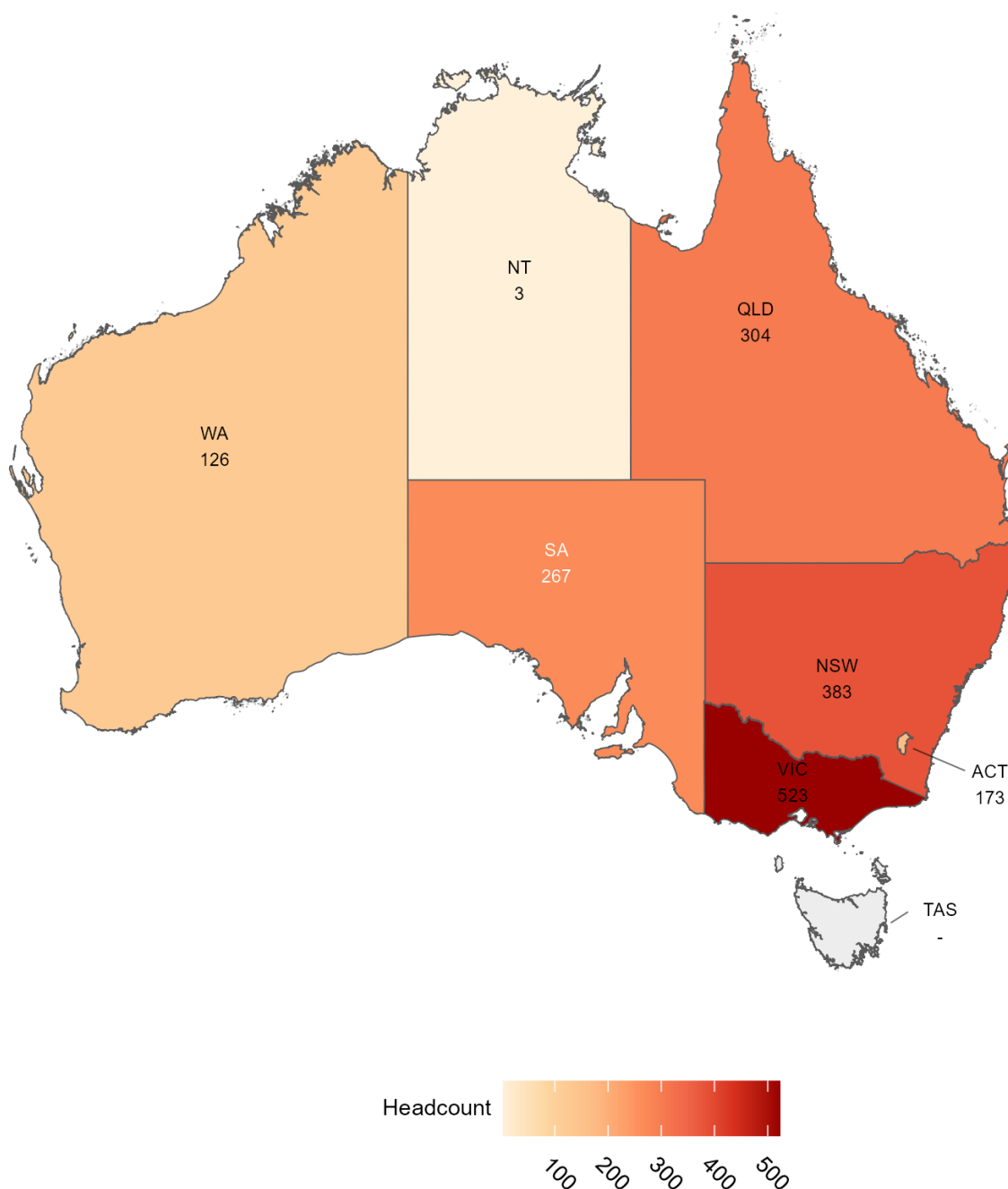
NB: Employment figures have been rounded to the nearest 10. Individual numbers may not exactly sum to total.

3.2 EMPLOYMENT STRUCTURE

KBR employees are spread across all of Australia's mainland States and Territories. Fig. 7 figure below illustrates this pattern in 2023, with the largest share of its headcount based in Victoria. Some 523 KBR staff were based in Victoria in 2023 (29% of the company's total headcount). New South Wales was home to a further 383 employees (22%), with Queensland supporting 304 (17%).

Some 30% of KBR's workforce identify as female, with 70% identifying as male.

Fig. 7. KBR's headcount employment, by state, in 2023



3.3 SUPPLY CHAIN JOB CREATION

2,040

Indirect jobs supported.

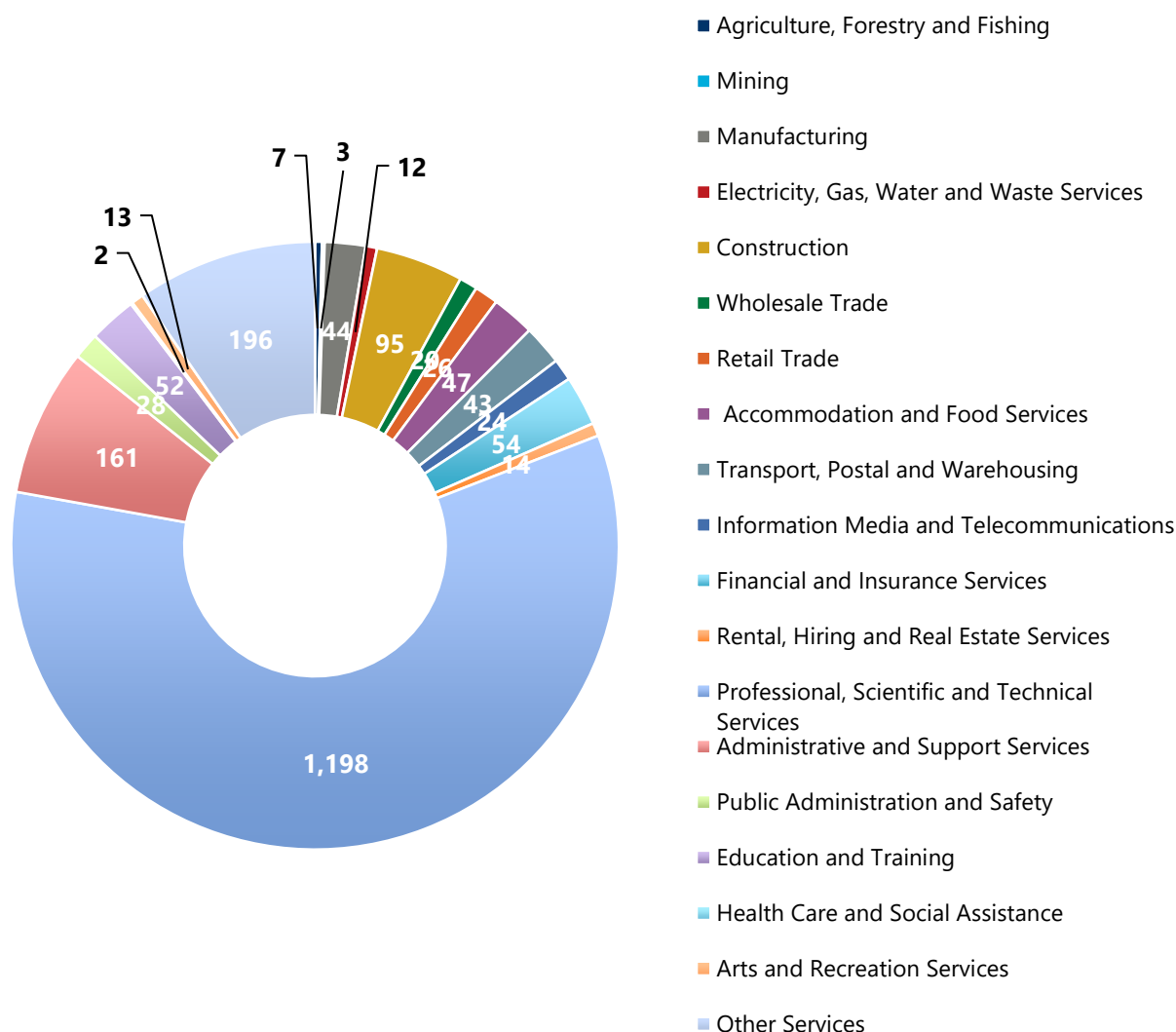
1,198

Of these jobs are in the professional, scientific and technical services sector

KBR's supply chain (ie indirect effects) supported a total of 2,040 jobs in Australia in 2023. The professional, scientific and technical services sector, which saw a total of 1,198 jobs supported across the supply chain accounted for the largest single category of indirect employment. Construction, administrative and support services, and other services also saw substantial numbers of indirect jobs support.

Fig. 8. Supply chain employment supported, by sector in 2023

Jobs



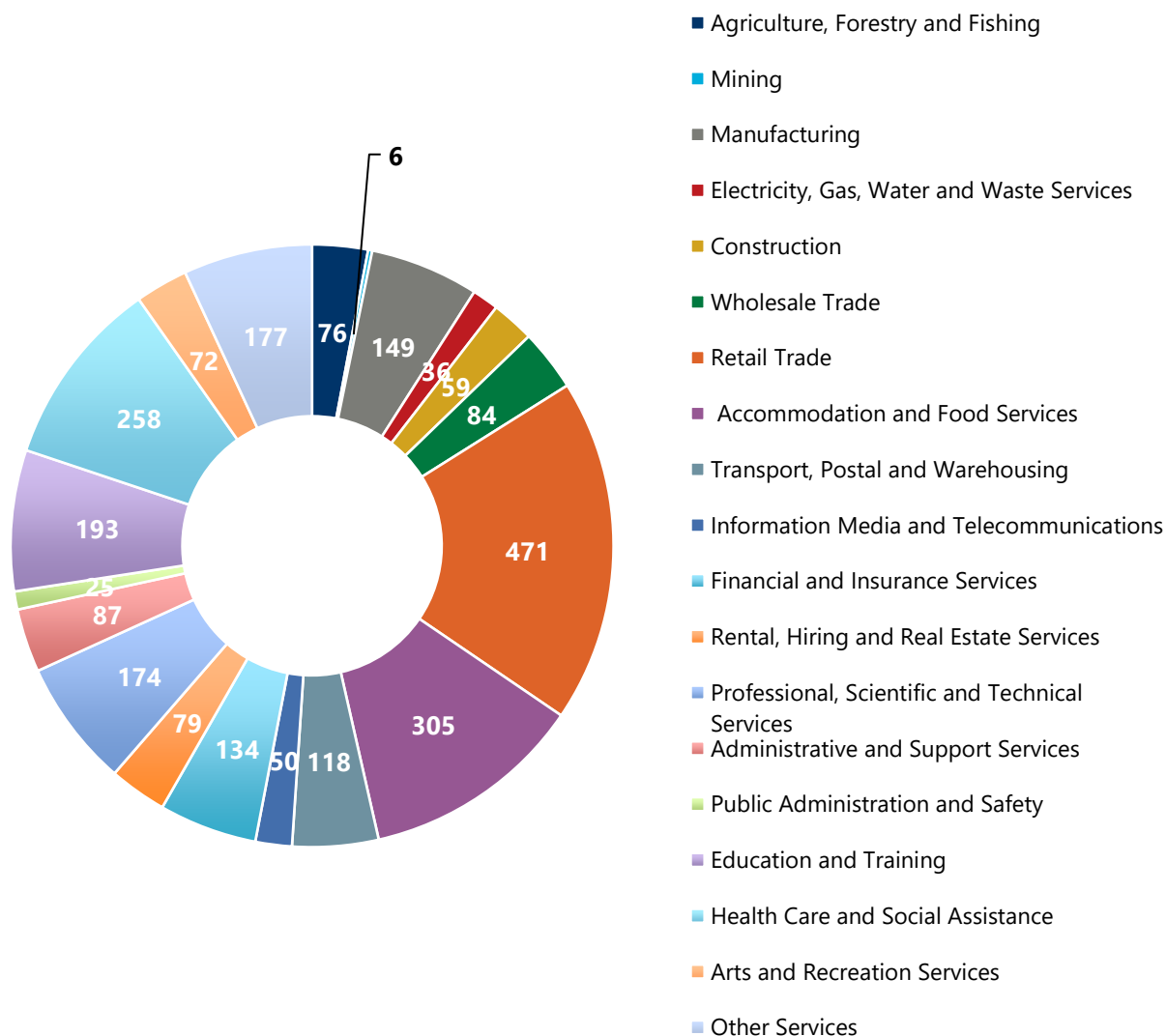
Source: Oxford Economics, KBR

3.4 CONSUMER SPENDING JOBS CREATION

Spending by KBR and supply chain employees provided employment support to a broad range of sectors. As might be imagined, the chief support was to the retail sector where some 471 jobs were supported. The accommodation and food services, health care and social assistance and education and training sectors also saw substantial employment support from KBR and employee spending (induced effects) as indicated in the chart below.

Fig. 9. Induced employment supported, by sector, in 2023.

Jobs



Source: Oxford Economics, KBR

4. CATALYTIC BENEFITS

While GDP and employment are important metrics, KBR's activities and its footprint can also be measured in other ways. Over the longer term the company also contributes to Australia's social landscape and its productive capacity through investment in education and training, support for small and medium enterprises (SMEs) along the supply chain and social programs. These benefits are collectively known as catalytic benefits and are discussed below.

4.1 TRAINING AND STEM SUPPORT

KBR provided a number of training programs through its businesses during 2023. These totalled \$800,000 in value.

This spending focussed on training of staff members including courses such as the following:

- **Code of Business Conduct (COBC) Ethics Training** – provides instruction on conducting business in accordance with applicable laws and KBR policy and for observing the highest standards of business and personal ethics.
- **Domestic and family violence prevention training** – to support managers in dealing with domestic violence incidents.
- **Introduction to ILS** – focussed on introducing staff to the Defence Capability Life Cycle, Support Systems and the role and nature of structure IPS programs.
- **CORE Cultural Learning program** – a 10 module program that builds cultural awareness, helping KBR to achieve objectives outlined in its Reconciliation Action Plan (RAP).
- **KBR AI Robotics and Machine Learning Academy (KARMA)** – an introduction to machine learning covering the basic skills, tools and techniques to prepare participants to work on the growing number of projects that require these skills
- **Front Line Leaders (FLL) Program** aims to increase the capability of our leaders and develop a highly engaged and empowered workforce. The five course program helps line managers become better leaders by developing their own skills to become confident in developing their teams.
- **Tech Fellows Program** – this program formally recognizes top technical, engineering, and scientific technical leaders at KBR. It fosters interconnections across the technical community and promotes KBR externally within customer circles as a high-end provider of complex technical solutions. In addition, it helps establish a technical career path, to attract next-generation talent, and develop an emerging technical talent pipeline.

4.2 SUPPORT FOR SMES

Small and medium sized businesses (SMEs) are the lifeblood of the Australian economy and critical to the infrastructure and wellbeing of many communities.

KBR purchased from some 812 businesses across Australia. Of these 420 (52%) were small or medium sized enterprises (SMEs).⁷ Purchases from SME's totalled some \$158m in 2023.

4.3 INNOVATION BY KBR

Australia is an important market for KBR and the firm's activities make a direct contribution to ensuring a more resilient nation through the delivery of smarter, safer, and more sustainable infrastructure, supporting the clean energy transition, and a stronger Australian defence posture.

KBR continues to build on a 65-year legacy of Australian operations that have shaped modern Australia. From the Snowy Mountains Hydro Scheme and the Adelaide to Darwin railway, KBR continues to design and modernise critical infrastructure which supports the nation's industrial productivity and economic development. The output of KBR's activities today is helping the nation address some of its biggest challenges - defence and national security, the need for smarter, safer infrastructure to support economic growth and productivity and energy transition.

KBR also promotes innovation and efficiency in a variety of areas. Innovation and efficient solutions drive economic growth which, in the long term, drives higher living standards. This is especially true as innovations spill over from the defence into the civilian sector – such “spillover effects” from one sector to another have been shown to be particularly important in driving economic growth.⁸

We have provided a summary of some of KBR's key activities and the ways they are driving innovation below.

4.3.1 Critical infrastructure

KBR's engineering capabilities and consultancy services play an important role in planning, designing and delivering smarter, safer and more sustainable infrastructure to meet the demands of the future for all Australians as indicated through the examples below.

Sydney Water

As Sydney's northwest continues to grow, KBR (in an alliance) is working with Sydney Water to deliver the North West Treatment Hub Growth Program – a brownfield treatment program that will increase wastewater treatment, creating opportunity for an additional 200,000 new house connections.

⁷ SMEs are defined as businesses which employ less than 200 employees. This is consistent with past Australian Government definitions. See for example Australian Government (2012) small Business Key Statistics and Analysis <https://treasury.gov.au/sites/default/files/2019-03/AustralianSmallBusinessKeyStatisticsAndAnalysis.pdf>

⁸ Moretti et al (2021) *The Intellectual Spoils of War? Defense R&D, Productivity and International Spillovers*, NBER Working Paper 26483

SA Water Corporation

For 13 years, KBR has supported SA Water to deliver a diverse portfolio of water infrastructure projects that deliver great outcomes to SA Water and its customers by creating sustainable drinking water solutions, improved wastewater management and a deliberate intent to leave a long-term positive impact on the community.

Western Australian Government's METRONET program

KBR (in alliance) is helping the Western Australian Government deliver stronger rail connections in the city's southeast on the Byford Rail Extension Project – the largest investment in Perth's public transport system, designed to transform this city with more transport, housing and employment choices.

4.3.2 Energy transition

KBR is supporting the Australian government's vision to become a clean energy superpower, through its support with clean energy hubs under development around the nation.

Office of Hydrogen Power South Australia

KBR is delivering master planning services to support the development of common user infrastructure solutions for the Port Bonython Hydrogen Hub – South Australia's first large scale clean hydrogen production precinct for both export and domestic markets.

ENGIE and Yara Pilbara

As owners' engineer and strategic partner, KBR is supporting the Yuri Renewable Hydrogen to Ammonia Project – a first of a kind deployment in Australia generating renewable hydrogen for production of ammonia with off-grid intermittent power via electrolysis.

Arafura

As the integrated project management partner, KBR is supporting the Nolans High Purity Rare Earth Project which aims to supply between five and ten percent of the world's magnet rare earths supply and produce more than 4,400 tonnes of neodymium praseodymium (NdPr) oxide product each year.

Woodside Energy

With nearly 50 years of experience in designing, developing and supporting cryogenic liquefied natural gas facilities, KBR is providing engineering, procurement and construction management to support infrastructure modifications to extend the life of Woodside Energy's Pluto Joint Venture in Western Australia.

4.3.3 World leading technology*SA Power Networks*

KBR, through its Frazer Nash Consultancy, developed a bespoke assessment system using machine learning and Artificial Intelligence to better predict and track the condition and likelihood of failure of electricity assets which is enabling a significantly more efficient asset management and maintenance program and improved network reliability for customers.

4.3.4 Defence Infrastructure

KBR is progressing pathways for AUKUS. KBR and its Frazer-Nash Consultancy work across all stages of the nuclear lifecycle, from program conception, through siting, design, construction, operation and decommissioning to ultimate waste disposal. The company is providing leading edge knowledge and experience to develop a new capability for Australia's defence and security.

HMAS Stirling

Technical design services will support the sovereign nuclear-powered submarines facilities and infrastructure program, enabling the Submarine Rotational Force – West, and accelerating Australia's ability to safely own, operate, maintain and sustain its own future nuclear powered submarine fleet.

KBR has provided infrastructure design to the Security and Estate Group and the Royal Australian Navy at HMAS Stirling for several years through the Navy Capability Infrastructure Subprogram and Defence Fuels Transformation Program. The company has also been working with Defence on its Nuclear-Powered Submarine program since late 2021.

Osborne

KBR is also providing design services for the new nuclear-powered submarine construction yard at Osborne in South Australia, which is critical for the manufacture of the new SSN-AUKUS submarines to the Royal Australian Navy.

4.3.5 Maritime

KBR supports critical naval capability, defence modernisation and sustainment. KBR has provided the Royal Australian Navy with strategic asset management planning, engineering design effort and supply chain optimisation to support a more affordable and operationally available fleet for more than two decades.

As the Capability Life Cycle Manager of the biggest warships in the Royal Australian Navy, KBR is the industry partner and platform steward, leading the support of the Amphibious and Replenishment Ship fleet which includes the Landing Helicopter Dock Ships HMAS Adelaide and HMAS Canberra, Landing Ship Dock HMAS Choules and, from July 2025, the Auxiliary Oiler Replenishment Ships HMAS Supply and Stalwart.

Through the use of bespoke capabilities such as leading-edge ILS to optimise resources and reduce life cycle costs, KBR and suppliers' ensure fleet availability - a key metric in the readiness and responsiveness of any naval force, ensuring the RAN remains at the forefront of Australian naval capability.

4.3.6 Deployed ICT

KBR has provided deployed ICT support to the Royal Australian Navy, Australian Army and Royal Australian Airforce since 2021.

Deployed ICT network environments provide essential command, control, situational awareness, and allied/partner interoperability services for ADF

personnel serving on deployed operations and exercises and includes troops in the field, ships at sea, and joint headquarters and support bases deployed domestically, regionally and across the globe.

Supporting deployed platforms presents a unique information management challenge and requires computer networks that can remain effective even in low bandwidth or congested communications environments.

KBR provides capability upgrades to ensure these systems remain secure and functional. Upgrades include on cyber security, interoperability, sustainment of deployed ICT environments, accreditation and security.

4.3.7 Mission planning

KBR supports Joint Mission Planning Systems, Portable Flight Planning Systems, data security and training services.

KBR is responsible for the integration and support of the Joint Mission Planning System (JMPS) for multiple aircraft types, across defence networks. The continuous improvement of software on fixed and deployable networks provides aircrew with more capable, cyber secure and interoperable technologies to supporting mission planning and execution.

Over two decades, KBR has supported complex aircraft systems including MRH-90, S-70A Black Hawk, ARH Tiger and CH-47F, Hawk, Triton MQ-4C operated by Royal Australian Navy, Army and Royal Australian Air Force.

KBR provides project management, bespoke software, testing, training, network integration of Australian Patriot Excalibur (AusPEX).

Used by 5,000 ADF personnel, AusPEX is a flight management and authorisation system that supports mission critical data including aircrew currency and airspace management.

5. CONCLUSION

KBR, an Australian company within a global organisation, and focussed on science, technology and engineering services is one of Australia's leading infrastructure and defence support providers. As this study has demonstrated, KBR makes a substantial contribution to the Australian economy. This is illustrated by the fact that during 2023, KBR made a total contribution to Australian GDP worth over \$1.0 billion and sustained 6,370 jobs across the economy while contributing \$362 million in tax to various levels of government. Of this total footprint, KBR's direct activities accounted for an annual contribution to GDP worth \$394 million, 1,779 jobs and \$191 million in tax.

Beyond these figures KBR is helping to lift the productive capacity of the economy. The labour productivity of KBR employees (as measured by GDP per employee) reached \$222,000 in 2023 – 59% higher than the Australian economy average. High productivity (or high value add) employees, such as those at KBR, are essential to raising the economy's growth rate and living standards.

Rather than being concentrated in one location, KBR also contributes to Australia's economic landscape with employees being spread out among all of Australia's mainland States and Territories.

KBR also provides support to Australia's social and economic fabric in other ways. This extends to support to SMEs with \$158 million purchased from 420 SMEs across the country in 2023. Some \$800,000 worth of training was provided to its employees to further STEM and other skills development and promote cultural awareness. Moreover, the output of KBR's activities also helps enhance Australia's defence posture and longer-term economic growth.

KBR's business activities include work improving the efficiency of water supplies to major urban centres, helping support the energy transition through support for renewable hydrogen, advice to corporates on achieving net zero, design services for nuclear submarine facilities and life cycle management for Royal Australian Navy vessels.

Apart from enhancing Australia's defensive capabilities, spending on these kinds of initiatives raises productivity over the longer term. Rising productivity in turn drives economic growth, which is central to increasing living standards for all Australians.

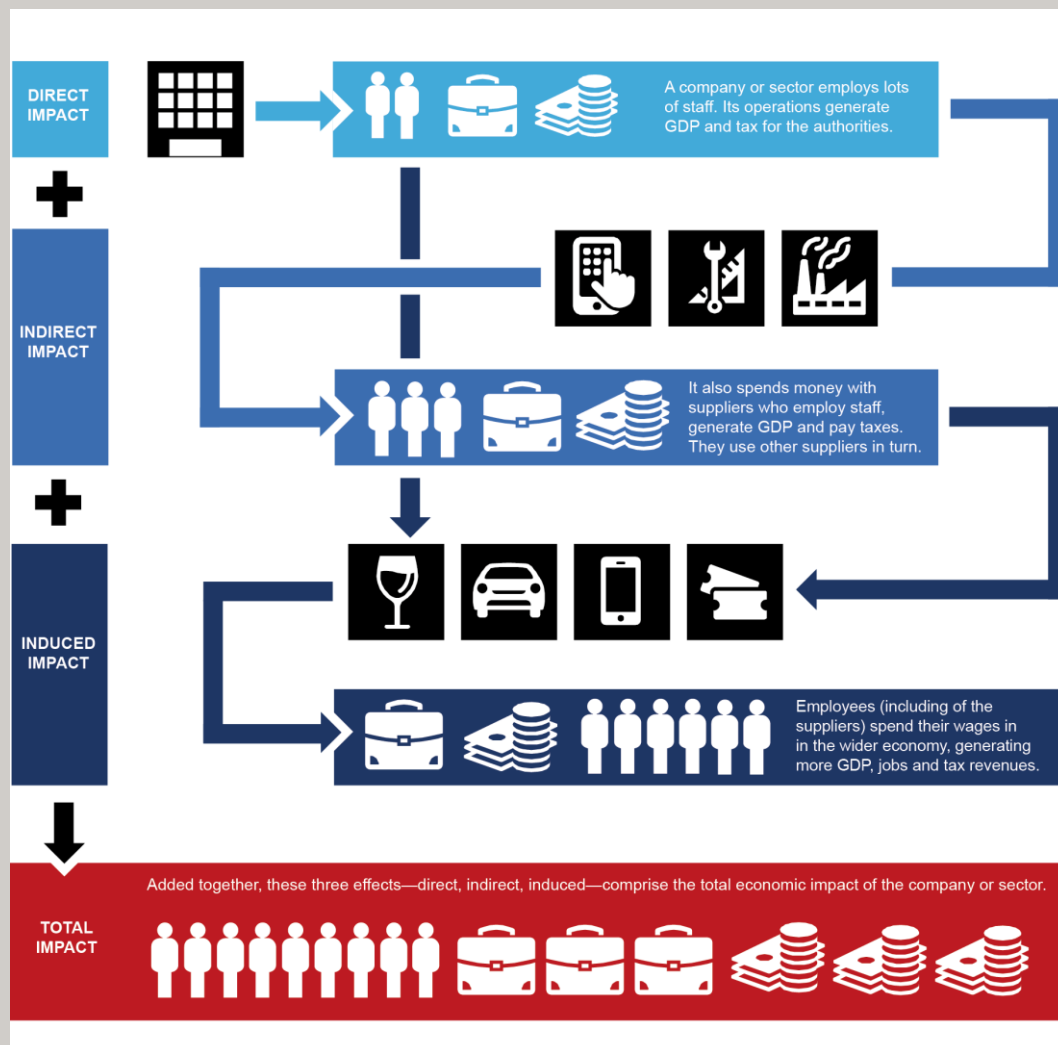
6. TECHNICAL APPENDIX

MODELLING THE ECONOMIC CONTRIBUTION

The analysis in this report utilises economic contribution modelling. This is a tool often used in order to assess the value of the economic contribution made by a business, industry or investment. The contribution that such an entity or activity has is analysed through three distinct channels:

- **Direct contribution** — includes all activities carried out by KBR in 2023;
- **Indirect contribution** — concerns the activity carried out in the supply chain that supplies KBR's purchases of goods and services from within Australia. The indirect contribution of capital and non-capital purchases that KBR made in 2023 were analysed in aggregate; and
- **Induced contribution** — consists of the economic activity that stems from the spending of direct and indirect employees of KBR that are residents of Australia.

Fig. 10. Structure of direct, indirect, induced and total economic contribution



Direct Contribution

The direct contribution made to the Australian economy is estimated using data provided by KBR.

- **Gross value added** contribution to GDP (referred to as GDP, for simplicity, in this report) is calculated as the total of the cost of employment (including wages, benefits and employee taxes), the company's EBITDA and other taxes on production. This relates to activity within Australia and therefore might not be the same as annual accounts figures which can follow different accounting rules and practices.
- **Employment** is estimated based on the number (headcount) of KBR employees working full time and part time.
- **Labour productivity** is measured as the firm's gross value added per FTE employee, with the same approach.
- **Tax contributions** were also made available by KBR. This covers taxes on employment, corporate profits and production. It excludes goods and sales tax on KBR products and services as this is not paid by the company itself. However, it includes consumption taxes paid by the KBR and supply chain workforce, as these are indirect taxes on their income. These are derived based on individuals' propensity to consume out of their income and the relevant tax rates.

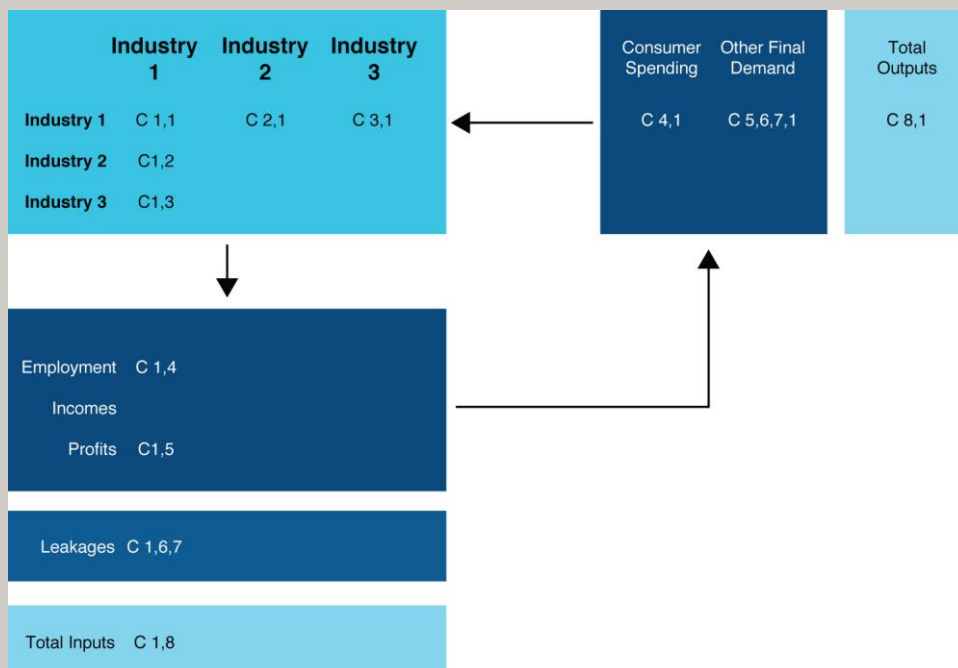
Indirect and induced contributions

The indirect and induced impacts that KBR are estimated using an input-output model, which gives a snapshot of the interactions in the economy at a specific time. This details the spending flows which make up "final demand" (i.e. consumer spending, government spending investment and exports to the rest of the world); intermediate spending patterns (i.e. what each sector buys from every other sector – the supply chain in other words); how much of that spending stays within the economy; and the distribution of income between employment compensation and corporate profits.

An input-output model uses a matrix representation of a nation's interconnected economy to calculate the effect of expenditure shocks by consumers or by an industry on other industries and therefore on the economy as a whole. The input-output model ultimately measures "multiplier effects" of an industry by tracing the effects of its inter-industry transactions – that is the value of goods and services that are needed (inputs) to produce each dollar of output for an individual sector. These models can be used to measure the relationship between an economic change or "shock," and the final outcome across the whole of the economy.

In essence an input-output model is a table which shows who buys what from whom in the economy. The figure below provides an illustrative guide to a stylised input-output model.

Fig. 11. A stylised input-output model



Oxford Economics Australia constructed an input-output model using Australian supply and use tables for 2018-19, as published by the Australian Bureau of Statistics (ABS). The 2018-19 tables were used to avoid distortions which may be present in later tables due to the COVID-19 pandemic.



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