

**Revaluing Our Icon**

Midpoint in Sydney Opera  
House's Decade of Renewal



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# The increasing value of our icon

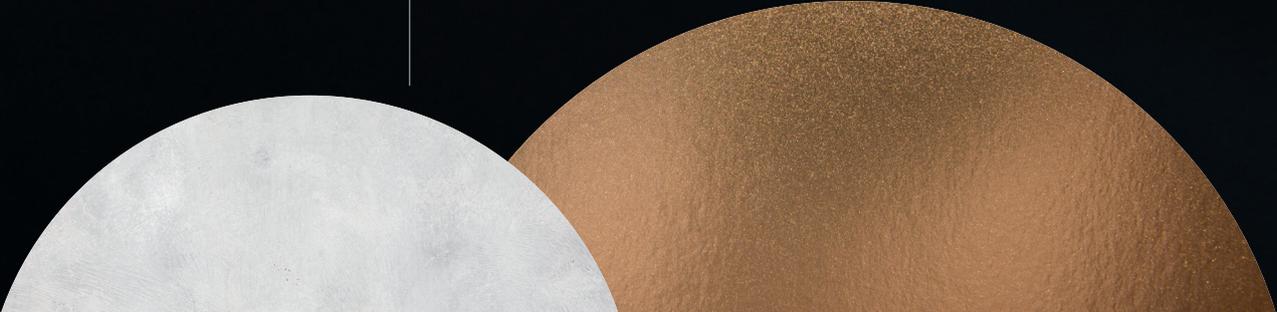
2013 report



**Social asset value** \$4.6B

**8.2M**  
Visits to  
Sydney  
Opera  
House

**\$775M**  
Economic  
contribution



# 2018 report



**Social asset value** \$6.2B

**10.9M**  
Visits to  
Sydney  
Opera  
House  
  
Up **33%**

**\$1.2B**  
Economic  
contribution  
  
Up **44%**

# Executive summary

The Sydney Opera House – or, more familiarly, ‘the Opera House’ to Sydney-siders – is one of Australia’s most iconic landmarks. It hosts thousands of events every year, from opera and ballet to contemporary music, theatre, talks and even yoga. It is one of Australia’s best-known attractions, drawing 10.9 million visits to the precinct in 2016-17. As a World Heritage-listed site, the Opera House is a global icon that ranks alongside the Taj Mahal and the Great Wall of China for worldwide recognition and admiration.

In the lead-up to its 40th anniversary in 2013, the Opera House launched a ‘Decade of Renewal’, designed to ensure that it continues to inspire generations of artists, audiences and visitors, and encompassing an ambitious program of capital works.

To develop a clear understanding of the worth and contribution of this symbol of Australia, Deloitte was engaged in 2013 to assess the Opera House’s cultural, social and digital value, along with its economic contribution to Australia through the direct and indirect financial and employment value it adds. The result was the 2013 report titled *How do you value an icon?*

Five years on, approaching the midpoint in its Decade of Renewal, the Opera House refreshed its strategy, having reflected on its achievements over the past five years and the significant changes and emerging opportunities in its operating environment. Deloitte has been engaged to provide an updated report on the eve of its 45th anniversary. The result is this 2018 report entitled *Revaluing Our Icon – Midpoint in Sydney Opera House’s Decade of Renewal*.

The results to date are encouraging, and a further valuation is planned for the lead-up to the Opera House’s 50th anniversary in 2023, the conclusion of the current Decade of Renewal.

The key findings of this report are presented in Table i below.

Table i: Key findings of ‘Revaluing Our Icon’ report

Component	2018 value
Economic contribution	\$1.2 billion (44% real growth since 2013)
Employment (FTE roles supported)	8,698
Tourism (international visitors attending precinct)	2.9 million
Social asset value (40 year NPV)	\$6.2 billion (24% real growth since 2013)
Transaction value	\$2.9 billion
Consumer surplus	\$0.9 billion
Existence value	\$2.2 billion
Digital value	\$0.2 billion

Source: Deloitte Access Economics

### Economic and social contribution

As a national icon and tourist destination, the Opera House precinct supports significant economic activity. We find the total economic contribution of the Opera House precinct was \$1.2 billion in 2016-17, reflecting the venue's important role in both the tourism and performing arts sectors.

This contribution is 44% greater in real terms than it was in 2012-13, and reflects increasing patronage and tourism. Around 2.9 million international tourists visited the Opera House during 2016-17, and 93% of international visitors to Sydney we surveyed said that the Opera House was a consideration in their decision to visit Sydney.

The Opera House precinct currently supports the employment of around 8,700 full-time equivalent staff. For every person employed by the Sydney Opera House Trust, there are 14 other roles supported throughout the economy.

The Opera House is more than just a performance venue and tourist destination. It is a symbolic representation of Brand Australia. In fact, 88% of visitors to Sydney view the Opera House as an iconic Australian landmark that contributes to Australia's national identity and international standing.

In this report, we quantify this broader cultural value provided by the Opera House through a survey of Australian residents. We find that the Opera House's social asset value has increased by 24% in real terms over the past five years, from \$4.6 billion in 2013 to \$6.2 billion in 2018. This growth is due to factors such as the growing number of international visitors to Sydney, increased Opera House patronage, an enhanced tour and performance experience, building renewal works, population growth, increasing consumption of digital content online, and a possible wider appreciation of the arts in Australia.

The Opera House, which cost just over \$100 million (\$1 billion in 2018 dollars) to build in the 1970s, is today worth \$2.3 billion in physical site terms, generates \$1.2 billion in economic activity every year, and supports a social asset value of \$6.2 billion.

### Digital value

We find that the reach and experience of the Opera House is enhanced by digital technologies. Visitors are using the Opera House's digital channels not only to research performances and tours and buy tickets, but to consume content.

Over the past five years, the Opera House has made it easier for audiences to digitally experience Australia's most famous building. Video content released by the Opera House generated 31 million views in 2017-18, growing more than 400% in the past five years, with 5.8 million unique visits to the website. In addition, 20 performances were live-streamed in 2017, and 39 performances were made available online after the event.

The Opera House is also engaging with the community more broadly. Using its international platform, each evening the Opera House showcases First Nations artwork digitally, projecting the work of leading First Nations artists onto its sails in a nightly sunset animation. An estimated 1.1 million people around the world watched the premiere of the new artwork on a Facebook livestream in July 2018. In 2016-17 its Digital Creative Learning program connected more than 8,500 high school students who could not attend the Opera House in person with professional artists. Investments in digital technology will continue to enhance the customer experience and broaden the Opera House's reach beyond the precinct, across Australia and globally.

The Opera House provides significant value to Australians, and is used as a platform during major events such as New Years' Eve, Australia Day and the Invictus Games to represent Australia on the global stage. It is important to protect this icon, and find new ways to keep growing the value it provides. Ongoing investment in the building and the experiences it can provide for patrons will be important to its future success.

**Deloitte**



### The increasing value of the icon

Since the 2013 report was released, the Opera House has undergone significant growth.

Some of the key comparisons include:

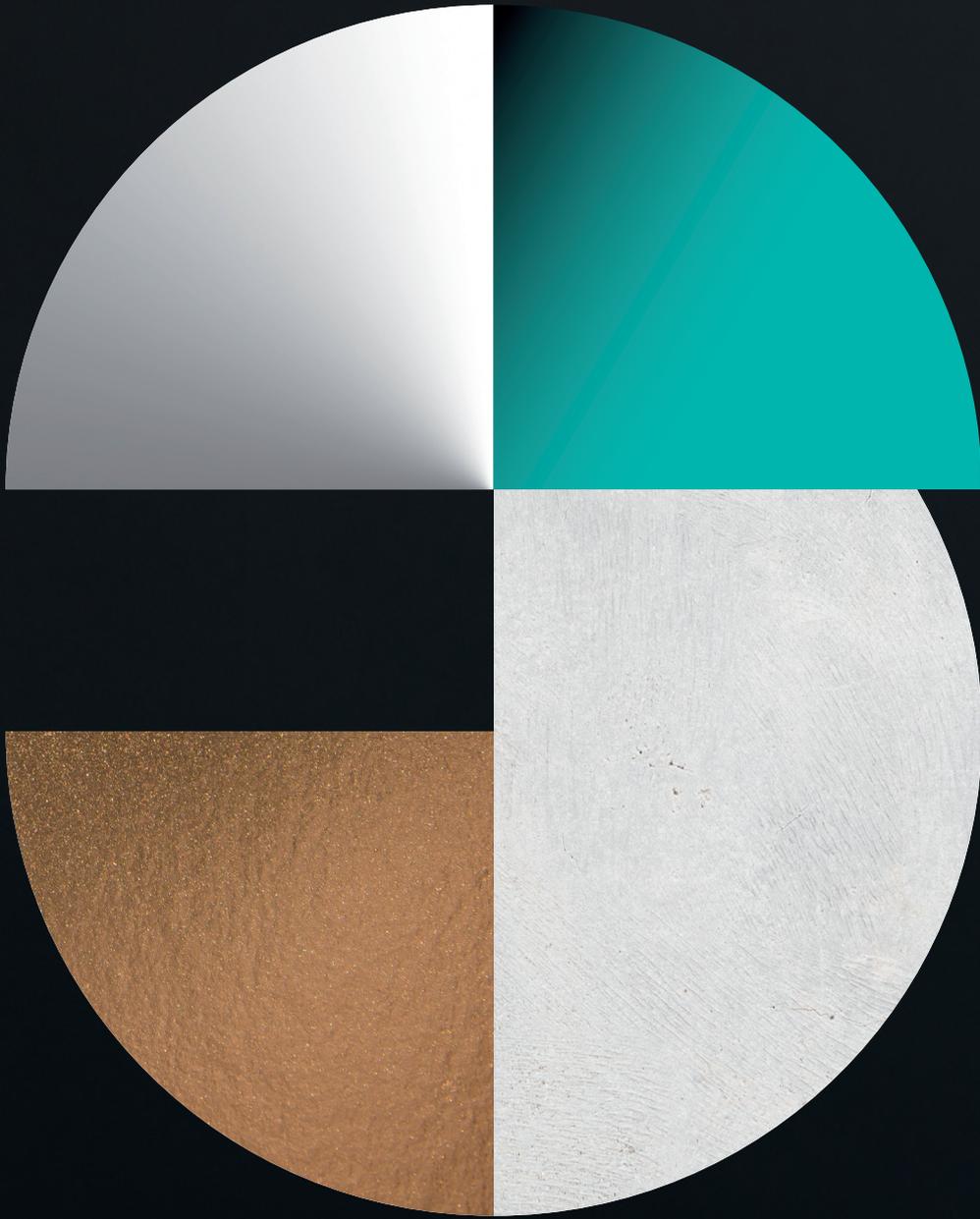
- The annual economic contribution has increased by 44% in real terms, from \$775 million in 2012-13 to \$1,200 million in 2016-17
- Almost 1 million more international visitors attend the Opera House precinct annually (increasing from 2 million international visitors in 2012-13 to 2.9 million international visitors in 2016-17, a growth of 46%)
- The social asset value of the Opera House has increased by \$1.6 billion, or 24% in real terms, from \$4.6 billion in 2013 to \$6.2 billion in 2018
- The total value of consumer transactions within the precinct has grown almost 50% up to \$219 million in 2017
- Digital engagement (e.g. website views, videos streamed etc.) has grown over 400% since 2013 and is now worth \$12.5 million per year.<sup>1</sup>

This growth is likely a reflection of a combination of factors. For instance, an increase in the number of international visitors to Sydney and an increase in their spending habits, enhanced tour, performance and food and beverage options, upgrades to the precinct, and an increase in government funding to enable the Renewal works.

<sup>1</sup> Digital value has been calculated differently in the two reports, so the two are not directly comparable. This is because the ways that people engage with digital content have changed over the last five years, and the 2013 methodology is no longer appropriate.

# 1 Introduction





'73 an icon is born

# 1. Introduction

The Sydney Opera House is one of Australia's most iconic and well-known landmarks. Opened in 1973 following an international design competition, today it is one of the world's busiest performing arts centres, hosting thousands of events every year – from ballet to circus, educational talks, contemporary music, award ceremonies, diplomatic occasions and even sunrise yoga.

The Opera House had an uncertain beginning. In fact, as a book by Helen Pitt emphasises, it came close to never being built. Even when it was, the iconic sails design was initially passed over before being pulled from the discard pile by one of the judges (Pitt, 2018).

Today, however, the Opera House and its precinct (which includes the forecourt, restaurants and bars, as well as other public spaces) generate value for both direct users and the broader community. This value is generated in a number of ways:

- By providing valuable experiences for people who attend performances, tours and restaurants at the Opera House
- By organising and facilitating a range of free events such as Vivid, Badu Gili, New Years' Eve and the Australia Day concert
- By generating and supporting economic activity in NSW and Australia more broadly
- By serving as a national and international icon and attracting tourists
- By contributing to Australian culture and society more broadly, for example by facilitating access to the arts and providing free educational programs.

Alongside its contribution to Australia, the Opera House is internationally renowned. In 2007, it was World Heritage listed, joining such other global icons as the Taj Mahal, the Pyramids of Egypt and the Great Wall of China (SOHT, 2018a). It remains the youngest cultural site on the register, with the Committee noting that:

*“Sydney Opera House stands by itself as one of the indisputable masterpieces of human creativity, not only in the 20th century but in the history of humankind.”*

## International Council Report on Monuments and Sites to the World Heritage Committee

In 2013, Deloitte Access Economics released the report: *How do you value an icon? The Sydney Opera House: economic, cultural and digital value*, which estimated the value of this asset for the Australian economy and people. It found that, through mechanisms including those above, the Opera House supported \$775 million of economic activity annually, and that its broader social asset value was \$4.6 billion.

### Key definitions

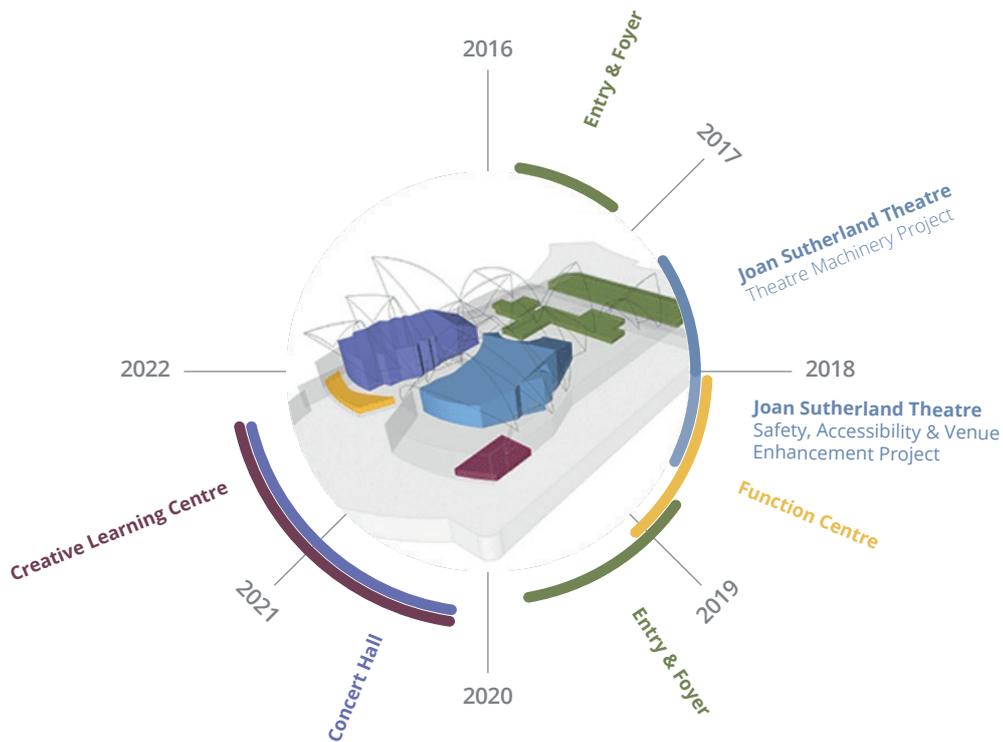
Throughout the report, we refer to several different elements of the Sydney Opera House.

1. **Sydney Opera House Trust (SOHT)**  
The entity that manages the Opera House's operations and cares for the building and precinct
2. **Sydney Opera House**  
The building itself and its contents
3. **Resident companies and food and beverage providers**  
These are businesses that operate inside the Opera House but are not owned by the Trust
4. **Sydney Opera House precinct**  
The area the Opera House exists within, including the forecourt, bars, restaurants and public spaces.

On its 40th anniversary, the Opera House embarked upon a 'Decade of Renewal' designed to ensure that the building continues to inspire future generations of artists, audiences and visitors. Since then, major upgrades to the Joan Sutherland Theatre have been completed during a seven-month period of capital works. The venue reopened on New Year's Eve 2017 with Opera Australia's *Merry Widow*. Preparation and delivery continues on further phases of Renewal works, which include essential upgrades to the Concert Hall as well as a new Creative Learning Centre for young people and families and a new function centre. Figure 1.1 shows the timeline for these improvements.

In addition to the Renewal works, the Opera House has found ways to reduce its environmental impact for the past decade. As a result, it is now carbon neutral, a full five years ahead of schedule (SOHT, 2018c).

Figure 1.1: Opera House Decade of Renewal timeline



Source: SOHT (2018b)

Note: Timeline subject to change

### 1.1 This report

The Sydney Opera House Trust (SOHT) is responsible for operating and maintaining the Sydney Opera House precinct on behalf of the NSW Government. The SOHT has engaged Deloitte Access Economics to re-examine the value of the Opera House leading into the midpoint of its Decade of Renewal.

This report updates and refines previous estimates of the value of the Opera House. We use a range of bespoke and existing research, including:

- Economic literature
- New input-output modelling using financial data from the SOHT
- A bespoke survey of 3,500 people including Sydneysiders, people from NSW, Australians from other states and international tourists from the US, the UK, New Zealand and China
- Tourism modelling using satellite accounts and Tourism Research Australia (TRA) data.

Using these inputs, the report quantifies both the economic contribution and social asset value of the Opera House. In doing so, we can estimate both how the Opera House contributes to GDP and employment, as well as the value it delivers to consumers and broader society. Though these are not additive, they illustrate the significant contribution the Opera House makes.

In addition, we consider other benefits that the Opera House delivers, through contributing to Australia's brand, broadening access to the arts through digital channels, and supporting broader community initiatives.

Clearly, the Opera House contributes significant value. Midway through the Decade of Renewal, we look at opportunities for this national icon, as well as the risks it faces.

The rest of this report is set out as follows:

- Chapter 2 presents the economic contribution of the Opera House
- Chapter 3 analyses the value of the Opera House to consumers and broader society
- Chapter 4 discusses the brand value of the Opera House
- Chapter 5 outlines the digital strategy of the Opera House
- Chapter 6 explores the importance of protecting the value of the Opera House and opportunities for the future.

**About the survey**

This report is informed, in part, by a bespoke survey fielded by Research Now in August 2018. The survey sample is made up of over 3,000 Australians, as well as 500 international tourists from New Zealand, the UK, the US and China.

The majority of Australian respondents were from NSW (see Chart 1.1), with around 650 responses from Sydney and 300 from the rest of NSW.

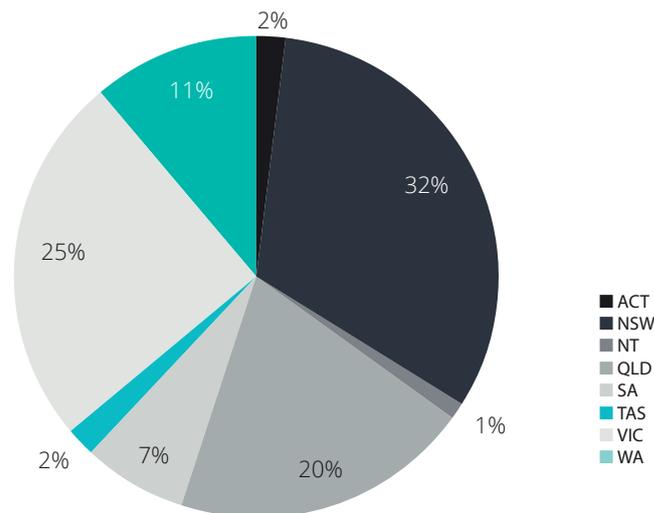
Around one third (32%) of the sample were aged 18 to 34, another third (36%) were aged between 35 and 54, and the remaining 32% were over 55.

Around half of survey respondents identified with each gender – 52% were female and 48% were male.

Participants were asked about how often they visited the Opera House, what activities they engaged in, and their views on the importance of the Opera House to Australian culture.

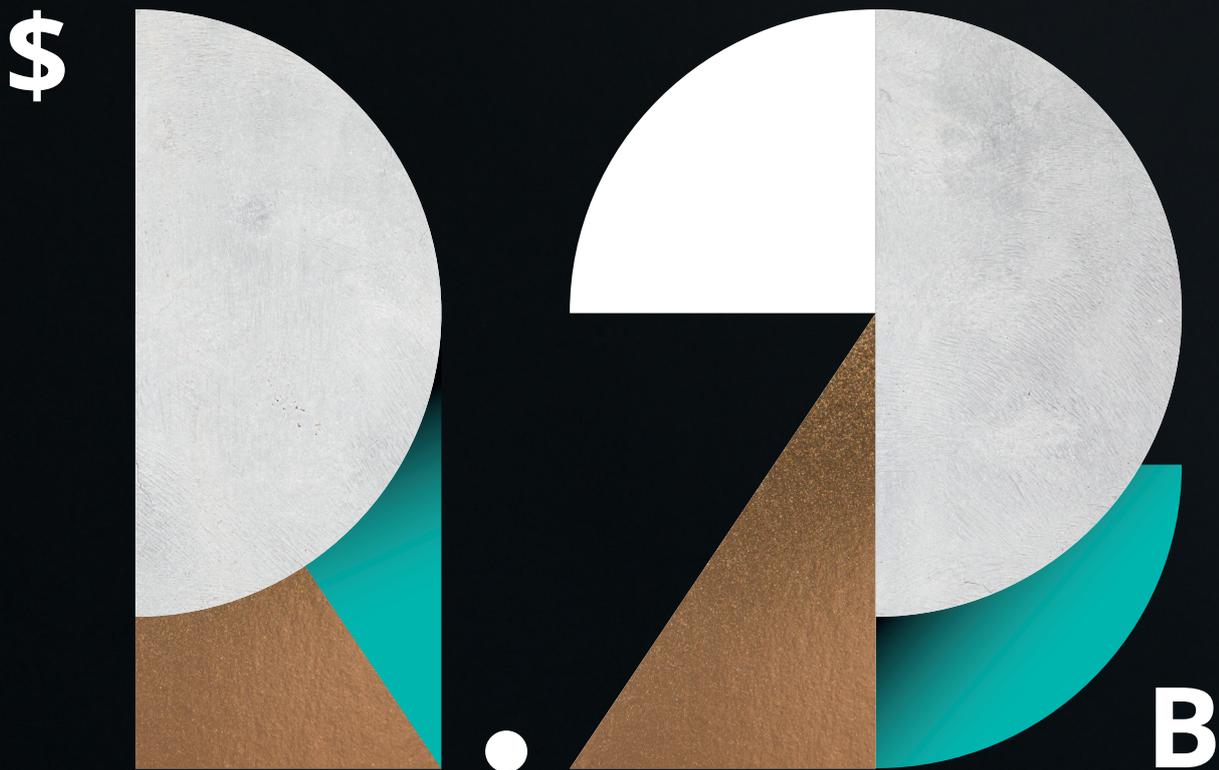
Around one third (34%) of respondents had paid to attend a performance or tour or bought food/beverages at the Opera House in the last 12 months. Another 7% had visited the precinct but had not paid for anything, and the remaining 59% had not been to the Opera House in the last 12 months.

Chart 1.1: Geographic split of survey sample



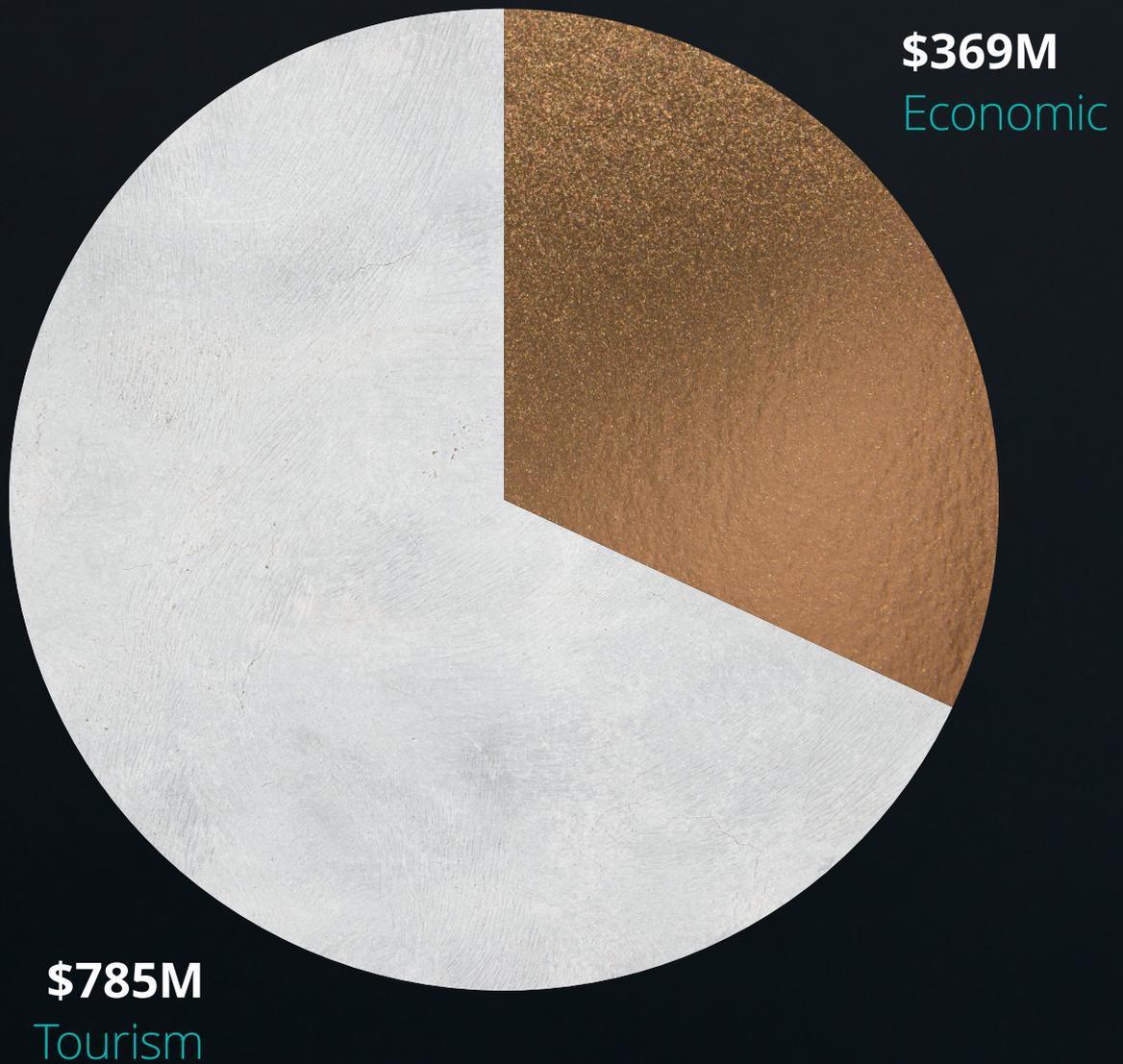
Source: Deloitte Access Economics analysis based on data from Research Now

## 2 Economic contribution



**2017** Total value added \$1.2B

In total, the Opera House precinct contributes significant value to the Australian economy



The economic contribution of the Opera House precinct includes its value added, as well as the tourism it generates

## 2. Economic contribution

As discussed in Chapter 1, the Sydney Opera House generates significant value for its users and, more broadly, to the economy. This value can be categorised into:

- Market value: economic activity generated and supported by the Opera House
- Non-market value: economic value not captured through the national accounting framework
- Broader community value.

This chapter estimates the 2016-17 market value of economic activity generated and supported in the Opera House precinct. Specifically, this includes:

- The direct economic activity of three types of entities, as shown in Table 2.1
- The indirect economic activity supported by these entities
- The Opera House’s role in attracting tourism activity and expenditure.

Subsequent chapters calculate non-market and broader community value.

The economic contribution of the Opera House precinct could change from year to year for a variety of reasons. First, as part of the Decade of Renewal, some theatres may be closed while they are being upgraded, affecting the number of performances and tickets sold.

Second, decisions about the timing of maintenance expenditure could affect the amount of economic activity generated by the SOHT in a particular financial year. Third, the popularity of programming by resident performing arts companies and Sydney Opera House Presents may change, for example, as Opera House audiences may become more aware of alternative touring productions or events not at the Opera House.

As such, the economic contribution for the Opera House precinct should not be expected to remain constant from year to year.

Table 2.1: Entities considered in the Opera House precinct’s economic contribution

Component	Main economic activities
SOHT	<ul style="list-style-type: none"> <li>• Maintaining and managing the precinct</li> <li>• Renting venue, food and beverage, and retail space to other companies</li> <li>• Programming performances under the banner of Sydney Opera House Presents</li> <li>• Providing guided tours and ticketing services.</li> </ul>
Resident performing arts companies	<ul style="list-style-type: none"> <li>• Presenting events and performances at the Opera House<sup>2</sup></li> </ul>
On site food and beverage operators and retailers	<ul style="list-style-type: none"> <li>• Selling food, beverages and merchandise to visitors on the precinct</li> </ul>

Source: Deloitte Access Economics

2 All resident performing companies perform at other venues besides the Opera House, however the activity generated through these performances is not included in our analysis.

## 2.1 Economic contribution of the Opera House precinct

The economic contribution of the Opera House precinct includes its value added, as well as the employment it supports in the Australian economy, both directly and indirectly:<sup>3</sup>

- Direct value added captures the wages and gross operating surplus of the SOHT and other businesses in the precinct
- Indirect value added captures the flow-on economic activity associated with purchases of intermediate inputs made by the SOHT and other businesses in the precinct.

Further details on the methodology used to estimate the economic contribution of the Opera House are in Appendix B.

### 2.1.1 Direct economic contribution

The amount of economic activity generated by the Opera House precinct in 2016-17 was \$200 million in direct value added to the Australian economy.<sup>4</sup> As shown in Table 2.2, and described earlier, this contribution is calculated as the sum of the economic contribution of the three groups of entities operating in the precinct:

- The SOHT
- The resident performing arts companies
- The bars, shops, restaurants and cafés that hire space from the Opera House.

The resident performing companies have the largest share of the direct contribution (\$88 million) followed by the SOHT (\$73 million).

There were over 2,000 full time equivalent (FTE) roles in the precinct in 2016-17. Again, resident performing companies constituted the largest share (42%) of this employment.<sup>5</sup> The SOHT and bars, shops, restaurants and cafés had similar numbers of FTE employment with 589 and 586 respectively.

Table 2.2: Direct economic contribution of the Opera House precinct, 2016-17<sup>6</sup>

	SOHT	Resident performing companies	Bars, shops, restaurants & cafés	Total
GOS (gross operating surplus) (\$m)	10.2	14.9	10.0	<b>35.1</b>
Labour income (\$m)	62.7	73.4	28.5	<b>164.7</b>
Value added (\$m)	<b>72.9</b>	<b>88.3</b>	<b>38.6</b>	<b>199.8</b>
Employment (full-time equivalent)	589	844	586	<b>2,019</b>

Source: Deloitte Access Economics analysis based on the SOHT annual report 2016-17 and the annual reports for resident performing companies 2017

Note: Individual figures may not add to total due to rounding

3 Value added measures the value of goods and services produced by an entity's factors of production (i.e. labour and capital) as reflected in the income to those factors of production (wages and gross operating surplus). The sum of value added across all entities in the economy is equal to Gross Domestic Product (GDP).

4 To calculate the contribution and full-time equivalents (FTEs), we used data from the 2016-17 financial statements of the SOHT and the resident performing companies. The SOHT provided financial data on the bars, shops, restaurants and cafés located in the precinct. Further details are in Appendix B.

5 This employment figure for resident performing companies was obtained through their annual reports. The figure was adjusted using the proportion of revenue attributed to the Opera House.

6 The entities in the Opera House precinct would make a number of transfers between each other, such as commissions or venue hire. However, the transfers would involve an income for one entity and an expenditure for another entity. Therefore, the figures will cancel each other in the total figures for the precinct.

### 2.1.2 Indirect economic contribution

The intermediate inputs purchased by the SOHT and other businesses in the precinct also generate flow-on benefits for other sectors of the economy. For example, purchases of food by restaurants in the precinct will lead to payments to the agriculture, food processing and wholesaling industries. The sum of these flow-on benefits is the indirect economic contribution.

We estimate that the indirect economic contribution of the Opera House precinct was \$170 million, as shown in Table 2.3. This activity supported around 1,520 FTE employees.

Table 2.3: Indirect economic contribution of the Opera House precinct, 2016-17

	SOHT	Resident performing companies	Bars, shops, restaurants & cafés	Total
GOS (\$m)	31.0	23.5	18.2	<b>72.7</b>
Labour income (\$m)	44.6	34.0	18.3	<b>96.9</b>
Value added (\$m)	<b>75.6</b>	<b>57.5</b>	<b>36.5</b>	<b>169.6</b>
Employment (FTE)	758	539	230	<b>1,527</b>

Source: Deloitte Access Economics analysis based on the SOHT annual report 2016-17 and the annual reports for resident performing companies 2017

Note: Individual figures may not add to total due to rounding

### 2.1.3 Direct and indirect economic contribution

In total, the Opera House precinct supported \$369 million in direct and indirect value added in 2016-17, and around 3,540 full-time equivalent roles, as shown in Table 2.4.

This means that for every full-time equivalent role at the SOHT, there are five additional people employed at performing companies and hospitality businesses located in the precinct and flow-on industries.

Table 2.4: Total economic contribution of the Opera House precinct, 2016-17

	Direct	Indirect	Total
Value added (\$m)	199.8	169.6	<b>369.3</b>
Employment (FTE)	2,019	1,527	<b>3,546</b>

Source: Deloitte Access Economics analysis based on the SOHT annual report 2016-17 and the annual reports for resident performing companies 2017

Note: Individual figures may not add to total due to rounding

## 2.2 Contribution to tourism activity

In addition to the economic contribution of the precinct, the Opera House also supports economic activity through its role in attracting tourists to Sydney.

Some tourists – whether from interstate or overseas – come to Sydney, or stay in Sydney for longer, in order to experience the Opera House. In fact, **93% of the international visitors surveyed** who had been in Sydney in the last 12 months said that **visiting the Opera House precinct was a consideration** when making the decision to visit Sydney. For 41% of survey respondents, it was in fact the primary reason for their visit to Sydney.

To the extent that the Opera House induces a visitor to come to Sydney, stay longer, or spend more, this activity and expenditure can be attributed to the Opera House, even if they did not spend money at the precinct.

We estimate that 10.9 million people visited the Opera House precinct in 2016-17. This includes 2.9 million international visitors (based on Tourism Research Australia surveys), and an estimated 1.3 million intrastate and interstate visitors.<sup>7</sup>

Tourists who come to the Opera House undertake a range of activities. For example, in 2016-17:

- More than 490,000 tours were undertaken
- International, interstate and intrastate visitors constituted an estimated 450,000 of the tickets sold to performances at the Opera House.

There are three main steps to estimating tourism expenditure attributable to the Opera House, and the corresponding economic contribution to Australia:

- Estimating the total amount of relevant tourism expenditure in Sydney
- Estimating the contribution of the Opera House to this expenditure
- Modelling the value added and employment associated with this expenditure.

More details on the methodology and data sources used for the Opera House tourism contribution can be found in Appendix D.

<sup>7</sup> Details about the methodology to estimate visitation to the Opera House precinct are in Appendix C.

### 2.2.1 The value of tourism activity associated with the Opera House

We estimate that the Opera House supported \$996 million in tourism expenditure during 2016-17. This figure is based on our estimates that tourist activities at the Opera House make up around 6% of total tourist activities, and the total holiday expenditure in Sydney (\$7.8 billion for 2016-17) recorded by Tourism Research Australia (TRA). More details on methodology are in Appendix D.

Again, this expenditure supports businesses to generate value added to the Australian economy. As shown in Table 2.5, we estimate that tourism expenditure associated with the Opera House contributed to \$886 million in direct and indirect value added in 2016-17. It also supported approximately 5,630 full-time equivalent roles.

While the Opera House is an iconic feature of the Sydney landscape, it forms part of a package of attractions to the city that includes the Sydney Harbour Bridge, Sydney Harbour itself and Sydney's beaches. All of these attractions are likely to factor in a visitor's decision to come to Sydney. Indeed, the combined offering may be more appealing than each individual attraction by itself. For example, walking from the Sydney Harbour Bridge Rocks precinct through Circular Quay to the Opera House and then on to the Royal Botanic Gardens might be more appealing than visiting each site in isolation.

Table 2.5: Estimated contribution of the Opera House to tourism in Sydney, and associated contribution to NSW economy, 2016-17

	Direct	Indirect	Total
Expenditure (\$m)	996	N/A	<b>996</b>
Value added (\$m)	431	455	<b>886</b>
Employment (FTE)	3,400	2,226	<b>5,627</b>

Source: Deloitte Access Economics, Tourism Research Australia (2018), SOHT data, SOHT annual report 2016-17 and the annual reports for resident performing companies 2017

Note: Individual figures may not add to total due to rounding

### 2.3 Total economic activity supported in the Opera House precinct

In total, the Opera House precinct contributes significant value to the Australian economy through:

- The direct activities of the SOHT, resident performing companies, and food and beverage operators
- Flow-on activity from the purchase of inputs
- Attracting tourists to Sydney and Australia.

There is some degree of overlap between these values. Specifically, some tourism expenditure would be included in the direct economic contribution of the SOHT, resident performing companies and food and beverage businesses.

To avoid double counting, we removed the estimated revenue that the SOHT, resident performing companies and food and beverage operators earned from selling to tourists.

As a result, we estimate that the total value added by the Opera House to the Australian economy in 2016-17 was \$1.15 billion (as shown in Table 2.6).

Similarly, we estimate that the Opera House supports close to 8,700 full-time equivalent roles. This means that for every job in the SOHT, the Opera House supports nearly 14 jobs in the Australian economy.

Table 2.6: Total economic contribution of the Opera House precinct, 2016-17

	<b>Total</b>
Economic value added (\$m)	<b>369.3</b>
Tourism value added (\$m)	<b>785</b>
Total value added (\$m)	<b>1,154</b>
Full time equivalent (FTE) roles supported	<b>8,698</b>

Source: Deloitte Access Economics, Tourism Research Australia (2018), SOHT data, SOHT annual report 2016-17 and the annual reports for resident performing companies 2017

Note:

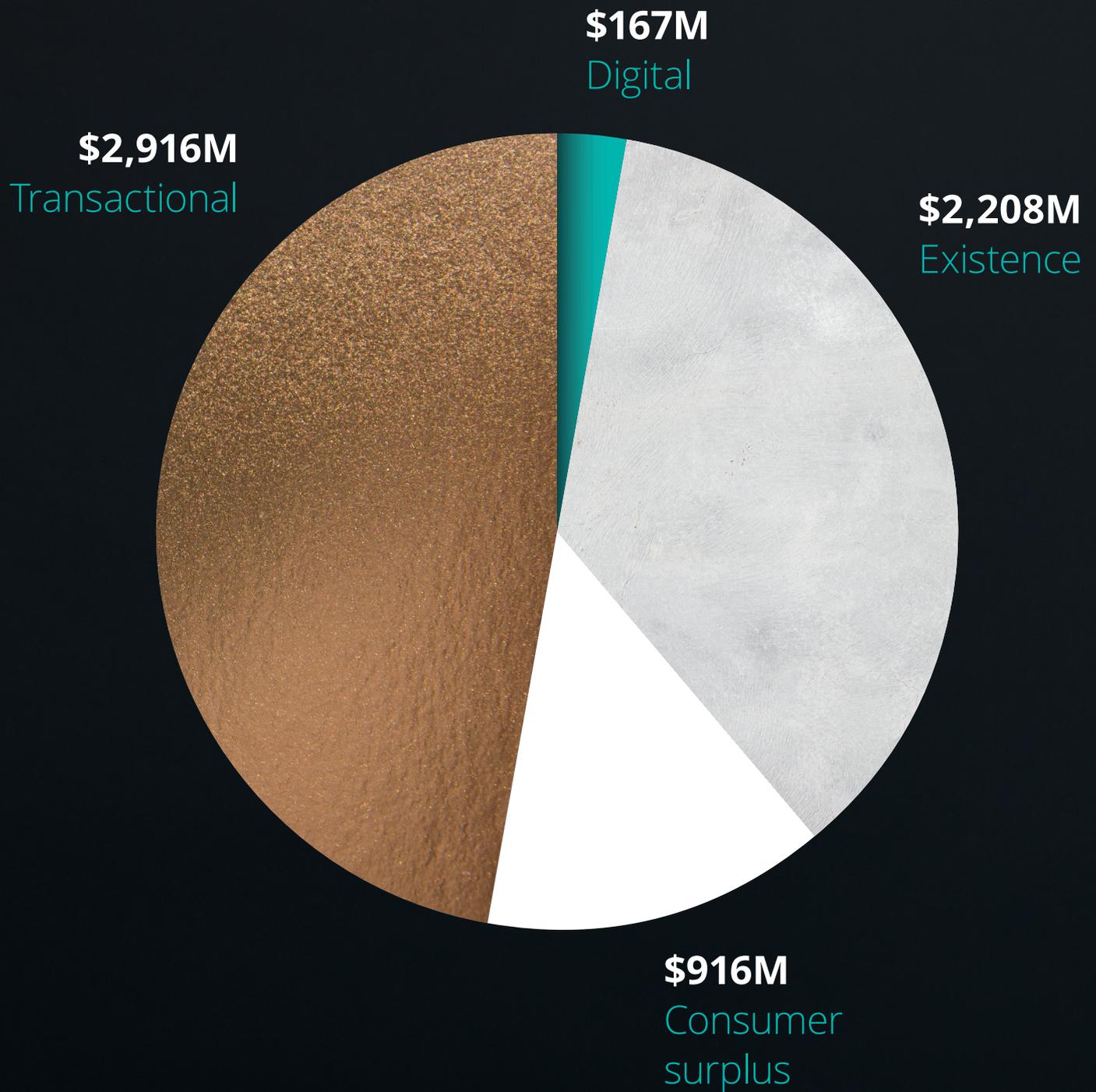
1. Individual figures may not add due to rounding
2. Value added is lower than in Table 2.5 because we have accounted for double counting of tourism contribution

### 3 Social asset value



**Total value** \$6.2B

Overall, we estimate that the Opera House precinct has a 'social asset' value of around **\$6.2 billion**



The largest component of the social asset value is transactional value (the prices paid by Opera House visitors for performances, tours, food, beverages and retail). But almost as large is the existence value – the value Australians receive from just knowing the Opera House precinct exists, and its role in supporting Australian culture

## 3. Social asset value

There are a range of reasons that an economic contribution may understate the value of an asset to the broader community. For example:

- If an organisation provides services at prices below consumers' true value, or for free, the economic contribution will underestimate the value of services because it only measures the price paid, rather than the value received
- If services are uncommon or unique, they add to the choices available to consumers, and thus may contribute additional value to consumers.

As such, in this chapter, we estimate the attendee and existence value of the Sydney Opera House. In total, the existence value and attendee value constitute the total **social asset value** of the Opera House.

Attendee value is calculated using three measures:

- A common starting point for measuring market or social value is **transaction value** – the revenue from the sale of goods and services
- In some instances, the value that consumers actually derive from their visit might exceed the price they pay for it. This is additional to the transaction value, and is known as **consumer surplus value**
- By hosting unique and uncommon performances, the Opera House adds to the choices available to consumers. Having this variety available can contribute additional value to consumers, known as **choice value**.

In addition to the audience value, public institutions such as the Opera House provide value to people who do not directly use their services. For example, the Opera House contributes more broadly to Australian culture and identity in a way that benefits all Australians. To capture this, we estimate the Opera House's **existence value** – a measure of the 'iconic' or 'symbolic' value that even those who have never been to the venue benefit from.

To estimate these benefits, we conducted a survey of more than 3,000 Australians,<sup>8</sup> asking about their use of the Opera House precinct and their opinions on its cultural value.

There is some overlap between the social asset value and economic value; for example, transaction value is included in both. As such, the figures are not additive. However, it is another useful measure of the value the Opera House precinct contributes to the Australian community.

### 3.1 Attendee value

As mentioned above, transaction values are a common starting point for measuring how much value attendees receive. In 2016-17, Opera House attendees spent \$219 million on transactions in the precinct.

However, in some instances attendees will get more value than the price paid. In this section, we measure this additional value for performance audiences, using two measures. The first is a measure of the additional amount that consumers would be willing to pay for their Opera House experiences. The second estimates the value of the additional choices that the Opera House offers.

This is conservative because it does not include value above the price paid for those who did not attend a performance (for example, those attending restaurants and bars, or those who did not make a purchase during their visit).

We estimate that performance attendees receive \$85 million in value in addition to the actual ticket prices paid. We also estimate that the value of increased choice resulting from performances at the Opera House is \$53 million. By averaging the two, we estimate that the additional value is worth \$69 million to performance attendees.

In total, this puts attendee value at \$287 million in 2016-17.<sup>9</sup>

8 The full survey was of 3,500 people, but international responses are excluded from this analysis as social value is unlikely to accrue to people living outside Australia.

9 Total differs from sum of items due to rounding.

### 3.1.1 Transaction value

Each year, around 1.4 million people attend performances and events at the Opera House (SOHT, 2017a). These people pay an average of \$206 for their experience (whether it be tickets, tours, food and beverages or a combination) (SOH, 2018a).

The total transaction value in the Opera House precinct is \$219 million. This consists of payments for tours, performances, retail, and food and beverage purchases, as shown in Table 3.1.

Table 3.1: Estimated total transaction values, 2016-17

Activity	Transaction value
Tours (\$m)	23.0
Performances (\$m)	119.2
Food and beverage purchases (\$m)	76.5
<b>Total (\$m)</b>	<b>218.7</b>

Source: SOHT data, SOHT annual report 2016-17

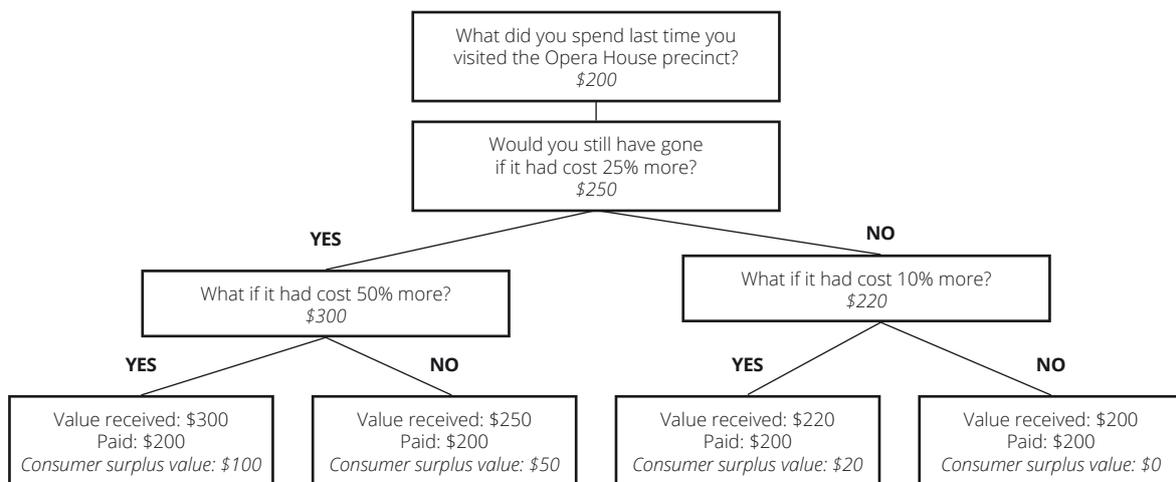
### 3.1.2 Consumer surplus value

For many Opera House performance attendees, the value of their experience exceeds the price they paid for it. This difference is known as 'consumer surplus'.

Figure 3.1 presents a simplified example of how we used the survey to establish consumer surplus.

A common way to measure this value in the literature is by using contingent valuation. In this case, we asked survey participants whether their attendance would change given an increase in price, assuming that the experience was at least as valuable as the amount they paid.

Figure 3.1: Stylised example of calculating consumer surplus



Source: Deloitte Access Economics

From this, we calculate a value premium for each performance attendee in the sample. This is how much more (relative to the transaction value) a person would be willing to pay for their Opera House experience.

$$Premium_i = \frac{(Value_i - Cost_i)}{Cost_i} \times 100$$

Table 3.2 shows these value premiums for different types of performance attendees – frequent attendees (purchasing at least 52 tickets per year), regular attendees (purchasing at least 12 tickets per year), and occasional attendees (purchasing at least one ticket per year).

Multiplying these premiums by the total number of people that attended performances at the Opera House in 2016-17 gives a value of \$82 million.

Table 3.2: Consumer surplus value by attendee type

Attendee type	Average consumer surplus (per performance)	Value premium
Frequent attendees	\$72.91	43%
Regular attendees	\$51.68	37%
Occasional attendees	\$16.57	14%

Source: Deloitte Access Economics analysis based on Research Now data

Part of the additional value that consumers receive is from having access to a wider variety of events.

The Opera House hosts a range of different performances and events every year – from opera to ballet, music to public talks, conferences to children’s programs. Many of these performances are not widely available in other venues. As a result, the Opera House increases the choice and variety of content to which Australians have access.

Academic research has found that consumers place a value on having greater choice, and this value is not always captured in the price paid for a good or service (see, for example, Lancaster (1990)).

To measure the value of the Opera House’s specialised performances, we use an adaptation of the choice value methodology outlined in (Brynjolfsson, Smith, & Hu, 2003), where choice value is measured as:

$$\text{Compensating variation} = - \frac{x \times R}{1 + a}$$

First, we seek a measure of how different performances at the Opera House are relative to other venues. We use elasticity (denoted by  $a$  in the formula) – a way of measuring how the quantity of tickets demanded responds to changes in price – for this purpose.

We calculate arc elasticity of -2.2, slightly more inelastic than the - 2.3 found in 2013. This means that, for a 1% increase in price, we estimate that the quantity of tickets demanded would decrease by an estimated 2.2%. As a comparison, the price elasticity of books has been found to be between -1.56 and -1.79 (Brynjolfsson, Smith, & Hu, 2003).

Next, we calculate the proportion of Opera House activities that are a unique addition to the consumer choice set, using perceptions from the survey; this is  $x$  in the formula. As Table 3.3 shows, around half of respondents think performances at the Opera House are unique.

Finally, we multiply by Opera House ticket sales revenue ( $R$  in the formula)<sup>10</sup> to calculate the consumer choice value. This gives a value of \$53 million.

Table 3.3: Sydney Opera House uniqueness

Difference characteristic	Percentage of respondents that agreed
The performances and events available at the Opera House are unique	37%
The Opera House as a venue is unique (not like other theatres and cultural and entertainment venues)	46%
Performances at the Opera House would not be as good if held elsewhere	54%
The Opera House offers a unique range of performances and events not shown elsewhere in Sydney	72%
<b>Average</b>	<b>52%</b>

Source: Deloitte Access Economics analysis based on Research Now data

<sup>10</sup> Ticket sales revenue includes sales by resident companies and Sydney Opera House Presents performances but excludes commercial hires.

### 3.2 Existence value

Another important element of the social asset value of the Opera House is existence value, also known as cultural or iconic value. That is, the value that people who do not use the precinct place on its very existence.

In our survey, Australian residents placed great emphasis on the importance of the precinct as a landmark:

- 88% agreed that the Opera House is an iconic landmark that contributes to Australia’s national identity and international standing
- 73% said that the Opera House makes a significant or very significant contribution to a unique culture in Australia.

We measured the existence value by asking Australians who had not visited the Opera House precinct in the past year how much funding they thought the Opera House should receive from government. The survey included information about the current level of funding that the Opera House, and other comparable institutions, receive from government. This is known as a contingent valuation methodology.

On average, NSW residents considered the Opera House precinct should receive \$18.10 per household, equating to a total existence value in NSW of \$55 million. Across the rest of Australia, the existence value was \$16.10 per household, or \$110 million. This makes total existence value of the Opera House precinct \$166 million per annum.

Of course, using a survey to measure this value has limitations. If participants believe that their response may change the way their taxes are spent, they could be reluctant to place a high value on the Opera House. On the other hand, those that regularly attend the precinct may be inclined to report unrealistically high values in an effort to get their visits subsidised by government funding.

When the Opera House was originally built, it cost \$102 million (approximately \$1 billion in 2018 dollars). The existence value calculated above suggests the Opera House has delivered value far beyond this investment. However, it is important to note that this does not necessarily imply that more funding would have equated to more value. Government has many competing priorities, and this survey did not ask people to select whether funding should be allocated to the Opera House instead of other institutions or projects.

Table 3.4: Existence value of the Opera House precinct

Cohort	Per household	Annual aggregate	40-year net present value
Suggested funding level (in NSW)	\$18.10	\$55m	\$1,468m
Suggested funding level (outside NSW)	\$16.10	\$110m	\$740m
Total Australia	N/A	\$166m	\$2,207m

Source: Deloitte Access Economics analysis based on Research Now data

### 3.3 Total social asset value

Overall, we estimate that the Opera House precinct has a 'social asset' value of around \$6.2 billion.<sup>11</sup>

Table 3.5 shows that the largest component of the social asset value is transactional value (the prices paid by Opera House visitors for performances, tours, food, beverages and retail). But almost as large is the existence value – the value Australians receive from just knowing the Opera House precinct exists, and its role in supporting Australian culture.

As explained in Chapter 5, digital also provides value by simplifying ticket sales, improving the experience at the Opera House and allowing stronger engagement with Opera House content. Most of this value is captured in either transaction value or consumer surplus. However, there is also digital value beyond these measures: the value that individuals get from engaging with Opera House content online (for instance, watching an Opera House performance on YouTube). We estimate this value is \$12.5 million in 2017-18 based on the value individuals place on leisure time multiplied by the amount of content consumed online each year. More detail about this calculation can be found in Section 5.2.3.

The total social asset value of \$6.2 billion is 24% higher in real terms (i.e. after adjusting for inflation) than the \$4.6 billion it was worth in 2013 (36% higher in nominal terms).<sup>12</sup>

While there have been small methodological changes since the \$4.6 billion was calculated, and there is natural fluctuation in survey responses, it is clear the value of the Opera House precinct has grown significantly.

The higher social asset value could reflect a number of changes, including:

- Increased patronage of the precinct
- An enhanced performance experience, supported by the Renewal works
- Population growth, contributing to both patronage and existence value
- The rise in digital value because of increased consumption
- A possible increase in appreciation of the arts in Australia. For instance, live streaming of Vivid Sydney's 'Lighting of the Sails' garnered 2.8 million views on Facebook in 2018.

This figure should be considered alongside the economic value of the Opera House precinct. As noted above, there is some overlap with the economic contribution, and the two values are not additive.

Table 3.5: Total social asset value of the Opera House precinct

Component	Annual value	Asset value (40-year NPV)	2013 asset value (40 year NPV)
Transactional value (\$m)	218.7	2,916.2	1,984.7
Additional attendee value* (\$m)	68.7	915.7	456.2
Existence value (\$m)	165.6	2,207.8	2,074.3
Digital value (\$m)	12.5	166.6	58.5
<b>Total (\$m)</b>	<b>465.5</b>	<b>6,206.4</b>	<b>4,573.7</b>

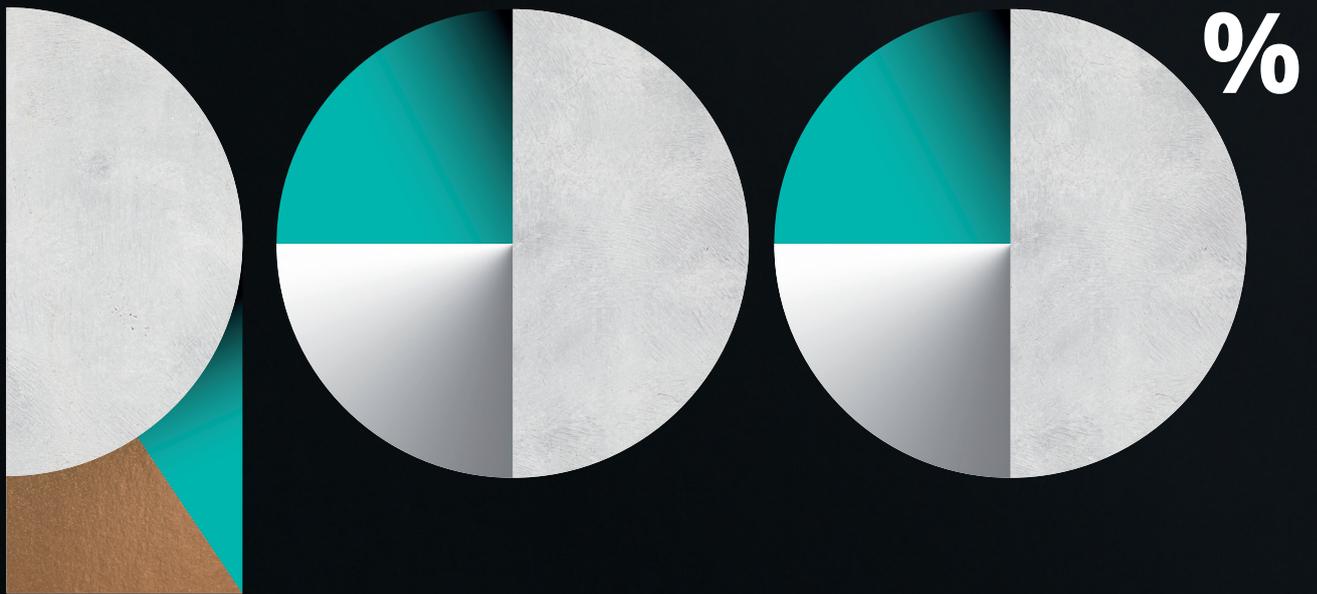
\* Additional attendee value is calculated as the average of consumer surplus value and choice value

Source: Deloitte Access Economics

<sup>11</sup> To convert from an annual figure to an asset figure, we take a 40-year net present value with a real discount rate of 7% per annum, in accordance with NSW Treasury Guidelines.

<sup>12</sup> The 2013 \$4.6 billion value is worth \$5.0 billion in 2018 dollars.

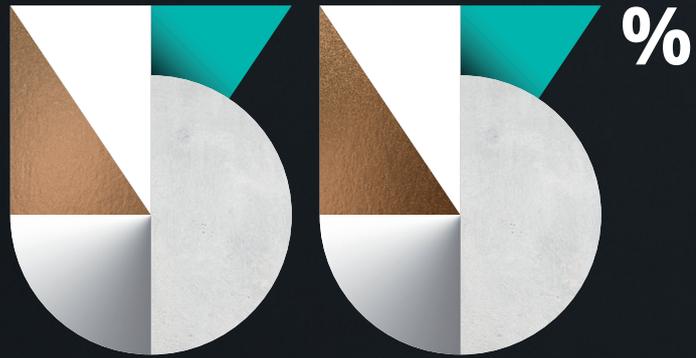
## 4 Brand value



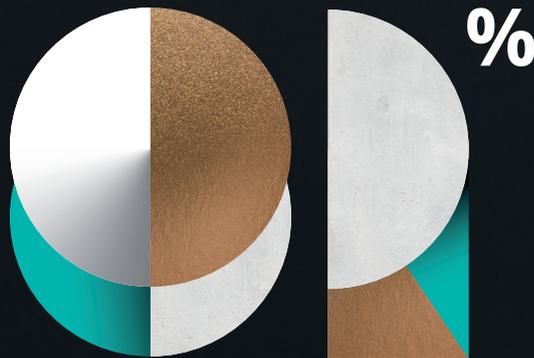
**Differentiation 100%**

The Opera House brand holds significant value

Its status as a unique Australian icon, renowned globally, contributes to much of that value



**Relevance** 55%



**Esteem** 81%



**Knowledge** 92%

## 4. Brand value

The Sydney Opera House brand is more than just a name or a logo; it is a powerful symbol of Australia's culture and brand within the country and abroad. It is home to Australia's largest cluster of major performing arts companies and is a global symbol for Australian culture and creativity. The building continues to be the highest profile example of Australia's modern architecture. Three-quarters of survey respondents believe that the Opera House contributes to unique Australian culture, while 88% agree that the Opera House contributes more broadly to Australia's national brand and international standing.

The value of the Opera House brand cannot be understated. However, it is also difficult to measure.

In this report, we analyse the value of the Opera House's brand, using a tool known as the Brand Asset Valuator (BAV).

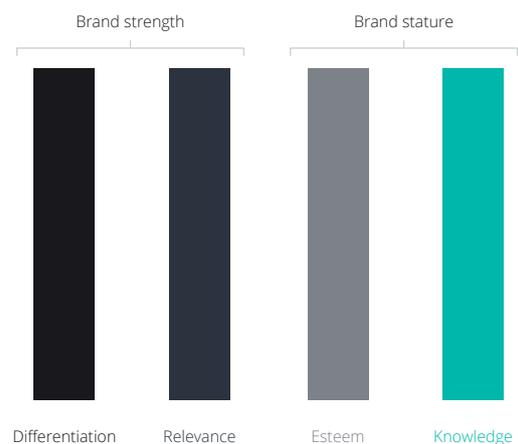
Developed in the early 1990s by the global marketing and communications agency, Young & Rubicam, BAV is one of the oldest and most well-known measures of brand value in consumer research (Young & Rubicam, 2018). To date, it has been used in over 390 studies across 52 different countries to evaluate 56,000 brands (Young & Rubicam, 2018).

BAV assesses brand performance across four pillars, namely:

1. **Differentiation:** the ability of a brand to set itself apart from competitors
2. **Relevance:** how closely a brand relates to the needs and values of its consumers
3. **Esteem:** how well-regarded a brand is amongst consumers
4. **Knowledge:** the degree to which consumers are familiar with and understand a brand's qualities and attributes, whether positive or negative (Young & Rubicam, 2018).

The first two pillars measure the strength of a brand, capturing its future growth potential and performance. The last two pillars measure the stature of a brand and reflect how it is currently performing and has performed in the past. Together, these four pillars can indicate the 'health' of a brand – that is, whether a brand has momentum in the market, and whether it is growing or declining in value and power (Pahud de Mortanges & van Riel, 2003). The BAV 'four pillars' approach is depicted in Figure 4.1.

Figure 4.1: The four pillars of BAV



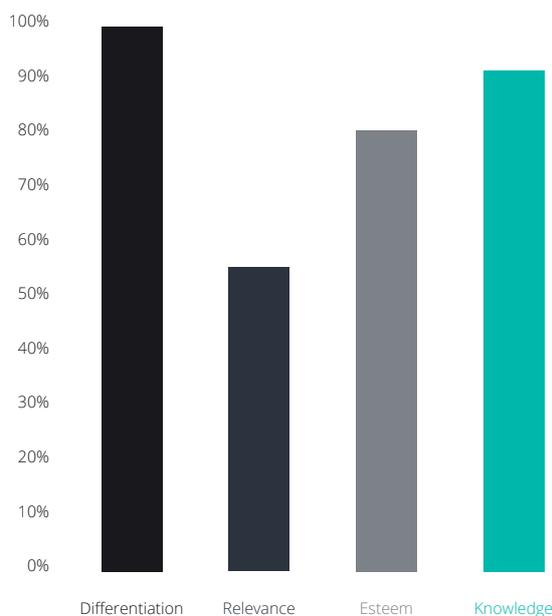
Source: Adapted from Y&R BAV website

In Australia, the BAV study is generally conducted on a biennial basis. The most recent study in 2016-17 surveyed 6,600 consumers on 1,500 brands in 121 categories. It has been used to inform the main findings of this chapter.

#### 4.1 Brand health and profile

The Opera House brand holds significant value. Its status as a unique Australian icon, renowned globally, contributes to much of that value, as Chart 4.1 depicts.

Chart 4.1: Opera House brand performance across the BAV's four pillars



Source: BAV All Adults National: Australia 2016

Across all four pillars, the Opera House performs relatively well. In addition to improving upon its 2013 and 2014 scores, the Opera House outperformed a number of other well-known brands in its category and beyond, and moved from a rank of 22 to a rank of 16 over a four-year period (Young & Rubicam, 2016).

A large proportion of the Opera House's brand value and power is driven by its performance on the Differentiation pillar. In fact, the Opera House has a perfect score of 100 for Differentiation, among both national and NSW audiences (Young & Rubicam, 2016). This is a combination of the Opera House being viewed by audiences as 'Unique' (100%), 'Distinctive' (100%), 'Different' (98%), 'Dynamic' (97%) and to a lesser extent, 'Innovative' (86%). A brand's Differentiation clarifies choice for its audiences between itself and its alternatives. The Opera House clearly exists within a small competitive class, and to an extent has created its own category within that small group: that of 'globally iconic Australian arts venues'.

In addition to Differentiation, the Opera House also scores highly on the pillars of Knowledge (92%) and Esteem (81%), reflecting its eminence among Australian audiences (Young & Rubicam, 2016). Its Knowledge score indicates a healthy degree of audience awareness not only of the Opera House's existence, but of its associations and qualities as a brand, and what people can expect of the experience it provides. Its performance on Esteem is also relatively healthy and reflective of the wide spectrum of communities and audiences it addresses.

On the other hand, the Opera House performs less well on Relevance. Among Australian audiences, it registered a score of 55% (Young & Rubicam, 2016). Relevance refers both to the degree to which a brand's values resonate with audience members, and its perceived accessibility, or approachability to those audiences. In that context, the Opera House's lower Relevance score may be a consequence of a lower understanding of the breadth of its offering outside of Sydney-siders. This is consistent with the fact that interstate audiences scored the Opera House as being less relevant to them than those in NSW, who rated the Opera House's Relevance at 89%.



As can be seen in the varied Relevance scores across different audiences, the Opera House has an opportunity to build its online appeal and extend its reach to engage more fully with interstate and international visitors. When only NSW audiences are taken into account, the Opera House's brand profile transforms into one that is 'leading', with high Differentiation, Esteem, Knowledge and Relevance across the board (Young & Rubicam, 2016).

The Opera House aims to offer something to all audiences – a 'House for all Australians'. On the indications of its Knowledge score, the Opera House's efforts over recent years to broaden awareness of what it offers through both physical and digital domains, and of what it stands for as an institution, is working.

#### 4.2 Brand personality

In addition to assessing the Opera House across the four pillars, respondents were asked to select attributes with which they associate the Opera House. The top five attributes nominated were: 'Distinctive', 'Unique', 'Charming', 'Glamorous' and 'Different' (Young & Rubicam, 2016).

These brand personality traits are consistent with responses from previous waves of the study, and also markedly consistent across different states and territories (Young & Rubicam, 2016).

From these attributes, the Opera House brand was determined to be 'Chic', 'Classic' and 'Superior'. While having a 'Chic' character means that the Opera House is viewed as a prestigious upscale brand, 'Classic' and 'Superior' means that it is seen as original and a market leader (Young & Rubicam, 2016).

In fact, the Opera House's brand is so powerful that around 70% of people would recommend it to a friend – a level of customer advocacy to which many organisations aspire. In fact, this recommendation score surpassed that of a number of other well-regarded Australian arts and cultural institutions (Young & Rubicam, 2016).

#### 4.3 Moving the Opera House brand forward

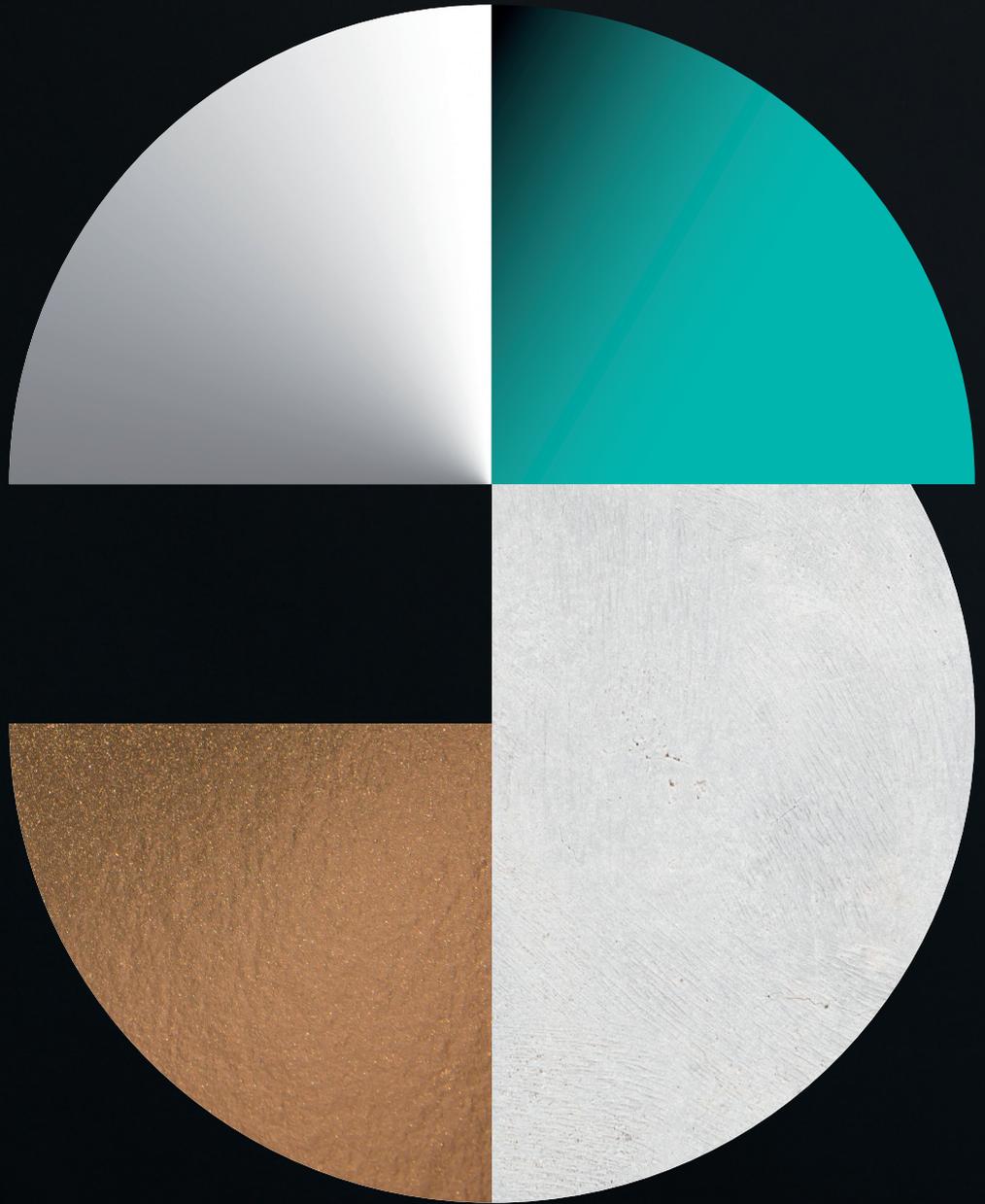
The Opera House brand holds significant value. Its levels of Differentiation and Knowledge place it ahead of many other well-known brands within Australia. While these elements are strong, it could seek to bolster its Esteem and Relevance to cement itself as a 'leading' brand amongst both national and NSW audiences.

The SOHT has already begun to do this, with a recent renewal of its brand strategy in 2016. Developed in conjunction with Interbrand Australia, "Shifting Perspectives" is a brand idea that was established to expand visitor awareness and engagement with the Opera House beyond its iconic architectural exterior (Maclean, n.d.). The brand idea and the creative identity which was developed enables the Opera House to draw attention to the diverse range of cultural and arts activities available at the Opera House, emphasising its Relevance, and driving higher audience Esteem. The brand identity was recognised with two Cannes Lions awards at the 2016 Cannes Lions Festival of Creativity.

The Opera House has also sought to build its Esteem and Relevance through partnerships with a range of other well-regarded brands that are in tune with the needs and values of all Australians. Currently, the Opera House's major partners and sponsors include widely known brands such as Samsung, Etihad Airways, Mastercard, Westpac, Airbnb, Moët & Chandon, Google, and EnergyAustralia (SOH, 2018b).

The Opera House continues to evolve its brand strategy and leverage partnerships productively with the aim of continuously building greater Esteem and Relevance, developing its brand strength and accruing greater value.

# 5 Digital value





## **31M views** of Opera House videos in 2017-18

Digital is a powerful means  
of extending and enhancing  
the value of the Sydney  
Opera House

# M

# 5. Digital value

Digital is a powerful means of extending and enhancing the value of the Sydney Opera House. It creates additional value for the Opera House through augmenting and enabling new experiences, as well as extending the visitor experience through engagement in digital channels.

Digital continues to open up the doors and public spaces of the Opera House to very large domestic and international audiences who are unable to visit the physical precinct. This includes niche groups that may not otherwise interact with the Opera House. Visitors themselves can also play a role in expanding awareness of the Opera House, its brand and content through sharing on social media.

In 2013, the Opera House commenced a digital transformation, a journey that it continues today. The vision for its digital transformation is to enable online experiences that match and amplify the on-site Opera House experience, and which are as bold and inspiring as the building itself.

Across every element of a visitor's journey and interaction with the Opera House in 2018, digital now plays a valuable role in enhancing the experience, reinforcing the Opera House brand, extending access to Opera House content, and deepening visitor and global audience engagement.

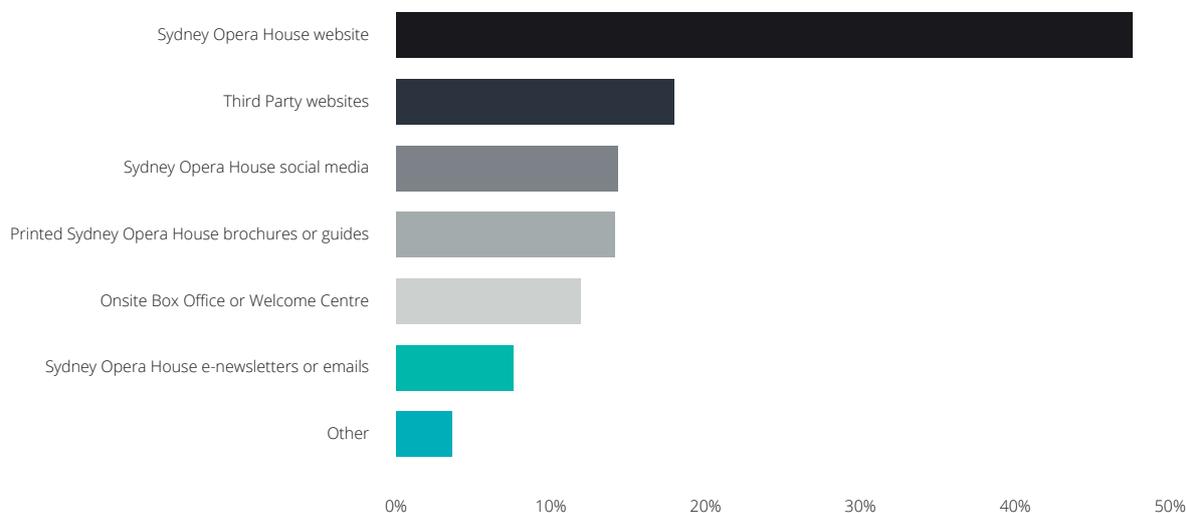
## 5.1 Pre-visit

### 5.1.1 Planning the visit

For many visitors, the Opera House experience starts on a screen. Sometimes this will lead to a first visit to the Opera House (booking a tour or tickets to a performance), while at other times, the visit will only ever be virtual.

A new Opera House website was launched in March 2017 with the intent of improving and enhancing the visitor experience. The website saw 5.8 million unique visitors in 2017-18, representing a 71% increase in its online audience over the past five years. The website is the most common channel for discovering information about the Opera House.

Chart 5.1: Channel used to access information about the Opera House



Source: Deloitte Access Economics analysis based on Research Now data

### 5.1.2 Ticketing

The website has been one driver of improvement in the enhanced ticketing experience. A higher proportion of tickets are purchased online via the Opera House website today than in 2013. In 2018, 82% of Sydney Opera House Presents gross box office revenue came from online, up from 67% in 2015. Additionally:

- Ticket scanning now works for mobile and print-at-home tickets sold through Opera House or resident company websites
- Patrons are now able to purchase same-day tickets for guided tours of the Opera House
- Virtual 'waiting rooms' have been introduced to mitigate the risk of website load issues, and to provide a smoother and more equitable customer experience
- Roving staff on the forecourt now sell tickets on the spot with tablets.

### 5.1.3 The digital ecosystem

The Opera House is also taking advantage of opportunities for deeper engagement with visitors prior to events, such as through the increased use of Facebook event pages and Opera House-curated playlists on Spotify in advance of shows.

Beyond Opera House-owned channels, many visits to the Opera House are planned and curated by third party services or in connection with the Opera House. For example, in partnership with Airbnb, the Opera House offered a 'Best Seat in the House' unique experience, where visitors could go on a behind-the-scenes tour, have dinner and drinks in the Green Room and then view a performance from never-before-offered seats above the auditorium. During another campaign developed in response to the popularity of 'Pokémon GO', the Opera House organised a related event at the precinct via Facebook.

By involving itself more deeply in the digital ecosystem and interacting in this way, the Opera House is able to identify and support niche audiences that may otherwise not consider the Opera House as a venue for their interests.

## 5.2 At the House

### 5.2.1 Experiencing the Opera House through digital

The Google Cultural Institute collaboration<sup>13</sup> was launched in 2016, allowing audiences globally to explore the Opera House without stepping foot inside the actual building. As a digital-only experience, the archive of historical artefacts and performances was combined with the Institute's ability to open up the Opera House to those who would not or could not visit the Opera House in-person. The online collection deepens the Opera House experience even for frequent visitors, engaging them in new ways by offering behind-the-scenes glimpses not typically available to the public such as between performance acts and rehearsals.

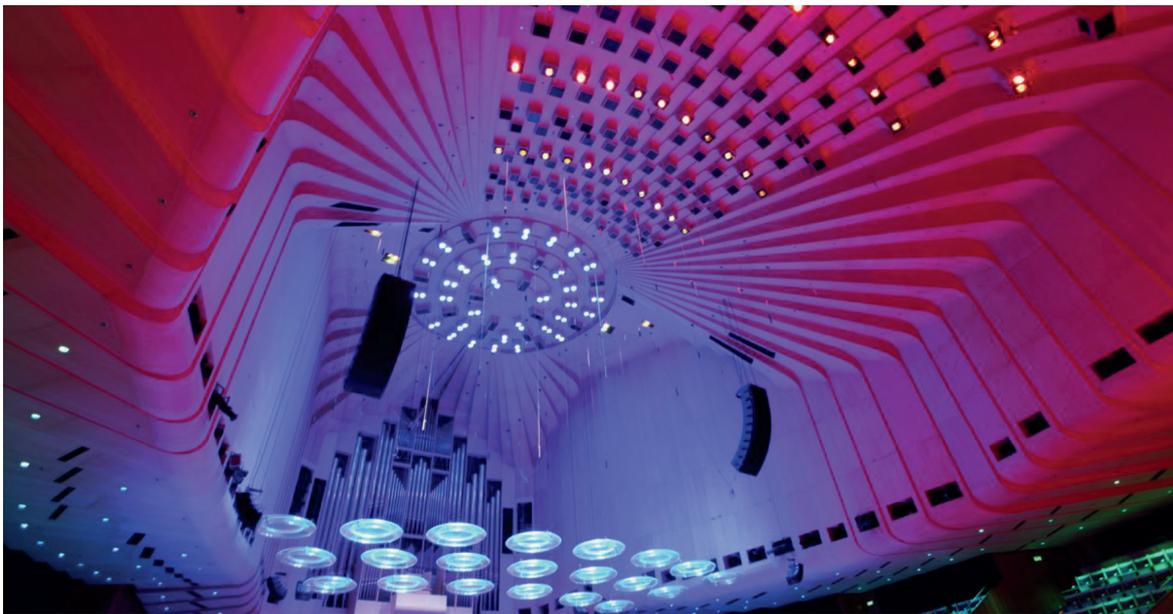
The Opera House's first online content hub and magazine was established in March 2017, in line with the new website. Backstage tells the stories behind the Opera House, its people and performances, and has generated almost 270,000 views since launch from over 200 curated stories, features, interviews and interactive content pieces.

### 5.2.2 Venue upgrades

Upgrades to the physical performance venues over recent years have enhanced the Opera House experience by enabling more sophisticated use of technology during performances. Upgrades in the Concert Hall from older-style incandescent stage lights to LED lights have improved energy efficiency, resulting in a 75% reduction in electricity consumption for lighting in the Concert Hall, along with the subsequent removal of around four tonnes of air-conditioning ducting enabled by reduced heat generation. The installation also improved employee safety and performance acoustics, while extending the range of lighting options. Upgrades to the Joan Sutherland Theatre undertaken in 2017 include new theatre machinery, a fly system and scenery lifts, which were used to stage Opera Australia's 2018 production of *Aida*, involving suspended mobile LED screens and automated lights.

13 The average length of time people view items on Google Cultural Institute is more than one minute.

Figure 5.1: Opera House Concert Hall lighting upgrade



Source: SOHT (2018)

The accessibility of the building has also been improved through digital upgrades, creating a better experience for the hearing-impaired by installing additional subtitle screens throughout the venues. Where performances are subtitled, 80% of audiences can now see a subtitled screen, up from 50% in 2013. Hearing loops have also been upgraded in several performance venues.

The Opera House has also improved digital access for visitors through Wi-Fi connectivity. The precinct offers high-density, freely available Wi-Fi in performance venues and low-density Wi-Fi in the forecourt.

### 5.2.3 Digital experience of performances

Streaming extends the reach of cultural content, removing some of the barriers to access. Live streaming occurs at the time of an event (such as Facebook Live) or video on demand content is made available (e.g. YouTube) for people to view at their leisure. According to SOHT provided data, Opera House videos have collectively received 31 million views in 2017-18, and have grown over 400% over the past five years.

way that the Opera House provides value to society. SOHT data shows that in 2017-18, 1.1 million hours of Opera House video content was consumed globally. Given that the average net hourly wage in Australia is \$11.36 (ABS, 2017), and individuals value their leisure time at 45% of their wage (Larson & Shaikh, 2004), we estimate that this streaming is worth approximately \$12.5 million per year.

Nearly two-thirds (63%) of survey respondents value being able to watch performances digitally or online, demonstrating the value that the Opera House offers in making cultural content more accessible to a broader audience. Streaming can reach remote locations, and international viewers unable to attend an event in person. For example, the *'All About Women'* festival held 'live sites', where talks were streamed live to remote locations in every state and territory, and overseas to New Zealand.

Live streaming and produced video content is another

Live streaming of full-length concerts has increased since 2013, with 20 performances live streamed in 2017. The live streaming of Vivid Sydney's 'Lighting of the Sails' garnered 2.2 million views on Facebook in 2017.

Aside from livestreams, 39 performances were recorded and made available online after the event.

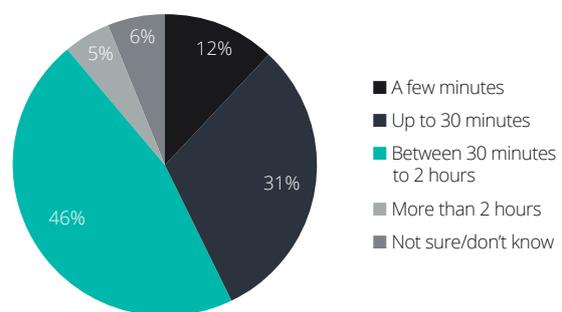
Across the Opera House's three YouTube channels, the most popular videos have been:

- 'SOH Music' channel: Bon Iver, *Heavenly Father* performance, 4.5 million views
- 'SOH Ideas' channel: Alain de Botton: *On Love*, 703,000 views
- 'Sydney Opera House' channel: *Tour the Sydney Opera House in 360°*, 365,000 views.

In fact, 17% of survey respondents watch material that was filmed at the Opera House at least once a year. For survey respondents based overseas (New Zealand, UK, US and China), this is even higher at 23%. A recording by Opera House staff of *'Nanette'*, a comedy show by Australian comedian Hannah Gadsby that was staged at the Opera House Concert Hall, was made available on Netflix, and Netflix has advised it has since been viewed in more than 190 countries.

The benefits of being able to watch Opera House performances online, on a television or mobile device are all about convenience: 25% appreciate being able to watch a performance when they prefer, 32% value the ability to watch the performance from anywhere while improved affordability is a drawcard for 24%. Rather than watching just a snippet, 51% of survey respondents indicated that they typically spend more than 30 minutes watching Opera House material online, demonstrating an engaged and captivated audience.

Chart 5.2: Length of time spent watching online Opera House materials



Source: Deloitte Access Economics analysis based on Research Now data

Podcasts are another digital channel through which listeners can access Opera House-produced content. There were 526,900 downloads of Opera House-produced podcasts in 2017, compared to just 25,200 downloads in 2013. This growth is reflective of an increase in available podcast content and changing audience consumption habits.

### 5.3 Post-visit

Engagement with the Opera House does not necessarily stop once visitors leave the precinct, with continued interaction occurring through marketing and visitor-driven sharing of social media posts, reviews and future ticket booking. Almost one-third of overseas visitors and 21% percent of visitors, who attend a paid performance or talk, then share their Opera House experience via social media.

According to the SOHT, 'Sydney Opera House' is one of the world's most Instagrammed destinations, and on Facebook the Opera House has one of the highest engagement of any brand in Australia. The Opera House reaches 294 million people through social media (Facebook, Twitter and Instagram), and these online channels amplify brand awareness, driving additional engagement value for the Opera House.

## 6 The future of an icon





2023. The Opera House is building on  
the achievements of its previous  
strategy for the second half of the  
*Decade of Renewal*

## 5. The future of an icon

The Sydney Opera House provides significant economic and social value to Australians. It is used as a platform during major events, such as New Years' Eve, Australia Day and the Invictus Games, to represent Australia on the global stage.

Sydney is currently ranked as the 5th most liveable city in world according to the Global Liveability Index (The Economist Intelligence Unit, 2018). Across the Index's five pillars, Sydney scores a perfect 100 in healthcare, education and infrastructure. However, it has room for improvement in the culture and environment, and stability pillars. While there are many factors at play, the Opera House has an important role in nurturing, celebrating and fostering culture in Sydney, while safeguarding the stability score.

It is important to protect this icon, and find new ways to keep growing the value it provides. In line with this need, the Opera House has updated its strategy for 2018-23, building on the achievements of its previous strategy for the second half of the Decade of Renewal.

### 6.1 Recent improvements

The Opera House has navigated a period of significant change over the past five years. Improvements and upgrades to the precinct have meant an enhanced customer experience, a substantial increase in visitation, and an increase in both the economic contribution and social value of the precinct.

For example, the Vehicle Access and Pedestrian Safety (VAPS) project (completed in 2015) improved the safety and accessibility of the forecourt by shifting more than 1,000 heavy-vehicle movements each week to a new tunnel and underground loading dock (SOHT, 2018d).

Much of this change has been enabled by a Renewal program co-funded by the SOHT and the NSW Government. The program, announced in 2015, will continue until 2023 and aims to improve and replace the existing infrastructure as well as open new areas and improve accessibility, functionality and safety at the venue (SOHT, 2018b).

An example of the Renewal works is the major upgrade to the Joan Sutherland Theatre, completed in 2017. This work included installation of a safer and quieter theatre flying system, partial replacements of the auditorium lighting and the sound console, upgrades to the orchestra pit to improve playing conditions for the musicians and a cutting-edge acoustic enhancement system which enables better distribution of sound throughout the theatre (SOHT, 2018e).

The Opera House will continue to make improvements to the building and precinct as part of Stage 1 Renewal works, including:

- Recently completed additional upgrades to the Joan Sutherland Theatre, focusing on enhancements to the accessibility of the venue, and improvements to its safety including a new flat walkway and lift
- A new function centre within the building envelope to celebrate significant events - from weddings and intimate gatherings to community and government events
- Upgrades to the entry and foyer to improve accessibility through the addition of escalators and a lift
- Major upgrades to the Concert Hall to improve safety and accessibility in line with current standards, and improvements to acoustics and theatre machinery in line with advancements and anticipated changes in technologies
- A new Creative Learning Centre to provide a dedicated space for children and young people to learn (SOHT, 2018b).

### The increasing value of the icon

Since the 2013 report was released, the Opera House has undergone significant growth.

Some of the key comparisons include:

- The annual economic contribution has increased by 44% in real terms, from \$775 million in 2012-13 to \$1,200 million in 2016-17
- Almost 1 million more international visitors attend the Opera House precinct annually (increasing from 2 million international visitors in 2012-13 to 2.9 million international visitors in 2016-17, a growth of 46%)
- The social asset value of the Opera House has increased by \$1.6 billion, or 24% in real terms, from \$4.6 billion in 2013 to \$6.2 billion in 2018
- The total value of transactions within the precinct has grown almost 50% up to \$219 million in 2017
- Digital engagement (e.g. website views, videos streamed etc.) has grown over 400% since 2013 and is now worth \$12.5 million per year.<sup>14</sup>

This growth is likely a reflection of a combination of factors. For instance, an increase in the number of international visitors to Sydney and an increase in their spending habits, enhanced tour, performance and food and beverage options, upgrades to the precinct, and an increase in government funding to enable the Renewal works.

<sup>14</sup> Digital value has been calculated differently in the two reports, so the two are not directly comparable. This is because the ways that people engage with digital content have changed over the last five years, and the 2013 methodology is no longer appropriate.

## 6.2 Risks

A number of risks could impact the value of the Opera House. For instance, the building is ageing, and infrastructure needs to be updated; the Opera House is beginning to reach capacity constraints as its popularity grows; and security at the Opera House needs to be continuously reviewed to ensure that the House and its broader precinct is a safe venue for all that visit.

The Renewal program is focused on updating the machinery and equipment that are at the end of their useful life. Prior to this work, the majority of the Opera House infrastructure was introduced in 1973 and reaching the end of its useful life. While recognising some short-term disruption, the Renewal program has been designed in part to introduce new and improved infrastructure, retiring older equipment. However, the Renewal program will not completely mitigate this risk, and the building will continue to require ongoing maintenance.

Another problem that is beginning to arise is capacity constraints. For example, many of the events in the contemporary music and performance programs in 2016-17 reached greater than 90% capacity (SOHT, 2017a), and the Crowded House concert at the Opera House in 2016 sold out immediately (Zuel, 2016). If the popularity of performances and events continues to increase, there is a risk that capacity constraints will prevent the Opera House from leveraging the demand. This will also mean that the strong growth in transaction value seen over recent years may level off as attendance reaches a peak.

Managing safety and security is another continuing focus of Renewal. The safety and security of patrons, visitors and staff at the Opera House is the venue's highest priority.

The Opera House is currently replacing temporary security infrastructure at the Macquarie Street and East Circular Quay site entry points with an integrated, long-term solution in partnership with the neighbouring precinct owners. It is also renewing and upgrading security technology systems nearing the end of their operational life. Both infrastructure projects have been funded by government grants.

The survey reinforced how much the community cares about the level of security at the Opera House. We asked respondents to allocate \$50 of government revenue between general government spending and Opera House security upgrades, and found that the average household would spend \$20.40 on security at the Opera House. This is actually slightly higher than the non-use value that Australians receive from the Opera House – \$16.70 per household.



### 6.3 Opportunities

There are a number of opportunities to enhance the economic and social value of the Opera House. These include the increasing focus on its First Nations programs, its support of Australian contemporary culture, its educational outreach, and its continual investment in digital technology.

#### 6.3.1 First Nations

First Nations are an integral part of Australia's history, culture and society. Events presenting First Nations culture are important for preserving, sharing and transmitting across that culture, both for Indigenous Australians and more broadly across society.

The Australia Council for the Arts has previously found that First Nations arts engagements:

- Assist First Nations Australians to connect to their community and improve their overall wellbeing
- Correlate with cultural maintenance (e.g. speaking First Nations languages or recognising homelands) and educational and employment outcomes
- Are positively related to older First Nations Australians earning income
- Allow relatives of those impacted by child removal policies to establish stronger cultural connections (Australia Council for the Arts, 2017).

In 2011, the SOHT was the first performing arts organisation in Australia to launch a Reconciliation Action Plan (RAP). Since then, the Opera House has continued to lead by example by undertaking an ongoing series of RAP initiatives. Achievements of SOH's 2016-17 RAP include:

- Approximately 27,000 people attending the Opera House's First Nations programs (48% increase from 2015-16)
- Media coverage of the Badu Gili sails project (a daily animated projection of ancient First Nations stories on the eastern Bennelong sails) reaching 125 million people
- More than 214,000 views of the video of the opening ceremony for Homeground, an annual two day festival of First Nations cultures
- Fundraising more than \$388,000 to support First Nations initiatives
- Over 70 Aboriginal and Torres Strait Islander students participating in the Opera House's career pathways programs, and 2.1% of Opera House employees identifying as being of Aboriginal and Torres Strait Islander heritage (SOHT, 2017b).

In addition to continuing these events, the Opera House's 2017-19 RAP aims to bring together and further embed its reconciliation initiatives within the Opera House's art and experiences programs, and the Opera House's education and employment opportunities. Continuing to build on these First Nations programs will enable the Opera House to contribute more to Australian society through education and employment opportunities, and through helping to preserve and promote First Nations culture.

### 6.3.2 Contemporary culture

Another opportunity for the Opera House is the increasing importance of art to contemporary Australian culture. The dynamic cycle of creating, enhancing and sharing of contemporary culture and performing arts are an important part of a fulfilling and active life for many people. To reflect the increasing importance of art and culture in Australian life, the Opera House has outlined a new Artistic Strategy for 2018-23.

A recent report, *Arts Nation*, found that those who engage with the arts have richer and more meaningful experiences, leading to an overall higher level of satisfaction in life (Australia Council for the Arts, 2015). A survey by The Lab (2017) further found that those attending live performances often complement their lives with other leisurely activities such as travel, cinema or sport.

The Opera House plays an important role in helping Australians to access art and creativity, whether it be in the form of plays, music, exhibitions, or public talks. There is an opportunity for the Opera House to build on this role, something the Renewal works will assist with.

The Opera House also plays a critical role in the development and promotion of independent and emerging Australian artists. For example, the Opera House's Contemporary Performance stream was established in 2017 and aims to support modern storytellers and cultivate new interpretations of classic art forms.

As part of its commitment to the development of the performing arts, the Opera House collaborates with other organisations. It is home to seven of Australia's flagship performing arts companies – the Australian Chamber Orchestra, Bangarra Dance Theatre, Bell Shakespeare, Opera Australia, Sydney Symphony Orchestra, Sydney Theatre Company, and the Australian Ballet. Between them, these resident companies presented 778 performances, 43% of the total performed at the Opera House and drew an audience of more than 800,000 people in 2016-17 (SOHT, 2017a).

Through presenting and fostering performing arts, the Opera House enables individuals and diverse communities to access many different forms of contemporary art. By investing in Australian artists, the Opera House contributes to the continual creation and growth of Australia's contemporary culture.

### 6.3.3 Education

Education is correlated with a range of positive outcomes for individuals, including better lifetime wages and better health. However, it also has broader benefits; for example, adults with higher levels of education are more likely to have stronger civic engagement and interpersonal trust. Offering creative experiences and educational opportunities to young people fosters more creative thinking and innovation when they enter the workforce.

In 2016-17, the Opera House engaged with more than 18,500 primary and secondary students through its school curriculum-based performances (SOHT, 2017a). The Opera House further provided the 'Digital Creative Learning' outreach program for students who could not make it to the live performances. The program connected students with professional artists digitally and reached more than 8,500 students across 165 schools spread across Australia in 2016-17 (SOHT, 2017a).

In addition to primary and secondary schools outreach, the Opera House also hosts numerous educational programs for the public. Aside from hosting talks with significant speakers, these also include the annual *'All About Women'* festival, *'Antidote'*, a festival of ideas, action and change, and the *'It's A Long Story'* podcast series. In 2016-17, approximately 60,000 people attended talks and ideas events at the Opera House (SOHT, 2017a).

The Opera House also collaborates with partner organisations targeting specific groups in its educational outreach. For example, the Opera House has collaborated with the Australian Ballet Education Unit to host an inclusive workshop and performance program for students with disabilities.

As part of its Renewal program, the Opera House plans to build a Creative Learning Centre, a dedicated space for children, young people and their families to play, experience, and learn about creativity and innovation. Within the centre, there will also be a permanent room to host digital classes, allowing students to connect with artists without leaving their classrooms and furthering the Opera House's educational outreach programs across Australia.

These investments provide students with more ways to engage with the arts, and avenues for thinking creatively and innovatively. Although difficult to quantify, this could support broader social benefits going forward.

#### 6.3.4 Digital

Continued investment in digital is another way that the Opera House is increasing its value. In 2013, the Opera House was in a period of experimentation with digital, but today, digital plays a critical role in enhancing the experience, amplifying the Opera House brand, distributing and providing access to content, deepening visitor and global audience engagement. The Trust is looking at new ways to use digital technology to enhance visitor experience including immersive technologies.

The increased access to Opera House content is important for regional and disadvantaged Australians who are unable to access the precinct. The future of digital at the Opera House will include valuable additions such as bundling of Opera House experiences, greater distribution of artistic content across all presenters in line with the Artistic Strategy, and greater personalisation of marketing and content. This will enable a broader reach, with more people able to engage with content than ever before.

“It opens up possibilities for people... I think it's something that also improves your quality of life, your feeling of connection to your community, broadens your horizons, and I think it cuts across disability (and) ability”

**Jenny Spinak**, Accessibility Manager at Sydney Opera House (The Australian Ballet, 2018)

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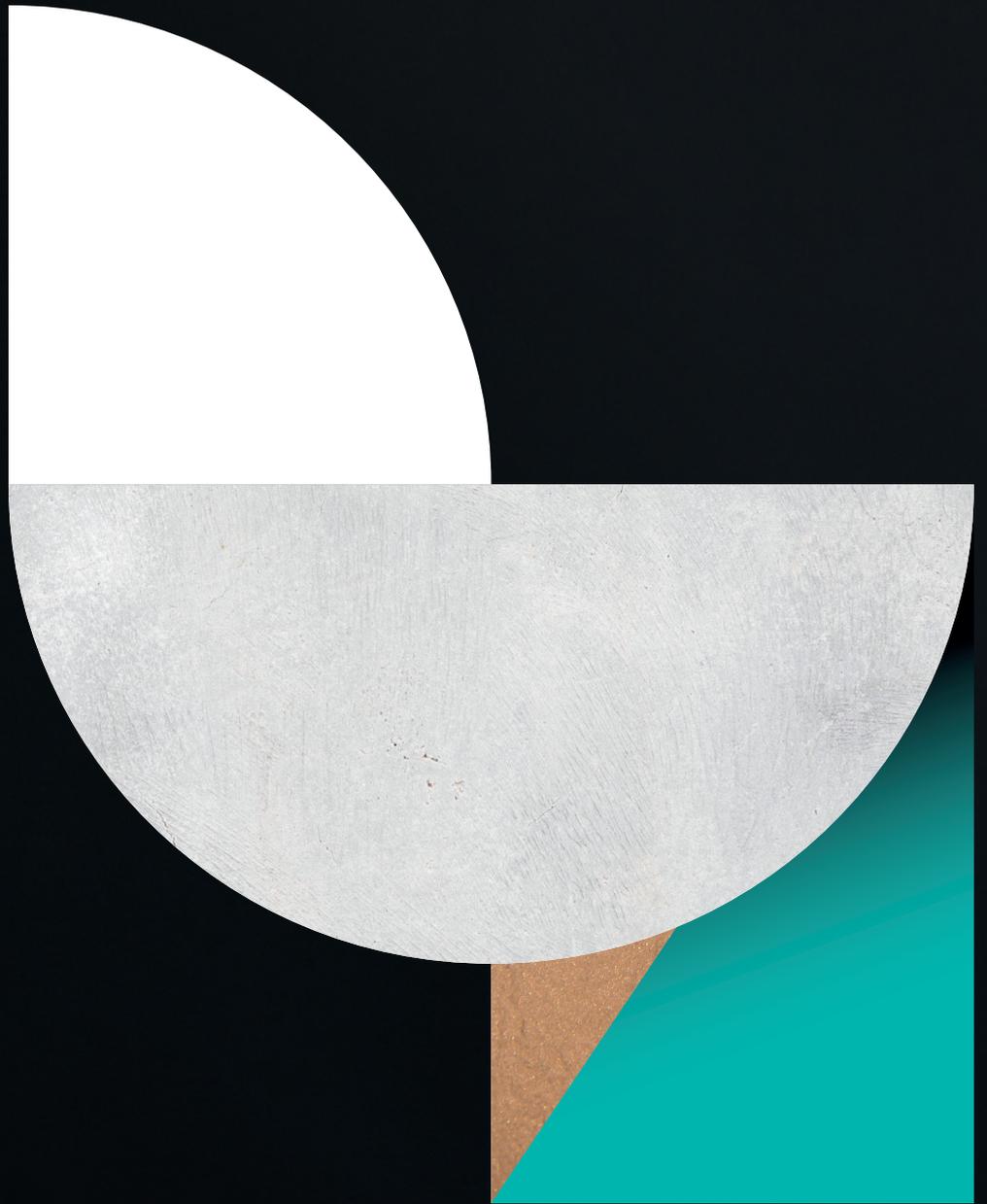
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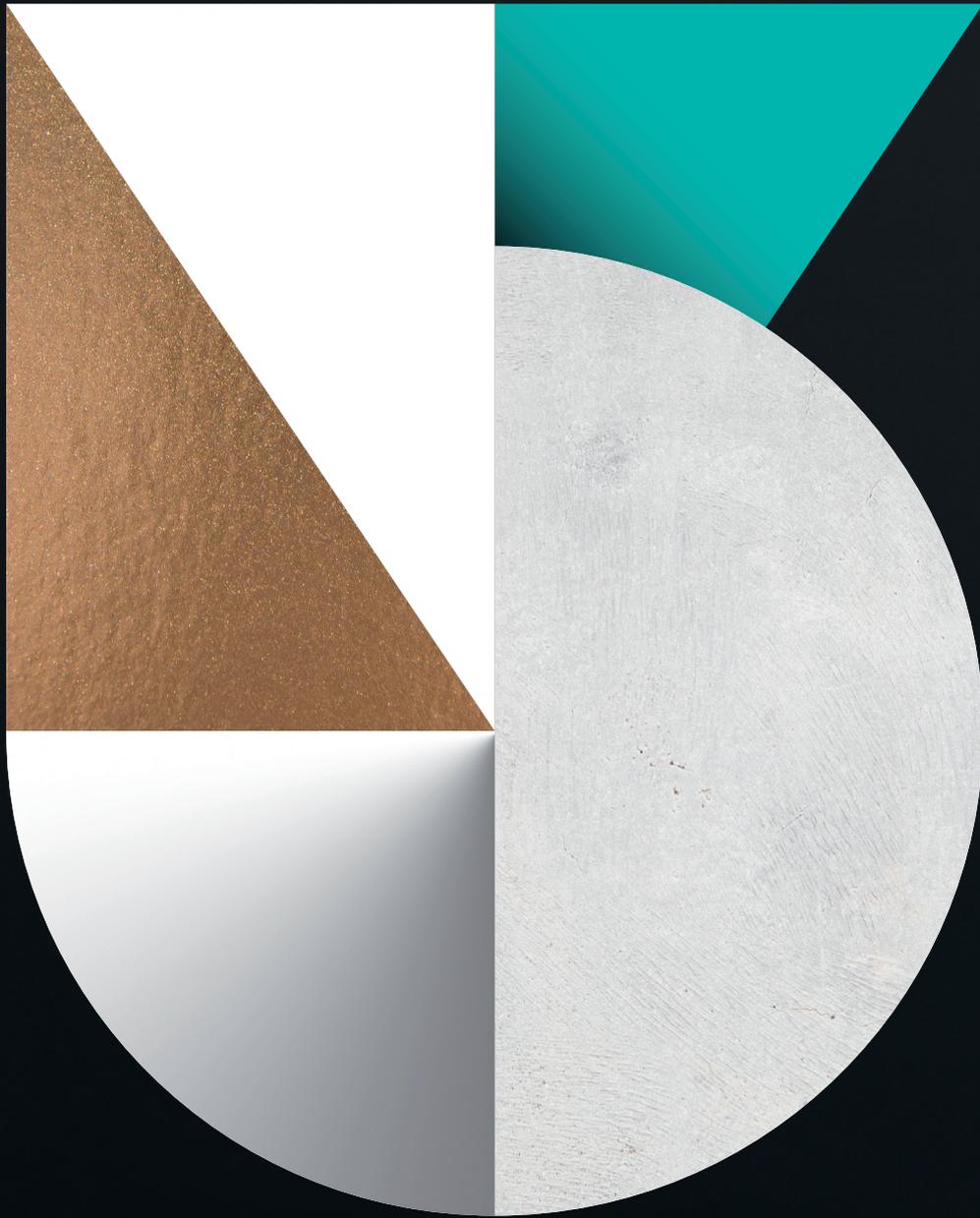
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# Appendix





**45 years** *at the edge*  
*of the* **possible**

# Appendix A: Survey respondents

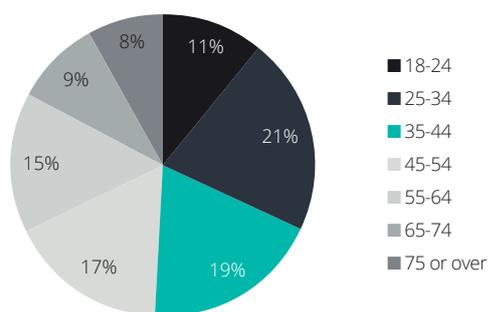
This report is informed by a bespoke survey that was fielded in August 2018.

Over 3,800 people were surveyed, including over 3,000 Australians and 800 international tourists from New Zealand, the UK, the US and China.

Questions centred around participants' use of the Sydney Opera House precinct, their valuation of the Opera House, and their opinions on the impact of the Opera House on Australian culture.

The following charts show the demographic make-up of the survey sample, and the proportion that use the precinct.

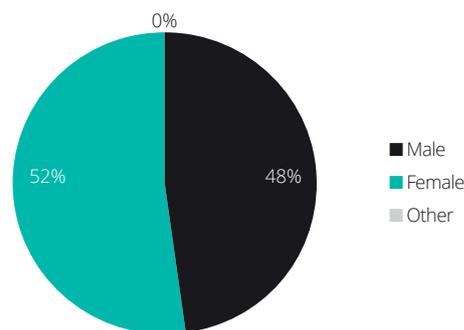
Chart A.1: Age split of survey respondents



n=3,853

Source: Deloitte Access Economics analysis based on Research Now data

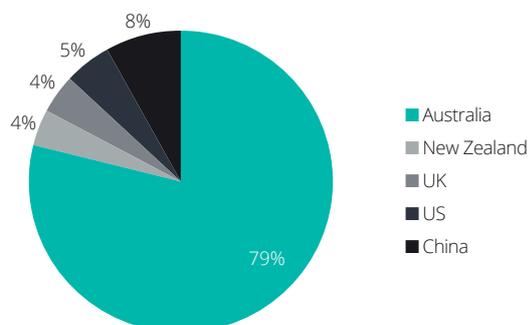
Chart A.2: Gender split of survey respondents



n=3,853

Source: Deloitte Access Economics analysis based on Research Now data

Chart A.3: Survey respondents country of residence



n=3,853

Source: Deloitte Access Economics analysis based on Research Now data

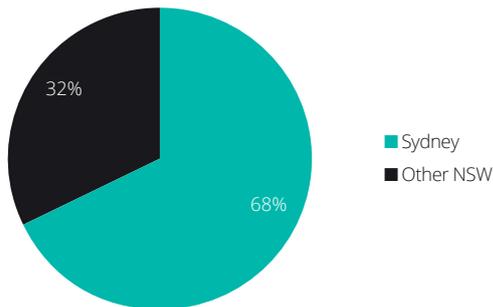
Chart A.4: Australian survey respondents, state of residence



n=3,040

Source: Deloitte Access Economics analysis based on Research Now data

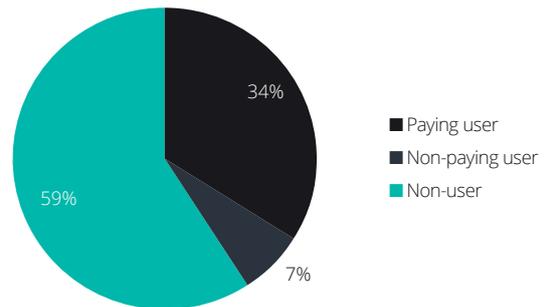
Chart A.5: NSW survey respondents, locality of residence



n=981

Source: Deloitte Access Economics analysis based on Research Now data

Chart A.6: Survey respondents, type of user



n=3,853

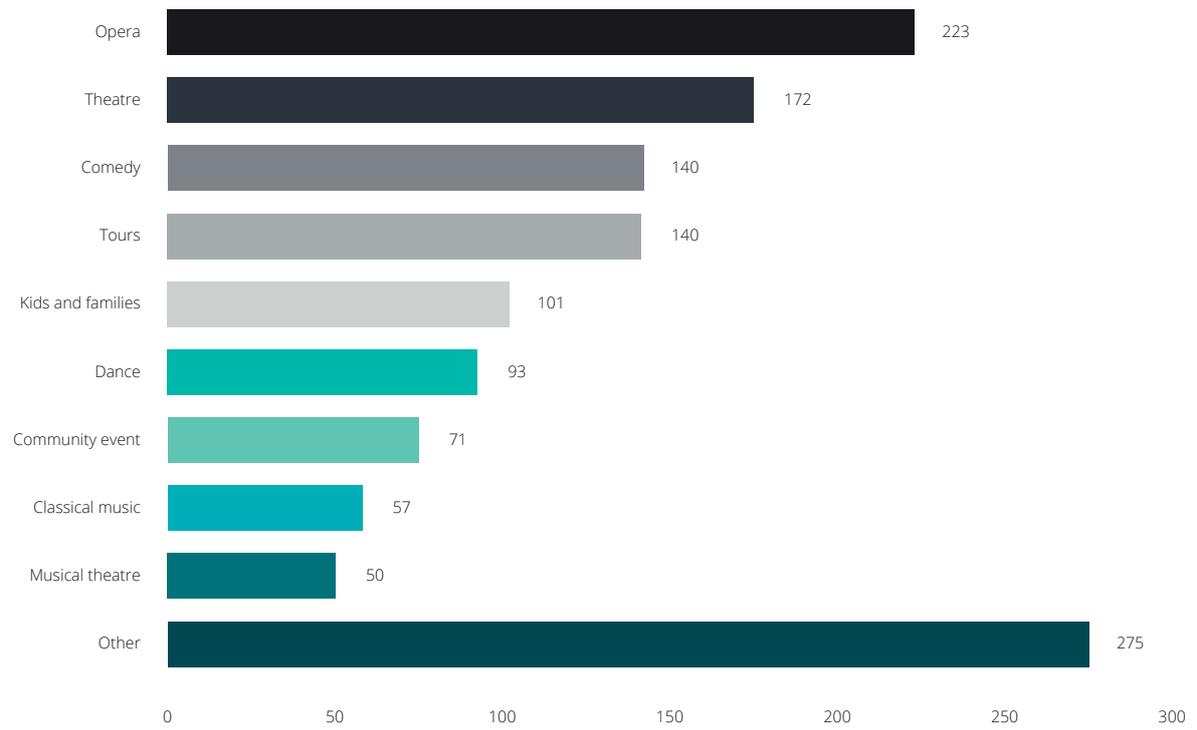
Source: Deloitte Access Economics analysis based on Research Now data

Notes:

1. Paying users are those that have paid for either a performance, tour or food/beverage at the Opera House precinct in the last 12 months
2. Non-paying users are those that have attended the precinct, but not paid for anything there in the last 12 months
3. Non-users are those that have not attended the precinct in the last 12 months

Appendix A: Survey respondents

Chart A.7: Type of performance last attended at the Opera House by survey respondents



n=1,322

Source: Deloitte Access Economics analysis based on Research Now data

# Appendix B:

## Economic contribution studies

Economic contribution studies are intended to quantify measures such as value added, exports, imports and employment associated with a given industry or firm, in a historical reference year. The economic contribution is a measure of the value of production by a firm or industry.

### B.1. Data sources for economic contribution

The main data sources for estimating the Sydney Opera House's economic contribution were information contained in the SOHT's 2016-17 annual report and information from the financial statements from performing arts companies in 2017. It should be noted that grants provided for major capital works were included in SOHT's revenue. This was due to the long-term nature of this framework.

As many performing companies operate around the country, not all their activity can be attributed to the Opera House. As such, we only attribute some of resident performing companies' economic activity to the Opera House. Specifically, the estimates only include the proportion of each company's total ticket revenue that was earned from performances at the Opera House. In the case of State Government grants, all income was included if the Opera House was the primary NSW performing venue for the company.

The revenue of the bars and restaurants and retail outlets in the precinct was provided to Deloitte Access Economics by the SOHT. This revenue was converted into estimates of value added, employment, labour income and gross operating surplus using the ABS Input Output tables for 2015-16.

### B.2. Value added

Value added is the most appropriate measure of a precinct's economic contribution to gross domestic product (GDP) at the national level, or gross state product (GSP) at the state level.

Other measures, such as total revenue or total exports, may be easier to estimate than value added but they 'double count'. That is, they overstate the contribution of a company to economic activity because they include, for example, the value added by external firms supplying inputs or the value added by other industries.

Table B.1: Performing arts companies and retailers in the Opera House precinct, 2016-17

Resident performing arts companies	Bars, Restaurants and Retailers
Australian Chamber Orchestra	Opera Bar
Bangarra Dance Theatre	Opera Kitchen
Bell Shakespeare	Bennelong
Opera Australia	Portside
Sydney Symphony Orchestra	Theatre Bars
Sydney Theatre Company	Function catering
The Australian Ballet	Green Room
	Sydney Opera House retail

Source: Deloitte Access Economics

### B.3. Measuring the economic contribution

There are several commonly used measures of economic activity, each of which describes a different aspect of an industry's economic contribution:

- Value added measures the value of output (i.e. goods and services) generated by the entity's factors of production (i.e. labour and capital) as measured in the income to those factors of production. The sum of value added across all entities in the economy equals gross domestic product. Given the relationship to GDP, the value added measure can be thought of as the increased contribution to welfare.
- Value added is the sum of:
  - Gross operating surplus (GOS). GOS represents the value of income generated by the entity's direct capital inputs, generally measured as the earnings before interest, tax, depreciation and amortisation (EBITDA)
  - Labour income. It represents the value of output generated by the entity's direct labour inputs, as measured by the income to labour
- Tax on production less subsidy provided for production. This generally includes company taxes and taxes on employment. Note: given the returns to capital before tax (EBITDA) are calculated, company tax is not included or this would double count that tax
- Gross output measures the total value of the goods and services supplied by the entity. This is a broader measure than value add because it is an addition to the value add generated by the entity. It also includes the value of intermediate inputs used by the entity that flow from value added generated by other entities
- Employment is a fundamentally different measure of activity to those above. It measures the number of workers that are employed by the entity, rather than the value of the workers' output.

Figure B.1: Economic activity accounting framework



Source: Deloitte Access Economics

Figure B.1 shows the accounting framework used to evaluate economic activity, along with the components that make up gross output. Gross output is the sum of value added and the value of intermediate inputs. Value added can be calculated directly by summing the payments to the primary factors of production, labour (i.e. salaries) and capital (i.e. GOS, or profit), as well as production taxes less subsidies. The value of intermediate inputs can also be calculated directly by summing up expenses related to non-primary factor inputs.

#### B.4. Direct and indirect contributions

The **direct economic contribution** is a representation of the flow from labour and capital within the sector of the economy in question.

The **indirect contribution** is a measure of the demand for goods and services produced in other sectors as a result of demand generated by the sector in question. Estimation of the indirect economic contribution is undertaken in an input-output (IO) framework using Australian Bureau of Statistics input-output tables, which report the inputs and outputs of specific sectors of the economy.

The total economic contribution to the economy is the sum of the direct and indirect economic contributions.

#### B.5. Limitations of economic contribution studies

While describing the geographic origin of production inputs may be a guide to a firm's linkages with the local economy, it should be recognised that these are the type of normal industry linkages that characterise all economic activities.

Unless there is significant unused capacity in the economy (such as unemployed labour) there is only a weak relationship between a firm's economic contribution as measured by value added (or other static aggregates) and the welfare or living standard of the community. Indeed, the use of labour and capital by demand created from the industry comes at an opportunity cost as it may reduce the amount of resources available to spend on other economic activities.

This is not to say that the economic contribution, including employment, is not important. As stated by the Productivity Commission in the context of Australia's gambling industries:

*“Value added, trade and job creation arguments need to be considered in the context of the economy as a whole ... income from trade uses real resources, which could have been employed to generate benefits elsewhere. These arguments do not mean that jobs, trade and activity are unimportant in an economy. To the contrary they are critical to people's well-being. However, any particular industry's contribution to these benefits is much smaller than might at first be thought, because substitute industries could produce similar, though not equal gains.”*

In a fundamental sense, economic contribution studies are simply historical accounting exercises. No ‘what-if’, or counter-factual inferences — such as ‘what would happen to living standards if the firm disappeared?’ — should be drawn from them.

The analysis — as discussed in the report — relies on a national input-output table modelling framework and there are some limitations to this modelling framework. The analysis assumes that goods and services provided to the sector are produced by factors of production that are located completely within the state or region defined and that income flows do not leak to other states.

The IO framework and the derivation of the multipliers also assume that the relevant economic activity takes place within an unconstrained environment. That is, an increase in economic activity in one area of the economy does not increase prices and subsequently crowd out economic activity in another area of the economy. As a result, the modelled total and indirect contribution can be regarded as an upper-bound estimate of the contribution made by the supply of intermediate inputs.

Similarly, the IO framework does not account for further flow-on benefits as captured in a more dynamic modelling environment like a Computable General Equilibrium model.

## B.6. Input-output analysis

IO tables are required to account for the intermediate flows between sectors. These tables measure the direct economic activity of every sector in the economy at the national level. Importantly, these tables allow intermediate inputs to be further broken down by source. These detailed intermediate flows can be used to derive the total change in economic activity for a given sector.

A widely used measure of the spillover of activity from one sector to another is captured by the ratio of the total to direct change in economic activity. The resulting estimate is typically referred to as ‘the multiplier’. A multiplier greater than one implies some indirect activity, with higher multipliers indicating relatively larger indirect and total activity flowing from a given level of direct activity.

The IO matrix used for Australia is derived from the ABS IO tables. The industry classification used for input-output tables is based on ANZSIC, with 111 sectors in the modelling framework.

# Appendix C: Visitation to the Sydney Opera House precinct

Each year the Sydney Opera House precinct draws large numbers of visitors from a variety of sources including:

- Local Sydney-siders
- NSW residents
- Tourists from other states
- International tourists.

Visitors to the precinct are a key indicator of the level of activity for the precinct and for estimating the tourism contribution. Estimates of the number of visitors to the precinct was calculated using the following steps. The 2016-17 SOHT annual report provided data on the number of paid activities, such as the number of performances and tours. The data with number of food and beverage transactions was provided by the SOHT.

According to SOHT annual reports, in the 2016-17 financial year, there were:

- Close to 400,000 people who travelled interstate or internationally to take a tour of the Opera House
- Over 460,000 people who travelled interstate or internationally to see a performance at the Opera House.

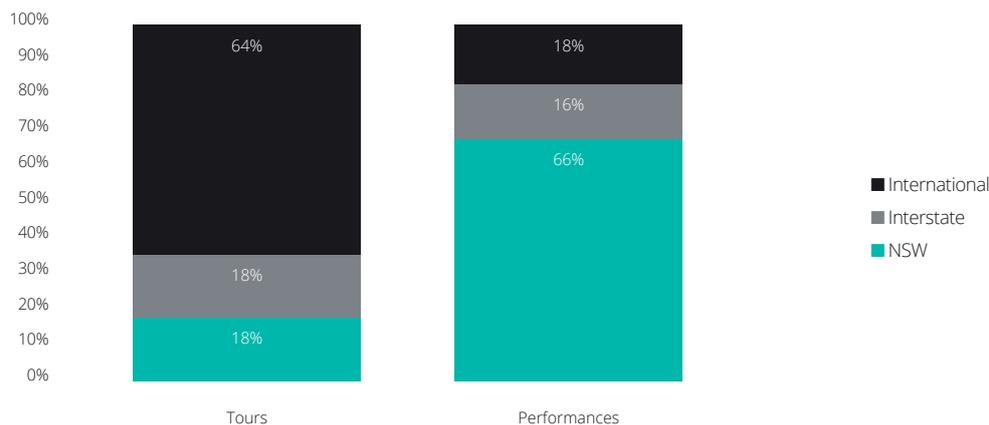
This data provided breakdowns of those taking a tour or attending a performance. An example of the available data is shown in Chart C.1. This indicates that attendees at performances were more likely to be locals than those taking a tour.

In addition to paid activities undertaken at the Opera House precinct, many visitors may visit the precinct but may not undertake any paid activities, such as a tourist taking a photo or a Sydney CBD worker running through the precinct at lunch for exercise.

The number of unpaid visitors to the Opera House was captured through a Kiran Analytics report from 2010, which tracked the entries, exits and movements of visitors within the precinct and developed estimates of total visitor numbers. Overall, it was estimated that around 8.2 million people visited the Opera House precinct in 2010. This included unpaid visitation to the Opera House. The number of unpaid visitations made up 58% of all visits to the precinct in that year.

The proportion of unpaid to paid visitation (58%) was assumed to remain constant from 2010 and applied to the current totals of paid visitation.

Chart C.1: Demographic characteristics of visitors

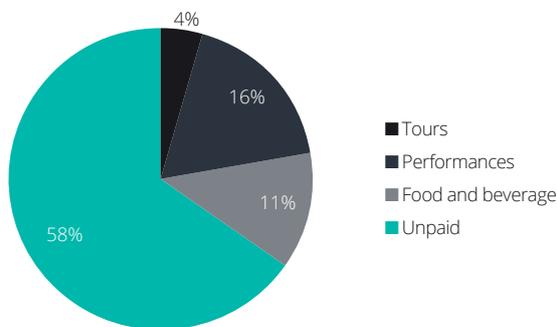


Source: SOHT annual report 2016-17

## Appendix C: Visitation to the Sydney Opera House precinct

Combining both the paid and unpaid activities, the total volume of visits to the Opera House precinct was estimated to be 10.9 million for 2016-17. The reasons for the visits to the precinct are shown in Chart C.2.

Chart C.2: Reason for visiting the Opera House precinct



Source: SOHT and Deloitte Access Economics

An alternative method to estimate the level of visitation to the Opera House is through survey data collected on visitors. The survey asked respondents about their usual place of residence, and about whether they walked around the precinct or attended a free performance or talk. This provided the proportion of individuals that visited the Opera House precinct to undertake unpaid activities in the past year by their residence (from Sydney, other areas in NSW or Australians from other states). This proportion was applied to the population of Sydney and NSW, and applied to the number of interstate travellers (captured through the National Visitor Survey) to obtain number of domestic visitors to the Opera House.

The level of unpaid activity by international visitors is estimated using the combination of data from the SOHT's annual reports, SOHT's customer insights and the International Visitor Survey.

Based on this alternative methodology, the number of visitors to the Opera House precinct was estimated to be 13 million for 2016-17. Of this figure, 65% participated in unpaid activities.

# Appendix D: Tourism contribution

Two main data sources were used to estimate the tourism contribution of the Sydney Opera House. The first covers general tourism in Australia, with a particular focus on Sydney. The second data source covers visitors to the Opera House precinct.

## D.1. Visitor surveys

The data on general tourism in Australia is sourced from Tourism Research Australia (TRA) and is based on surveys of both international and domestic tourists. The interviewer asks the respondent for factual details such as:

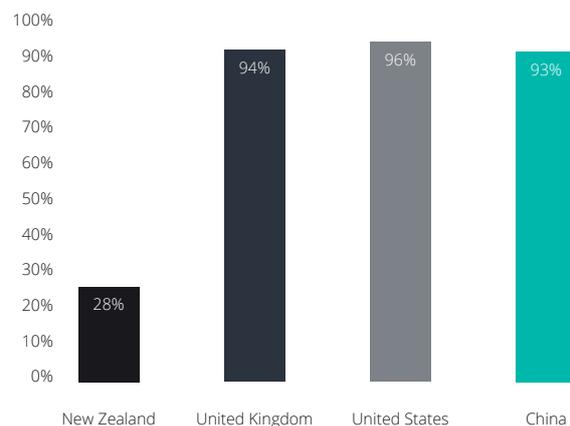
- The number of nights in Australia
- Travel arrangements
- Reasons for visiting
- Income earned
- Expenditure on the trip.

More detailed data is also available on the activities undertaken by visitors. Of these activities, three activities are particularly relevant to the Opera House precinct:

- Attendance to the theatre, concerts or other performing arts performances
- Visits to history/heritage buildings sites or monuments
- Sightseeing.

The proportion of international visitors from selected countries that visited the Opera House precinct in their trip to Australia is shown in Chart D.1, with ranges from 28% of New Zealanders to 96% of visitors from the United States.

Chart D.1: Proportion of visitors attending the Opera House and precinct



Source: Tourism Research Australia (2018)

## D.2. SOHT data

The second source of data used in this report consists of analysis of visitors undertaking paid and unpaid activities in the Opera House precinct. Details relating to this data can be found in Appendix C.

For the purposes of the tourism contribution, Sydney residents were not included as they are considered to be residents of the local economy and therefore treated as a redistribution of resources.

## D.3. Estimating the Opera House share of tourism expenditure

Tourism Research Australia provides a detailed breakdown of destination expenditure by category for Sydney. This data is summarised in the following tables.

Table D.1: Tourism expenditure in Sydney, by category, year ending March 2017

Category	Expenditure (\$m)	Percentage
<b>International</b>		
Holiday	5,243	58%
Visiting friends and relatives	2,106	23%
Business	958	11%
Other	732	8%
Total	9,040	100%
<b>Domestic (day visitors)</b>		
Holiday	929	43%
Visiting friends and relatives	689	32%
Business	259	12%
Other	288	13%
Total	2,166	100%
<b>Domestic (overnight visitors)</b>		
Holiday	1,640	25%
Visiting friends and relatives	2,464	37%
Business	2,075	31%
Other	515	8%
Total	6,695	100%

Source: Tourism Research Australia (2018) National and International Visitor surveys for year ending June 2017

This approach suggests that a total of \$7.8 billion in holiday tourism expenditure was generated in Sydney in the year ending June 2017.

The general approach that was used in estimating the contribution of the Opera House to tourism in Sydney is based on the relationship presented in Figure D.1.

The next step in estimating the Opera House's contribution to tourism expenditure is to identify the proportion of tourism expenditure that can reasonably be attributed to the Opera House.

In this case, the tourist attractions can be considered to be the Opera House precinct and all other attractions in Sydney. These attractions draw tourists to visit Sydney and undertake a number of tourism activities. The tourism activities are the main input that we used to identify the Opera House's contribution. For our purposes, the tourism activities related to the Opera House precinct can be defined as:

- Attend theatre, concerts or other performing arts
- Visit history/heritage buildings, sites or monuments
- Sightseeing
- All other activities.

Data on activities is taken from both the exit interview data available from the TRA, the Kiran Analytics report for the SOHT and other information from the SOHT. Combining these data sets provided an indication of the proportion of tourism activities that the Opera House is responsible for generating. The estimated tourism activities generated by the Opera House are shown in the table below.

Figure D.1: Tourism expenditure production chain



Source: Deloitte Access Economics

Table D.2: Tourist activities generated by the Opera House precinct

	Visitors (million)	Tourist activities (million)
Sightseeing	4.3	4.3
Food and Beverage	0.5	1.4
Tours	0.4	0.8
Performances	0.5	1.4

Source: Deloitte Access Economics analysis based on TRA data (2018)

Notes:

- Each visitor was assumed to create a 'sightseeing/looking around' tourist activity
- Each food and beverage transaction was assumed to create a 'sightseeing/looking around' tourist activity
- Each tour was assumed to create a 'sightseeing/looking around' and a 'visit history/heritage building' tourist activity
- Each performance attendance was assumed to create a 'sightseeing/looking around', a 'visit history/heritage building' and a 'attend theatre, concerts or other performing arts' tourist activity

#### D.4. Calculating tourism value added

Converting tourism expenditure associated with the Opera House into an estimate of the contribution to the Australian economy is a two-step process.

First, the expenditure is disaggregated into specific types such as accommodation, package tours or entertainment. This is done using the proportion of total expenditure spent on particular categories for selected demographics (international, domestic day visitors and domestic night visitors).

The second step is to calculate the value added of the expenditure using the Tourism Satellite Accounting (TSA) framework. This framework is the internationally recognised, best practice approach to estimating the economic contribution of tourism. It adapts the concepts and methods of the Australian Bureau of Statistics' national accounting framework in a way that is useful to measuring tourism and comparable to traditional industries.

While conventional IO modelling can be applied to any sector of the economy (including tourism by using an appropriate sector-specific definition of the tourism sector), the TSA approach is Deloitte Access Economics' preferred approach to measuring the economic contribution of the tourism sector. This is because it ensures that the analysis is consistent with international guidelines for measuring and reporting on the economic activity of the tourism sector.

Similar to IO modelling, TSA measures economic value using headline Gross Value Added (GVA) and employment metrics. In the context of the tourism sector, the GVA specifically isolates the value tourism facing industries create as part of a supply chain.

#### D.5. Survey based approach to estimating tourism expenditure

An alternative method for calculating the tourism contribution of the Opera House precinct is through a survey of international visitors to Sydney.

The survey respondents were asked whether attending the Opera House was a factor in their decision to visit Sydney. Chart D.2 shows the importance of the Opera House for holiday visitors coming to Sydney. Overall, 93% of those surveyed reported that the Opera House was a consideration when choosing to come to Sydney.

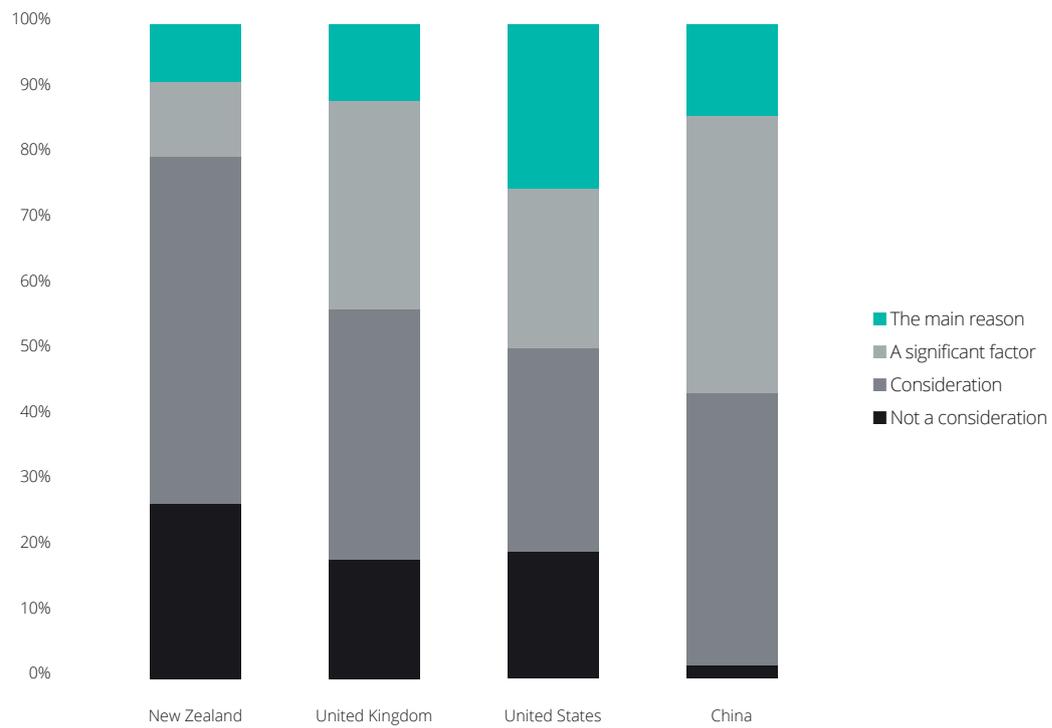
After weighting survey respondents based on the proportion of international holiday visitors to Sydney from New Zealand, the UK, the US and China the results indicate that 41% of holiday visitors to Sydney from the source countries came to Sydney primarily to visit the Opera House.

Applying this ratio to all international holiday visitor expenditure in Sydney and including estimated expenditure by domestic and local visitors to the precinct, it is implied that the Opera House contributed \$2.2 billion in tourism expenditure to Sydney. This equates to \$1.9 billion in value-added terms.

This methodology may overstate the tourism expenditure attributable to the Opera House. This is because an average international visitor's length of stay tends to be relatively long, given the large number of attractions available in Sydney. For example, the average length of stay by international holiday visitors to Sydney was nearly 10 nights in 2016-17 financial year (TRA, 2018). While the Opera House may draw many visitors in, their length of stay would be partially determined by the other attractions in Sydney and would otherwise be lower.

For this reason, the Tourism Satellite Accounts method is the preferred technique of to estimate tourism expenditure and the tourism value added attributable to the Opera House.

Chart D.2: Importance of the Opera House for international visitors



Source: Deloitte Access Economics analysis based on Research Now data

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