



# Australian Digital Inclusion Index

Measuring Digital Inclusion in  
North-East Victorian SMEs

Summary Findings Brief

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## RESEARCH TEAM

**ADII:** Dr Sharon Parkinson (Swinburne Centre for Social Impact), Dr Indigo Holcombe-James and Distinguished Professor Julian Thomas (Centre of Excellence for Automated Decision Making & Society)

**Startup Shakeup:** Ilena Young and Bree Nightingale



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## INTRODUCTION

**The digital transformation of regional communities is accelerating.** While many businesses and households have increased their online presence, capacity, and activities, especially through the COVID-19 pandemic, the digital divide between major Australian cities and the regions persists.

**Closing this divide remains key** to social and economic development priority across all levels of government and within regional businesses to ensure that its workforce is equipped with the capacities to connect and innovate for future growth needs. Specifically, the Victorian Government Digital Strategy 2021-2026 outlines its objectives in working towards fairer and more accessible digital services, capability, and a thriving economy through continued investment in critical digital infrastructure in regional communities.

The ongoing **monitoring of digital inclusion across communities is key** to identifying where locally based initiatives can have most impact in enhancing access to and use of digital technologies. Startup Shakeup have been at the forefront of strengthening

the capacity of local businesses in North-East Victoria (NE Vic) to innovate and transform their practices through greater digital inclusion. But the evidence base is limited on the nature of digital inclusion across different industry types, sizes and Local Government Areas in the region.

**To address a critical knowledge gap**, Startup Shakeup collaborated with the ADII team to map the nature of digital inclusion across the workforce of small to medium enterprises (SMEs) operating in the seven Ovens Murray Region Local Government Areas: Alpine Shire, Rural City of Benalla, Indigo Shire, Mansfield Shire, Rural City of Wangaratta, City of Wodonga, and Towong Shire.

This summary findings brief presents the **highlights from the NE Vic SME Digital Inclusion Mapping** project in which 401 members of the region's SME workforce completed an adapted Australian Internet Usage Survey (AIUS; Thomas et al., 2020). This is the survey used to derive the Australian Digital Inclusion Index (ADII), enabling direct measures of digital inclusion to be calculated using the ADII methodology.

## KEY TAKE HOME MESSAGES

**ADII scores range from 0 to 100 and are relative,** the higher the score, the greater the level of inclusion.

**The NE Vic SME workforce frequently use the internet,** often several times a day.

However, although most report increases in time and activity online **this has not been accompanied by increased investment** in access or digital skills.

The NE Vic SME workforce has an overall Digital Index **score of 63.9 this is 9.9 points lower** than metropolitan Melbourne.

**The difference is driven primarily by low Digital Ability** at 56.4 which is 9.5 points lower than metropolitan Melbourne.

**Training areas that would most enhance SME digital capacity were identified** as

- marketing and website development,
- digital administration,
- sales and e-commerce, and
- financial management.

SMEs operating in multiple LGAs received higher scores and those operating in **Wodonga have** the

**most digitally included workforce**, whilst those in **Benalla and Towong are the lowest** (NB low response numbers mean we need to see these LGA scores as indicative only).

**Wealthier SMEs score higher**, as do those with household incomes in the highest brackets, and the **most digitally included workforces** are found in health & wellbeing, professional & business services and construction & manufacturing.

**The least digitally included workforces** are in agriculture & agribusiness and accommodation & hospitality, with agriculture and agribusiness lagging on both Access and Digital Ability.

**SMEs with turnovers < \$75,000 or \$150,000 - \$1M have relatively low digital inclusion scores.**

**Older workforce members are disadvantaged**, all those over 55 fall below overall NE Vic scores. (the average age for respondents was 52).

**SMEs with 2 – 4 staff have particularly low digital ability scores**, as do those with household incomes in the lowest quartile.

## STARTUP SHAKEUP KEY FINDINGS

The ADII uses survey data to measure digital inclusion across three dimensions of Access, Affordability and Digital Ability. ADII scores range from 0 to 100. The higher the score, the greater the level of inclusion. ADII scores are relative: they allow comparisons with each of the three Index dimensions equally weighted. The findings here are based on the responses from 401 participants in the SME workforce across North-East Victoria (NE Vic). Information about the ADII, methodology and who was surveyed can be found in Appendices 1, 2 and 3.

**Internet Usage:** The NE Vic SME workforce are frequent users of the internet: 47.2% say they use the internet almost constantly, and 47.5% use the internet several times a day. The majority report increases in time spent online (66.5%) and range of activities done online (57.9%) but this is not accompanied by increased investment in internet access (26.1%) or in digital skills (33.8%).

**Digital Inclusion Scores:** The NE Vic SME workforce has an average Index score of 63.9, made up of Access - 70.1 Affordability - 95.0 and Ability - 57.3. Within the Digital Ability dimensions scores ranged from 66.8 - Operational Basics to 47.8 - Creative.

**In Comparison with Melbourne:** Controlling for differences in the sample population we draw an equally matched sample from the national survey for Metropolitan Melbourne. This showed the NE Vic SME workforce is 9.9 points behind the metropolitan Melbourne 2021 Index score, with the difference driven primarily by a low Digital Ability score of 56.4, 9.5 points lower than the metropolitan Melbourne score of 65.9.

**Priorities for Building Workforce Capacity:** The training identified by participants that would most enhance digital capacity within their SME was marketing and website development (64%), followed by digital administration (36%), sales and e-commerce (35.5%) and financial management (27.2) capabilities.

### Digital Inclusion

**By Age:** Consistent with the national Index collection, the digital inclusion of the NE Vic SME decreases with age with older members of the NE Vic SME workforce being particularly disadvantaged. In a survey whose average respondent age was 52, workers over the age of 55 all fall below the NE Vic SME workforce scores on this dimension.

**By Location:** Taken at the total Index level (all sample participants), SMEs operating in Wodonga have the most digitally included workforce with a total Index score of 74.8, which is 18.6 points higher than that received by the workforce of SMEs in Benalla at 56.2 or Towong at 57.2. Please note that low response numbers make these scores indicative only. SMEs operating in multiple LGAs received an Index score of 65.3, above the regional average.

**By Turnover:** Digital inclusion scores also appear to be influenced by business income. Wealthier SMEs score higher than their less wealthy counterparts, and this is seen most clearly in the Access and Affordability dimensions. There appear to be particular challenges for SMEs under \$75,000 (the GST threshold) or from \$150,000 - \$1M.

**By Staff Size:** the SMEs that appear to struggle are those with 2 – 4 staff whose Index score sits on 60.8, with an Ability score of only 52.9. This compares to SMEs with more than 20 staff who receive an Index score of 69.4.

**By Industry Sector:** SMEs in health and wellbeing (66.6), professional and business services (66.1), and construction and manufacturing (65.1) are the most digitally included. Whereas agriculture and agribusiness (61.4) and accommodation and hospitality (61.9) are the least digitally included. Agriculture and agribusiness SMEs are particularly lagging on the Access (66.6) and Digital Ability (55.7) dimensions.

**By household income:** Those with a household income in the highest bracket (over \$156,000 per annum) scored 69.6, which is 5.7 points higher than the overall SME workforce, and 16.7 points higher than that for those with a household income in the lowest bracket (below \$33,800 per annum).

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**Disclaimer:** The ADII was first developed in 2015 in response to the increasing need for data to inform the development of more effective policies, products, and programs to improve digital inclusion and ensure no one misses out. In 2021, the Index was revised to reflect the evolution of usage patterns and the skills required to navigate life online. The Australian Digital Inclusion Index (ADII) is the result of a partnership between RMIT, Swinburne University of Technology and Telstra

Any opinions, findings, conclusions, or recommendations expressed in this material are those of the authors, and do not necessarily reflect the views of the partner organisations. The ADII exists to share digital inclusion data and analysis for the benefit of the public. The ADII team has taken great care to ensure the information within this report is as correct and accurate as possible. However, the ADII team does not guarantee, and except to the extent required by law accepts no legal liability arising from, or connected to, the use of any material contained within this report. The ADII team recommends users exercise their own skill and care with respect to their use of this data and that users carefully evaluate the accuracy, currency, completeness, and relevance of the material within this report for their purposes.



## SUMMARY OF KEY FINDINGS

The findings within this brief are based on the responses of 401 participants who either own, or are employed by, an SME in NE Vic. Missing responses on some questions means that total samples will vary. Moreover, several businesses covered multiple LGAs and industry types. These have been counted separately or as multiple responses. This brief should be read in conjunction with the detailed results.

### INTERNET USAGE BY THE NE VIC SME WORKFORCE

The NE Vic SME workforce are frequent users of the internet: 47.2% say they use the internet almost constantly, and 47.5% use the internet several times a day.

#### Impact of COVID-19 restrictions on internet usage

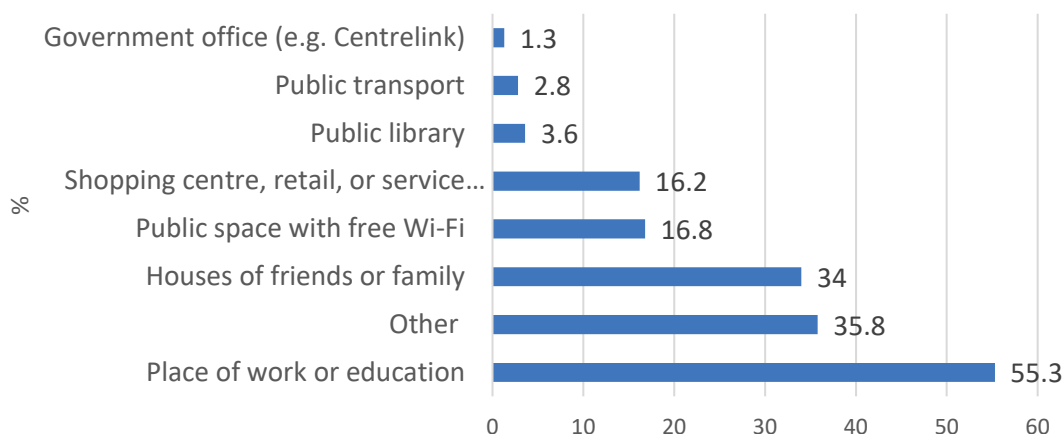
Two thirds of participants report that their internet use has increased since COVID-19 restrictions were first introduced in 2020 (66.5%). More than half report that the range of activities they conduct online have also increased (57.9%). A further third indicate that their internet skills used for work have increased (33.8%), and around a quarter report increasing their investment in internet access during this time (26.1%).

Table 1: Impact of COVID-19 restrictions on NE Vic SME workforce

	Number	%
Time spent online has increased	262	66.5
Range of activities done online has increased	228	57.9
Investment in internet access has increased	103	26.1
Digital skills used to help work increased	133	33.8

#### Places of internet use

Outside the home, NE Vic participants report that their main place of internet use is at work or education (55.3%), indicating that these are key sites for targeted initiatives to improve digital inclusion within the SME workforce. Other common places of internet use include the houses of friends and family (34%), public spaces (16.8%), and shopping centres (16.2%). Figure 1: Places of internet use



## DEVICES USED TO ACCESS THE INTERNET

Nearly all participants (95.7%) have access to a smart phone, while three quarters have access to a portable laptop or notebook computer (73.1%). This suggests the increasing importance of phones as a means of delivering content, messaging, and the need to ensure services are reaching groups through mobile friendly formats.

Table 2: Types of devices used

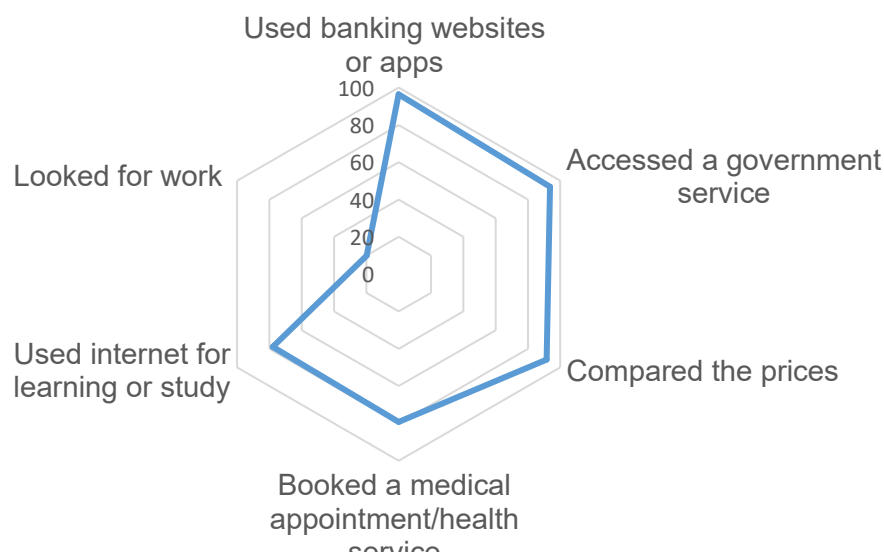
	Number	%
Smartphone	377	95.7
Portable laptop or notebook computer	288	73.1
Desktop computer	239	60.7
Tablet (e.g. Apple iPad, Google Pixel Slate)	220	55.8
Smart TV	186	47.2
Digital media player (e.g. Apple TV, Google Chromecast)	123	31.2
Fitness wearable device (e.g. Fitbit, Garmin)	59	15.0
Voice controlled smart speaker (e.g. Amazon Echo, Google Home)	52	13.2
Smartwatch (e.g. Apple Watch, Fossil Gen 5)	51	12.9
Games console (e.g. Xbox, Switch)	42	10.7
Smart appliance / home device (e.g. light, security system, fridge)	41	10.4
E-reader (e.g. Kindle)	37	9.4
Other device	5	1.3

- 
1. Participants select multiple device types. Percentages are based on total samples for each item and therefore percentage total does not equal 100.

### Economic, social and cultural activities conducted online

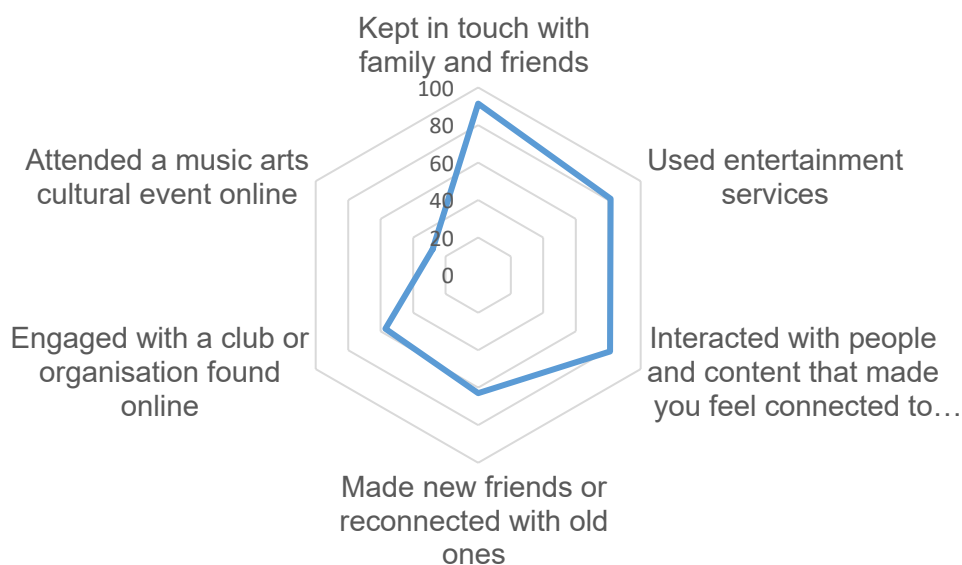
Key economic activities undertaken online by the NE Vic participants are banking services via websites or apps (96.4%). Government services are also frequently accessed online (93.7%). This is slightly higher than the proportion of online activity dedicated to comparing prices on products and services (91.6%).

Figure 2: Online engagement in economic and administrative activities



The primary social and cultural activity reported by the NE Vic SME workforce is keeping in touch with family and friends (91.4%). Using online entertainment services (81.5%) and interaction with people and content to engender connection to community (81.2%) are also frequently reported activities.

Figure 3: Online engagement in social and cultural activities





## DIGITAL INCLUSION IN THE SME WORKFORCE IN NORTH EAST VIC

The North-East Victorian SME workforce has an average Index score of 63.9 for the complete sample of participants. Across dimensions, this translates to an average:

- **Access score:** **70.1**
- **Affordability score:** **95.0**
- **Digital Ability score:** **57.3**

### ACCESS SCORE COMPONENTS BREAKDOWN

Table 5: Access dimension and component scores for NE Vic SMEs

Access dimension and components	NE Vic SME scores
Overall Access	70.1
Speed and data allowance (Data allowance and speed)	56.4
Intensity and frequency of access (Frequency and intensity of use)	94.2
Connection type (Connection type, such as fixed broadband or mobile-only)	64.7
Device (Types of devices, eg desktops, laptops, smart phones, tablets, and an array of smart home devices)	31.1

### ABILITY SCORE COMPONENTS BREAKDOWN

Table 6: Digital Ability dimension and component scores for NE Vic SMEs

Digital Ability dimension and components	NE Vic SME scores
Overall Digital Ability	57.3
Operational basic	66.8
Operational advanced	58.7
Information navigation	58.2
Social	57.5
Creative	47.8
Automation	55.0

## COMPARING NE VIC SME WORKFORCE SCORES TO METROPOLITAN MELBOURNE

### Methodology

The overall Index scores for NE Vic SME sample are lower than unweighted Melbourne metropolitan figures but this is not directly comparable due to the different populations from which the samples are drawn, which may be more influential in determining final scores than any regional-metro divide. For instance, total Index scores in the national ADII data are strongly shaped by age and education profiles. Isolating the impact of different sample populations is important for making more direct comparisons in Index scores between metro and regional samples. Below, we show the results for case control methods used to compare NE Vic SME Index scores with metropolitan Melbourne.

In controlling for differences in the sample population we draw an equally matched sample from the national survey, Melbourne Metropolitan area with that of the NE Vic SME workforce sample according to age and education profiles. The tables below show the final selected metro and regional samples. It should be noted that as this 'matched sample' is a subset of the total SME Workforce sample thus final ADII scores will differ to scores given elsewhere in this report.

Table 8: Age groups (matched sample numbers)

	18-34	35-44	45-54	55-64	65-74	75+	Total
Melbourne Metro Sample	29	48	68	74	47	10	276
NE Vic SME Sample	29	48	68	74	47	10	276
Total	58	96	136	148	94	20	552

Table 9: Education levels (matched sample numbers)

	Did not complete secondary school	Completed secondary school (year 12 or equivalent)	Certificate/ diploma	Bachelor and above	Other	Total
Melbourne Metro Sample	20	35	70	148	3	276
NE Vic SME Sample	20	35	70	148	3	276
Total	40	70	140	296	6	552

### Comparative scores

When comparing a selected 'case control sample' of metropolitan Melbourne respondents derived from the 2021 national Index data collection, the differences in digital inclusion are stark. This analysis shows that after controlling for age and education profiles, Index scores are likely shaped by area-based attributes.

- The NE Vic SME workforce is 9.9 points behind the metropolitan Melbourne 2021 Index score.
- This difference is driven primarily by the low Digital Ability score registered by the NE Vic SME workforce (56.4). This is 9.5 points lower than the metropolitan Melbourne score of 65.9.

Table 10: Comparing the NE Vic SME workforce to metropolitan Melbourne

	Total Index	Access	Affordability	Digital Ability
Melbourne Metro	73.1	73.0	93.4	65.9
NE Vic SME workforce	63.2	69.8	94.6	56.4
Difference	- 9.9 points	- 3.2 points	+ 1.2 points	- 9.5 points

## SME WORKFORCE AGE BREAKDOWN

- Consistent with the national Index collection, the digital inclusion of the NE Vic SME decreases with age.
- Workers between the ages of 18-34 receive a total Index score of 74.5. 27.3 points higher than that received by those over the age of 75 (47.2), and 22.3 points higher than that received by those workers between 65 and 74 (52.2).
- Older members of the NE Vic SME workforce are particularly disadvantaged when it comes to Digital Ability. Workers over the age of 55 in NE Vic SMEs all fall below the total NE Vic SME workforce score on this dimension.

Table 7: Digital inclusion scores by SME workforce age

	Total Index	Access	Affordability	Digital Ability
Total NE Vic SME workforce	63.9	70.1	95.0	57.3
18-34 years	74.5	73.7	92.3	76.5
35-44 years	68.8	69.9	96.5	67.0
45-54 years	65.6	71.8	96.2	58.8
55-64 years	62.5	69.8	94.9	54.8
65-74 years	52.2	65.2	92.0	39.3
75+ years	47.2	67.1	92.9	26.8

## SME LOCATION BREAKDOWN

- Taken at the total Index level (all sample participants), SMEs operating in Wodonga have the most digitally included workforce with a total Index score of 74.8.
- This is 18.6 points higher than that received by the workforce of SMEs in Benalla, which scores just 56.2.
- Multi-site SMEs—those operating in multiple LGAs—receive an Index score of 65.3, with this underpinned by an Access score of 71.5, an Affordability score of 92.2, and a Digital Ability score of 59.9.

Table 11: Digital inclusion scores by LGA of business

	Total Index	Access	Affordability	Digital Ability
Total NE Vic SME workforce	63.9	70.1	95.0	57.3
Alpine	66.0	71.3	96.4	60.1
Benalla	56.2	66.8	89.3	46.7
Indigo	65.6	69.9	95.5	60.8
Mansfield	63.3	69.4	94.8	56.8
Towong	57.2	67.7	92.5	47.0
Wodonga	74.8	77.4	97.0	71.7
Wangaratta	63.6	71.5	95.3	55.2

1 Businesses can operate across multiple LGAs. Each business location has been counted in final total.

2 Alpine includes data from respondents who selected either Alpine or Alpine Resort Area.

## SME ANNUAL TURNOVER BREAKDOWN

Digital inclusion scores also appear to be influenced by business income.

- Wealthier SMEs score higher on the Index than their less wealthy counterparts. This influence is seen most clearly in the Access and Affordability dimensions.
- In contrast, Digital Ability, while highest for those employed by SMEs that earn over 1 million per year, appears to be less impacted by income levels.

Table 1: Digital inclusion scores by SME annual turnover

	Total Index	Access	Affordability	Digital Ability
Total NE Vic SME workforce	63.9	70.1	95.0	57.3
Under \$75,000 per annum	61.7	68.2	94.4	54.9
\$75-149,995 per annum	64.6	68.8	95.6	59.9
\$150,000-\$1 million per annum	63.9	71.5	94.6	56.1
Over \$1 million per annum	69.4	75.5	97.0	62.5
Not sure	66.4	69.2	95.2	63.4

## SME STAFF SIZE BREAKDOWN

Digital inclusion increases with staff size.

- SMEs with more than 20 staff receive an Index score of 69.4.
- This is 8.6 points higher than SMEs with 2-4 staff members.

Table 2: Digital inclusion scores by SME staff size

	Total Index	Access	Affordability	Digital Ability
Total NE Vic SME workforce	63.9	70.1	95.0	57.3
0-1 staff	65.0	68.5	95.3	61.1
2-4 staff	60.8	68.6	94.1	52.9
5-19 staff	66.2	73.2	95.7	58.7
20+ staff	69.4	76.2	94.6	62.8

## SME SECTOR BREAKDOWN

- SMEs in health and wellbeing (66.6), professional and business services (66.1), and construction and manufacturing (65.1) are the most digitally included SMEs in NE Vic.
- SMEs in agriculture and agribusiness (61.4) and accommodation and hospitality (61.9) are the least digitally included SMEs in NE Vic.
- Agriculture and agribusiness SMEs are particularly lagging on the Access and Digital Ability dimensions.

Table 3: Digital inclusion scores by SME type

	Total Index	Access	Affordability	Digital Ability
Total NE Vic SME workforce	63.9	70.1	95.0	57.3
Tourism and recreation	64.4	71.1	94.8	57.4
Accommodation and hospitality	61.9	70.2	94.2	53.4
Retail	64.3	70.2	94.6	58.3
Agriculture and Agribusiness	61.4	66.6	95.3	55.7
Construction and manufacturing	65.1	72.0	96.7	57.3
Professional and business services	66.1	72.0	94.0	60.4
Health and wellbeing	66.6	71.3	95.8	61.4

1. Responses to the question 'what does your business do?' were re-coded to reflect the following seven final categories: tourism and recreation, professional services, agriculture and agribusiness, accommodation and hospitality, retail, construction and manufacturing, and health.

## SME WORKFORCE HOUSEHOLD INCOME BREAKDOWN

Digital inclusion scores increase with the household income of the SME workforce.

- Members of the NE Vic SME workforce with a household income in the highest bracket (over \$156,000 per annum) receive an Index score of 69.6. This is 5.7 points higher than the Index score registered for the total NE Vic SME workforce, and 16.7 points higher than the Index score registered for those members of the NE Vic SME workforce who have a household income in the lowest bracket (earning below \$33,800 per annum).
- This divide between high and low income earners is evident across each of the three Index dimensions and is particularly stark in terms of Affordability and Digital Ability.

Table 4: Digital inclusion scores by SME workforce household income

	Total Index	Access	Affordability	Digital Ability
Total NE Vic SME workforce	63.9	70.1	95.0	57.3
Quintile 1 (below \$33,800 p/a)	52.9	62.9	79.2	47.4
Quintile 2 (\$33,800-\$51,999)	60.1	68.7	93.5	51.5
Quintile 3 (\$52,000-\$90,999)	63.9	69.7	96.8	57.2
Quintile 4 (\$91,000-\$155,999)	67.7	70.9	98.3	63.2
Quintile 5 (\$156,000 and above)	69.6	75.6	99.5	62.1



## PRIORITIES FOR BUILDING WORKFORCE DIGITAL CAPACITY

This research brief highlights several strategic priorities for addressing digital inclusion in the SME workforce in the NE Vic region. These include the need to support small businesses and more rural based LGAs. While gains are likely to be achieved in continuing to facilitate enhanced access to computing facilities, faster and reliable affordable internet connection more targeted programs that aim to develop digital capacity or literacy within businesses will be critical in reducing the divide between larger and smaller regions and between capital cities and regional areas more broadly.

The type of training identified by participants that would most enhance digital capacity within their SME was marketing and website development (64%), followed by further developing digital administration (36%), and sales and e-commerce (35.5%) capacities.

*Table 5: Types of digital training identified by the NE Vic SME workforce*

	Number	%
Marketing and website	252	64.0
Administration	142	36.0
Sales and e-commerce	140	35.5
Financial management	107	27.2
Operations	102	25.9
Data management and analysis	88	22.3
Production	46	11.7
Other (please describe)	41	10.4
No training required	15	3.8

1. Participants select multiple responses. Percentages are based on total samples for each item and therefore percentage total does not equal 100.

## REFERENCES

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The Australian Digital Inclusion Index has taken place every year 2014 – 2021  
and the annual reports can be found at <https://www.digitalinclusionindex.org.au/>

The following pages contain the Appendices

Appendix 1 : About the Australian Digital Inclusion Index

Appendix 2 : Approach to Data Collection in this Survey

Appendix 4 : Who was Surveyed

## APPENDIX 1 : ABOUT THE AUSTRALIAN DIGITAL INCLUSION INDEX

The ADII uses survey data to measure digital inclusion across three dimensions of Access, Affordability and Digital Ability. In doing so, the Index details how these dimensions vary across Australia and different social groups. A detailed measure of digital inclusion for Australia allows us to identify the critical barriers to inclusion. These may be related to accessing networks, the costs of devices or data, or skills and literacies.

The survey has taken place every year since 2014. In 2021, a revised and updated ADII was launched (Thomas et al., 2021). This revised Index continues the tradition of the ADII in generating the most detailed picture of digital inclusion in Australia available.

Using data collected through the AIUS, the ADII retains the original three-dimension framework for measuring personal levels of digital inclusion (Access, Affordability and Digital Ability), but updates the components that underpin these to accommodate changes in digital technologies, digital skills, and the telecommunications marketplace.

ADII scores range from 0 to 100. The higher the score, the greater the level of digital inclusion. ADII scores are relative: they allow comparisons across different social groups and geographic areas, and over time. Each of the three Index dimensions are equally weighted to derive the total Index score.

### Access

Access is about the types of digital connections and devices and how frequently we use them to get online. It also includes how much data we can use.

*Table 20: Breakdown of Digital Access components*

Access	Frequency and intensity of use, ranging from no use at all to daily use
	Connection type, such as fixed broadband or mobile-only
	Data allowance and speed
	Types of devices, including desktops, laptops, smart phones, tablets, and an array of smart home devices

An individual with a high Access score typically has:

- Daily use and high intensity of use
- Fixed broadband
- Fast and unlimited data allowances that are not exceeded
- Access via a range of devices

## Affordability

The Affordability dimension measures the percentage of household income that would be required to be spent to gain a good quality service with reliable connectivity. To do this, we consider the price of a basket of goods and services required for a well-connected household.

Table 21: Breakdown of Digital Affordability components

Affordability	<p>Ratio of household income to the median cost of an 'internet bundle' for an ideally connected household. The bundle is costed for both single headed and family households.</p> <p>The internet bundle enables both quality and reliable connectivity through:</p> <ul style="list-style-type: none"> <li>• A fast internet service, including a cable (HFC) service, NBN 50 or above, or 5G wireless service</li> <li>• Unlimited monthly data allowance through a fixed broadband service</li> <li>• Mobile broadband or mobile phone data allowance above 61GB per month</li> </ul>
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## Digital Ability

Digital Ability is about our skill levels: what we are able do online, and our confidence in doing it.

Table 23: Breakdown of Digital Ability components

Digital Ability	Basic operational: Including downloading and opening files, connecting to the internet, and setting passwords.
	Advanced operational: Including saving to the cloud, determining what is safe to download, customising devices and connections, and adjusting privacy settings.
	Information navigation: Including searching and navigating, verifying trustworthy information, and managing third party data collection.
	Social: Including deciding what to share, how, and who with, manage and monitor contacts, and communicate with others.
	Creative: Including editing, producing, and posting content, as well as a broad understanding of the rules that may apply to these activities.
	Automation: Including connecting, operating, and managing smart devices and IoT technologies.

A person with a high Digital Ability score can perform the range of tasks across each of the above components, while those with lower scores may only have basic or no operational skills.

## APPENDIX 2 : APPROACH TO DATA COLLECTION IN THIS SURVEY

A key benefit of redeveloping the Index is the ability to partner with community organisations to produce ADII scores through use of the AIUS, and the addition of questions that reflect local needs and priorities. This approach has received ethics approval from RMIT's human research ethics committee (project number: 24628).

In this project, Startup Shakeup have drawn on the core AIUS questions to derive an Index score for SMEs, ranging from single operator through to medium sized businesses within major industries in the North-East region of Victoria. In addition to the core AIUS questions, Startup Shakeup added the following five questions to enable deeper insights into digital inclusion and capacity building needs across key SME sectors and locations.

*Table 24: Questions added to the AIUS for Startup Shakeup*

Question	Answer frame
<b>Q1 What is the annual turnover of the business you own or work in?</b>	Under \$75,000 per annum
	\$75-\$149,995 per annum
	\$150,000 - \$1 million per annum
	Over \$1 million per annum
	Not sure
	Under \$75,000 per annum
<b>Q2 How many staff does the business you own or work in currently have on average, per week, including yourself?</b>	Text box
<b>Q3 Which LGA is your business based in? Please select all that apply.</b>	Alpine
	Benalla
	Indigo
	Mansfield
	Towong
	Wangaratta
	Wodonga
	Alpine Resort Area <sup>1</sup>
<b>Q4 What does your business do?<sup>2</sup></b>	Health
	Agriculture, food, and fibre production
	Agribusiness
	Wine, beer, and spirits
	Accommodation and hospitality
	Retail
	Digital and tech services
	Manufacturing
	Education
	Professional and financial services
	Other business services
	Transport and logistics
	Other, please describe
	Administration
	Financial management

<sup>1</sup> Participants that selected Alpine Resort Area in their response were combined with Alpine during analysis.

<sup>2</sup> Responses to the question 'what does your business do?' were re-coded to reflect the following seven final categories: tourism and recreation, professional services, agriculture and agribusiness, accommodation and hospitality, retail, construction and manufacturing, and health.

**Q5 In what areas of business would you like to extend your digital ability? Please select all that apply.**

Marketing and website
Sales and e-commerce
Operations
Production
Data management and analysis
Other, please describe

Data collection was managed by Startup Shakeup. Survey participants were recruited through local business networks throughout the NE Vic region. A minimum of one representative within each organisation was asked to complete the AIUS, which was securely administered via the Qualtrics Online Survey Platform. The survey was open between 21 September 2021 and 18 January 2022. From the 2415 surveys sent out, and 1,780 follow up phone calls, 521 surveys were submitted and a final completed sample of 401 participants was obtained.

As this project targeted a population that is actively engaged in work, rather than a representative sample of the whole population, we use case control methods to compare NE Vic SME Index scores with metropolitan Melbourne. This case control approach compares the unweighted NE Vic SME Index scores with an exact 'matched' age and education cohort in the metropolitan Melbourne sample used for the 2021 ADII. Although this method provides a robust way to compare differences in scores between 'like' groupings against age and education profiles, the NE Vic SME findings should not be compared against the broader national ADII figures, which use both weighted and small area estimates to derive final scores.



## APPENDIX 3 : WHO WAS SURVEYED

### RESPONDENTS BY AGE

Consistent with the project's focus on a working and business operator population, the NE Vic SME sample is predominantly middle-aged, with nearly 60% falling between 45 and 64 years of age.

*Table 65: Age of NE Vic SME participants*

Age Groups	Number	%
18-34	32	8.0
35-44	73	18.2
45-54	120	29.9
55-64	116	28.9
65-99	60	15.0
Total	401	100

### RESPONDENTS BY EDUCATION

Likewise, the sample population is well-educated.

Almost 40% of all participants hold either an Advanced Diploma or Diploma (19.1%), or a Bachelor Degree (19.8%).

*Table 26: Education of NE Vic SME participants*

	Number	%
Did not complete secondary school	39	9.9
Completed secondary school	45	11.4
Certificate I to IV	69	17.5
Advanced Diploma or Diploma	75	19.0
Bachelor Degree	78	19.8
Graduate Diploma or Graduate Certificate	34	8.6
Postgraduate Degree	46	11.7
Other	7	1.8
Total	394	100.0

## RESPONDENTS BY SME LOCATION

Participants responding to the survey have high concentrations in the Indigo, Mansfield, and Alpine Shires. This is reflective of the targeted approach to recruitment taken by Startup Shakeup (see note 3).

Please note that with these numbers

1. Businesses can operate across multiple LGAs. Each business location has been counted in final total.
2. Alpine includes data from respondents who selected either Alpine or Alpine Resort Area.
3. Numbers are higher for Indigo and Mansfield as they invested in gathering a more in-depth response.

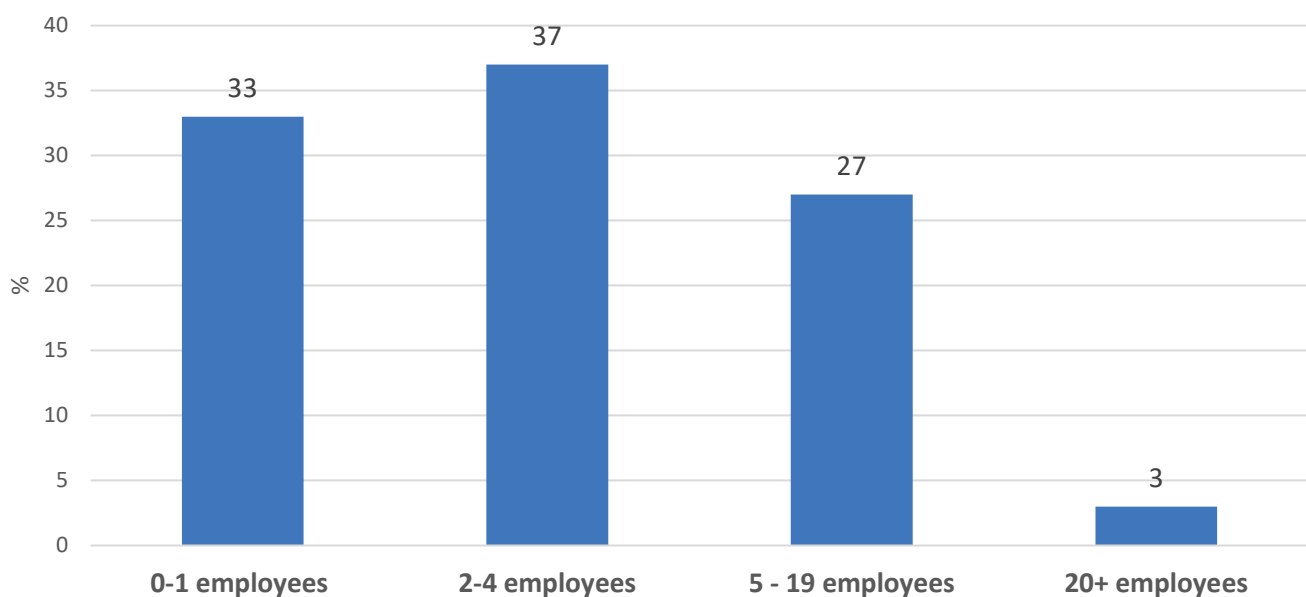
Table 27: Local Government Area of NE Vic SMEs

LGA of Business	Number <sup>1</sup>	%
Indigo	135	30.3
Mansfield	100	22.4
Alpine	85	19.1
Wangaratta	37	8.4
Benalla	33	7.4
Towong	29	6.6
Wodonga	26	5.8
Total N	445	100

## RESPONDENTS BY SME STAFF SIZE

More than two thirds of participants either own or are employed by an SME with fewer than five employees.

Figure 28: Number of employees in NE Vic SMEs



## RESPONDENTS BY SME SECTOR

Survey participants represent a broad range of business types with many overlapping in core business. The most commonly reported are Tourism and Recreation (including accommodation/hospitality) (32.5%) and Professional Services (26.4%). Around a quarter defined their activity within Agriculture and Agribusiness.

Table 29: NE Vic SME business type

	% <sup>1</sup>	Number
Tourism and recreation	32.5	128
Professional Services	26.4	104
Agriculture and Agribusiness	23.9	94
Accommodation and hospitality	21.6	85
Retail	20.1	79
Construction and Manufacturing	15.7	62
Health	10.2	40
	% <sup>1</sup>	

Please note that with these numbers on business type

1. Participants select multiple business types. Percentages are based on total sample (N=394) for each business type and therefore percentage total does not equal 100.
2. Responses to the question 'what does your business do?' were re-coded to reflect the following seven final categories: tourism and recreation, professional services, agriculture and agribusiness, accommodation and hospitality, retail, construction and manufacturing, and health.