This chapter looks at high-growth firms as part of the innovation system. It provides some new evidence on the phenomenon of high-growth firms in Australia. The evidence is consistent with international findings that a relatively small proportion of firms in the economy are responsible for a significant share of growth in employment and turnover. The chapter outlines some key characteristics of Australian HGFs in terms of their number, age, size and industry.
High-growth firms in Australia

Only 11,000 out of the more than 121,000 businesses in Australia with 5 or more employees were employment HGFs between 2004–05 and 2011–12

46% of employment growth came from only 9% of all employing firms in scope

23.5% of net positive employment growth came from Large Employment HGFs which represented only 0.4% of firms in scope

HGFs spend more on capital, and have higher labour productivity growth than non-HGFs

66% of the net positive sales growth came from only 15% of firms in scope

42.5% of net positive sales growth came from Large Turnover HGFs which represented only 0.5% of firms in scope

Source for all figures: ABS (2017) Business Longitudinal Data Environment (BLADE), Data analysis commissioned by the Department of Industry, Innovation and Science
In this report, the scope of the OECD/Eurostat definition is expanded to include firms with five or more employees. This was done because the exclusion of firms with 5–9 employees would leave out an important part of the Australian economy. Indeed, 8 per cent of employment, and 6 per cent of income, wage and salaries, and value added are represented in Australian firms with 5–9 employees.

While micro businesses (0–4 employees) also make an important contribution to the Australian economy, unfortunately it was necessary to exclude these businesses from the analysis as their lower starting base caused high levels of volatility in the data, particularly for employment growth. In this report, all market sectors are analysed.

2.1 Defining HGFs

HGFs first came to popular attention based on a landmark report by the UK’s National Endowment for Science, Technology and the Arts (NESTA) which suggested that a ‘vital 6 per cent’ of fastest-growing businesses in the UK were responsible for 54 per cent of national jobs growth. While later studies revealed additional complexity and variability around measuring the contribution of HGFs, policymakers remain interested in their potential to boost employment and productivity growth.

The use of different definitions (from HGFs to ‘high impact firms’ and ‘high-growth young firms’) and applications across studies highlights the competing areas of interest around HGFs. While different studies adopt different definitions of HGFs, the OECD/Eurostat definition is used most commonly. It defines HGFs as firms that show an average annual growth in turnover or employment of more than 20 per cent per year over three consecutive years, and only firms with 10 or more employees are in scope. The finance sector and non-market sectors are excluded.

In this report, the scope of the OECD/Eurostat definition is expanded to include firms with five or more employees. This was done because the exclusion of firms with 5–9 employees would leave out an important part of the Australian economy. Indeed, 8 per cent of employment, and 6 per cent of income, wage and salaries, and value added are represented in Australian firms with 5–9 employees. While micro businesses (0–4 employees) also make an important contribution to the Australian economy, unfortunately it was necessary to exclude these businesses from the analysis as their lower starting base caused high levels of volatility in the data, particularly for employment growth. In this report, all market sectors are analysed.
2.2 The economic contribution of HGFs in Australia

HGFs make an important contribution to Australia’s economy. Despite representing only 9 per cent of the firms in scope, Employment HGFs contributed about 46 per cent of net positive employment growth in the period 2004–05 to 2011–12.\(^{(p)}\) Turnover HGFs represented 15 per cent of all firms in scope, yet they contributed about 66 per cent of the net positive sales growth and 69 per cent of the net positive value added growth during the same period (Table 2.1).

Large HGFs account for the lion’s share of growth in the Australian economy, but represent a very small fraction of the firms in scope.\(^{(q)}\) Between 2004–05 and 2011–12, large Employment HGFs represented only 0.4 per cent of firms in scope, yet they contributed 24 per cent to positive employment growth. Similarly, large Turnover HGFs represented 0.5 per cent of firms in scope, and contributed 43 per cent to positive sales growth and 40 per cent to positive value added growth (Table 2.1).

Medium-sized firms are most numerous among HGFs, both by employment and turnover growth. They are also the second most important contributor to net growth in all three variables. Between 2004–05 and 2011–12, medium-sized HGFs contributed 18 per cent to net positive growth in employment and sales, and 22 per cent net positive growth in value added (Table 2.1).

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\(^{(p)}\) Total firms includes firms with more than 5 employees and with turnover of more than $75,000 per annum.

\(^{(q)}\) On average over the period 2004–05 and 2011–12, around 121,680 firms were in scope under the employment growth definition, and 120,600 firms were in scope under the turnover growth definition (see Section 2.1).
Methodology 2.1: Business Longitudinal Analysis Data Environment (BLADE)

The dataset used in the analysis of Turnover and Employment HGFs is based on BLADE. BLADE is a methodology developed by the ABS that links business datasets such as the Business Characteristics Survey (BCS) Super Main Unit Record File (SMURF), which includes cross-sectional and panel units, and administrative data sourced from the Australian Taxation Office (ATO), such as Business Activity Statements (BAS), Business Income Tax (BIT) data and Pay As You Go (PAYG) data. BLADE uses the Australian Business Register (ABR) as the main link to datasets. This report uses data from 2002 to 2014.

<table>
<thead>
<tr>
<th>Size (FTE)</th>
<th>Employment HGFs</th>
<th>Turnover HGFs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Proportion of HGFs (per cent)</td>
<td>Contribution to FTE net positive growth (per cent)</td>
</tr>
<tr>
<td>5–10</td>
<td>1.2</td>
<td>1.3</td>
</tr>
<tr>
<td>11–19</td>
<td>2.9</td>
<td>3.3</td>
</tr>
<tr>
<td>20–199</td>
<td>4.4</td>
<td>17.9</td>
</tr>
<tr>
<td>200 +</td>
<td>0.4</td>
<td>23.5</td>
</tr>
<tr>
<td>All industries</td>
<td>9</td>
<td>46.1</td>
</tr>
</tbody>
</table>

Notes: The contribution to employment growth has been calculated using the definition of Employment HGFs, as indicated in Section 2.1. Turnover HGF definition is used for calculating the contribution of HGFs to sales growth and value added growth. Contributions are calculated as the average of the whole period 2004–05 to 2011–12. However the scope of this analysis excludes businesses with less than 5 FTE employees in the first year of the relevant three year period.

The size category of 1–10 should be interpreted with care (see Section 2.1). The scope restriction for this analysis removes firms with fewer than five employees in the base year. Further, it still includes firms that started with 5 or more employees, but have subsequently declined below the five employee threshold.

CHAPTER 2: HIGH-GROWTH FIRMS IN AUSTRALIA

2.3 Attributes of HGFs

The growing policy interest in HGFs has given rise to a number of myths, including that HGFs are all high-tech firms or that HGFs are all small and young. In fact, international evidence suggests remarkable diversity in the HGF population. This section describes the typical attributes of Australian HGFs and supports the finding in other studies that HGFs can be found in every industry, size and age cohort.

Number

Considering the economic contribution of HGFs, the most surprising attribute was their number. For the population of firms in scope, i.e. Australian businesses with five or more employees, on average only 11,000 were Employment HGFs and 20,000 were Turnover HGFs in each year between 2004–05 and 2011–12 out of a potential population of roughly 121,000 firms.

On average over the period there were 492 large Employment HGFs and 615 large Turnover HGFs. Despite being small in numbers, these larger firms made the greatest contribution across all measures over the period. Medium-sized businesses were most common in both types of HGFs (Table 2.2).

<table>
<thead>
<tr>
<th>Size (FTE)</th>
<th>Average number of Employment HGFs (per year)</th>
<th>Average number of Turnover HGFs (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–10</td>
<td>1,410</td>
<td>5,970</td>
</tr>
<tr>
<td>11–19</td>
<td>3,525</td>
<td>5,108</td>
</tr>
<tr>
<td>20–199</td>
<td>5,438</td>
<td>6,516</td>
</tr>
<tr>
<td>200+</td>
<td>492</td>
<td>615</td>
</tr>
<tr>
<td>Total</td>
<td>10,960</td>
<td>18,210</td>
</tr>
</tbody>
</table>

Notes: The number of HGFs in each cohort has been calculated using the definition as indicated in Section 2.1. However the scope of this analysis excludes businesses with less than 5 FTE in the first year of the relevant three year period.

Age

Turnover HGFs tend to be distributed across all ages, although HGFs between the ages of 3 and 8 were most common in the period 2002 to 2013, compared to a range of 10 to 13 for non-HGFs (Figure 2.1). The median firm age of a Turnover HGF during the period was 8 years, compared to 11 years for non-HGFs. This isn’t surprising, given younger firms start from a lower base and have a greater capacity for growth than established firms. The most common age category for Turnover HGFs was around 5 years i.e. they were aged 5 years in their first period of consecutive turnover growth.

Figure 2.1: The age of Turnover HGFs and non-HGFs, 2002–13

Notes: For HGFs, the chart shows a firm’s age at the beginning of its high-growth episode. A given firm that enjoys multiple high-growth episodes can be counted multiple times. For a discussion on the persistence of individual HGFs, see Section 3.1. Top and bottom percentiles of the data are removed to preserve confidentiality.

Size

Unlike age, there seems to be little difference in the distribution of employment size between Turnover HGFs and non-HGFs. Between 2002 and 2013, Turnover HGFs employed a median of 26.2 FTE employees, compared to 27 FTE employed by non-HGFs. Some international studies have found similar results — indeed some evidence suggests that once firm age is accounted for, there is no systematic relationship between firm size and growth.\(^5\)

Industry

HGFs can be found in all industries. Figure 2.2 shows the proportions of Employment HGFs in 2014 for eight selected industries and the absolute number of HGFs in those industries. Manufacturing had the lowest proportion of HGFs (8.7 per cent), and Construction had the highest (18.2 per cent). The proportions of HGFs in each industry, therefore, were distributed within this range of 10 percentage points.

The Construction and Mining industries had similar proportions of Employment HGFs but the number of HGFs in each industry differs by more than 3,600. Electricity, Gas, Water and Waste Services had the median proportion of HGFs for the cohort (13.3 per cent), though the smallest absolute HGF count at only 131 Employment HGFs.

Mining, Construction, Manufacturing and Professional, Scientific and Technical Services all make significant contributions to the Australian economy, though their proportions and number of Employment HGFs differ substantially (Figure 2.2). The size of the bubbles represents the contribution of each industry to GDP.

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**Figure 2.2: Number, proportion and value added of Employment HGFs, selected industries, 2014**

Notes: The size of the bubble represents the share of value added in GDP for each industry.

Feature Article: Dynamics shaping the Australian food and agribusiness industry

Dr Mirjana Prica  
Managing Director  
Food Innovation Australia Limited (FIAL)

The food and agribusiness industry in Australia is highly fragmented and operates in a diverse, dynamic, and complex landscape. It spans growers, raw material producers, manufacturers, packaging, sales, marketing and retail providers, through to final users or consumers of the sector outputs.

Key facts about the industry

The industry is a significant contributor to the Australian economy. Key facts about the food and agribusiness industry:

- $164 billion in total sales and service income, equivalent to 5.9 per cent of all Australian industries in 2013–14
- $59.1 billion of industry gross value added in 2015–16, representing 3.6 per cent of all industries

- exports of $37.7 billion, representing 14.8 per cent of 2016 Australian exports
- 177,200 businesses in 2016, of which 120,200 were non-employing (67.8 per cent of total businesses)\(^{(s)}\)
- employed approximately 523,000 people in 2016, most of them in regional Australia.

Key challenges for the industry

There are many challenges facing the industry, including:

- food security
- availability of arable land
- how to manufacture products to meet the needs of the growing middle class in Asia, as it demands more nutritious and healthy foods.

Within the sector, FIAL has also identified two distinct types of businesses shaping the landscape:

- Businesses of Today — generally less growth-oriented and often work to maintain market share. They tend to view a direct interest or involvement in overseas markets as outside their ‘need to know’ area. As a result, they rely heavily upon the downstream processors or exporters to manage access to supply chains and markets.
- Businesses of Tomorrow — actively pursue new markets and are more inclined to take risks to secure those new markets. Many of these businesses are directly connected to their end markets and continuously invest in building capability and knowledge in these markets.

The different culture, beliefs and values of these distinct business types are impacting the scale and scope of innovation undertaken by the industry. Qualitative evidence gathered by FIAL over the past three years suggests Businesses of Today are more focussed on new-to-firm innovations, whereas Businesses of Tomorrow are more motivated by new-to-market or new-to-world innovations.\(^{(t)}\)

(s) Over half of these non-employing businesses are beef and sheep farmers who are “owner managers without employees”. While in the food manufacturing sector, a significant portion of these are made up of small wineries and local bakeries. The remaining 56,956 employing businesses are mostly SMEs that employ more than 20 employees; with large or multinational businesses that employ more than 200 employees only representing 0.1 per cent of the total number of employing businesses in the sector.

(t) FIAL has gathered much anecdotal information on the different types of businesses operating in the landscape from the different workshops, seminars and industry consultations organised by FIAL over the past three years. Please see reports published at www.fial.com.au
FIAL also has empirical evidence that of approximately 57,000 employing businesses in the sector, only around five per cent, or 3,000 businesses belong to the cohort of Tomorrow Businesses. This means the Businesses of Today are dominating the landscape dynamics, and shaping the industry culture — making it difficult to create a collaborative culture that fosters and encourages innovation, high-growth and ambition.

Showcasing industry innovation
The observation that the adoption and modification of innovations developed elsewhere are more widespread than delivering new-to-market or new-to-world innovations is further supported by the food and agribusiness innovations showcased in the book: Celebrating Australian Food and Agribusiness Innovations, published by FIAL in June 2016. The book, a first of its kind for the sector, showcases fifty innovations in the food and agribusiness industry launched during 2014, as chosen by a panel of technical experts from industry, academia and research.

This book also showcases many Businesses of Tomorrow. Two of the companies featured, Gourmet Garden and Lotus & Ming, are great examples of businesses with an appetite for risk and willingness to invest in capability and capacity. They also spend time understanding end consumers or markets, and use the insight gained from this process to develop highly differentiated products that meet the needs of end customers. Jacqui Wilson-Smith of Gourmet Garden says, “the consumer must be the leading force behind innovation”. The industry needs more businesses like these to shift the innovation paradigm.

Furthermore, of the 50 innovations showcased, only one was identified as a new-to-world innovation by the panel of experts. Such a low percentage is consistent with the Australian Innovation System Report 2014, which reported only 5.7 per cent of all Australian businesses introduced new-to-market innovations in 2012–13. The report also highlights that new-to-market innovations have greater impact on a business’s competitive advantage and likelihood of increasing exports than for businesses that only introduce new-to-firm innovations.

Transitioning from Today to Tomorrow
The challenge for the food and agribusiness industry is to establish a framework encouraging and supporting businesses to acquire the capabilities and capacity necessary to transition from a Business of Today into a Business of Tomorrow — into a HGF. Creating a greater cohort of Tomorrow businesses would build momentum and confidence across the industry, enhancing the sector’s international competitiveness and increasing participation in global value chains.
2.4 Performance characteristics of HGFs

Turnover

In addition to having high rates of turnover growth, Turnover HGFs also tend to have higher turnover levels (i.e. annual sales revenue), compared to non-HGFs. For small firms in 2014, median turnover levels in 2014 were 9.3 per cent higher for Turnover HGFs than for non-HGFs. For large firms, this gap was 24 per cent (Table 2.3). These differences shouldn’t be too surprising given the comparison is between a cohort of firms that have sustained a large turnover growth rate, against those that haven’t. Moreover, the median revenue of Turnover HGFs has increased for all firm sizes since 2005, despite growing less common in Australia since then (see Section 3.3). For a discussion on the growth rates of Turnover HGFs, see Section 3.4.

<table>
<thead>
<tr>
<th>Size (FTE)</th>
<th>Turnover HGFs ($ millions)</th>
<th>Non-HGFs ($ million)</th>
<th>Difference (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (5–19)</td>
<td>1.7</td>
<td>1.6</td>
<td>9.3</td>
</tr>
<tr>
<td>Medium (20–199)</td>
<td>8.1</td>
<td>7.8</td>
<td>3.6</td>
</tr>
<tr>
<td>Large (200+)</td>
<td>174.4</td>
<td>140.6</td>
<td>24.1</td>
</tr>
</tbody>
</table>


Employment

On top of their impressive turnover growth rates, Turnover HGFs also make significant contributions to employment growth. Between 2002 and 2013, Turnover HGFs had a median average growth in employment of 27.6 per cent compared to just 0.1 per cent for non-HGFs (Table 2.4). These findings are broadly consistent with a study on younger HGFs in the US, which showed high-growth in revenue is positively associated with high revenue and employment growth in subsequent years.7 Employment generation by Turnover HGFs further shows the importance of these firms to the economy.
CHAPTER 2: HIGH-GROWTH FIRMS IN AUSTRALIA

Table 2.6: Labour productivity growth by Turnover HGFs and non-HGFs (median values), 2002–13

<table>
<thead>
<tr>
<th>Firm category</th>
<th>Turnover HGFs (per cent)</th>
<th>Non-HGFs (per cent)</th>
<th>Difference (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (FTE)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small (5–19)</td>
<td>6.7</td>
<td>–0.8</td>
<td>187</td>
</tr>
<tr>
<td>Medium (20–199)</td>
<td>2.3</td>
<td>–1.1</td>
<td>64</td>
</tr>
<tr>
<td>Large (200+)</td>
<td>1.7</td>
<td>–0.7</td>
<td>10</td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to 5</td>
<td>4.2</td>
<td>–0.5</td>
<td>65</td>
</tr>
<tr>
<td>6 plus</td>
<td>3.0</td>
<td>–0.9</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>2.7</td>
<td>–1.2</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Labour productivity here is the amount of turnover per FTE employee. Growth is calculated on a three year compound average.


Labour productivity

Turnover HGFs tend to have higher labour productivity growth. In the period 2002 to 2013, Turnover HGFs had a similar level of labour productivity (median turnover of $153,673 per FTE) compared to non-HGFs (median turnover of $154,079 turnover per FTE). However, the median labour productivity growth of Turnover HGFs was much higher (2.7 per cent) than non-HGFs (–1.2 per cent) (Table 2.6).

Younger and smaller firms are more common among firms that undergo rapid periods of labour productivity growth. During the period 2002 to 2013, small Turnover HGFs had the largest difference in labour productivity growth (6.7 per cent) compared to non-HGFs (–0.8 per cent), with this difference decreasing with firm size. By firm age, young firms showed the highest growth in labour productivity (4.2 per cent) compared to mature firms (3 per cent).

Increased labour productivity growth in Turnover HGFs is a result of their turnover growth outpacing their employment growth. Between 2002 and 2013, the median growth in turnover in Australian Turnover HGFs was 45 per cent, and (as seen in Table 2.4) their employment grew by 28 per cent. This enhances the labour productivity of Australian Turnover HGFs, when measured by turnover per FTE employee.
Case Study: Booktopia

UTS Business School

How do you capture 15 per cent of Australia’s online book sales without an initial vision or business plan?

It took the start-up Booktopia three days to sell its first book — now it sells one book every eight seconds and ships more than 4 million per year.

“Ten years ago, we were in 60 square metres in North Sydney; now we’re in 13,000 square metres. It’s been quite a journey,” says Booktopia co-founder and CEO Tony Nash.

Starting out

Booktopia was founded in 2004 after Tony’s internet consulting firm was hired by Angus & Robertson to optimise its website for the online search engines. He set up a competing website with his brother, sister and brother-in-law to start selling books, with a marketing budget of just $10 a day, and relied on another company to manage the website and fulfil the orders.

“Initially, we didn’t have a plan to build a major company, so we didn’t invest in our website or in our own capacity [to fulfil orders],” says Tony.

“It was an experiment.”

Self-funded growth

Previous experience in facilitating business start-ups and expertise across sales, finance and IT gave Booktopia’s founding team a competitive advantage and balance in key functional areas. This enabled them to achieve self-funded, sustainable and organic growth.

The founders’ prior experience in internet marketing in particular, was critical for making early decisions about priorities. Tony identifies three critical aspects to the company’s growth:

- focus on what customers want
- ensure the founding team has the skills to make the right decisions
- set ambitious but achievable growth goals.

Goal-setting

Booktopia operates based on goals rather than long-term planning. The firm aims to increase sales by 30 per cent per year and then works out how to achieve this.

“When you set yourself a destination you force yourself to dream up strategies. You start to think about different things. We are sales-driven: we don’t have a business plan, but we do have a goal,” Tony says.

Managing success

Tony remains careful to not take on more than the firm can manage. Growth led to some major structural changes within the firm. When sales hit $2 million in 2007, the founders decided to fully commit, building their own website and fulfilling their own orders. In 2014, Booktopia moved to its current warehouse, involving a $5 million investment in automation, conveyors, packing machines and scanners. The company acquired Angus & Robertson in 2015.

“We came full circle”, says Tony.

Booktopia continues to operate Angus & Robertson under a separate brand, with all order fulfilment done at Booktopia’s Sydney warehouse. The firm also acquired an online camera and optics company (Dirt Cheap Cameras) in the same year.

Today, Booktopia employs over 150 staff, and sales growth has increased from $2 million to over $100 million in 2016-17. On average, the firm has grown by 30 per cent in most years since 2004 —
five times as fast as the expanding online book market in Australia (which is growing at about 6 per cent per year).

Booktopia has been listed in BRW’s Fast 100 for seven years, and has won many other awards, including the Telstra Business Award for Medium Sized Businesses in NSW in 2014 and in 2016 and 2017 was voted Best Book Retailer in Australia at the Australian Book Industry Awards.

**Recruitment to flourish**

Employees were recruited gradually as the firm grew. Recognising the need for more professional staff, management recruited them — even before Booktopia could easily afford it.

“I like to think of Booktopia as its own organism. I see it as its own entity. Like a child, you have to ask, what does it need to sustain itself, to flourish and grow?” says Tony.

The growth of the business and a workforce of over 150 has led to a need for a more formalised set of roles, and the firm now has a Chief Financial Officer, Sales Director, Chief Operating Officer, Chief Commercial Officer and Chief Technology Officer.

Sustained growth has meant that long-term employees have had opportunities for career growth inside the firm and, perhaps as a result, staff retention is high.

**Preparing for competition**

Booktopia is now facing competition from Amazon and its 2011 UK acquisition, The Book Depository — but it has set in place several elements to prepare for this.

Booktopia has built a dominant position in the Australian online book market by developing a large catalogue focussed on Australian content, an effective website and a high-volume, custom-made dispatch system. As many readers have strong interests in specific authors or topics, Booktopia works to engage those readers with information about books and audio-visual interviews with authors.

**Have a heart**

Corporate social responsibility is another factor which may contribute to the company’s customer attraction and retention.

Booktopia maintains an intensive philanthropic programme that supports literacy initiatives and events. Book donations play a key role in the company’s approach to corporate social responsibility. Since 2011, Booktopia has donated over $300,000 worth of books to the Cathy Freeman Foundation project on Palm Island for Indigenous literacy, and has also provided over $250,000 worth of books to other schools and charities needing books for their fundraising.

The firm has also sponsored industry conferences, including the Australian Society of Authors National Writers’ Congress and the Australian Romance Readers Convention, as well as industry events like the Australian Book Industry Awards and the Australian Book Design Awards. Tony suggests that such corporate social responsibility inspires customers, because they know Booktopia gives back to the community.

**Personal development**

Committed to personal development, Tony was a member of the CEO Institute and has benefited from its peer group discussions and networking.

“I have always been concerned about building business value, with a view to an IPO or sale at some point. We have used PwC for auditing, and went into the Telstra Business Awards, because the health checks they involve identified issues we need to address,” he says.

Reflecting on 13 years of leading a fast-growing firm, Tony lists some key lessons:

- identify the opportunity, focus on one thing and do it well. Recognise that it will require entrepreneurship and innovation to pursue it
- hire and empower — or you will stay small
- focus on customer needs and have customer demand drive the business
- improve constantly. Don’t be too anxious about complaints, but act on them
- keep an entrepreneurial but professional and reasonable mindset — avoid the excessive highs and lows.