

The Allen Consulting Group

Opportunities for small business and community organisations in NBN first release areas

February 2011

Report to the Department of Broadband, Communication and the Digital Economy

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Executive summary

This study reports on the potential for small businesses and community organisations to take advantage of the National Broadband Network (NBN). It has been informed by a series of targeted focus groups with small business and community organisations held across the NBN's first release areas (Brunswick, Townsville, Kiama, Armidale and Willunga).

Current Internet use among small business and community organisations in NBN first release areas

Across the first release areas, small businesses and community organisations use the Internet in a variety of ways and with varying degrees of sophistication. Some organisations are notably active on the web — offering services through well-developed platforms. Others use the Internet only to provide potential customers with basic information.

Web presence in each area is typically influenced by the nature of the economic activity being undertaken in each area. Notably, web presence was generally greater for some industries (such as accommodation, cafes and restaurants) than others (such as construction and manufacturing), generally reflecting what industries could offer in terms of online services.

Participants in each of the focus groups emphasised the importance of the Internet for communications. Email in particular was regarded as 'critical' and 'vital' to business/organisation operations with many using Email as their primary means of communication.

Several other communication platforms were also in use.

- Social networking sites such as Facebook and Twitter were used by some for business functions, though generally not in the community sector.
- Investments in VoIP systems had been a source of significant cost savings — although reliability can be an issue.
- Small business participants and a few community organisations noted they try to use video conferencing/communication tools, though this is usually challenging due to technical problems.

Businesses and community groups also reported using the Internet to conduct a number of business functions as well. These included:

- banking and financial transactions;
- advertising and communicating with customers;
- having own business website;
- information gathering;
- research about competitor offerings;
- office purchasing — such as furniture, stationary and supplies; and

- other functions.

Several small businesses also reported using a VPN to coordinate activities across offices or to enable staff to work from home.

Several stakeholders also reported using the Internet to directly deliver services such as website design and hosting, IT support, mentoring and training. The community organisations consulted were notably less likely to operate their own websites — although a few provided opportunities in their website for online donations.

Opportunities presented by the NBN

Participants in the focus groups were generally interested in what the NBN would be able to deliver and positive about the opportunities it presented.

In particular, participants identified opportunities regarding how the NBN might improve how they interacted with their customers/service recipients. Examples include:

- the ability to sell/market their products online with a greater use of graphics, high-definition video and other multi-media;
- the potential for tools that enhance person-to-person visual communication to bring groups and individuals together;
- profiling for television ads based on specific characteristics of the viewer's own browsing and viewing habits as a new way to market products;
- the use of Point of View video technology to enhance the online shopping experiences; and
- the development of smart phone-like applications and products.

Participants from small businesses typically agreed that high-speed broadband offered great potential to develop new products and services as well as access new markets. Participants from the community sector however, were notably less able to envision how high speed Internet could assist them in offering their services — with health-related organisations being the exception. Some of the potential new products mentioned at the focus groups are listed in the table below.

Stakeholders also made the point that the NBN should be considered as a means of transportation, rather than as the destination. They thought that the NBN itself would not provide the content, but rather a means through which that content would be disseminated. High-speed broadband would help foster innovation, but ultimately it will be up to the small businesses themselves to use the technology in new and creative ways.

Table ES 1.1

POTENTIAL NEW PRODUCTS/MARKETS FACILITATED BY THE NBN

Product	Example
Intermediary services to e-Health and e-Education	Several ICT firms and health-related community organisations identified new opportunities to provide intermediary and ancillary services to e-Health and e-Education sectors
e-Law and e-Professions	Videoconferencing can reduce the costs involved in delivering professional services to regional customers
e-Trades	Tradesman will be able to deliver improved services by quickly downloading the plans or schematics of a particular part or model Customers will be able to provide a high definition video stream to a tradesman or service centre in order to obtain price quotes and help ensure the tradesman is appropriately equipped before arriving on site
Monitoring of crops and paddocks	Data can be streamed back to base, analysed and actions taken where appropriate
Web café	Many businesses offer the Internet as an ancillary service, such as in cafes or hotels, as the improved Internet quality made available through the NBN will encourage greater provision of these services in order to attract more customers
Onsite services	More efficient services to be delivered on site, for example a building inspector will be able to attend a building site and enter data directly into a database, as well as access schematics, plans and regulations
Training	As the significance of the Internet for business grows, it will be necessary to ensure businesses have the requisite skills to navigate around the Internet and access its potential — the teaching of these skills to business will be an opportunity, especially in the early take-up years
Volunteering	Community organisations consulted (particularly in Willunga) highlighted the significance of receiving assistance with technology and Internet use from community volunteers.

Source: Allen Consulting Group.

Focus group participants also noted that the NBN would also have implications for how businesses/community organisations function and how they deal with staff and volunteers. For example:

- **Business / organisational functions** — Stakeholders identified a number of ways in which they expected the NBN to impact on their day-to-day business and organisational activities;
- **Business operations** — Participants remarked that high-speed broadband would allow for businesses to move their operations to regional centres, while maintaining only a corporate presence in the major cities;
- **Tele-working** — It was recognised that if videoconferencing and online collaboration technologies were to improve in their effectiveness as the NBN is rolled out, then their uptake would likely increase; and
- **Training** — Through the NBN, training can be delivered with greater flexibility and specificity, without being geographically dependent.

Barriers to realising the potential of the NBN

Participants in the focus groups identified also a number of challenges that would need to be overcome in order for them to realise NBN's opportunities.

- **Cost and time constraints** — The costs and time associated with developing new services based on the NBN's capacities and developing Internet capabilities was the major identified challenge for most participants in the focus groups. Small business participants commented that their margins were already facing increasing pressures.
- **Information gaps** — A clear information gap was present among many stakeholders regarding the NBN, its technical aspects, and the network set-up work currently underway.
- **Technical issues** — Concerns were raised about a number of technical aspects of the NBN (such as wireless Internet speeds and international bandwidth capacity).
- **Behavioural issues** — It was recognised that many small businesses and organisations were committed to more traditional industry practices. Some of these businesses/organisations had not embraced current Internet technologies, and were unlikely to be attracted by the capabilities of the NBN.

Chapter 1

This report

The Department of Broadband, Communications and the Digital Economy (the Department) has commissioned the Allen Consulting Group (ACG) to undertake a study on the potential for small business and community organisations to take advantage of the National Broadband Network (NBN). This report summarises the findings of that study.

Importantly, this is not a report about technology and the technological options of the NBN. Rather, this study reports on the views and concerns of small business and community organisations, given their current levels of understanding.

The study has been informed by a series of targeted focus groups with small business and community organisations. Focus group discussion covered a range of issues relating to the NBN including:

- the specific opportunities that high speed broadband would provide, including:
 - impacts on current customer base;
 - impacts on business to business trade; and
 - the opportunities for new business in the area;
- barriers to the take-up of these opportunities;
- other issues relevant to the study.

The Terms of Reference for the study are outlined in Box 1.1.

Box 1.1

TERMS OF REFERENCE

The Department requires a report on the potential for small businesses and community organisations in selected early NBN rollout areas (Brunswick, Townville, Minnamurra and Kiama Downs, Armidale, Willunga) to take advantage of the National Broadband Network (i.e. high speed broadband to homes and businesses), involving:

- A desk top stocktake and analysis of small businesses and community organisations in the early roll out areas, breaking down businesses into broad industry/sector types and establishing the general level of current webpage availability and e-Commerce transactional offerings of those businesses.
- Discussions/focus groups with a range of small businesses and community organisations (including local Chambers of Commerce) in each area to gauge the views of business owners and community organisations regarding the general and specific opportunities that high speed broadband would provide. The discussions should also identify any barriers to the take up of these opportunities.

Source: The Department of Broadband, Communications and the Digital Economy.

Further details about the focus groups, including their attendance is provided in Appendix A.

1.1 First release areas

The focus of this study is on the first release areas of the NBN. These areas provide a cross section of the small business and community sectors across the country — and represent the communities most exposed to the rollout of the NBN. These sites include:

- a part of the suburb of Brunswick in Melbourne;
- an area of Townsville covering parts of the suburbs of Aitkenvale and Mundingburra;
- the coastal communities of Minnamurra and Kiama Downs south of Wollongong;
- an area of west Armidale, NSW, including the University of New England; and
- the rural town of Willunga in South Australia.

Selection of the first release areas is discussed further in Box 1.2.

Box 1.2

SELECTION OF FIRST RELEASE AREAS

The first release areas were identified by network planners and engineers at NBN Co Limited (NBNC Co). NBNC Co was created to design, build and operate the infrastructure that will enable advanced digital services to be provided to the nation.

The first release areas represent the diverse situations they will encounter during the network rollout. The sites provide NBNC Co with an opportunity to test and document different design and construction techniques in a range of situations. The sites offer significant variety in terms of geography, housing type and density, local infrastructure and other local factors.

The sites include a suburban area where NBN Co needs to connect semi-detached houses, detached houses and apartment blocks. Also selected is a smaller rural town with more dispersed housing, and three other sites representing a mix of major regional, smaller regional and differing climate and geography.

Approximately 3000 premises will be in each area selected, except the rural town where there are fewer dwellings.

Source: Further information on NBN Co activities can be obtained from <http://www.nbnco.com.au/wps/wcm/connect/first-release/site-base/first-release-areas/>

Note that because of data constraints and the limited size of the first release areas it was not practical for the analysis to draw only on firms and organisations within the immediate rollout areas. Rather, discussions with small businesses and community groups were drawn from the general localities of where NBN was being rolled out. Consequently, this study has focussed on:

- Brunswick;
- Armidale;
- Kiama;
- Townsville; and
- Willunga.

1.2 Acknowledgements

The authors of this report are grateful of the contribution of organisations who attended the focus groups and participated in the study. In particular, a number of organisations provided assistance with the coordination of the focus groups. These organisations include:

- Armidale and Dumaresq Chamber of Commerce;
- Brunswick Business Enterprise Centre;
- Kiama and District Chamber of Commerce;
- Kiama Municipal Council;
- North Queensland Small Business Development Centre; and
- Willunga Business and Tourism Association.

1.3 Report structure

The remainder of the report is structured as follows. Chapter 2 provides an overview of small business and community sectors in the first release areas; Chapter 3 reports on how these sectors currently use the Internet; Chapter 4 reports on the NBN's potential opportunities (as perceived by the stakeholders attending the focus groups); Chapter 5 outlines the perceived barriers to reaching that potential; and Chapter 6 provides a summary of the reports key points and findings.

Additional appendixes are attached to this report that provide additional detail on the methodological aspects of the study.

Chapter 2

First release areas

The nature of economic activities in each first release area is quite distinct. Economic activities in Willunga for example, are predominately related to agriculture and tourism. In Townsville, activity is strongly affected by the Port and military activities, while Armidale has a large education sector.

As a consequence of these differences, the impact of the NBN on the small business sector in each area is also likely to be distinct. It is important therefore to have an understanding of both the nature and scale of the sector in each of the areas.

This chapter provides an overview of the nature of the small business and community organisations operating in each of the first release areas. It has been informed by a stocktake of the sectors, which is considered in more detail in Appendix B.

Note that the definition of a small business in this analysis is consistent with that of the ABS. Box 2.1 discusses how small businesses are defined.

Box 2.3

DEFINING SMALL BUSINESS

A small business is defined as a business employing less than 20 people. This definition is consistent with how the ABS defines small business. Within Australia, nearly 99 per cent of all businesses are small and medium sized enterprises (SMEs). Categories of small businesses include:

- non-employing businesses — sole proprietorships and partnerships without employees;
- micro businesses — businesses employing less than 5 people, including non-employing businesses;
- other small businesses — businesses employing 5 or more people, but less than 20 people.

Source: ABS 2006 Census.

2.4 Small businesses in first release areas

At a regional level, the best available data on the number of small businesses is provided in the 2006 Census. The Census reports the number of owner managers of incorporated and unincorporated enterprises by the firm size. Moreover, the Census reports the number of owner managers of firms with 20 or less employees, by place of activity by industry. While this is not a perfect measure, this data provides a reasonable proxy for the number of small businesses in each area and is indicative of the activities undertaken.

Table 2.1 reports the Census data for each area — where data was available. The table reports both the number of small businesses identified in each region and their proportional representation. Note that data has been drawn from the most relevant ABS geographical level, which in some cases differs from the geographic boundaries of the NBN's first release areas. Thus, some caution should be applied in interpreting this table.

Of note, the Census data revealed a number of insights into the small business communities operating in first release areas.

- A sizeable small business community exists in each of the first release areas.
- In each area, the majority of small businesses are located in the professional/business services, retail and wholesale trade and construction sectors.
- The areas differed principally by the size of their agriculture and manufacturing sectors.
- Between the areas, the nature of activities undertaken by the small business sector can vary — in particular the number of small businesses in the agricultural sector varies from near 0 to 16 per cent.
- While a sector's contribution to economic activity may be significant, this may not be reflected in the number of small businesses. For example, agriculture is a significant contributor to the regional product of Willunga economy, however small agricultural businesses account for just 6.4 per cent of small businesses in the area.

As a check on the Census data, a survey of business listings in the online Yellow Pages was conducted for each of the areas. The details of this survey are discussed in Appendix A. While this survey does not provide a complete picture of small businesses in each area, it does offer a useful comparator about the nature of business activity. By and large, the survey was generally consistent with the Census data.

Table 2.1

SMALL BUSINESSES IN FIRST RELEASE AREAS

Industry	Armidale Dumaresq Local Government Area	Brunswick Statistical Local Area	Townsville Statistical Subdivision	Kiama Local Government Area	Onkaparinga Local Government Area (Willunga)
Per cent					
Agriculture, forestry and fishing	16.1	0.1	0.6	7.8	6.4
Manufacturing	6.0	15.0	7.8	4.6	13.0
Construction	12.0	8.9	17.1	18.4	17.9
Retail and Wholesale	16.3	20.5	17.6	13.8	15.0
Accommodation and food services	5.2	6.6	6.4	8.4	4.1
Health care and social assistance	9.3	6.9	7.9	7.0	6.5
Professional/business services	16.7	22.6	22.2	23.5	17.5
Transport, postal and warehousing	3.7	4.0	5.8	3.8	4.5
Other	14.7	15.4	14.6	12.7	15.0
Total	100.0	100.0	100.0	100.0	100.0
Count					
Agriculture, forestry and fishing	223	3	31	81	373
Manufacturing	83	352	377	48	763
Construction	167	209	825	191	1,050
Retail and Wholesale	226	482	845	143	884
Accommodation and food services	72	155	306	87	242
Health care and social assistance	129	162	379	73	384
Professional/business services	231	531	1,070	244	1,030
Transport, postal and warehousing	51	94	277	40	265
Other	204	362	702	132	883
Total	1,386	2,350	4,812	1,039	5,874

Source: 2006 Census data and Allen Consulting Group.

2.5 Community organisations in first release areas

The 'looseness' of the community sector means that obtaining a robust count of community organisations is difficult to obtain.

- The sector by nature is highly informal, and comparable data sources are not available.
- Community organisations are not subject to the same requirements as businesses (in terms of registration) and often do not feature in the usual databases (such as the ABS).
- Resource constraints may limit some organisations to advertise or list their activities in the way businesses do as well.

In the absence of a broader statistical framework, information about the presence and activities of community organisations was generally sourced from local and regional information providers. This includes tourism information sites, community aggregators and other such sites.

Appendix A provides greater data on the community sector in each area, however the following observations are particularly noteworthy.

- Each first release area has an active community sector operating within the region.
- The community sectors represent a range of interests and perform a variety of functions — including sport and recreation, healthcare and disability support, aged services, youth services, hobbies and special interest, arts and theatre and civic and social functions.
- Often the community sector in a region would be dominated by sport and recreation clubs.
- National bodies operate in each area through local chapters.
- Many community services were also provided by local churches.

Chapter 3

Small business, community organisations and the Internet

The Internet has a wide range of applications for business and community organisations. It provides a medium to communicate with potential customers and clients as well as a platform to undertake transactions and deliver services.

This chapter provides an overview of the how small businesses and community organisations use the Internet. The chapter begins with a high level discussion about the Internet use by the sectors generally, and is followed with a detailed observations about Internet use in the first release areas.

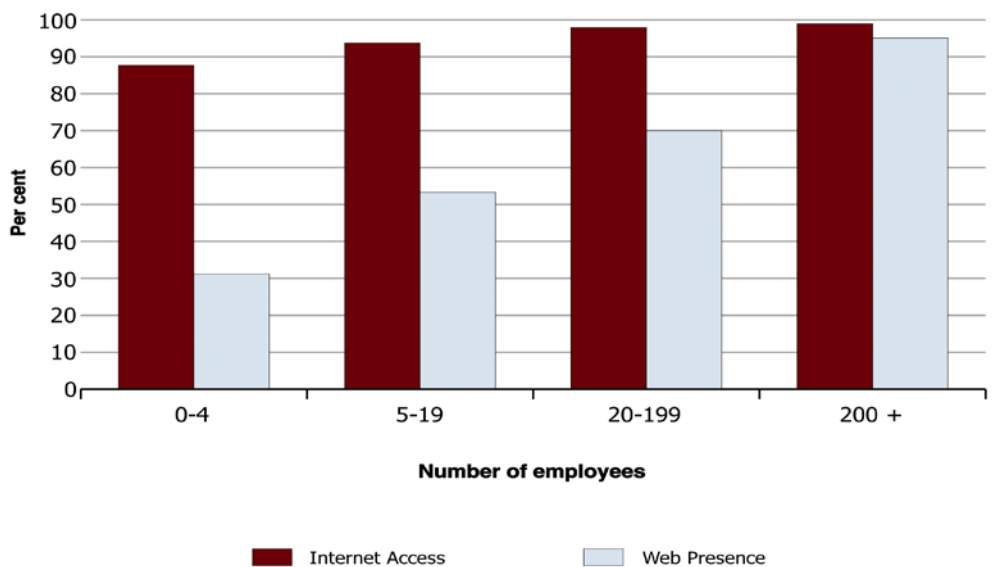
3.6 Internet use by the small business sector

Data from the ABS suggests that overwhelmingly, Australian businesses are connected to the Internet — and mostly through broadband. Nine out of ten small businesses have Internet access (including 94 per cent of small businesses with over four employees). Only 2 per cent of connected small businesses access the Internet using a non-broadband connection.

The major difference between small and large businesses is the extent to which firms have a web presence. 38.6 per cent of small businesses have a web presence compared with 70 per cent of medium businesses (firms with 20-199 employees) and 95.1 per cent of large businesses (firms with over 200 employees). Figure 3.1 reports Internet access and web presence by firm size.

Figure 3.1

FIRMS INTERNET ACCESS AND WEB PRESENCE BY FIRM SIZE



Source: ABS 8166.0.

A 2009 report by the Australian Communications and Media Authority (ACMA 2009, pg. 3) further explains the value and nature of Internet use by small businesses further. Although the report groups small and medium sized enterprises (SMEs) together for the majority of the report, it identifies that 96 per cent of SMEs are categorised as ‘small’ and have less than 20 employees.

SMEs are increasingly adopting communication technologies for their business processes and thereby gradually transforming traditional business operations, interactions with customers and supply chains (ACMA 2009, pg. 3). The new opportunities offered by the Internet saw its adoption by SMEs in 2008 reach 97 per cent, with broadband as the most common form of Internet connection (95 per cent). Of the many factors influencing the adoption of new and emerging communication technologies like VoIP and broadband Internet, the number of employees/size of a business has the greatest influence. While medium sized businesses had a greater proportion of broadband connection over 2007 and 2008 (97 per cent), the adoption of broadband by small business increased from 90 to 94 per cent in the same time period.

The Internet allows SMEs to conduct business activities, access information, communicate, manage customer relations and undertake day to day tasks like banking and marketing in a relatively more efficient and timely manner. Table 3.1 below outlines the top activities undertaken by SMEs on the Internet.

Table 3.2

ACTIVITIES PERFORMED ON THE INTERNET BY SMES

Activity	Per cent
Communicate via email	98
To look for information about products and services	89
To get reference information on research data	85
Internet banking	83
To access telephone directories	81
To pay for products and services	76
To place orders for products and services	72
To access and use online catalogues	72
To receive payments for products and services	68
To streamline communications with customers and staff	64
To use a website to advertise or promote business	58
To take orders for your products and services	57

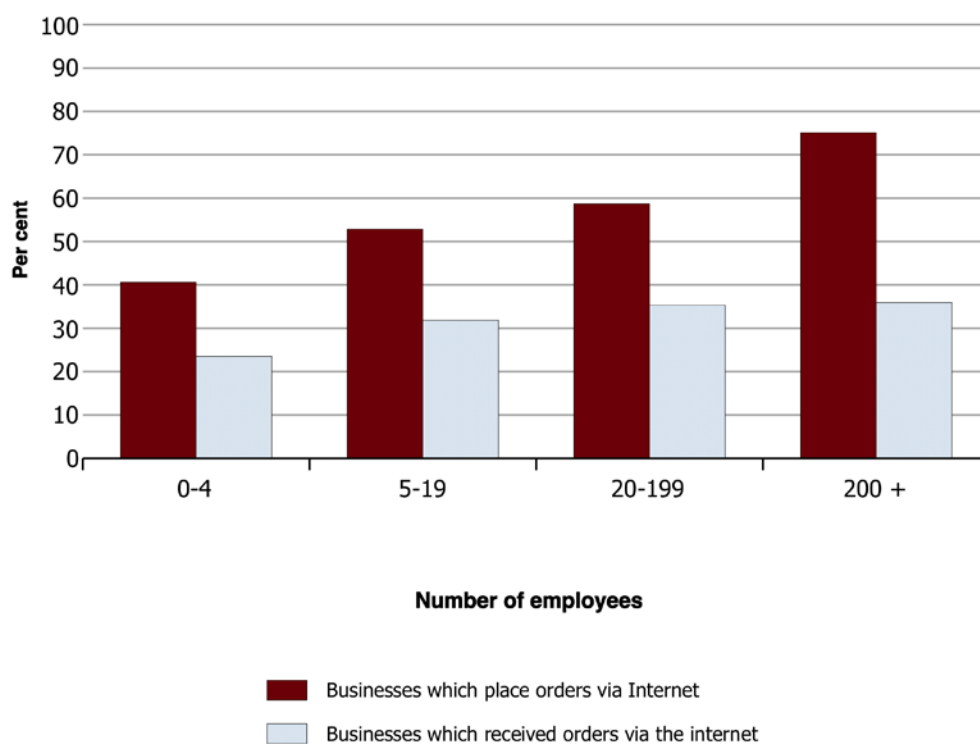
Source: ACMA 2009.

The level of activity performed by SMEs to receive payments for products and services increased significantly (9 per cent) from 2007 to 2008. 78 per cent of SMEs reported that having broadband access had a positive impact on their business, while 21 per cent reported no impact and one per cent reported a negative impact. For small businesses in particular, 77 per cent reported a positive impact from broadband access, 22 percent reported no impact and one percent reported a negative impact (ACMA 2009, pg. 23).

The extent to which firms engage in e-Commerce also differs by firm size. Small businesses were less likely than larger businesses to both place and receive orders via the Internet. Notably however, the proportion of businesses that use the Internet to receive orders differed by a smaller degree as firm size increased. Figure 3.2 reports how firm size affects e-Commerce.

Figure 3.2

FIRM ENGAGEMENT IN E-COMMERCE BY FIRM SIZE



Source: ABS 8166.0.

Survey data from an ACG (2002) report on business Internet use found that while firms engaged in a wide range of activities, the majority of these activities related to communications (as opposed to financial transactions). The survey reported that small businesses used the Internet less than larger business consistently for different activities. In particular however, small businesses were less likely to use the Internet for:

- promotions and marketing (42 per cent compared to 68 and 71 per cent of medium and large businesses);
- making purchases (42 per cent compared to 54 and 65 per cent of medium and large businesses); and
- recruitment (15 per cent compared to 42 and 45 per cent of medium and large businesses).

Business Internet use differs between sectors (see Figure 3.3). Firms in the services sector in particular report having both a high degree of Internet access and a strong web presence. Firms in the retail, accommodation and food services and transport, postal and warehousing sectors were typically at the other end of the spectrum. This reflects the concentration of small businesses operating in these sectors.

Figure 3.3

FIRM INTERNET ACCESS AND WEB PRESENCE BY SECTOR

QuickTime™ and a
decompressor
are needed to see this picture.

Source: ABS 8166.0.

3.7 Internet use by the community sector

It is difficult to identify precisely how connected the community sector is. Community organisations vary considerably in their structure and scale. For example, a community organisation may be informal and locally based, or have a national/multi-national profile with local chapters. Some organisations may service a specific social group or cause (such as aged care or native wildlife), while others may support a wider platform (such as Lions, Apex and Rotary). As a consequence, the sector itself is relatively ill-defined.

Further, the diversity that exists among community organisations means that the sector's use of the Internet is also quite broad ranging. The 'success' of a community organisation can be dependent on maintaining a high profile within the community and an active dialogue with their membership base. The Internet can assist in achieving this by providing the sector with a platform to:

- disseminate information among members and clients;
- raise awareness of relevant issues, causes and events;
- engage with members and encourage participation through the use of e-newsletters, forums, message boards, surveys and petitions;

- coordinate organisation-run activities — such as fund raising and events; and
- directly deliver services.

3.8 Internet use in the first release areas

Participants at the focus groups were asked about how they used the Internet for business purposes. This included the extent to which they made use of email and other forms of web-based communication, websites and the Internet to conduct back-office functions.

Stakeholder discussions were supported by an analysis of a sample of small business and community websites drawn from the first release areas. The sample demonstrated the different uses of the Internet across the first release areas and reflects different industries and levels of sophistication. The sample is discussed in greater detail in Appendix C. It should be noted that the purpose of this exercise was not to produce a representative sample, nor indicate the level of complexity that exists in each area.

Examples in the sample demonstrate the in-use website capabilities from a consumer's view point. For instance, they demonstrate whether consumers can purchase goods or make online bookings, and whether the website can be shared through social networking options.

Following below is a discussion of how the small business and community sectors in the first release areas use the internet to:

- interact with potential customers through a website;
- communicate via email and other forms of web-based platforms; and
- conduct other business/organisation functions.

3.8.1 Web presence

While some organisations have a strong web presence, others do not. Having a web presence for some firms is now a necessity of business, while for others it is not integral. Some organisations are notably active on the web — offering a range of services through sophisticated platforms. Others use the Internet only to provide potential customers with basic information. Increasingly, small businesses are adopting the Internet as an integral component of their business activities, and this supported by recent studies and surveys on e-Commerce.

Local aggregators are used in some locations (Townsville, Willunga and Kiama in particular) to collate services available in the area. These aggregators provide small businesses with the necessary scale to develop an online profile and provide small businesses access to a network of local customers. In the absence of local aggregators, nationally based directories also provide customers with a connection to local businesses. Some of these listings include email and website contacts in addition to standard phone numbers and addresses.

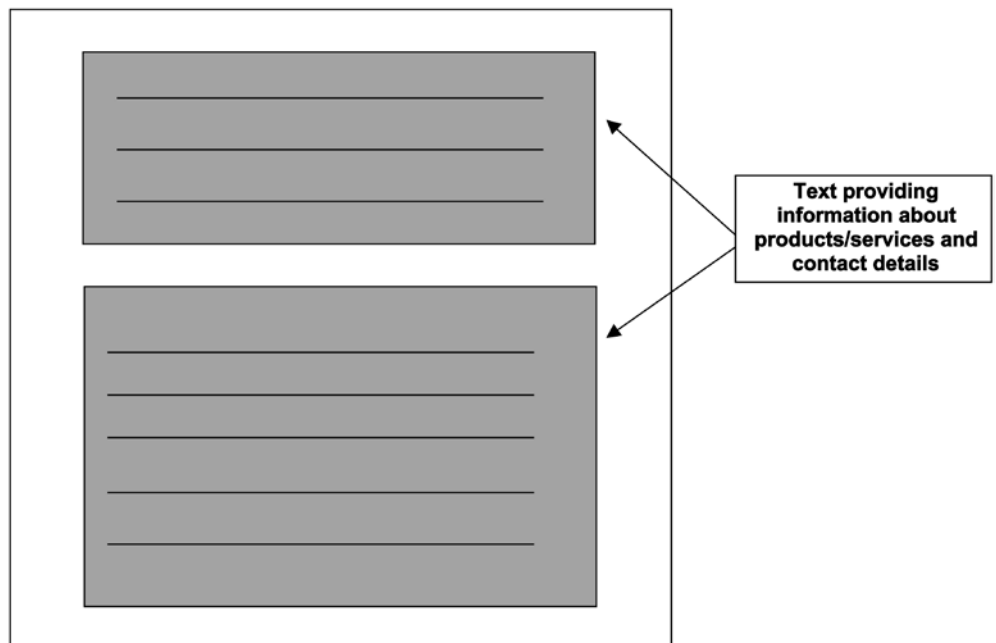
The use of a website is largely a function of industry needs and what clients can be offered in terms of online services. Notably, web presence was generally greater for some industries (such as accommodation, cafes and restaurants) than others (such as construction and manufacturing). This generally reflected what these industries are able to offer in terms of online services.

Generally the websites of small businesses and community organisations can be classified into one of four stylised websites.

The first is a predominately text based website that provides general information about the business/organisation such as contact details, opening hours and the types of products/services available. Websites of this nature are quite static and seem to be updated infrequently. Its purpose is similar to that of a simple advertisement or directory listing. Figure 3.4 depicts the key characteristics of this website.

Figure 3.4

INFORMATION ONLY WEBSITE



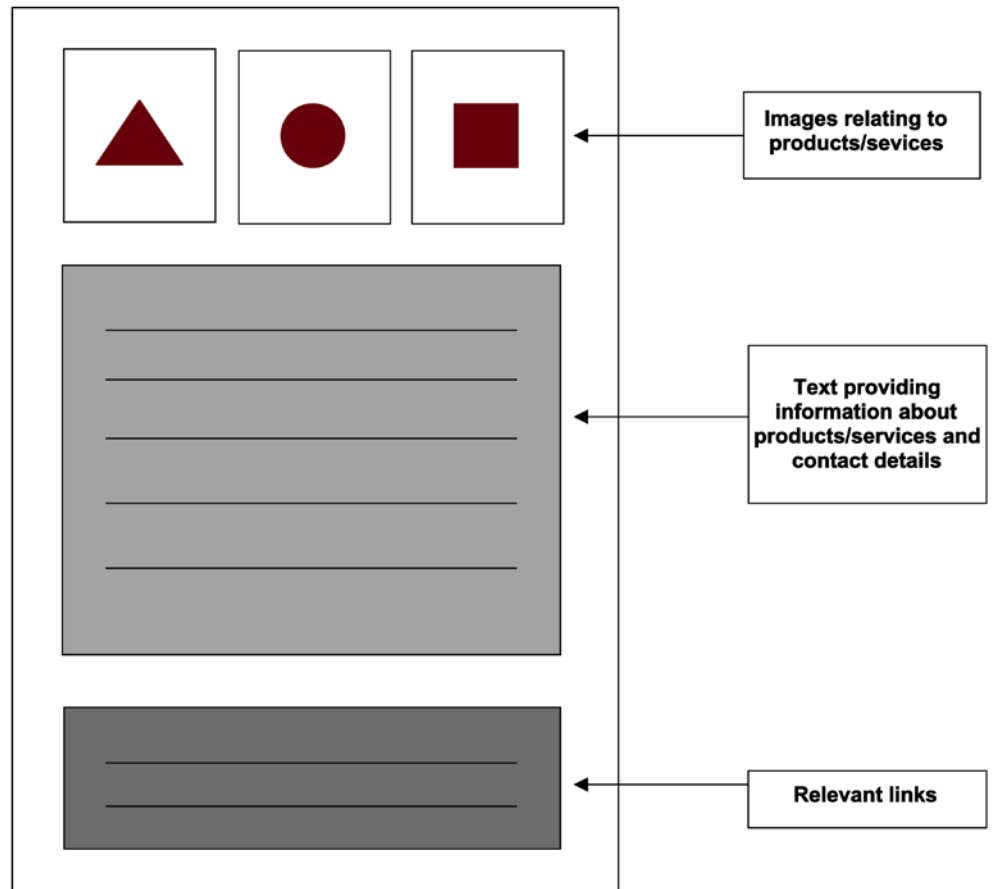
Source: Allen Consulting Group.

The second is still a very basic website, but contains additional features to the 'information only' structure. Additional features may include graphics and links, and potentially Adobe Flash technologies. While websites of this nature have a greater degree of sophistication, they provide little additional interaction for the consumer. The primary function of websites of this nature is still a one-way communication.

Figure 3.5 shows the additional features provided by this website.

Figure 3.5

BASIC WEBSITE



Source: Allen Consulting Group.

The third stylised website is more sophisticated again and provides a means through which customers can interact with the firm/organisation. This can include:

- an online store;
- online booking and reservation systems;
- website memberships and newsletters; and
- links to social networking sites.

Typically however, online stores and booking systems are generally unsophisticated. These services are often form based and simply generate an email to the shop's owner/manager to process manually.

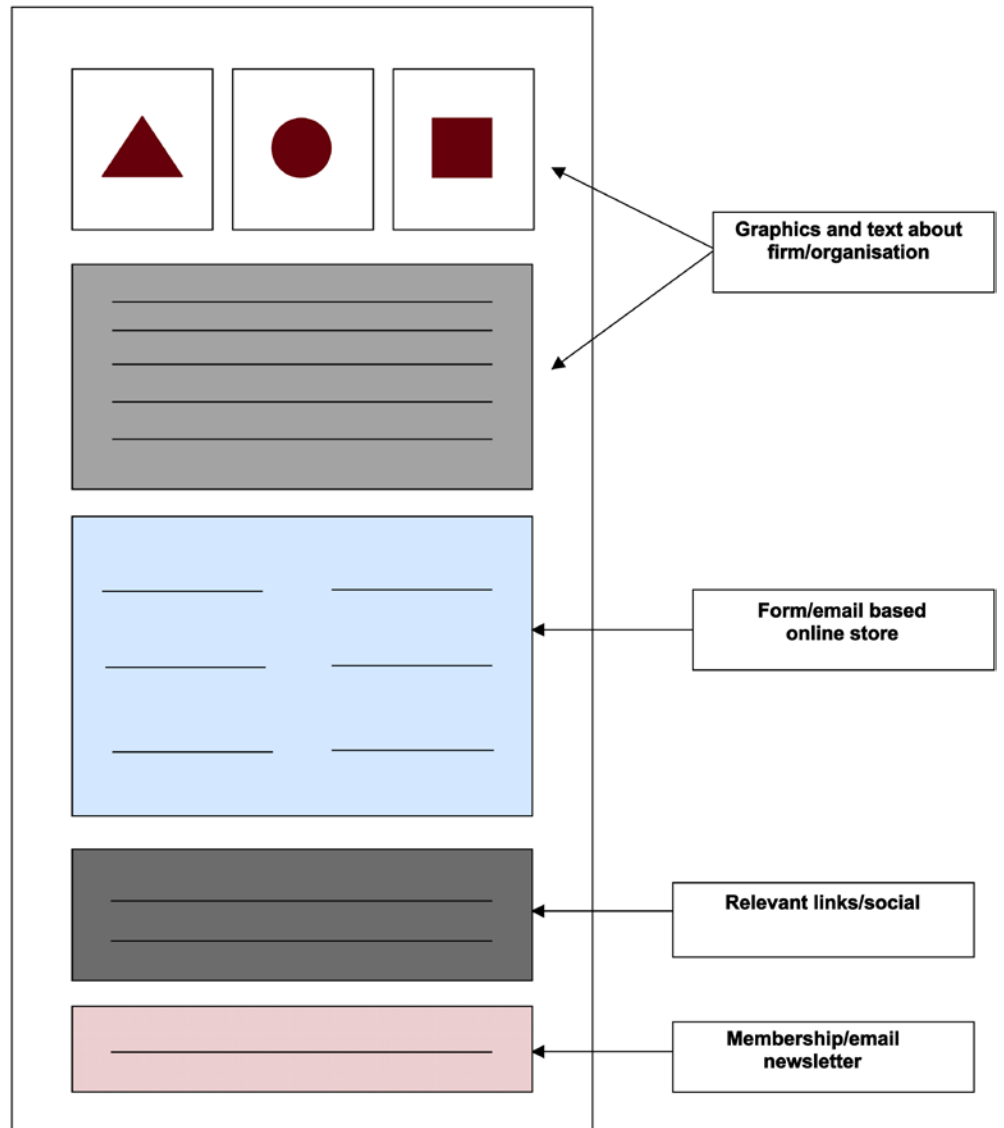
These sites may have an increased use of graphics and multimedia, however the survey of websites in the first release areas showed that this was not always the case.

Websites of this nature are more likely to be updated regularly than the less sophisticated website structures.

Figure 3.6 depicts the characteristics of an 'advanced website' with only a 'basic' online shop.

Figure 3.6

ADVANCED WEBSITE WITH BASIC ONLINE STORE



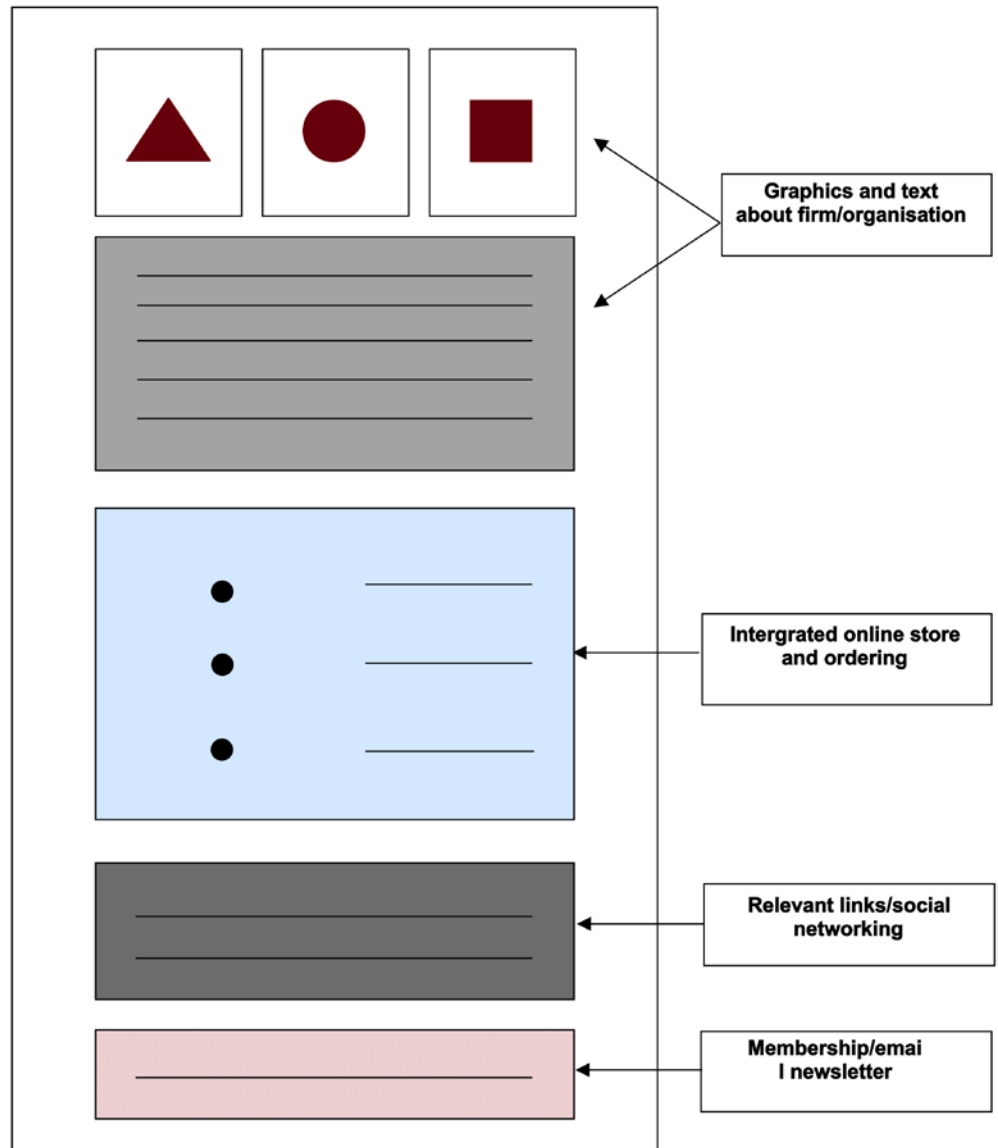
Source: Allen Consulting Group.

The final website structure is similar to the previous, but includes a more sophisticated online store. Online stores and booking/reservation systems on these sites are integrated with internal systems and logistics. They may also include payment facilities such as PayPal and the standard credit/debit options.

Websites of this nature are typically professionally designed and are likely to involve a large degree of graphics and multimedia. Figure 3.7 depicts a stylised website of this nature.

Figure 3.7

ADVANCED WEBSITE WITH ADVANCED SHOP



Source: Allen Consulting Group.

3.8.2 Email and communication

Participants in each of the focus groups emphasised the importance of the Internet for communications. Participants remarked that Internet based communications were used widely to correspond with customers, staff and suppliers.

Email in particular was regarded as ‘critical’ and ‘vital’ to business/organisation operations. Many participants reported using email as their primary means of communication. A participant in Townsville for example commented that email-based customer enquires outnumber all other forms by a magnitude of 3:1. Similarly, a participant in the Armidale focus group pointed out that their ‘business practically ran on Email,’ despite not having (or needing) a web presence.

Several other communication platforms were also in use. Small business participants in Armidale, Kiama and Brunswick made mention of their increasing use of social networking sites such as Facebook and Twitter for business purposes. Additionally, it was noted that small business interest in social networking — external to participants in the focus groups — is also quite strong. A recent small business workshop held in Kiama on social networking for example was considered to be a particularly successful event with a high participation rate.

Community organisations appeared less engaged in online social networking. An organisation in Brunswick for example, tried creating a youth group on Facebook but this was discontinued because there was no staff time available to constantly follow through and monitor the group's activities.

Stakeholders also pointed to VoIP as having a significant impact on business communications. Participants in Townsville and Armidale commented that recent investments in VoIP systems had been a source of significant cost savings — although reliability can be an issue.

Small business participants and some community organisations noted they try to use video conferencing/communication tools, though this is usually challenging due to technical problems. Some stakeholders in Kiama, Willunga and Brunswick reported using tools such as Skype — but generally cost, bandwidth constraints, and technical glitches made the technology too prohibitive for extensive use.

3.8.3 Business/ organisational functions

It was evident from the focus group discussions was the range of business models in use. Examples included:

- micro businesses in the tourism industry;
- local franchises of national chains;
- regionally based, multi-site professional services;
- network based community organisations and training providers;
- emerging retail stores; and
- ICT providers.

Community organisations also took on a variety of different forms.

The business model adopted was an indicator of how that business would use the Internet for business functions. Uses included:

- banking and financial transactions;
- advertising and communicating with customers;
- operating a website;
- information gathering;
- research about competitor offerings;
- office purchasing — such as furniture, stationary and supplies; and
- other functions.

Several small businesses (in Armidale, Kiama and Townsville) also reported using a Virtual Private Network (VPN) to coordinate activities across offices or to enable staff to work from home. One organisation in Kiama offered an example of how a VPN allowed for an employee on maternity leave to stay connected with office affairs.

Several stakeholders also reported using the Internet to directly deliver services. A number of ICT firms were present at focus groups in Townsville and Kiama, and they highlighted how their businesses provided:

- website design and hosting;
- selling space on local aggregators (including vanity names);
- IT support and the construction of VPNs;
- training; and
- cloud server support services.

One small business in Willunga reported that it provides online mentoring using tools like Skype.

The community organisations consulted were notably less likely to operate their own websites — and none used the Internet to provide a service. A few provided opportunities on their website for online donations with varied results.

3.8.4 Difficulties getting online

Participants were asked what the difficulties were in developing their Internet capabilities. A selection of their responses follows below.

- **Cost** — For some small businesses and most community organisations, the costs of developing further Internet capabilities were considered too prohibitive. Stakeholders commented that high costs relating to Internet services restricted their bandwidth allocation and website development (especially community organisations). Notably, some small businesses also reported using residential/consumer Internet plans — which they acknowledged might be inappropriate for business use.
- **Time poor** — Participants commented that small businesses and community organisations are inherently time poor. Creating and operating a website and developing an understanding of Internet services requires significant amounts of time that participants do not have.
- **Information/knowledge** — A number of participants noted that, bar a few exceptions, the level of knowledge in the community about online business services was quite low. Some Internet savvy operators have invested in web systems, however the sentiment of many participants reflected the notion that ‘small businesses are in the business of small business, not web design.’

Age was mentioned by stakeholders at the focus groups in Kiama, Townsville, and Willunga as a factor likely to be related to a lesser understanding of web capabilities.

- **Trust** — Stakeholders commented that they found it difficult to identify external operators to assist in the development of Internet capabilities. Participants commented that their lack of understanding and familiarity left them feeling vulnerable to gouging.
- **Insufficient speeds and reliability** — Particularly in the more regional centres, stakeholders identified current speeds and reliability as a major impediment to further VPN and VoIP capabilities. An engineering firm in Townsville, commented that current speeds prohibited the ability to share large files (such as three dimensional plans) with clients. Participants in Willunga also complained about slow Internet service.
- **Confidentiality/privacy concerns** — One stakeholder in the health and social services sector commented that regulation regarding privacy, restricted the use of the Internet as a means to disseminate and collate information.
- **Hardware and software availability** — A few community organisations cautioned that they lack appropriate or latest computer technology to take advantage of the potentials of Internet use.

Some small businesses recognised that a website was not particularly necessary or relevant to the kind of work they were involved in. For example, tradesman and construction workers were unlikely to obtain leads from the web, and therefore it was considered that a website was unlikely to be very effective. Many micro-business in the tourism sector do not operate a website either.

Chapter 4

Opportunities provided by high-speed broadband

By and large, focus group participants were generally quite interested about what the NBN would be able to deliver. However, it was apparent that there exists a clear information gap among many stakeholders regarding the NBN, its technical aspects, and the network set-up work currently underway in their area. Participants were uncertain about what products and services will be provided to them, and how much those services would cost. Many participants are in the process of resolving the distinction between the NBN's wholesale aspect and the third-party retail services.

Following below is an overview of the discussions held in each of the first release areas as they relate to:

- opportunities to improve interactions with customers and service recipients;
- the potential to develop new products, services and markets; and
- impacts on business functions and personnel.

4.9 Opportunities to improve interactions with customers and service recipients

When asked about how the NBN might impact on how participants interact with their customers/service recipients, participants:

- recognised the importance of Internet and Email communications in advertising, marketing and communicating, including the potential of the NBN to improve a business' ability to promote itself online;
- recognised the potential of the Internet to create 'communities', which is an important aspect of a community organisation's work;
- were relatively unsure or unaware of how high-speed broadband Internet could specifically benefit their business/organisation.

Stakeholders in Brunswick and Willunga discussed how they envisaged the ability to sell/market their products online with a greater use of graphics, high-definition video and other multi-media.

Community organisations in Willunga highlighted the potential for tools that enhance person-to-person visual communication (i.e. Skype) to bring groups and individuals together. For these organisations creating and facilitating communication between online groups is a potential future way of interaction.

Participants in Armidale and Townsville highlighted the role of profiling for television ads as a new way to market products. Television streamed through the Internet would have capability to identify the specific characteristics of the viewer (based on browsing and viewing habits) and tailor ads directly for that audience.

Townsville and Brunswick participants also discussed the use of Point of View (POV) video technology to enhance the online shopping experience. POV video streams of physical shopfronts and products (such as real estate) would allow for a more realistic consumer experience.

In Willunga, a participant noted that they were developing an iPhone application that would help promote tourism destinations and accommodation in the region.

4.10 Potential for new products, services and markets

Participants from small businesses typically agreed that high-speed broadband offered great potential to develop new products and services as well as access new markets. Participants from the community sector however, were notably less likely to envision how high speed Internet can assist them in offering their services — with health-related organisations being the exception.

Some of the potential new products mentioned at the focus groups include the following.

- **Intermediary services to e-Health and e-Education** — The NBN is likely to have a significant impact on how education and health services are delivered. Several ICT firms and health-related community organisations participating in the discussions identified these sectors as growth markets, identifying new opportunities to provide intermediary and ancillary services.
- **e-Law and E-professions** — An example was offered at the Armidale focus groups of a Sydney based law firm with clients in regional Australia. The cost involved in an onsite visit may make the costs of the service too prohibitive, so in response to this, the firm sends a paralegal with laptop with 3G-wireless Internet capabilities for back-to-base videoconferencing. This could be extended to other professions.
- **e-Trades** — Two examples were offered regarding how trade services may be able to be improved as a consequence of high-speed broadband.
 - The first being that while onsite, a tradesman will be able to quickly download the plans or schematics of a particular part or model.
 - The second is that customers will be able to provide a high definition video stream to a tradesman or service centre in order to obtain price quotes and help ensure the tradesman is appropriately equipped before arriving on site.
- **Monitoring of crops and paddocks** — An example was offered of an Armidale company that provides monitoring services of farms/crops in India. Data is streamed back to Armidale (using the University of New England's network) where the data is analysed and actions taken where appropriate. Services such as this are not geographically dependant and can be based wherever there exists the required expertise.
- **Sensory technologies** — The capacity of sensory technology in vending machines that link onsite stock with the ordering process is already developing. Stakeholders considered the potential for this technology to develop further with the NBN — and increased Internet penetration generally — to be considerable.

- **Web café** — Many businesses offer the Internet as an ancillary service, such as in cafes or hotels. Stakeholders noted that the improved Internet quality made available through the NBN will encourage greater provision of these services in order to attract more customers.
- **Onsite services** — The pervasiveness of the Internet will allow for more efficient services to be delivered on site. A building inspector for example will be able to attend a building site and enter data directly into a database, as well as access schematics, plans and regulations.
- **Training** — As the significance of the Internet for business grows, it will be necessary to ensure businesses have the requisite skills to navigate around the Internet and access its potential. The teaching of these skills to business will be an opportunity, especially in the early take-up years.

Additionally, training firms will be able to provide improved remote training services. While this already occurs within the confines of current broadband bandwidth, it is generally restricted to a 1:1 setting. The NBN will allow for this to increase to a 1:10 or beyond.

- **Volunteering** — Community organisations consulted (particularly in Willunga) highlighted the significance of receiving assistance with technology and Internet use from community volunteers. They suggested opportunities for younger community members and schools to volunteer time and help community organisations or the elderly to build computer/Internet usage skills.

Some of the focus groups also pointed to regional opportunities. For example, Townsville is a regional hub that services ‘dirty industries’. Participants highlighted the opportunities to establish clean, offsite IT services capable of handling and processing large amounts of data to mining and resource operations in regional Queensland. Similarly, Armidale participants also discussed the ability of the New England region to establish itself as a hive for information technology and information services.

Stakeholders in Townsville made the point that the NBN should be considered as a means of transportation, rather than as the destination. The NBN itself will not provide the content, but rather a means through which that content would be disseminated. This echoed points made in Armidale and Brunswick about the NBN not providing innovation. Rather, high-speed broadband would help innovation foster, but ultimately it was for the small businesses themselves to use the technology in new and creative ways.

4.11 Impact on business operations and personnel

The NBN will also have implications for how businesses/community organisations function and how they deal with staff and volunteers.

4.11.1 Business / organisational functions

Stakeholders identified a number of ways in which they expected the NBN to impact on their day-to-day business and organisational activities. Some examples include:

- the ability to transfer large files, either between offices or to clients and service recipients:

- An engineering firm in Townville noted 3D plans that can be multiple gigabytes. In order to view these files, clients/colleagues were required to travel to their physical offices.
 - A community organisation in Kiama commented that in putting together a brochure, image files could only be emailed within a certain capacity constraint — which they considered a highly inefficient process.
- accountants and other professionals could obtain direct access to client files;
 - monitoring of staff and logistical movements through GPS technology;
 - onsite data uploading (such as with building inspectors); and
 - opportunities for cloud computing (see Box 4.1).

Box 4.4

CLLOUD COMPUTING

Cloud computing is Internet-based computing, whereby shared resources, software, and information are provided to computers and other devices on demand. It describes a new consumption and delivery model for IT services based on the Internet, and it typically involves over-the-Internet provision virtualised resources.

For business cloud computing has the potential to deliver significant benefits in terms of operating costs, flexibility, IT support and functionality. It has the potential to be the major source of benefits to small businesses and community organisations facilitated by the NBN.

Awareness of cloud computing was mixed among the participants. Unsurprisingly, representatives of the ICT sector were well across the issues and the potential that it offered.

Business associations were generally aware of cloud computing however their understanding was limited. With a few exceptions, the focus group discussions provided small businesses and community organisations with their first introduction to the concept.

The major benefits of cloud computing raised across the focus groups include the following.

- Cloud computing has the potential to significantly reduce an organisation's capital expenditure by removing the need for onsite server infrastructure. In place of this outlay, an organisation would attract a small license fee that would relate to the firm's scale (in terms of personnel) and required applications.
- Cloud computing has the potential to decrease the demand for organisation specific IT support. IT support could be conducted offsite by 'account managers.'
- Systems could be updated and replicated as needed without requiring an investment in additional software.
- Organisations would enjoy a high degree of flexibility, and start-up firms would not be impeded by IT requirements.

Notably, concerns were raised about security by some participants, however ICT representatives were generally dismissive of such concerns.

Source: Allen Consulting Group.

The ability for the NBN to provide a reliable connection was also viewed as a significant positive. The comment was made that an Internet connection is like the supply of electricity — an outage at the wrong moment can be detrimental to a firm's ability to generate revenues, and often supply reliability is more important than cost.

An organisation in the health service industry cautioned that their ability to take advantage of technologies and increased speed will rely on reduced red tape and regulations around document creation and exchange. Otherwise, they will still follow the same slow process as now.

On the whole however, the impact of the NBN on business and organisational functions was not top of mind among the majority of focus group participants.

4.11.2 Business operations

High-speed broadband has the potential to impact on business operations as well. Participants in Townsville remarked that already there were examples of businesses moving their operations to regional centres, while maintaining only a minor presence in the major cities. This allowed firms to take advantage of cheaper operation costs and workers to take advantage of work-life balance.

In a similar vein, participants in the Kiama focus group noted that the community tended to 'think North.' By this they meant that many professionals lived in the area but worked in the major centres of Wollongong and Sydney. This means that much of the potential commerce is conducted out of the region. It was hoped that the flexibility high-speed broadband could provide would allow workers to stay and work in the area, generating jobs and activity locally. Participants remarked that this could promote regional sustainability and overcome the region's unemployment problems.

Participants representing the ICT sector explained how ICT services will soon switch to subscription-based products. The move to cloud computing, which will reduce the capital constraints on small business, will provide IT companies with a greater market to service.

For some participants the availability of reliable and fast wireless connection was more important than home connections. Such a service will have a significant impact on how they operate and interact with remote employees.

4.11.3 Tele-working

Although many small business owners already work from home and don't employ staff, the ability to work remotely was raised by some businesses as a positive impact of the NBN. With a high speed Internet connection, business staff will have more opportunities to work from home and engage with colleagues via video conferencing, desktop sharing and through VPNs.

For most community organisations and certain industries tele-working does not fit well with the nature of their services and work, so there are less opportunities for them to engage in such activities.

Questions were raised about the effectiveness of such environments, with some stakeholders noting that to an extent the technology exists to do this now.

However, it was recognised that if videoconferencing and online collaboration technologies were to improve in their effectiveness as the NBN is rolled out, then their uptake would likely increase. A number of stakeholders (in Kiama, Willunga, Brunswick and Armidale) noted that they would be making more use of videoconferencing — but they perceived the costs of the service as being too prohibitive.

Small business participants pointed out that both firms and customers would benefit from improved videoconferencing capabilities.

- Finding capable staff was raised as a key challenge by small businesses participants in each focus group — and the ability to telecommute was regarded as a means in which this could be overcome.
- Consumers would benefit from cost savings associated with reduced travel (such as e-Law).
- ‘Tele-cottages’ could be established to promote community consultations, particularly in regional centres.

One participant in Armidale estimated that the ability to videoconference with colleagues and staff would save ‘up to a day each week.’

4.11.4 Training

In addition to the opportunities presented by e-Education to provide ancillary services, participants also commented that e-Education would have a positive impact on their businesses. Through the NBN, training can be delivered with greater flexibility and specificity, without being geographically dependent. Stakeholders highlighted the positive impact Internet based courses were already having on completion rates, a trend that would continue with improved Internet capacity. Moreover, participants viewed online education platforms as a means of keeping students more engaged in their studies and for fostering the creation of networks of apprenticeships and trainees.

E-portfolios that utilised high definition POV video were raised in Armidale and Townsville. E-portfolios would allow a prospective employee to demonstrate their skills and capabilities to employers — with applications to the trades, the automotive industry, hospitality, hairdressing and other industries.

4.11.5 Competition

Participants were asked about how they might expect the level of competition to be affected by the NBN. On the one hand, it was suggested that the NBN would provide local small businesses with greater access to national and international markets. On the other hand however, national and international markets would also have greater access to local markets.

Generally it was difficult for participants to visualise greater competition in an NBN environment. Participants in Willunga for example, considered the NBN ‘more of an opportunity than a threat.’

That said, a comment was made that Internet capacity and capabilities had to increase in Australia in order to remain competitive with overseas competitors where high-speed networks were being rolled out.

A participant in Townsville remarked that businesses in major centres had an advantage over small businesses in that they were also transport hubs. The NBN, it was argued might allow regional shopfronts to operate with logistics and warehousing based in the cities.

In Armidale, a participant made the point that the NBN would serve as a source of competition for Telstra, and that this would lead to positive outcomes for businesses in the area.

Chapter 5

Barriers to realising the NBN's potential

Participants in the focus groups also identified a number of challenges that would need to be overcome in order for them to realise NBN's opportunities. These challenges largely related to:

- issues relating to cost and time;
- information gaps;
- concerns of a technical nature; and
- behavioural issues.

This chapter outlines the potential barriers to realising the advantages of the NBN, *as perceived by* stakeholders attending the focus groups.

5.12 Cost and time

The costs and time associated with services resulting from the NBN and developing Internet capabilities was the challenge that was top of mind for most participants in the focus groups.

Participants commented that the costs involved and time required in web design, server maintenance and infrastructure, IT systems and support are already prohibitively high for many — and were costs to increase under the NBN, then they would definitely not invest in further Internet capabilities. This was true for both small businesses and community organisations.

The host of a business aggregator in Kiama remarked that they were aware of many businesses that did not have a website because of the cost factor.

Small business participants commented that their margins were already facing increasing pressures. Community organisations also commented that they were particularly vulnerable to rising costs.

5.13 Information gaps

Participants at every focus group raised concerns about the lack of information they had obtained about the NBN, its rollout and what it would mean for their particular circumstances. This included small businesses and community organisations as well as representatives of the ICT sector.

Several information gaps were identified including:

- technical matters — relating to capacity, speeds and upload/download split;
- timing issues — such as when Stage 2 of the rollout would commence;
- cost — including upfront expenditures, connection costs and ongoing access fees;

- the NBN and business — there was a perception that the NBN rollout had so far focussed on households;
- the role of NBN Co;
- where/how residences would be connected;
- the services that could be delivered on the NBN;
- what changes would need to be made in terms of users' hardware; and
- other concerns.

Participants in all focus groups remarked that the local businesses and community organisations were eager to learn about the potential of high-speed broadband.

Local information sessions hosted in a few of these areas had been a great success attracting a high level of attendance. In Kiama, courses were currently being run to improve Internet capabilities among seniors; and in Townsville, an upcoming Small Business Expo would feature the NBN and online trading in a significant way.

5.14 Technical issues

Concerns were raised about technical aspects of the NBN.

Some of the technical challenges identified included the following.

- **Outdated end user hardware** — Participants were concerned that the NBN would only be as good as the lowest common denominator. That is, if end user hardware lacked the capability to handle the content delivered, then producing that content would be a wasted exercise. Notably, ICT firms at the Townsville focus group did not consider this to be a significant issue.
- **Asymmetric upload and download capacity** — Information participants had obtained regarding the upload/download speeds were that it was likely to be asymmetrical. This would mean that the bandwidth allocated for downloads would exceed that for uploads by several magnitudes. This split was considered appropriate for households, but inappropriate for business. For business to obtain the most value of the NBN — through videoconferencing, VPNs and online collaboration — this will require a symmetric upload/download bandwidth allocation.
- **Wireless speeds will need to match the NBN** — Participants commented that much of what was exciting them involved onsite service delivery and data entry. Wireless speeds would need to match those of the NBN for these services to be effective, and not just in remote areas.
- **International bandwidth** — Concerns were raised about the capacity of international Internet links. Some participants believed that if the international linkages were unable to match that of the NBN, then the effectiveness of the services would be limited.
- **Uniform platforms** — Concerns were raised that the network would require uniform platforms through which business could interact with customers and suppliers.

5.15 Behavioural issues

Although many of the participants attending the focus groups were quite engaged in the issue, they recognised that there were many other businesses and community organisations who were not.

Moving many of these businesses into an online community may be challenging.

- First, some industries are very traditional in their work practices, and as such will naturally resist change to how they conduct their activities.
- Second, there was a sentiment in the business community that the NBN is still 'a bit far off yet' and as a result small business is not gearing up for the changes it will bring.
- Third, businesses and community organisations may lack the skills and understanding required to introduce a greater web presence to their business.
- Fourth, it was considered difficult for participants to conceptualise the products and practices without experiencing them. The point was made at a number of focus groups that it would be the content that would drive take-up, and take-up would likely be slow until this content were available.

Community organisations were also concerned that a proportion of their service recipients (mostly older community members) were less likely to adopt and be accessible through the Internet.

Chapter 6

Summary of key findings

This chapter summarises the findings that emerged from the focus groups. Overall, participants were generally positive and enthusiastic about the opportunities presented by the NBN — but also recognised that there existed a number of barriers that might present these benefits from being realised.

6.16 Opportunities presented by the NBN

Participants in the focus groups were generally quite interested about what the NBN would be able to deliver and positive about the opportunities it presented.

In particular, participants identified opportunities regarding how the NBN might improve how they interacted with their customers/service recipients. Examples of how the NBN might improve customer interactions include the following.

- The ability to sell/market their products online with a greater use of graphics, high-definition video and other multi-media.
- The potential for tools that enhance person-to-person visual communication to bring groups and individuals together.
- Profiling for television ads based on specific characteristics of the viewer's own browsing and viewing habits as a new way to market products.
- The use of Point of View (POV) video technology to enhance the online shopping experiences.
- The development of smart phone-like applications and products.

Participants from small businesses typically agreed that high-speed broadband offered great potential to develop new products and services as well as access new markets. Participants from the community sector however, were notably less likely to envision how high speed Internet can assist them in offering their services — with health-related organisations being the exception. Some of the potential new products mentioned at the focus groups are listed in Table 6.1.

Table 6.3

POTENTIAL NEW PRODUCTS/MARKETS FACILITATED BY THE NBN

Product	Example
Intermediary services to e-Health and e-Education	Several ICT firms and health-related community organisations identified new opportunities to provide intermediary and ancillary services to e-Health and E-Education sectors
e-Law and E-professions	Videoconferencing can reduce the costs involved in delivering professional services to regional customers
e-Trades	Tradesman will be able to deliver improved services by quickly downloading the plans or schematics of a particular part or model Customers will be able to provide a high definition video stream to a tradesman or service centre in order to obtain price quotes and help ensure the tradesman is appropriately equipped before arriving on site
Monitoring of crops and paddocks	Data can be streamed back to base, analysed and actions taken where appropriate
Web café	Many businesses offer the Internet as an ancillary service, such as in cafes or hotels, as the improved Internet quality made available through the NBN will encourage greater provision of these services in order to attract more customers
Onsite services	More efficient services to be delivered on site, for example a building inspector will be able to attend a building site and enter data directly into a database, as well as access schematics, plans and regulations
Training	As the significance of the Internet for business grows, it will be necessary to ensure businesses have the requisite skills to navigate around the Internet and access its potential — the teaching of these skills to business will be an opportunity, especially in the early take-up years
Volunteering	Community organisations consulted (particularly in Willunga) highlighted the significance of receiving assistance with technology and Internet use from community volunteers.

Source: Allen Consulting Group.

Stakeholders also made the point that the NBN should be considered as a means of transportation, rather than as the destination. The NBN itself will not provide the content, but rather a means through which that content would be disseminated. High-speed broadband will help foster innovation, but ultimately it will be up to the small businesses themselves to use the technology in new and creative ways.

The NBN will also have implications for how businesses/community organisations function and how they deal with staff and volunteers. Some examples are considered below.

- **Business / organisational functions** — Stakeholders identified a number of ways in which they expected the NBN to impact on their day-to-day business and organisational activities, such as:
 - the ability to transfer large files;
 - accountants and other professionals could obtain direct access to client files;
 - monitoring of staff and logistical movements through GPS technology;

- onsite data uploading; and
- opportunities for cloud computing.
- **Business operations** — Participants remarked that high-speed broadband would allow for businesses to move their operations to regional centres, while maintaining only a corporate presence in the major cities. This allowed firms to take advantage of cheaper operation costs and workers to take advantage of work-life balance. Participants also remarked that this could promote regional sustainability and overcome the regional unemployment problems.
- **Tele-working** — It was recognised that if videoconferencing and online collaboration technologies were to improve in their effectiveness as the NBN is rolled out, then their uptake would likely increase.
- **Training** — Through the NBN, training can be delivered with greater flexibility and specificity, without being geographically dependent. Stakeholders highlighted the positive impact Internet based courses were already having on completion rates, a trend that would continue with improved Internet capacity.

6.17 Barriers to realising the potential of the NBN

Participants in the focus groups identified also a number of challenges that would need to be overcome in order for them to realise NBN's opportunities.

- **Cost and time constraints** — The costs and time associated with services resulting from the NBN and developing Internet capabilities was the challenge that was top of mind for most participants in the focus groups. Small business participants commented that their margins were already facing increasing pressures. Community organisations also commented that they were particularly vulnerable to rising costs.
- **Information gaps** — A clear information gap was present among many stakeholders regarding the NBN, its technical aspects, and the network set-up work currently underway. This includes small businesses and community organisations as well as representatives of the ICT sector.
- **Technical issues** — Concerns were raised about a number of technical aspects of the NBN (such as wireless Internet speeds and international bandwidth capacity).
- **Behavioural issues** — It was recognised that many small businesses and organisations were committed to more traditional industry practices. Some of these businesses/organisations had not embraced current Internet technologies, and were unlikely to be attracted by the capabilities of the NBN. It was considered difficult for participants to conceptualise the products and practices without experiencing them.

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Appendices

Appendix A

Focus groups

To inform the study, representatives of the small business and community sectors were invited to attend a series of focus groups held in each of the first release areas. The purpose of the focus groups was to obtain insights on a range of issues relating to the NBN, the opportunities it presents to these sectors and the potential barriers that may prevent these opportunities from being realised.

This appendix outlines how those focus were organised, who attended them and the nature of the discussions undertaken.

A.1 Methodology

Focus groups were organised with the assistance of leading business/community/local government organisations in each area. Table A.1 lists the schedule of when the focus groups occurred and the organisations that assisted in their formation.

Table A.1

FOCUS GROUPS

First Release Area	Organisation	Date
Armidale	Armidale and Dumaresq Chamber of Commerce	November 29, 2010
Willunga	Willunga Business and Tourism Association	November 29, 2010
Kiama	Kiama Municipal Council	November 30, 2010
Brunswick	Brunswick Business Enterprise Centre	November 30, 2010
Townsville	North Queensland Small Business Development Centre	December 2, 2010

Note: Two focus groups were organised in Willunga and Brunswick, one reflecting the small business sector and the other community groups.
Source: Allen Consulting Group.

Potential participants were approached in the first instance through the membership lists and networks of the organisations listed in the table above ACG also identified a number of stakeholders outside of these networks and many of these were invited to attend the focus groups as well.

Invitations were sent to potential participants that included a series of questions for consideration. These questions would serve as the basis for focus group discussions and are repeated in Box A.1.

Box A.1

FOCUS GROUPS — QUESTIONS FOR CONSIDERATION

Your current Internet experience

- Do you currently use the Internet at your business/organisation? If yes, what do you use the Internet for? If no, why not?
- What are some challenges with using the Internet at your business or organisation?

The NBN and interaction with you customers/service recipients

- How do you currently interact with your customers or service recipients? Are there ways that high speed Internet capacity and technologies delivered by the NBN can improve this interaction for the benefit of your business/organisation?
- Do you see the NBN providing new opportunities for your business or organisation regarding customer sales and/or provision of services? How easy is it for you to take advantage of these opportunities?
- Can you think of any difficulties you might face with interacting with your customers/service recipients in a high speed Internet environment?

The NBN and increasing your customers/service providers

- How do you currently use marketing or advertising for your business/organisation? Do you think you will be doing more or less marketing/advertising with a high speed Internet connection?
- Do you expect the NBN will have any impact on how you compete with other businesses?
- What difficulties might you face in realising the NBN's potential in this respect?

The NBN and business-to-business trade

- How might high speed Internet affect the supply side of your business/organisation?
- How might the NBN affect the logistical and secondary aspects of your business/organisation (such as accounting, human resources and financial planning)?

The NBN and your employees or volunteers

- Do you think the NBN can present new opportunities on how your staff works?

Your business/organisation challenges

- What are some challenges you face as a small business/community organisation in your area?
- Do you think the NBN could help resolve some of these challenges?

Source: Allen Consulting Group.

Invitees were made aware that participation in the focus group would be kept confidential and that the report would not contain any details that would identify them directly. Additionally, representatives from neither the Department nor NBN Co were invited to participate in the focus groups. Both of these measures were taken to encourage an open and honest discussion among participants.

Focus group discussions in each area generally lasted for a between 1.5 and 2 hours. ACG's role in the focus groups was only that of a facilitator.

No incentives (except for light refreshments) were offered to participants for their involvement in the study.

A.2 Participation

The focus groups were limited in size to between 5 and 15 stakeholders. A focus group of this size would allow for a workable discussion in which all stakeholders could make a contribution — while still ensuring a reasonable cross section of industry and business views would be represented.

Participants were targeted to ensure the focus groups reflected differences in terms of:

- industry (including the community sector);
- scale;
- sophistication;
- web presence and existing Internet use;
- regional significance; and
- other issues.

Each focus group represented a reasonable cross section of the activities conducted within the respective areas. Notably, the differences between the areas generally (in terms of business activities) were reflected to a degree by who attended the focus groups.

The smallest focus group was held in Armidale and the largest in Townsville. The difference in the size of the focus groups was not intentional. Instead this reflected the degree to which communities were available to attend the focus group, how it was promoted and the level of interest by the local business groups. Table A.2 lists the attendance at each focus group.

Local business associations were encouraged to attend and speak on behalf of their members' interests as well.

Table A.2

FOCUS GROUP PARTICIPATION

First Release Area	Attendees	Represented industries
Armidale	5 participants	Business associations ICT Health and social services Community sector
Willunga	12 participants	Business associations Retail ICT Professional services Tourism Community sector
Kiama	7 participants	Business associations Local council Retail ICT Professional services Tourism Community sector
Brunswick	15 participants	Business association Professional services Manufacturing Education Retail Local council Community sector
Townsville	19 participants	Business association Representatives of the Queensland State Government ICT Retail Health and social services Community sector

Note: Two focus groups were organised in Willunga and Brunswick, one reflecting the small business sector and the other community groups.

Source: Allen Consulting Group.

Appendix B

Counting small businesses and community organisations in first release areas

B.3 Counting small businesses

The nature of economic activities in each first release area is quite distinct. Activity in Willunga for example, is predominately related to agriculture and tourism. In Townsville, activity is strongly affected by the Port and military activities, while Armidale has a large education sector.

As a consequence of these differences, the impact of the NBN on the small business sector is also likely to be distinct. It is important therefore to have an understanding of both the nature and scale of the sector in each of the areas.

Obtaining a count of small businesses in each of the areas however, does present some challenges. At a conceptual level, it is difficult to define precisely what constitutes a business. Some businesses, for example, may not be registered (such as some farms). Others may have multiple trading names. Sole traders (such as contract workers) do not have any employees, however they may align themselves within a group of other sole traders, which act like a business. Also, some businesses may be registered in a place different to where they operate.

Data on firm numbers are available from the ABS, but this is not available at a regional level.

At a regional level, the best available data on the number of small businesses is provided in the 2006 Census. The Census reports the number of owner managers of incorporated and unincorporated enterprises by the firm size. Moreover, the Census reports the number of owner managers of firms with 20 or less employees, by place of activity by industry. While this is not a perfect measure, this data provides a reasonable proxy for the number of small businesses in each area and is indicative of the activities undertaken.

Data has been obtained from the Census relating to:

- agriculture, forestry and fishing;
- manufacturing;
- construction;
- retail and wholesale;
- accommodation and food services;
- health care and social services;
- professional/business services;
- transport, postal and warehousing; and
- other.

Additionally, data is not available that corresponds directly to the first release areas — but it is available at a local level. The data used to inform the analysis is in Table B.1.

Table B.3

ABS CENSUS DATA — CORRESPONDING REGIONS

First Release Area	ABS Geographical Classification
Brunswick	Brunswick Statistical Local Area
Townsville	Townsville Statistical Subdivision
Minnamurra and Kiama Downs	Kiama Local Government Area
Armidale	Armidale Dumaresq Local Government Area
Willunga	Onkaparinga Local Government Area

Source: Allen Consulting Group and ABS Census.

Notably, a draw back of this data is its age. To support and validate the 2006 Census data, a search of small businesses in the online edition of the Yellow Pages has been conducted for each of the first release areas. Importantly, the survey does not, nor is it intended to, provide a holistic count of small businesses in first release areas. Rather it has been conducted as a ‘check’ on the relevance of the Census data.

Key word searches were undertaken for each industry group. For example, when searching for small business under the category ‘accommodation and food services’, a search was conducted on the words ‘accommodation,’ ‘cafes’ and ‘restaurants’, and the number of businesses identified was subsequently recorded. Table B.2 provides in detail the types of searches conducted for each category.

Table B.4

YELLOW PAGES SURVEY

Category	Searches
Agriculture, forestry and fishing	n/a
Manufacturing	Frozen foods, jewellers, belting, aluminium, health food and products, pumps, confectionary, plastic bags
Construction	Building contractors, computer equipment (installation), septic tank (installation), telephones and systems (installation), TV services (installation), air conditioning (installation), electrical contractors, swimming pool construction
Retail and wholesale	Supermarkets, clothing, shopping and sports centres, wholesalers, bookstores, butchers, furniture, computer equipment, carpet and carpet tiles
Accommodation and food services	Accommodation, restaurants, cafes
Health care and social services	Clinics, child care centres, chiropractor, rehabilitation services, counselling
Professional/business services	Accountants and auditors, solicitors, advertising, architects, consultants, computers (technical support)
Transport, postal and warehousing	Bus and coach services, courier services, warehousing, carriers
Other	Barbers, beauty salons, car and truck cleaning services, carpet and furniture cleaning and protection, adult entertainment and services, motor engineers and repairers, clothing alterations and mending

Source: Allen Consulting Group.

No searches were undertaken for the agriculture, forestry and fishing sector. This is because of difficulties devising appropriate key-word searches for this sector. A search for ‘farms’ for example, yields little or no results, despite many farms operating in the first release areas.

Businesses identified as servicing the first release areas were excluded from the survey. The data may however, include businesses from surrounding areas that could not easily be separated from the survey results.

Finally, some businesses picked up in the survey may not fit the strict definition of a small business. While this is unavoidable, the fact remains that most businesses are by indeed small, and the error is likely to be minor. Additionally, the inclusion of medium and large businesses still provides an indication of the type of economic activity being undertaken in the area.

Counting community organisations

The ‘looseness’ of the community sector means that obtaining a robust count of community organisations is difficult to achieve. Community organisations are not subject to the same requirements as businesses (in terms of registration) and often do not feature in the usual databases (such as the ABS). Resource constraints may limit some organisations to advertise or list their activities in the way businesses do as well.

Consequently, information about the presence and activities of community organisations has been necessarily sourced from local and regional information providers. This includes tourism information sites, community aggregators and other such sites.

B.4 A stocktake of small businesses and community organisations in first release areas

The sections below provide an overview of the small business and community sectors in each of the first release areas.

Brunswick

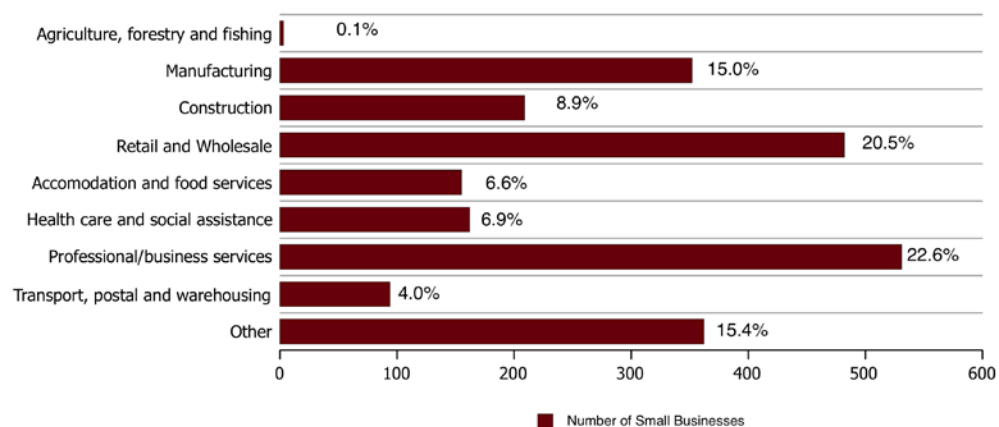
Brunswick is a suburb of the city of Moreland and forms part of Greater Melbourne. It has a population of nearly 21,000. Unlike the other areas considered, Brunswick is an urban centre surrounded by adjoining urban areas. Many of the firms in Brunswick service the surrounding area and likewise, many firms surrounding it service Brunswick.

Small business in Brunswick

Census data for the Brunswick statistical local area (SLA) identified approximately 2,350 small businesses in the area with the predominant industries being professional/business services and retail and wholesale trade. Compared to other regions, the manufacturing sector in Brunswick is also relatively large. The region has limited small businesses in the agricultural, forestry and fishing industry. Figure B.1 presents the distribution of businesses in detail.

Figure B.1

SMALL BUSINESSES IN BRUNSWICK



Note: includes owner managers of incorporated and unincorporated businesses with less than 20 employees.

Source: 2006 Census data and Allen Consulting Group.

Table B.3 presents the results of the Yellow Pages survey on Brunswick. At a high level, the Census data appears to be still quite relevant. The data suggests that the dominant sectors in Brunswick include ‘professional/business services’ and ‘retail and wholesale’. The category showing the greatest difference is the professional/business services sector, which may in fact reflect the difficulties involved in the conducting the survey than a change in the sector.

Table B.5

YELLOW PAGES SURVEY RESULTS — BRUNSWICK

Category	Count of Yellow Pages entries
Agriculture, forestry and fishing	n/a
Manufacturing	119
Construction	115
Retail and wholesale	98
Accommodation and food services	83
Health care and social services	139
Professional/business services	75
Transport, postal and warehousing	7
Other	113

Source: Yellow Pages and Allen Consulting Group.

Community organisations in Brunswick

As with small businesses, the community sector in Brunswick is unique (amongst the first release areas) because of its proximity to other urban centres. Many community organisations based in Brunswick provide services to the surrounding areas, and likewise, organisations based in surrounding areas also service the Brunswick community.

A website that specifically lists community organisations by location,¹ reports 44 ‘community groups’ operating out of Brunswick. Accounting for erroneous entries (such as schools) this count is reduced to around 21 organisations.

Included in this list are local chapters of the St Vincent de Paul Society, the Salvation Army and the Ex Serviceman’s Club, as well as a number of churches. The remaining groups reflect a diverse cross section of interests including:

- health (including mental health) and disability (5);
- parenting (4);
- industry; and
- social.

Townsville

A key service centre for North Queensland, Townsville has a population of approximately 185,000. It is the largest of the first release areas. Much of Townsville’s industry is driven by the city’s strategic location on the coast, and its road and rail links to the north, south and west. Additionally, its proximity to the Great Barrier Reef also makes it a popular tourist destination.

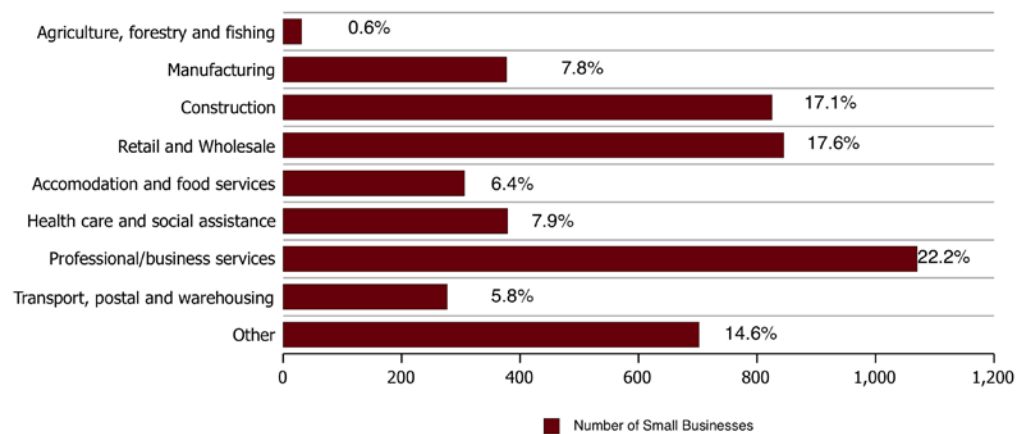
¹ <http://www.communityguide.com.au/suburb.cfm?brunswick-3056/cat/communitygroups/list/1/1/3/>

Small business in Townsville

The Census identified over 4,800 owner managers in the Townsville statistical subdivision (SSD).² As with Brunswick, most small businesses belonged to either the professional/business services or retail and wholesale trade industries. The construction small business sector accounts for a large proportion of Townsville small business as well. The agriculture, forestry and fishing category had the least number of small businesses in the region. Figure B.2 presents the distribution of businesses in detail.

Figure B.2

SMALL BUSINESSES IN TOWNSVILLE



Note: includes owner managers of incorporated and unincorporated businesses with less than 20 employees.

Source: 2006 Census data and Allen Consulting Group.

The results of the Yellow Pages survey are reported in Table B.4. Compared to the Census data, the survey suggests a notable increase in both the accommodation and food services sector and business services. This may be indicative of the development Townsville, and Queensland more generally, has experienced in recent years.

² Townsville City Part A.

Table B.6

YELLOW PAGES SURVEY RESULTS — TOWNSVILLE

Category	Count of Yellow Pages entries
Agriculture, forestry and fishing	n/a
Manufacturing	15
Construction	73
Retail and wholesale	111
Accommodation and food services	133
Health care and social services	115
Professional/business services	252
Transport, postal and warehousing	20
Other	86

Source: Yellow Pages and Allen Consulting Group.

Community organisations in Townsville

A search of the listings on the Townsville ‘Local Find Directory’ for clubs and community groups identified a number of active groups in the area. The overwhelming majority of these related to sport and recreation — 71 of an total of 102 organisations. Lions, Apex and St John’s Ambulance all had a strong local presence as well.

The organisations identified included:

- sport and recreation (71);
- social (10);
- civic (7);
- art and cultural (5);
- animal and pet (4);
- hobbies (3); and
- health care (2).

Kiama

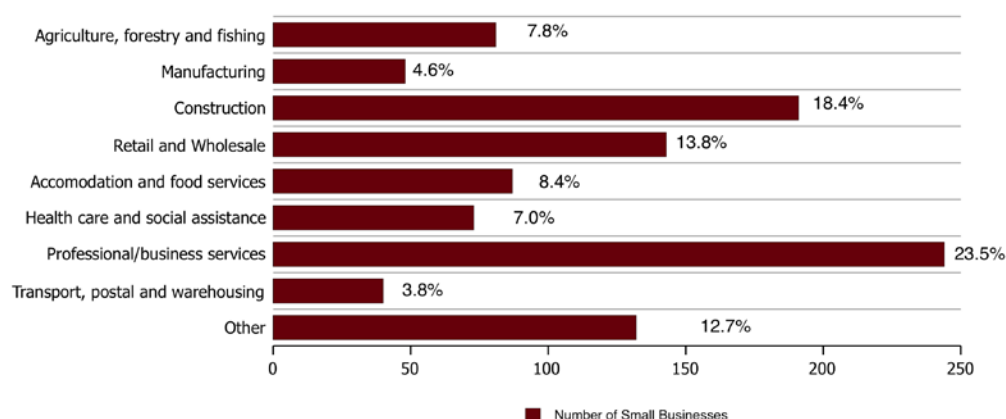
Minnamurra and Kiama Downs are suburbs of Kiama, in the Illawarra region of NSW. Kiama has a population of around 21,000.

Small business in the Kiama region

Data for Kiama Downs and Minnamurra was drawn from Census data relating to the Kiama Local Government Area (LGA). Here, the Census identified around 1,050 owner managers of small businesses — the fewest of all the regions considered. The professional/business services category was again the largest category followed by construction and retail and wholesale trade. The number of small businesses in the agricultural, forestry and fishing industry represented around 8 per cent of all small businesses. Figure B.3 presents the distribution of businesses in detail.

Figure B.3

SMALL BUSINESSES IN KIAMA



Note: includes owner managers of incorporated and unincorporated businesses with less than 20 employees.

Source: 2006 Census data and Allen Consulting Group.

Table B.5 presents the tally of small businesses in Kiama identified in the Yellow Pages survey. Relatively, the industry mix of small businesses has remained similar over the period with construction, professional/business services and retail and wholesale trade returning the largest sectors.

Table B.7

YELLOW PAGES SURVEY RESULTS — KIAMA

Category	Count of Yellow Pages entries
Agriculture, forestry and fishing	n/a
Manufacturing	16
Construction	56
Retail and wholesale	45
Accommodation and food services	40
Health care and social services	30
Professional/business services	36
Transport, postal and warehousing	10
Other	36

Source: Yellow Pages and Allen Consulting Group.

Community organisations in the Kiama region

The Kiama Municipal Council produces an annual *Community Directory* to provide information to residents on community services in the area.

The Directory provides a comprehensive listing of community organisations in the Kiama and surrounding regions. It includes not-for profit organisations, government agencies and some commercial ventures. Organisations in the guide all service Kiama, but may be based anywhere in the Illawarra region.

The guide lists organisations that provide:

- aboriginal services;
- aged and disability services;
- animal organisations;
- benevolent and support groups;
- business interest groups and markets;
- children services;
- civic, community and environmental groups;
- clubs and show societies;
- cultural activities;
- employment services;
- family welfare and support services;
- health facilities;
- housing/tenancy services;
- legal aid;
- migrant services;
- interest groups;
- sport and recreation;
- women's services; and
- youth organisations.

Armidale

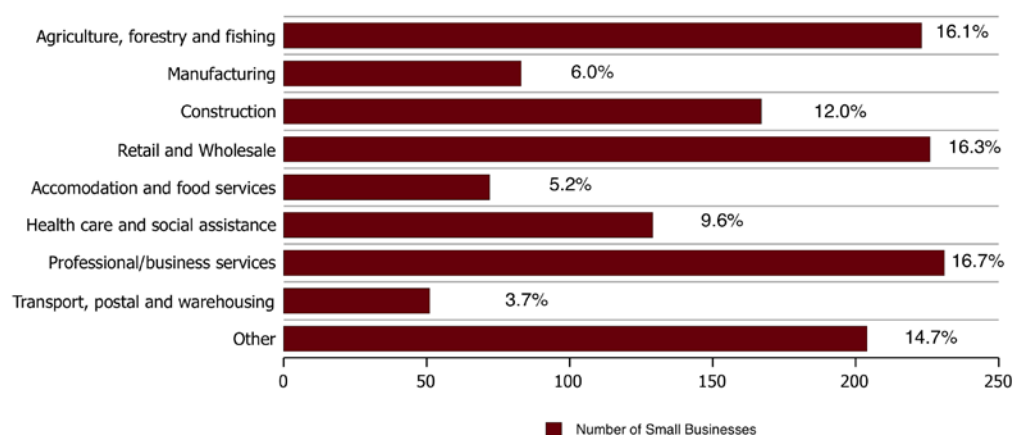
Located in the New England region of NSW, Armidale has a population of 25,000. Armidale is home to the University of New England, which acts as a hub of activity for the region.

Small business in Armidale

The Census identified nearly 1,400 owner managers of small businesses in the Armidale Dumaresq LGA. Of all the first release areas, Armidale had the largest proportion of small businesses in the agriculture, forestry and fishing sector. Still however, the predominant sectors for small businesses were professional/business services and retail and wholesale. The transport, postal and warehousing category had the least number of small businesses in the region. Figure B.4 presents the distribution of businesses in detail.

Figure B.4

SMALL BUSINESSES IN ARMIDALE



Note: includes owner managers of incorporated and unincorporated businesses with less than 20 employees.

Source: 2006 Census data and Allen Consulting Group.

Table B.6 presents the results of the Yellow Pages survey on Armidale businesses. Of particular note, the survey identified a larger proportion of businesses providing health care and social services than were identified in the Census data. Other sectors reported a similar presence to their levels in 2006.

Table B.8

YELLOW PAGES SURVEY RESULTS — ARMIDALE

Category	Count of Yellow Pages entries
Agriculture, forestry and fishing	n/a
Manufacturing	24
Construction	73
Retail and wholesale	58
Accommodation and food services	39
Health care and social services	77
Professional/business services	83
Transport, postal and warehousing	6
Other	53

Source: Yellow Pages and Allen Consulting Group

Community organisations in Armidale

Over twenty community organisations are listed on the website Armidale.info — a website that collates information about the services available to the Armidale community.

A large number of these organisations relate to sporting and recreation activities, however the remaining groups represent a variety of interests. Included on the site are organisations relating to:

- sport and recreation (7);
- parenting (3);
- counselling and spirituality (3);
- hobbies (3);
- theatre and arts (3);
- environmental (2);
- youth; and
- women's issues.

The Lions Club was also listed as being active in the region.

Notably, Armidale is home to the University of New England. A number of clubs and associations — relating to sport, drama, politics and interests — are run from within the University, catering for the student population there.

Willunga

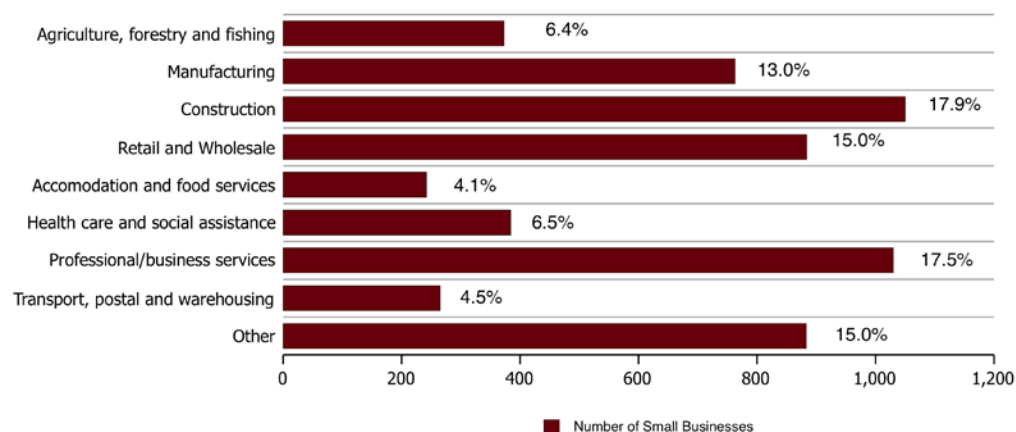
Willunga is located south of Adelaide in the regional city of Onkaparinga. It is the smallest of the First Release areas with a population of only 2,800. It supports a large agricultural sector that includes vineyards, wheat farms and orchards, as well as a growing tourism industry (Willunga Business and Tourism 2010).

Small business in Willunga

Census data for Willunga was not available in the 2006 Census, and as a consequence, data has been drawn from the greater Onkaparinga LGA. This region reported the largest number of owner manager small businesses of all the first release areas at nearly 5,900. Again most of these small businesses were in the professional/business services industry, followed by construction and retail and wholesale trade. Unlike the other areas however, Willunga reports a very small proportion of small businesses in the accommodation and food services industry. Figure B.5 presents the distribution of businesses in detail.

Figure B.5

SMALL BUSINESSES IN WILLUNGA



Note: includes owner managers of incorporated and unincorporated businesses with less than 20 employees.

Source: 2006 Census data and Allen Consulting Group.

The results of Willunga’s Yellow Pages survey are reported in Table B.7. The survey reflects a similar distribution to the survey — including a minor representation of small businesses in the accommodation and food services industry. Note that the Yellow Pages survey was conducted specifically for Willunga (as opposed to Onkaparinga).

Table B.9

YELLOW PAGES SURVEY RESULTS — WILLUNGA

Category	Count of Yellow Pages entries
Agriculture, forestry and fishing	n/a
Manufacturing	130
Construction	251
Retail and Wholesale	524
Accommodation and food services	10
Health care and social services	13
Professional/business services	126
Transport, postal and warehousing	134
Other	79

Source: Yellow Pages and Allen Consulting Group

Interestingly, despite the large role of the agriculture in the area, the Census data did not indicate the sector as a major source small business activity. This is because the number of small businesses active in an industry is not necessarily representative of their contribution to regional product.

Community organisations in Willunga

Willungasa.com is a local online aggregator of community organisations, businesses, schools, churches and other services operating and servicing the Willunga community. It is a website run by local volunteers, with some support provided by Onkaparinga Council.

The site lists organisations of the following nature as active in the area:

- sport and recreation (18);
- arts and theatre (7);
- political (2);
- hobbies;
- disability;
- aged care; and
- women's issues.

Additionally, four churches service the area and provide a number of functions akin to the services above. These churches run youth programs, provide counselling services and host discussion groups as well as a number of other activities.

Appendix C

Sampling Internet use in the first release areas

Uses of the Internet vary widely across the first release areas, and also between small business and community organisations. While some organisations have a strong web presence, others do not. Having a web presence for some firms is now a necessity of business, while for others it is not integral. This is largely a function of industry needs and what clients can be offered in terms of online services.

To demonstrate the different uses of the Internet across the first release areas, a sample of websites were compiled that reflected different industries and levels of sophistication. Note that these samples are neither representative nor indicative of the functions or level of sophistication of websites in each area. Instead their aim is to show the range of examples that could be found in each area.

These examples reflect a consumer's point of view by considering what actions can be performed on websites. For instance, they consider whether consumers can purchase goods or make online bookings, and whether their business or community organisation's website can be shared through social networking options.

However they do not show business functions such as communications or ordering. Business functions are considered in Chapter 4, which reports the findings of focus group discussions.

Additionally, a general indicator for the level of online activity in each area is the number of local aggregator websites and directories that provide information on businesses' services and contact details. Searches for individual businesses and community organisations were conducted on the Google search engine.

Table C.10

SAMPLE OF SMALL BUSINESS AND COMMUNITY ORGANISATION WEBSITES IN THE FIRST RELEASE AREAS

Sector	Online store	Social networking	Links	Ongoing communication	Graphics	Flash support	Multi-media	Notes
<i>Brunswick</i>								
Retail/ wholesale trade	✓ (Highly sophisticated online store)	✓	✓		High	✓	✓	Professionally designed website Provides information on services offered
Retail/ wholesale trade	✓		✓		High	✓		Professionally designed website
Professional / business services					High	✓		Professionally designed website Image library of past work Downloadable PDF files
Retail/ wholesale trade					Moderate	✓		Provides information on services offered Downloadable PDF files
Accom. and food				Website membership	High	✓		Entertainment and function information
Community		✓	✓	News section	Low			Provides Information on facilities, timetables and programs, membership
Community			✓		Moderate		✓	Information on community programs Downloadable reports
Professional / business services			✓		Low			Information about practice Relatively static website
Other					Low			Brief information on services offered Professionally designed Low use of graphics

Sector	Online store	Social networking	Links	Ongoing communication	Graphics	Flash support	Multi-media	Notes
<i>Townsville</i>								
Prof/ business services			✓	Membership function	Moderate			Comprehensive information on products, services and processes Extensive listing of past work and examples
Retail and wholesale	✓ (Sophisticated online store)				Moderate	✓		Professionally designed website Extensive online catalogue of products and services (i.e. wedding photography)
Community	✓ (Sophisticated online store)		✓	Membership function	High	✓		Professionally designed Information on current exhibitions Image galleries Downloadable forms and media
Accom. and food	✓ (Online bookings)	✓		Membership function	High	✓		Online menus Image gallery Sections still under construction: webcam and home-delivery
Other		✓			Moderate	✓		Information on products and services Image gallery of makeup
Accom. and food		✓			High	✓	✓	Professionally designed Online menus
Prof/ business services			✓		Low			Information on services Incomplete sections (Ask a question online)
Other					Low			Professionally designed Incomplete sections: About us and Services
Community			✓	Membership function	Low			Information on community group, culture, nutrition, environmental affiliation, animal rights and cooking

Sector	Online store	Social networking	Links	Ongoing communication	Graphics	Flash support	Multi-media	Notes
<i>Kiama</i>								
Accom. and food		✓	✓		Moderate			Professionally designed website Website with multiple functions, but used only for information purposes Not all features populated (such as photos and videos)
Prof/ business services			✓	Client login system	Moderate			Professionally designed website Provides information about services offered, useful information/articles and links Some links broken, not all content provided
Community				Membership function	Moderate	✓	✓	Website mostly for informational and marketing purposes Options to download documents Online form to make enquiry
Community	✓ (Visitors can make bookings and make payments)		✓	Members area	Moderate	✓		Provides information and marketing for the area Clever links to weather information etc.
Other					Low			Listing of contact details only Listing in an industry specific aggregator
Accom. and food		✓	✓	Regularly updated information	Moderate	✓	✓	Information and marketing only — no online booking facilities
Prof/ business services		✓			Low	✓		Website offers information about products and services — but no online shopping cart Downloadable brochure Relatively static website

Sector	Online store	Social networking	Links	Ongoing communication	Graphics	Flash support	Multi-media	Notes
Accom. and food					Low			Information and marketing only
<i>Armidale</i>								
Retail/ wholesale trade	✓ (Online shopping cart with PayPal facilities)			Membership function	Low			Professionally designed website Limited information about products and shop Some categories missing entry
Health care and social services					Moderate	✓		Professionally designed website Mainly used for marketing and information purposes Effective use of graphics and slide shows Relatively static website
Retail/ wholesale trade	✓ (Basic online store)		✓	Membership function	Moderate	✓		Professionally designed website Limited information about products and shop Online shopping cart with credit facilities (form based)
Prof/ business services					Low	✓		Contact information only Secure site, may offer clients/staff additional resources
Accom. and food	✓ (Highly sophisticated store)	✓	✓	News section	High	✓	✓	Highly professional website Online forum

Sector	Online store	Social networking	Links	Ongoing communication	Graphics	Flash support	Multi-media	Notes
Accom. and food	✓ (Online check in facility provided by offsite add-in)		✓		Moderate			Mostly for marketing purposes Online check in facility provided by offsite add-in
Community			✓	Regularly updated information and calendar	Moderate	✓		Professionally designed website Interactive menu system Downloadable documents
Community			✓	Regularly updated with events and information	Low			Mainly used for information and marketing purposes Archive of previous functions
Willunga								
Accom. and food	✓ (Online booking)				High			Information on vineyard, wines produced, restaurant and accommodation
Community	✓ (Donation option)	✓	✓	News section	High	✓		Information about organisation, products and objectives Archive of previous articles PDF publications to download
Construction					High	✓		Professionally designed website Image gallery of products
Professional / business services		✓			Low			Provides information about services Guide for marketing tips available via email address input

Sector	Online store	Social networking	Links	Ongoing communication	Graphics	Flash support	Multi-media	Notes
Transport			✓	News section	Moderate	✓		Information on motorcycle tours and professional operators Image gallery of motorcycles and tours
Accom. and food		✓	✓	News section	Moderate	✓		Professionally designed Information on restaurant/cafe and accommodation Enquiry links for functions and catering; open as new mail messages Online guestbook to leave messages
Accom. and food			✓		Low			Information about hotel and upcoming functions Downloadable menus and review Image gallery
Community		✓	✓		Low		✓	Information on workshops Downloadable files for timetable, enrolment forms, newsletter

C.5 Brunswick

How small business and community organisations use the Internet to interact with customers/service recipients varies for a number of reasons. Even firms within the same industry and of the same size may use the Internet to interact with customers in different ways.

The examples in the table above give an insight into some of the features of websites based in the area. Clear from the table is that there exists a range in the degree of sophistication of these websites — from the very simple to the very sophisticated. For example, on the one hand number of sites presented particularly static information about the firm/organisation, such as contact details and a outline of products and services. On the other hand, some websites featured Adobe Flash-support, included online stores, social media and links to other websites.

Other observations about the sample include:

- websites that identified themselves as professionally designed had greater levels of graphics on their sites;
- five websites offered links to other websites;
- online stores, multi-media, ongoing communication with customers and social networking options were not common features of websites in the sample featuring only twice each;
- three websites allowed visitors the option to download files.

While Brunswick does not have a regionally based aggregator for businesses and community organisations, the Brunswick Business Incubator offers support to emerging businesses. This organisation is a partnership between the City of Moreland and the Victorian and Commonwealth Governments and offers assistance to new businesses through premises, advice and services such as virtual tenancy and training programs.

Nation wide aggregators like truelocal.com.au and localbusinessguide.com.au are alternatives to finding information for Brunswick and offer greater search capacities for a range of business and community organisation categories.

C.6 Townsville

The largest of the first release areas, Townsville has an active online community. Small businesses are joined together as an online community through a number of region-specific local aggregator websites including:

- Localbusinessstownsville.com.au – provides contact details and links to businesses websites and offers a wide range of listings through numerous categories and sub-categories. For instance, under the category of accommodation, visitors to the website can refine their search further by selecting between backpackers, bed and breakfast, caravan parks, hotels and motels. Similarly, under the category of hire, visitors can select between equipment, fancy dress, music, party and vehicle.

- Townsvillesmallbusiness.com.au – similar to the previous website, although relatively not as comprehensive in the number of businesses listed. Offers email addresses, physical addresses and phone numbers.
- Townsville.onlinedining.com.au – is an example of a category with a dedicated local aggregator, this website provides extensive information on cafes, pubs and restaurants in Townsville.
- Nqsmallbusiness.com – offers business listings with similar contact information to townsvillesmallbusiness.com.au and in some instances also provides links that redirect visitors back to the businesses own website. Unlike other websites, nqsmallbusiness.com offers business development services to new and existing businesses through various and regularly held workshops and seminars. For example, their calendar for November 2010 listed seminars with various topics including Financial Management, Business Planning and Marketing.

Additionally, nation-wide aggregators such as tablesonline.com.au collect and offer similar information and function as an alternative to local websites. As previously identified, truelocal.com.au and localbusinessguide.com.au function in the same manner, however they offer information for the range of businesses and community organisations present in Townsville.

The scale of Townsville is such that businesses and community organisations are not necessarily disadvantaged by not offering their information on local aggregator websites. A search for beauty salons in Townsville for instance generates numerous results for businesses fitting this category with their contact information. Searches for theatres, sports clubs and solicitors yield similar results for the area.

The membership function appeared in five of the nine websites included in this sample. Other observations include:

- ongoing communication and links to other websites featured on four separate websites;
- social networking options and an online store featured in three websites;
- multi-media support featured in only one website;
- only two of the four websites identified as professionally designed supported a high level of graphics, the others supported a moderate and low level of graphics; and
- three websites offered image galleries of their products or services.

C.7 Kiama

The Kiama region is home to a range of diverse businesses and community organisations that have capitalised on the Internet by promoting their products and services through a variety of means. This includes regional aggregator websites, directories and individual websites.

Some observations from the table above include that online stores were the least common feature on websites and appeared in only one of the eight examples includes in this sample. Other observations include:

- multi-media and social networking options also featured rarely and appeared on two and three other websites respectively;
- links to other websites and ongoing communication with customers appeared four times each;
- only two websites were professionally designed and both featured only a moderate level of graphics;
- two websites offered visitors the option to download documents; and
- two websites had incomplete sections with missing content.

Additionally, the Kiama and District Chamber of Commerce provides a *Business Directory* on their website. The annual Directory provides a comprehensive listing of businesses in the region and is updated monthly. Businesses in the Directory are separated into several categories such as Financial Services, Pharmacies and Tourism, and in some instances businesses also provide links to their own websites.

Kiama.communityguide.com.au is a website that provides an alternative to the Community and Business Directories by providing information on businesses and community organisations operating in the region. Another local aggregator providing similar information is Kiama.com.au. This website offers a search function unlike other websites and allows visitors to refine their searches extensively. Although the former website has a number of categories without any businesses listed within them such as Cinema and Theatre, other categories such as Building Contractors provide comprehensive contact information including links back the businesses websites and maps of their locations.

Some industries have their own dedicated local online aggregators in the Kiama region. For instance, a search for tours in Kiama generates Kiamascenictours.com.au that provides detailed information on various day trips, winery tours and coach charters on offer. Information on businesses and community organisations are also available on specific nation-wide aggregators such as hotelsaccommodation.com.au that offers comprehensive information for businesses in the Kiama region.

C.8 Armidale

While Armidale has a scale similar to that of other regions (such as Kiama), the nature of their online communities have manifested in different ways. In particular, Armidale businesses make less use of local aggregator websites and directories than other areas. Rather, businesses in this area are more likely to make manage their web presence individually.

In some instances, a number of categories have their own aggregators of businesses and community organisations in Armidale. A search for Armidale shopping for example generates various websites that provide information on retail stores in the area. Some websites like Armidaletourism.com.au function as a local aggregator and list several shopping centres found in Armidale, while other websites such as aboutaustralia.com.au function as nation-wide aggregators of businesses and provide details of various retail businesses amongst other categories in Armidale.

As noted before, other websites such as truelocal.com.au and localbusinessguide.com.au also function as nation-wide aggregators of businesses and community organisations and searches conducted through their website provide an alternative to local aggregator websites.

With the largest agriculture, forestry and fishing sector of the first release areas, due to the nature of this sector, businesses involved are largely restricted to providing information on their services and contact details online regardless of how well-developed their individual websites may be. However businesses such as restaurants in the accommodation and food services sector can benefit greatly from creating well-developed websites to enable visitors to make online orders for example.

Half of the websites considered offered an online store of varying degrees of sophistication. For example, while one website offers only a PayPal function, another allows for both online payments through credit card and offline payments, if the customer lives within Australia, through BPAY, Australia Post or direct debit. Other observations include:

- three features appeared in five separate websites, these included links to other websites, ongoing communication with customers and flash-support;
- social networking options and multi-media support appeared in only one website; and
- four websites were identified as professionally designed, with two featuring moderate level of graphics and the other two featuring a low level of graphics.

C.9 Willunga

With the smallest population of the first release areas, Willunga's web presence is a factor of the scale of the area. Businesses and community organisations in the area can be found on Willungasa.com, and as elsewhere, some businesses operate individual websites as well.

Some observations of these examples include that of the eight websites considered in this sample, five offered links to other websites. Other observations include:

- half of the examples included both social networking options on their websites and also relied on flash-support;
- three websites offered ongoing communication with customers;
- only two websites offered an online store function and just one used multi-media;
- two websites identified themselves as professionally designed, where one had a higher level of graphics while the other presented a more moderate level of graphics;
- three websites provided image galleries; and
- two examples allowed documents to be downloaded from their websites.

Similar to other first release areas, Willunga has large manufacturing, construction and professional/business services where those involved regardless of how well developed their individual websites may be are restricted to offering information about their services and contact details online.