GEM Global Entrepreneurship Monitor
2004

Westpac GEM Australia

A STUDY OF AUSTRALIAN ENTREPRENEURSHIP IN 2004

Kevin Hindle & Allan O'Connor

Westpac
Business Bank

Westpac *GEM Australia*

A Study of Australian Entrepreneurship in 2004

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Preface

Peter Herington
General Manager Business Banking
Westpac Banking Corporation

The Global Entrepreneurship Monitor (GEM), both internationally and in Australia, is an independent research project provided in the public interest. GEM research has created a valuable, growing database and challenging explorations of the nature, extent and effects of entrepreneurship in the social and economic life of individual nations and the global community. Since the inception of the project in 1999, GEM data and insights have been provided by some of the world's best entrepreneurship researchers, working in independent but strongly coordinated national teams. During the last six years, more than 40 sponsored national teams have participated in GEM and it is expected that the number will grow. GEM constitutes one of the largest multinational social research projects in history. Westpac is proud to sponsor the Australian GEM research team based at Swinburne University of Technology's Australian Graduate School of Entrepreneurship and led by Professor Kevin Hindle. They conduct the Australian component of this multinational research. Their independent work culminates in an annual report – the Westpac GEM Australia Report – encompassing the key features of Australia's entrepreneurial activity and environment.

In the pages of this comprehensive document every interested Australian can find, and is free to use, detailed data on six components comprising the pattern of national entrepreneurial activity: participation, motivation, innovation propensity, growth orientation, finance and entrepreneurial capacity. The data apply to three stages of owner-operated businesses: *start-ups* (firms aged three months or less), *young* firms (aged from three to 42 months) and *established* firms (aged more than 42 months). GEM findings are particularly useful with respect to early stage owner-operated businesses (start-ups and young firms). Prior to the advent of GEM research this component of the Small and Medium Enterprise (SME) market suffered from a dearth of research. I believe that the current document, *Westpac GEM Australia: A Study of Australian Entrepreneurship in 2004*, is the most trenchant and challenging in the five-year history of this important project. There is simply no getting around our national need to confront the fact that, currently, Australia's entrepreneurial performance and support environment are simply not as strong as they need to be to meet the long-term challenges of international competition in the present century.

At Westpac, we agree with the GEM research team in our desire for the revelations of the GEM data to be a positive inspiration for Australia's business community. Very slight changes in perception, attitude and behaviour could pay big dividends, particularly as they relate to the Australian SME sector's resistance to innovation and growth orientation. It will not take much effort to produce marked improvement in the entrepreneurial flair and value of many enterprises, but it will have to be a highly focused effort and the GEM research indicates the areas where the focus must be. Education and sensible government policies will help a lot, but ultimately it will be Australia's own business people who must drive or block the emergence of a more entrepreneurial Australia. At Westpac, we are actively developing a range of products and services specifically targeted to helping dynamic, early-stage businesses because, in common with the GEM research team, we believe that even a small enhancement in the dynamism, innovation propensity and growth orientation of Australia's SME sector could provide substantial and multiple benefits to business owners, their customers and the community at large.

I commend this report to every Australian interested in building a more dynamic and prosperous Australia.

Table of Contents

EXECUTIVE SUMMARY 1
Dominant themes in 2004 1
Major observations 2
Explanations 2
Implications 2
Action focus 3
Conclusion 3
INTRODUCTION: THE GEM AUSTRALIA PROJECT 4
Project overview 4
Research objectives and theoretical framework 4
GEM's research methods 5
Summary of previous years' findings 5
Format of the *GEM Australia 2004 Report* 6
PART ONE: OBSERVATIONS 7
The mechanics of the adult population survey 7
A crucial perspective: the matrix of entrepreneurial activity 7
What's in a name? Nomenclature and design issues in the GEM project 7
A matrix approach: three stages and six components 8
Three stages 8
Six components 8
Synthesis: the national entrepreneurial activity matrix 9
Participation rates 9
The three stage perspective 9
The early-stage focus 9
Motivation 13
Three aspects of innovative propensity 13
Product/service novelty 13
Differentiation from competitors 13
Incorporation of new technology 14
Two aspects of growth orientation 15
Intentions and expectations 15
Export orientation 15
Financing activity 16
Business angel activity 16
Classic venture capital 17
Entrepreneurial capacity 17
Gender 17
Age 18
Region 18
Education 19
Skills 20
Monitoring longitudinal entrepreneurial activity: selected data 2000-2004 22
Entrepreneurial activity scorecard 2004 24
The entrepreneurial support environment Australia 2004 25
Evidence from the GEM experts' depth interviews 25
Evidence from the GEM experts' survey 30

PART TWO: EXPLANATIONS 37
What factors best explain business participation rates? 37
Why has necessity motivation increased? 38
Why are most businesses not growth intentioned or innovative? 38
What is happening in the financial market? 40
How do we escape the mediocrity treadmill? 40

PART THREE: IMPLICATIONS 43
Key issues in the national entrepreneurial pattern 43
Implications for the general public 44
Implications for entrepreneurship researchers 45
Implications for policy makers 45
The finance gap 45
Entrepreneurial capacity 45
Implications for active entrepreneurs 47
Box 1 – Case study 47

PART FOUR: ACTION FOCUS: HARVESTING VALUE THROUGH A BUSINESS EXIT STRATEGY 49
An urgent need that is not being addressed 49
What does GEM research tell us about the business exit issue? 49
Relevance to all existing Australian SME business owners 50
The challenges of entrepreneurial exit 51
Generational transfer 51
Transfer through sale 51
Transfer through stock exchange listing 51
The benefits of serial entrepreneurship 52
Strategic guidelines for conducting a trade sale 52
The fundamental basis of a trade sale 52
The fundamentals of trade sale exit strategy 52
Conclusion 54

REFERENCES AND BIBLIOGRAPHY 56

APPENDIX 1: GEM AUSTRALIA 2004 RESPONDENTS 58

APPENDIX 2: GEM AUSTRALIA PRINCIPAL SPONSOR 65

APPENDIX 3: GEM AUSTRALIA METHODOLOGY 66
1. The national population survey 66
Survey methodology 66
Key entrepreneurial participation indicators 66
2. Depth interviews of national experts 66
3. The international survey of expert opinion 67
4. Secondary sources 67
Limitations 68
Nomenclature note 68

RESEARCH TEAM 69

ACKNOWLEDGMENTS 70

LIST OF TABLES

Table 1 GEM Participant Countries (Accumulated) 4
Table 2 Weighted and Unweighted Sample Summary 7
Table 3 The National Entrepreneurial Activity Matrix 9
Table 4 Business Angel and Entrepreneur Financing Comparison 16
Table 5 Business Angel/Investee Relationship 17
Table 6 Classic Venture Capital Investment Summary 17
Table 7 Opportunity:Necessity Motivation Ratio Trend 23
Table 8 Australia's Entrepreneurial Activity Scorecard 2004 24
Table 9 Summary of Expert Key Informant Interviews 26
Table 10 Summary of Top Three Strengths, Weaknesses and Expert Proposals 31
Table 11 Australian Expert Rating Summary 32
Table 12 The Entrepreneurial Environment Summary 35
Table 13 Assessing Factors Associated with Entrepreneurial Participation 37
Table 14 Comparison of World Expert Views 41
Table 15 Two Nomenclature Differences Between Australia, the Global Executive and Some Other Nations' Reports 68

LIST OF FIGURES

Figure 1 The GEM Theoretical Model 5
Figure 2 Composite International Comparison of Business Stage Participation 10
Figure 3 International Comparison of PEP Index 10
Figure 4 PEP Comparison Between Low and High GDP Nations 11
Figure 5 Relating PEP to GDP for Developed and Developing Countries: The Australian Correlation Analysis 12
Figure 6 Relating PEP to GDP for Developed and Developing Countries: The GEM Executive Report 'U' Graph 12
Figure 7 Motivation of Participating Population 13
Figure 8 Customer Oriented Innovation 13
Figure 9 Differentiation Oriented Innovation 14
Figure 10 Technology Oriented Innovation 14
Figure 11 Growth Intentions/Expectations 15
Figure 12 Export Market Focus 15
Figure 13 Australian Business Ownership Participation: Males/Females 17
Figure 14 PEP: Gender and Age Comparisons 18
Figure 15 PEP: Age Comparisons 18
Figure 16 Early-Stage Participation: Regional Splits 19
Figure 17 Completed Education: Business Participation Comparison 19
Figure 18 Non-Completed Education: Business Participation Comparison 20
Figure 19 Distribution of Belief in Skills to do Start-up 20
Figure 20 Motivation Comparison of Those with 'No Belief in Skills to Do Start-up' 21
Figure 21 Australian Entrepreneurial Participation 22
Figure 22 PEP Time-Series 22
Figure 23 Business Angel Participation and Informal Capital Trends 23
Figure 24 Classic Venture Capital Investment Trend 23
Figure 25 Payback Expectations Comparison 50
Figure 26 Payback Time Period Comparison 50
Figure 27 Business Exit Options 51
Figure 28 Proactive Trade Sale Strategies 53

Executive Summary

DOMINANT THEMES IN 2004

GEM provides a rich, complex database fraught with issues that might easily be called 'key'. Selectively choosing just a few for discussion of their implications is a judgment call that is forced by constraints of researcher time and documentary space. We have selected the following as the key issues whose implications should predominate in the thinking of four constituencies: the general public, the research community, policy makers and business practitioners.

There are eight key issues emerging from GEM Australia research covering the calendar year 2004.

- HIGH VOLUME, LOW QUALITY NEW VENTURING. Australia consistently displays relatively high rates of business participation, especially in the start-up phase, but growth intentions (through both export and technology) and incorporation of innovation are low despite a high claimed level of opportunity motivation.
- GETTING WORSE? 2004 shows an undesirable increase in necessity motivation and the ratio indicator between necessity and opportunity has declined to below the level of 2002. This may indicate that, while the quantity of our new venture participation is increasing, it is possible that the quality of our early-stage venturing – already low – may be declining.
- MISUNDERSTANDING OF 'INNOVATION'. The major frame of reference on 'innovation' for the Australian business community seems to focus more on differentiation from competitors than newness to customers or the incorporation of new technology. This particular problem is part of a far wider misunderstanding about the complex nature of innovation and its relationship to entrepreneurship. This issue can be addressed through a focused, national educational effort.
- A FINANCIAL MARKET GAP. The financial markets do not appear to cater for home-grown new ventures that have genuinely high growth potential. The angel market seems to be in decline and, although the classic venture capital market shows signs of reversing a declining trend, net financial market dynamics with respect to new venturing will probably have a negative affect on the ability of new, high growth potential ventures to receive sufficient start-up and growth capital for survival. Accordingly, the nation must develop and maintain a financial support environment conducive to the creation and growth of high-quality start-up and young businesses.
- LOW PRIORITY, FRAGMENTED GOVERNMENT POLICY. In the previous four years of GEM Australia reports the longitudinal data are consistent with the views expressed by the calendar 2004 expert key informants. Governments, state and federal, just do not understand entrepreneurship and cannot prioritise it adequately as a policy issue. What passes for 'entrepreneurship policy' is accordingly diffused, fragmented, ill directed and ineffective. In the past, GEM Australia has been guilty of placing too much emphasis on the too few positive aspects of entrepreneurship policy in Australia. The time has come to place the emphasis where it belongs: on the negative. Current and projected entrepreneurship policy in Australia is too little, too ill focused and too ill informed to serve the nation adequately.
- EDUCATIONAL FAILURE. The nation must develop education and training programs with a specific emphasis on increasing entrepreneurship in the curricula of our key educational institutions from kindergarten to university.
- MIDDLE OF THE ROAD COMPLACENCY. Most of the factors contributing to national entrepreneurship that expert key informants perceive to either bolster or inhibit Australia's entrepreneurial performance neither lead nor lag other nations when compared with international expert opinion. This makes it possible to take one of two attitudes: justification of mediocrity or commitment to improvement. We might say, "Well, on balance, as an entrepreneurial nation Australia is really no worse than anyone else" and rest on rather thin and patchy laurels. This sums up the current aggregate national attitude to entrepreneurship. Or, we realise that our 'middle of the international road' status provides no grounds for complacency and treat the fact that most countries display a good deal of sub-optimal entrepreneurial performance as an opportunity rather than a brake.
- INADEQUATE ENTREPRENEURIAL CAPACITY. In aggregate, the nation simply lacks the entrepreneurial capacity to create globally competitive, high-employing businesses and is doing very little to address the deficiency. Key constituencies, including both business practitioners and policy makers, don't seem to understand the crucial differences between the traditional skills and training needed to assist small businesses with the basic tasks of managerial competence as distinct from the radical skills and training needed to create and develop genuinely innovative high-growth-potential businesses.

MAJOR OBSERVATIONS

This year (following methodological recommendations articulated in a paper by Hindle [2005]) we have adopted a formally structured matrix approach to presentation, analysis and discussion of the annual data produced by the GEM project. The equation analogy (applicable to each stage of the entrepreneurial process – i.e. start-ups, young businesses and established businesses) argues that:
TOTAL ENTREPRENEURIAL ACTIVITY = PARTICIPATION + MOTIVATION + INNOVATION + GROWTH + FINANCE + CAPACITY.

1. PARTICIPATION. Australia continues to experience high levels of business ownership in all three stages: *start-ups* (businesses aged three months or less); *young* businesses (businesses aged more than three but no more than 42 months) and *established* private businesses. When compared to the 34 participating nations in the 2004 GEM cycle, Australia ranks seventh on overall business ownership participation. Combined early stage activity (i.e. the percentage of a nation's working age adults involved as proprietors in either start-ups or young businesses, but not double counting those involved in both) is measured by the PEP Index (Percentage of Early-stage Participation).[1] Australia has an early-stage business participation rate of 13.4% and, in comparison with the composite three-stage participation rankings, slips one place to eighth in the list of all 34 countries. When comparison focuses on the 20 developed GEM countries, Australia is ranked third.
2. MOTIVATION. Early-stage Australian business participation continues to be highly dominated by those seeking to pursue opportunity (10.7% of the population participating) rather than entering business ownership out of a necessity motivation (2.5% participating).
3. INNOVATION. GEM allows us to look at three aspects of innovative propensity: product/service novelty, competitor differentiation and use of technology. On all three measures Australian enterprise performs poorly. In aggregate, the businesses created by our entrepreneurs are not innovative.
4. GROWTH. Many definitions of and approaches to entrepreneurship (stretching back to David Birch's characterisation of abnormally high-growth-potential ventures as 'gazelles') stress the importance of commitment to high growth as a distinguishing feature of a truly entrepreneurial venture. GEM provides two measures of growth orientation: *the intent of owners to grow their businesses* and *export orientation*. As indicated by these measures, in aggregate, the businesses created by our entrepreneurs are not growth oriented.
5. FINANCE. Formal and informal capital markets are adequate for the sub-$50,000 early-stage requirements of 'me-too', non-innovative, low-growth oriented start-ups and young firms. However, the capital markets are not adequately able to fund the capital requirements of Australia's (all too rare) high-innovation, high-growth-potential early-stage ventures (gazelles).
6. ENTREPRENEURIAL CAPACITY. Finally, there can be no pretence that 'total' or 'national' entrepreneurial activity has been even summarily covered without addressing this issue. Simply stated, *entrepreneurial capacity* is the ability of the people involved in a new venture to do what is required to make it an entrepreneurial success through application of the knowledge and skills those people possess. Entrepreneurial capacity comprises the collective characteristics, experience, knowledge and skills embodied in a firm's human and capital resources.

EXPLANATIONS

The factors most strongly associated with entrepreneurial participation are: belief you have the skills to start a business, knowing someone who started a business in the last two years and perceiving good business opportunities in the next six months.

The explanation of our low national propensity for innovative and high-growth oriented venturing lies fundamentally in the domains of *cultural and social norms* and *education* (which is the domain most responsible for affecting and changing cultural and social norms). GEM data indicate that the education and training that is misperceived as 'entrepreneurship education' is not even effective at the lower level of providing basic business skills. In a nutshell, we are a non-entrepreneurial nation because we have a predominantly non-entrepreneurial culture and our education system is failing to change the culture and the attendant entrepreneurial capacity of Australians.

IMPLICATIONS

AS A NATION, DO WE CONFRONT OR IGNORE OUR NATIONAL ENTREPRENEURIAL MEDIOCRITY?

Essentially, Australia has to face a very unpalatable fact. Although Australia has high participation rates in business ownership when compared to other developed nations, this is not a component of entrepreneurial activity in which we can take any real joy because the low entrepreneurial *quality*

[1] This used to be called – and by many GEM countries and the global executive team is still called – the 'TEA Index' (for 'Total Entrepreneurial Activity'). The Index does not remotely approach proxy status for the full complex of variables that make up the total of entrepreneurial activity in a given country in a given year. Accordingly, GEM Australia (following Hindle 2005) names the index for what it actually measures: the percentage of the population participating in early stage business venturing. This measure is a necessary component but not a sufficient indicator when one seeks to evaluate the entrepreneurial status and behaviour of a nation.

of our new venturing activity and our new venturing environment are more important than the relatively high *quantity* of owner-operated businesses. When the other components of entrepreneurship are factored in (motivation, growth-orientation, innovation, financing and entrepreneurial capacity), Australia's national entrepreneurial performance is mediocre. In aggregate, our educational institutions and policy-making apparatus are not helping to raise the standards. Our media and national commentary machinery are not voicing concern or sending a sufficient volume of relevant messages. There is no national sense of urgency about these problems. In summary, when it comes to entrepreneurship, we are a nation of quiet under-achievers. And we're happy with that. This may be a short-term recipe for long-term national failure.

IMPLICATIONS FOR THE GENERAL PUBLIC

Deep-seated cultural inertial factors can only be overcome through the education system, and the general public simply will not scream for more entrepreneurship education. If entrepreneurial inertia and apathy are not to prevail, entrepreneurship education itself needs high-profile champions to articulate and fight for the cause.

IMPLICATIONS FOR THE RESEARCH COMMUNITY

One recommendation is made:

***Research Recommendation**. The GEM Australia research team recommends the financing and conduct of a study into the current status and effectiveness of entrepreneurship education in Australia.*

This is a call to social scientists in general and entrepreneurship researchers in particular to apply for an ARC (Australian Research Council) large grant to conduct a critical evaluation of Australian entrepreneurship education in a national and international context.

IMPLICATIONS FOR THE POLICY MAKING COMMUNITY

FINANCE. To halt the decline in the angel market, policy measures will need to be implemented and in Australia perhaps a combination of savings and investment incentives with off-set tax concessions might help to induce more angel investment.

ENTREPRENEURIAL CAPACITY. In a nutshell we are nationally inadequate at turning good ideas into good businesses. This is a legitimate issue for public funding. One recommendation is made:

***Policy Recommendation.** The GEM Australia research team recommends the financing and conduct of a feasibility study for the establishment of an Australian Institute for the Study of Entrepreneurial Capacity (AISEC) with the objective of facilitating and enhancing Australia's development of innovative growth-oriented new ventures.*

One of our 2004 GEM Australia expert key informants suggested that the most suitable model for an 'Australian Institute of Entrepreneurship' might be the Australian Institute of Sport, even if the former has to live on a much smaller budget. We do not recommend the immediate establishment of such an Institute. We simply recommended a feasibility study to explore the most suitable structure and possible funding sources for such an Institute, having regard to Australia's national, state and regional potential to benefit immensely from enhanced entrepreneurial capacity. We spend billions on creating new knowledge and virtually nothing on studying the best ways to convert this into sustainable value through the creation of high value-adding businesses.

ACTION FOCUS

In each annual Westpac *GEM Australia Report*, we try to add direct value to the Small and Medium Enterprise (SME) community by offering entrepreneurial individuals and firms (and their advisors) an action focus, in the form of very practical operational guidelines about how to handle an issue directly relevant to the day-to-day specifics of running an entrepreneurial business. This year, we offer some practical guidelines on how to build value into a business so that when it comes time to sell it, the best price can be realised.

CONCLUSION

Entrepreneurship is fundamentally important to a nation's prosperity, growth and development. It is the most important dynamic driver of the economy and the well-spring of future employment. For all Australia's 'have-a-go' attitude and despite the existence of sporadic examples of excellent entrepreneurial performance, our aggregate national entrepreneurial performance is at best mediocre. A bad situation shows some early signs of getting worse and our attitude to our plight is complacent. This report highlights the challenges and pleads for leadership from policy-makers, researchers, business leaders and particularly educational leaders to arrest the early signs of entrepreneurial decline and provide the platform for a growth and innovation-oriented business community capable of delivering sustainable value to future generations of Australians.

Introduction

The GEM Australia Project

PROJECT OVERVIEW

The concepts leading to the Global Entrepreneurship Monitor (GEM) project were initiated in September 1997. The aim was to develop an international consortium to bring together specialist scholars to study the complex relationship between entrepreneurship and economic prosperity at national and international level. From the outset, the project was designed to be a long-term multinational enterprise, with a growing number of partner research institutions and teams.

GEM was launched in 1999 with teams representing 10 countries and has expanded rapidly since then. Participant countries (by year of joining) are shown in Table 1.

Table 1 – GEM Participant Countries (Accumulated)

Year	Countries
1999	Canada, Denmark, Finland, France, Germany, Israel, Italy, Japan, UK, USA
2000	Argentina, Australia, Belgium, Brazil, India, Ireland, Norway, Singapore, Spain, South Korea, Sweden
2001	Hungary, Mexico, Netherlands, New Zealand, Poland, Portugal, Russia, South Africa
2002	Chile, China, Croatia, Hong Kong, Iceland, Slovenia, Switzerland, Taiwan, Thailand
2004	Greece, Uganda, Venezuela
2004	Ecuador, Jordan, Peru

GEM is both a set of linked, international research projects and a set of documents that report project results. Each nationally based research team produces an independent, national report (*GEM Australia, GEM USA, GEM Japan* etc.) which explores in detail the nature, extent and effects of entrepreneurship within the individual country, including selected comparisons with other nations. At the international level, a coordinating team (currently based at the London Business School) oversees data quality control and produces the *Global Entrepreneurship Monitor Executive Report*. This aggregate document presents major findings across all participating countries and describes any emerging patterns that have global as distinct from merely national significance. In both the national and executive GEM reports there is an avowed intent to influence public policy by providing an evidential basis for policy and program development by agencies who would otherwise lack a source of data and argument devoted exclusively to entrepreneurship issues.

The funding for GEM research depends entirely upon the ability of each national research team to find a sponsor. Some countries have single sponsors, some a combination of several sponsors. Some sponsors come from the private sector, some from the public sector and some from the non-profit sector. Sponsors obviously seek goodwill benefits through supporting dispassionate, public-domain research. However, GEM sponsors are and must be totally dispassionate with respect to the *conduct* and *findings* of the research. Data collection, analysis and inference from each national GEM project are conducted and controlled by the professional researchers in each national team acting as social scientists committed to the search for truth in the public interest.

The GEM Australia project, conducted under the direction of Professor Kevin Hindle at the Australian Graduate School of Entrepreneurship at Swinburne University of Technology, would not be possible without the generous sponsorship and commitment of Westpac Banking Corporation. The GEM Australia team, the Australian Graduate School of Entrepreneurship and Swinburne University of Technology wish to state as a matter of public record that we believe the Australian nation should be grateful to Westpac Banking Corporation for the public spirit it displays in providing the means to produce data and analysis that is of substantial and obvious benefit to the nation. The resulting report is provided freely to every interested party (through the website gemaustralia.com.au) and could simply not be provided without Westpac's vital support.

RESEARCH OBJECTIVES AND THEORETICAL FRAMEWORK

The GEM program focuses on three main objectives:

- To measure differences in the level of entrepreneurial activity between countries
- To uncover factors leading to appropriate levels of entrepreneurship
- To suggest policies that may enhance the national level of entrepreneurial activity.

These objectives are explored in the context of a theoretical model illustrated in Figure 1. Before the advent of the GEM project, most studies of economic performance focused on *established* enterprise – the *status* sector of the economy. The value of emerging (as distinct from established) enterprise was missing from most attempts to measure economic performance.

GEM focuses its attention on a set of factors that specifically and variously influence the entrepreneurial

sector. These are termed the 'Entrepreneurial Framework Conditions' and are the basis of questions employed in both a national population survey (minimum of 2,000 respondents) and a combination of structured and unstructured interviews with experts (known as 'key informants') subjectively selected on the basis of their knowledge and credibility with respect to the various entrepreneurial framework conditions. The set of framework conditions are detailed and explained in Appendix 3.

In the GEM research model, the framework conditions are considered to be the main determinants of a nation's *entrepreneurial environment*. They achieve their influence in combination with *entrepreneurial opportunity* and *entrepreneurial capacity*. These factors – environment, opportunity and capacity (which includes both the *skills* and the *motivation* to capitalise on opportunity) – act together. Their combination determines the rate of business *activity*: birth, death and growth (business churning), which in turn contribute to economic growth and prosperity.

GEM'S RESEARCH METHODS

Three main data collection methods are used:

- An adult population survey, randomly sampling a *minimum* of 2,000 typical adults.
- Face-to-face 'open-ended' interviews with at least 36 experts (called 'key informants') on various aspects of entrepreneurship. These experts also complete a detailed, structured questionnaire
- The use of selected national economic data, measured in standard units, from credible international sources including the Organisation for Economic Cooperation and Development (OECD) and the World Bank

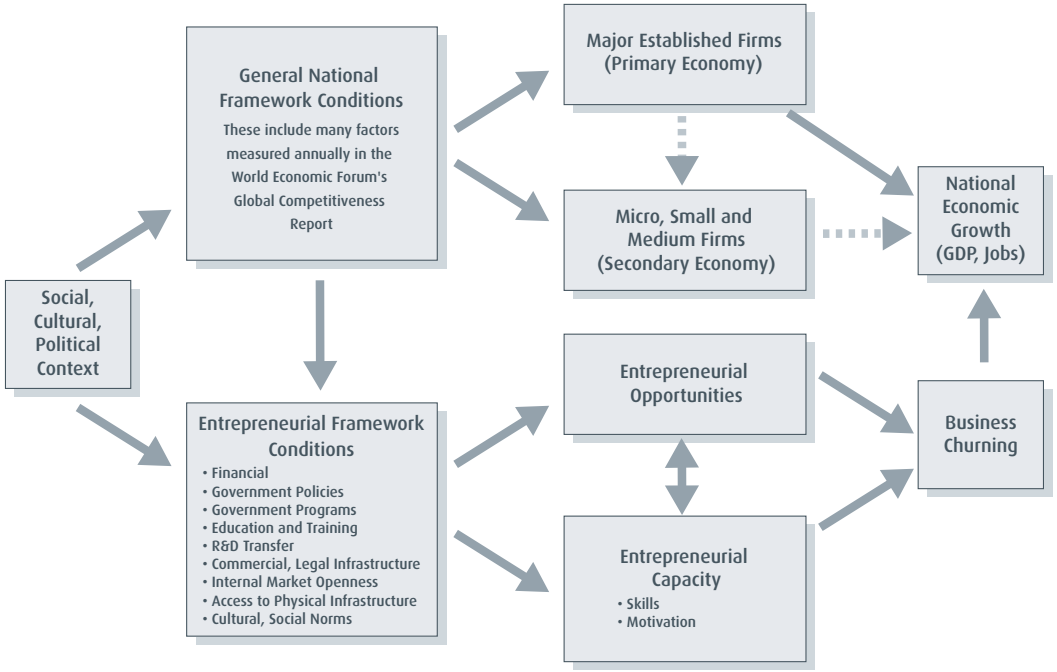
Appendix 3 of this report contains a detailed explanation of the methods employed to collect data for GEM Australia and the forms of secondary sources used.

SUMMARY OF PREVIOUS YEARS' FINDINGS

The body of GEM research in the five years 1999 to 2004 has found that entrepreneurial activity does vary significantly between countries.

Australia has been a consistent 'high-ranker' in early-stage business participation with rankings always at least in the top 40% of participating countries. Rankings have varied from a high of third of 29 in 2001 to fifteenth of 37 countries in 2002, a year when all participating countries

Figure 1 – The GEM Theoretical Model



declined severely due to a downturn in economic conditions and world social harmony (closely associated with the '9/11' terrorist attack on the United States). Apart from 2002, Australia has been among the top 10 countries, last year (2004) achieving eighth of 30 countries. However, a high volume of early-stage participation is not enough for Australia to qualify as an entrepreneurial country.

Even at its height, Australia's entrepreneurial participation reflected a country where a lot of small businesses were started rather than a country that produced world class companies. Australian experts have consistently identified culture, education, government support and financial support as areas impeding entrepreneurial performance.

FORMAT OF THE GEM AUSTRALIA 2004 REPORT

The philosophy is to present the data first, possible explanations of the data second and implications (for four audiences) third. Continuing the initiative introduced last year, Part Four of the report is an Action Focus intended to be of practical use to entrepreneurs and those who invest in them.

Part One: Observations. This section summarises what the annual data tell us in answer to GEM's principal questions, both in Australia and by comparison with other participant countries. Part One is sub-divided into observations of entrepreneurial activity (with evidence from the GEM adult population survey) and the entrepreneurship support environment (with evidence from key informants who provided both a free-form depth interview and answers to a structured questionnaire).

Part Two: Explanations. This section selects the most significant observations from Part One and seeks to explain them, offering insights from analysis of relationships within the data together with any relevant contextual influences.

Part Three: Implications. This section examines a selection of observations and themes from Part One and Part Two in terms of their implications for four distinct audiences: (1) the Australian general public; (2) entrepreneurship researchers; (3) entrepreneurship policy makers and (4) owners and operators who wish to make their businesses more entrepreneurial.

Part Four: Action Focus. Part Four of GEM Australia is intended to provide something practical for practising entrepreneurs or would-be entrepreneurs. Each year, we select a topic which GEM research indicates as being an especially problematic area for operators in the SME sector and we try to provide some simple, useful, easy-to-implement guidelines that can help solve that problem. This year, we provide a regime for preparing the business for sale. The focus is on maximising the value and return to the entrepreneur for the years of effort while maintaining the profitable and sustainable business entity for new ownership.

The Appendices include photographs and brief biographical notes of the 41 distinguished Australians who contributed to entrepreneurship research by volunteering their valuable time and knowledge to the project as expert key informants.

The full *Westpac GEM Australia Report* for the calendar year 2004 can be found on the GEM Australia website, www.gemaustralia.com.au. Here you will also be able to download past reports, other relevant articles and associated documents. International links can be accessed and useful updates can be regularly found.

Part One
Observations

THE MECHANICS OF THE ADULT POPULATION SURVEY

The Adult Population Survey for the GEM Australia project is the primary source of data used to monitor entrepreneurial activity in the nation. Shortly, we will present a matrix model of precisely what we mean by the complex notion of 'entrepreneurial activity' and show the particular strengths and weaknesses of the GEM survey instrument in collecting data relevant to various aspects of this model. At this stage, we present the essential, general technical details of the survey methodology used for data collection.

The data are collected from a stratified random sample of a minimum of 2,000 respondents drawn from the national population. The sample is randomly selected from the national White Pages telephone directory and is subsequently weighted to reflect the national demographic and gender distribution within the GEM definition of 'working age': adults between the ages of 18 and 64 years. It should be noted that states and territories have been combined in defining the various geographic regions of Australia as follows. The Australian Capital Territory is included in the NSW state region, Tasmania is included in the Victorian state region, and the Northern Territory is included in the South Australian state region. Appendix 3 provides a full outline of the methodology.

A summary of the sample for the year covered by this report, calendar 2004, is shown in Table 2 below.

Table 2 – Weighted and Unweighted Sample Summary

	Unweighted	Weighted
Total	**2000**	**1575**
Male	768	794
Female	1223	781
Opportunity-Motivated	159	168
Necessity-Motivated	38	39
Start-up Participants	124	126
Young Firm Participants	86	91
Established Firm Participants	199	152
Business Angel Participants	59	43

The raw number responses are weighted as described previously. This reduced this year's weighted sample size to 1,575, primarily by adjusting for gender bias and excluding respondents above or below working age. The weighted sample is used to form percentages of the total population participating in various types of entrepreneurial activity, while the unweighted sample is used in any statistical analysis techniques in order to maintain integrity among the findings.

A CRUCIAL PERSPECTIVE: THE MATRIX OF ENTREPRENEURIAL ACTIVITY

WHAT'S IN A NAME? NOMENCLATURE AND DESIGN ISSUES IN THE GEM PROJECT

As the GEM project evolves, certain issues of nomenclature are subject to debate among international research teams. This year the GEM Australia team has adopted a new nomenclature for certain indices and variables along with a new coordinating approach to the presentation and interpretation of GEM data. These changes do not affect our ability to make longitudinal comparisons with previous years' findings. Our terminology on certain items differs from the terms used by other GEM research teams. The reasons for this will be of significant interest to researchers and policy makers with a professional interest in entrepreneurship research but need not detain those readers of the report whose interest is of a more general nature.

The full academic argument for the enhanced approach we now adopt can be found in: Hindle, Kevin 2005, 'A Measurement Framework for International Entrepreneurship Policy Research: From Impossible Index to Malleable Matrix' *Journal of Small Business and Entrepreneurship*, forthcoming. Essentially, GEM Australia, following Hindle (2005), has shifted focus from disproportionate over-emphasis on one badly named index to an integrative matrix approach featuring a balance of multiple factors that are all relevant to the presentation of a composite picture of national entrepreneurial activity in any given year. The two major implications are first that, GEM Australia will henceforward cease to use the term 'Total Entrepreneurial Activity' (TEA) Index and will instead use the more descriptively correct term 'Percentage of Early-Stage Participation' (PEP) Index when this metric is discussed. Second, we stress that participation is but one element of 'activity': the terms are not synonymous. So, we have adopted a formally structured matrix approach to presentation, analysis and discussion of the annual data produced by the GEM project.

A MATRIX APPROACH: THREE STAGES AND SIX COMPONENTS

THREE STAGES

The life of a business from gestation, through birth and on to death is a continuum. However, for purposes of abstraction and analysis, researchers and research programs studying business permit themselves the luxury of conceptual division into distinct periods, in the same way as it can be useful (as well as problematic) to divide human life into such seemingly clear but contentious phases as 'infancy', 'childhood', 'adolescence', 'adulthood' and so on. Historically, for purposes of international comparison, the GEM project has featured three stages in the evolution of a new business (start-ups, young firms and established firms) but emphasised only two (start-ups and young firms). We will henceforth deal with all three stages.

GEM starts with an all-embracing definition of entrepreneurship as the act of conceiving, creating and developing a new business. The national population survey questionnaire captures data based on a division of the life the business into stages.

- START-UPS. After a set of filtering questions, GEM respondents can be classified as to whether they meet three criteria. (1) Are they, alone or with others, *exploring various possibilities* for creating a new venture? (2) Do they intend to assume partial or complete *ownership* of any possible or proposed new venture? (3) If a new venture has actually commenced operations, has it been paying wages (or equivalent) to any participants in the venture for no more than three months? If the answer to questions (1) and/or (2) and/or (3) is 'yes', then the respondent is classified in the start-up category. Effectively therefore, GEM's start-up category includes both nascent and active entrepreneurs: people engaged in contemplated or actual ventures that have not been operating for more than three months.
- YOUNG BUSINESSES. The *young*[2] *business* stage embraces businesses still in the hands of at least one of their founders and greater than three but no more than 42 months old.
- ESTABLISHED BUSINESSES. GEM's *established business* category embraces businesses still in the hands of at least one of their founders and greater than 42 months old.

SIX COMPONENTS

Hindle (2005) argues that the collection of GEM data can be productively organised under six categorical headings that have credence in the entrepreneurship research literature and take account of the empirical limitations of current GEM empirical data collection procedures. These components (conceptually considered as the rows of a matrix) can be combined with and applied to each of the three stages of business evolution (conceptually considered as the columns of a matrix). The resultant schema can give a systematic and reasonable approximation of national entrepreneurial activity in the year under study. The approach can be summarised first by a notional equation and second by a tabular matrix.

The equation analogy (applicable to each stage of the entrepreneurial process) argues that:

TOTAL ENTREPRENEURIAL ACTIVITY = PARTICIPATION + MOTIVATION + INNOVATION + GROWTH + FINANCE + CAPACITY

1. PARTICIPATION. It is entirely legitimate to regard the participation rate (the percentage of a population engaged in the various stages of the entrepreneurial process) as a primary and foundational component of national entrepreneurial activity. If no one engages in start-up or the later stage business, then clearly, there is no entrepreneurial activity. But participation is a necessary not a sufficient condition for describing the entrepreneurial activity of a given nation in a given year. There are at least five other components worthy of serious consideration and discussion.

2. MOTIVATION. It is not only important to know the quantitative fact *that* people start businesses, it is also helpful to know the qualitative reasons *why* they do so. Accordingly, a second component in building up a picture of total entrepreneurial activity is *motivation*. Unless people are motivated or driven to create a new business they will not do so. GEM research reports the type of motivations driving business creators and owners as being either *necessity based* or *opportunity based*. This year, we have extended the analysis of motivation across all three stages of business involvement to reveal a comparison between them.

3. INNOVATION. The third component required for understanding the entrepreneurial (or otherwise) nature of new business creation in a given nation (as compared to other nations) is the *innovative propensity* of the entrepreneurs and the ventures they establish and develop. In many definitions of entrepreneurship (most having close affiliations with the work of Joseph Schumpeter) innovation

[2] The GEM Australia team uses the term 'young' for businesses aged three to 42 months whereas the GEM executive report and some other countries use the term 'new' businesses. It has been our experience that many readers of the first two GEM Australia reports found that because a start-up was by definition 'new' in common parlance, the attempt to limit 'newness' to a specific timeframe after creation of the business was confusing. Confusion disappeared when we used the term 'young' instead.

(broadly meaning the act of giving commercial application to any new idea[3]) is the essential feature that distinguishes a genuinely entrepreneurial venture from 'just another business'. So, if GEM research can give us meaningful data on innovation (and it can and does) it would be a mistake to ignore it when discussing total entrepreneurial activity. As will be discussed shortly, GEM allows us to look at three aspects of innovative propensity: product novelty, competitor differentiation and use of technology.

4. GROWTH. A fourth component in building a picture of total entrepreneurial activity should concern the growth orientation of firms. Many definitions of and approaches to entrepreneurship (stretching back to David Birch's characterisation of abnormally high-growth-potential ventures as 'gazelles') stress the importance of commitment to high growth as a distinguishing feature of a truly entrepreneurial venture.

5. FINANCE. A fifth critical component of creating and developing an entrepreneurial venture is the ability to finance it. The GEM population survey provides certain information pertinent to this important aspect of national entrepreneurial activity.

6. ENTREPRENEURIAL CAPACITY. Finally, there can be no pretence that 'total' or 'national' entrepreneurial activity has been even summarily covered without addressing the issue of *entrepreneurial capacity*. Simply stated, this is the ability of the people involved in a new venture to do what is required to make it an entrepreneurial success. Entrepreneurial capacity therefore comprises the collective characteristics, experience, knowledge and skills embodied in the venture's human and capital resources. GEM data permits some insights into national entrepreneurial capacity.

SYNTHESIS: THE NATIONAL ENTREPRENEURIAL ACTIVITY MATRIX

Combining data of these six components of entrepreneurial behaviour (as matrix rows) across the three stages of business (used as column headings), permits us to build up a comprehensive assessment of national entrepreneurial activity for any nation in any year.

Table 3 summarises the matrix approach and presents The National Entrepreneurial Activity Matrix. The cells with a tick indicate that GEM Australia currently provides data and that a comprehensive discussion will be developed in subsequent sections of this report. A cross indicates current data absence or a relatively low level of data availability at that level.

[3]See Schumpeter [1911]2004: 57-95

Table 3 – The National Entrepreneurial Activity Matrix

	Start-up	Young Firms	Established Businesses
Participation Rate	✓	✓	✓
Motivation	✓	✓	✓
Innovation Propensity	✓	✓	✓
Growth Orientation	✓	✓	✓
Financial Support	✓	✗	✗
Entrepreneurial Capacity	✓	✓	✓

(Source: Hindle 2005)

PARTICIPATION RATES

THE THREE STAGE PERSPECTIVE

Figure 2 is a composite chart comparing international rates of participation for all three stages of business.

Australia continues to experience high levels of business ownership participation in all three stages. When compared to the 34 participating nations in the 2004 GEM cycle, Australia ranks seventh on overall business ownership participation (refer Figure 2). This position, perhaps surprisingly, is above the USA in tenth position, Canada in twelfth and the UK in eighteenth place. New Zealand, in fifth position, is the only high-GDP (Gross Domestic Product) country ahead of Australia. The remaining countries occupying the top positions in aggregate (3-category) business ownership participation as a percentage of the population are Peru at number one, Uganda, Jordan, Ecuador and Brazil. The prevalence of developing nations with low GDP figures ranking highly in business ownership participation is consistent with past years and is mostly attributable to necessity motivation. This aspect is discussed more fully in a subsequent section of the report.

THE EARLY-STAGE FOCUS

Traditionally the GEM study has given special focus to a combined index of start-up and young firm participation which we refer to as the Percentage of Early-Stage Participation (PEP) index. It combines the percentage of the working population participating in start-up and young business involvement (minus people simultaneously involved in both). This early-stage focus has been justified

on the grounds that the PEP index may be a useful indicator of potential growth in the economy. See Figure 3.

In an international comparison of PEP indices, Australia has an early-stage business participation rate of 13.4% and, in comparison with the composite three-stage participation rankings, slips one place to eighth in the list of 34 countries. Iceland moves up to sixth place just ahead of Brazil.

It must be strongly stressed that the rankings displayed in this chart of early stage business participation should not

Figure 2 – Composite International Comparison of Business Stage Participation

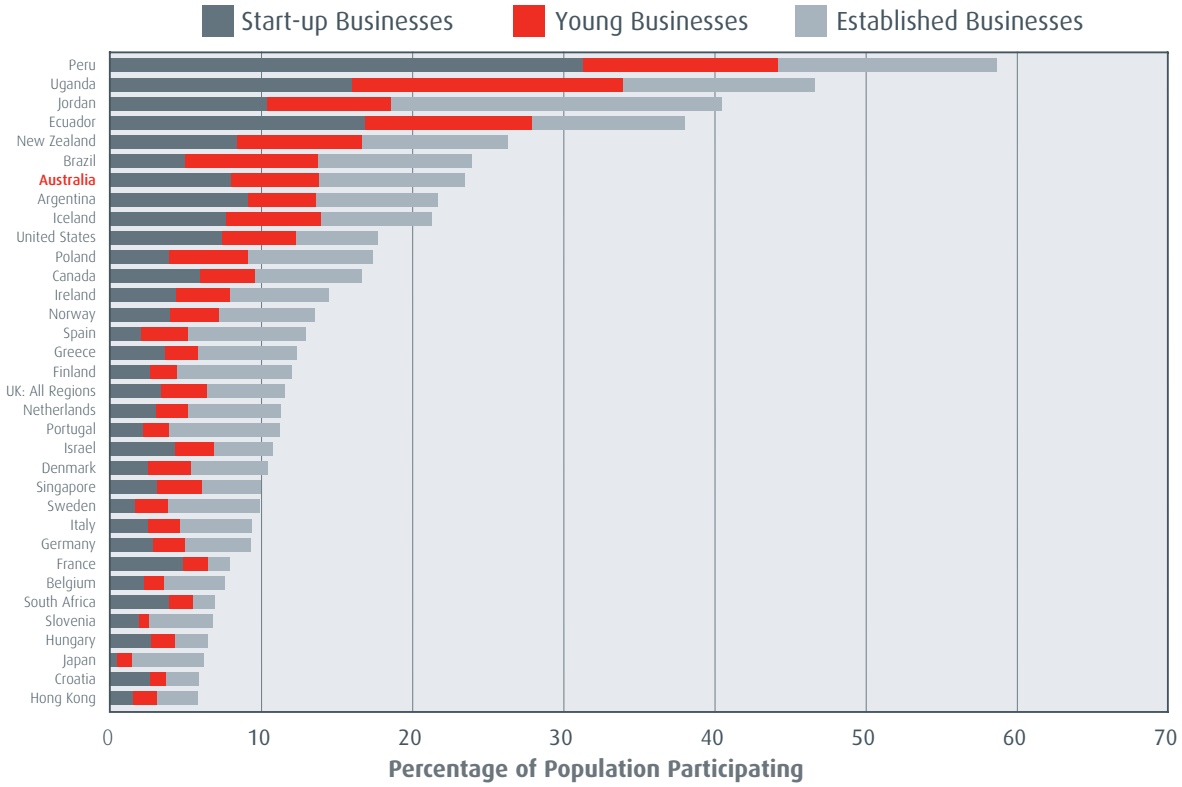
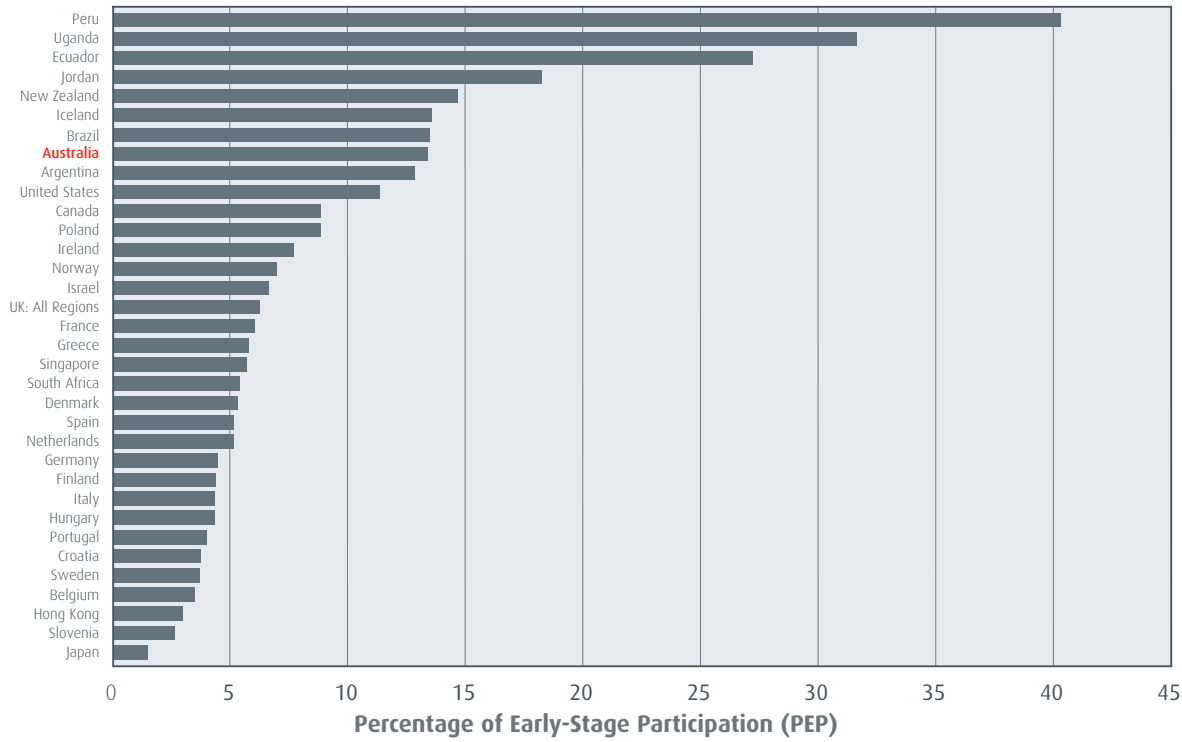


Figure 3 – International Comparison of PEP Index



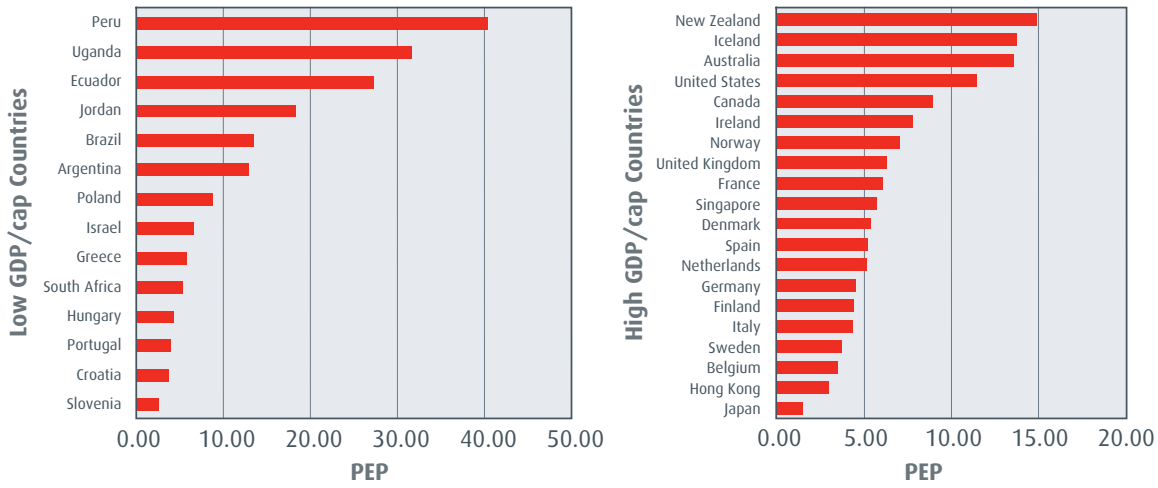
be crudely misinterpreted out of context. A comparison of just two countries (chosen at random) will illustrate the point. Belgium, with a very low participation rate in start-ups and young businesses, must not be thought of as a 'less entrepreneurial' nation than Uganda, which has a very high rate of participation in start-ups and young businesses. Clearly, even cursory cross-national comparison of motivation, innovative propensity, growth orientation, financial support and entrepreneurial capacity will indicate that Belgium is a far more entrepreneurial country than Uganda in every aspect *except* raw participation rate in early stage ventures. Moreover, analysis has suggested to the Australian team that Belgium may simply have no *need* to create a high volume of new small ventures. Belgium's *established* small ventures are among the most innovative and growth oriented of the GEM countries and Belgium is a country of high education and low population. Perhaps existing ventures have the capacity to absorb all the 'entrepreneurial talent' that the country is able to produce. This one example shows that it would be as silly to regard countries high on the PEP Index chart as 'more entrepreneurial' than countries low on the chart as it would be for Australians to take any undue satisfaction from the raw quantitative fact that the nation has a relatively high rate of early-stage business participation.

For entrepreneurship, the nature and quality of new ventures is more important than their mere quantity[4]. And the consideration of participation rates in conjunction with other economic variables is more important than considering them in isolation. The value of considering participation in combination with other variables applies both to variables generated outside GEM (such as whether a country is developed or developing and how much GDP per capita it generates) as well as in comparison to internally determined GEM activity-matrix variables (motivation, innovation, growth orientation, financing and entrepreneurial capacity). This point is potently illustrated by comparing PEP rates in conjunction with GDP (a non-GEM variable) and motivation (a GEM variable).

The division into developed and developing countries on the basis of GDP enables some really useful and informative insights to be generated with respect to the specific role of early-stage participation rates in different nations' entrepreneurial make-up. Figure 4 shows the split between the participating nations with respect to GDP per capita in US$ for 2004. Note that Australia rises to third place among the participating nations of higher GDP per capita. Again we stress that this provides no reason to be complacent with entrepreneurship policy. Figure 5 clearly shows that the PEP index means different things in different contexts.

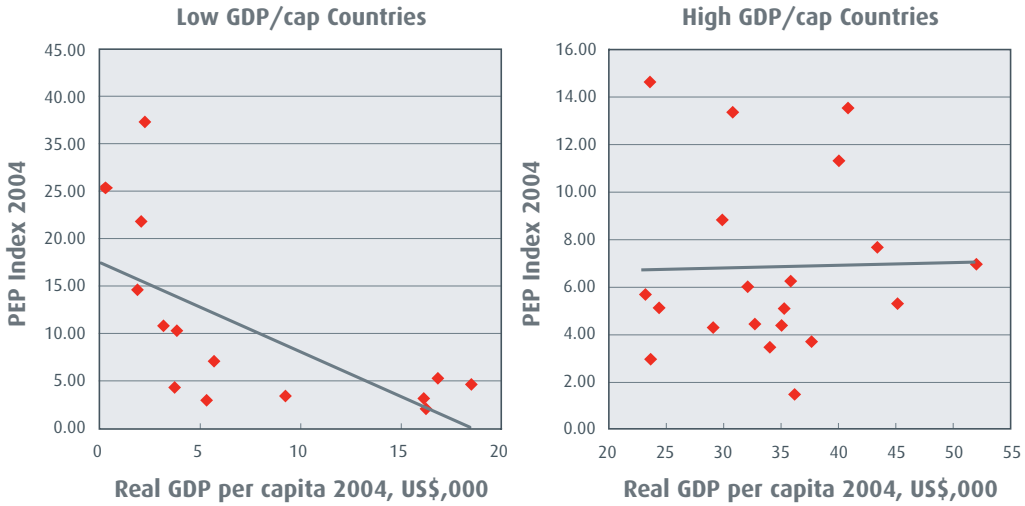
The matched pair of graphs in Figure 5 illustrate a correlation analysis performed by the GEM Australia team after splitting GEM's 2004 participating countries into developed and developing nations. The distinction was determined by splitting the US census data on the 2004

Figure 4 – PEP Comparison Between Low and High GDP Nations



[4] The GEM Australia team has, of course, *always* argued this point since the production of our first GEM Australia report in the calendar year 2000 (see Hindle and Rushworth, 2000, 2001, 2002, 2004). However, since the international GEM project focused undue attention on these participation rates and, in our view, misnamed the associated index as a measure of 'Total Entrepreneurial Activity', the depth and scope of the Australian project's research findings have often been overshadowed by particular constituencies who rushed to judgment on the basis of a distorted impression. A case in point, occurring shortly after the appearance of the first GEM Australia report, concerns a senior federal public servant from the Department of Foreign Affairs, who was serving on an important interdepartmental committee. This person rang the authors of the Australian GEM report to ask whether it were true, as had been stated by the member of the committee who was representing the Treasury Department, that – and we quote: 'Australia does not need to develop any specific policies with respect to entrepreneurship because the Total Entrepreneurial Activity Index of the GEM report shows us to be the fourth most entrepreneurial country in the world'. Hopefully, the newly adopted matrix approach and the renaming of the TEA Index to the PEP Index may help prevent such crude misunderstandings in future.

Figure 5 – Relating PEP to GDP for Developed and Developing Countries: The Australian Correlation Analysis



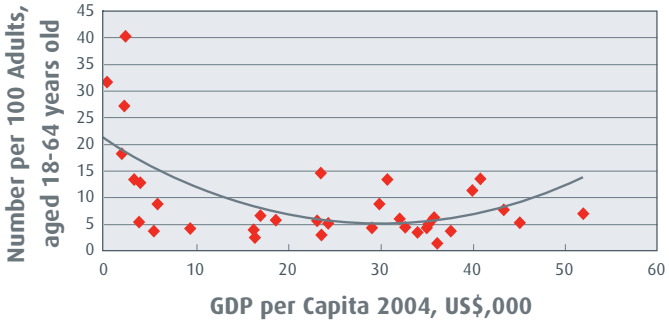
real GDP per capita as supplied by the GEM Executive team at approximately the mean point. The countries that were only marginally under the mean were included as high GDP countries due to an obvious natural break between the sets of nations that occurred just below the mean figure. In our analysis, simply stated, for developed countries there is no correlation whatsoever between a nation's general economic prosperity (as crudely measured by GDP) and the PEP Index representing the percentage of people participating in early-stage business formation and development. In developed countries we have to look elsewhere (to the other key ingredients of entrepreneurial activity: motivation, growth, innovation, financing and entrepreneurial capacity) to forge a link between entrepreneurial activity and economic growth and prosperity. In short, the raw number of business start-ups and young firms is not a critical issue in respect of national wealth. By itself, it doesn't matter very much.

In contrast, in developing countries, the participation rate in entrepreneurship (as measured by the PEP Index) shows strong BUT NEGATIVE association with the wealth of a nation as measured by GDP. In general, for developing countries we may say that the higher the participation rate in entrepreneurship, the poorer the country. Of course, the explanation of the participation rate differentials is strongly informed by a consideration of motivation.

In developing countries, GEM data shows a much higher proportion of self-employment is the result of necessity: no better choices for employment. So, a great many of the ventures created against a background of poverty and deprivation will be resource-starved, me-too ventures: the road-side taco stand, the shoe-shine booth and legions of menial ventures associated with poverty and underdevelopment in both the popular mind and the established economic literature. As a country's general level of wealth rises, the better is the range of employment opportunities that can attract people away from subsistence-level self-employment, and early-stage participation rates (measured by PEP Index) start to fall. At the point where a country has made the transition from developing to developed status, the trend of association may start to turn upwards again. This is because, in developed nations, the prime motivation for much new venturing switches from necessity to opportunity. This is illustrated in Figure 6, sourced from the GEM global executive report.

This year the authors of the GEM executive report are to be lauded for their break with an undesirable tradition. Instead of lumping all early-stage participation rates of all countries crudely onto the one graph as in years past, they have broadened their introduction to their analysis considerably by stressing the inter-relationships between participation rates, development status and entrepreneurial motivation. This approach provides clear and sufficient demonstration that early-stage participation results are not an entrepreneurial panacea – either of actual behaviour or research measurement. It defies logic that they still insist on calling

Figure 6 – Relating PEP to GDP for Developed and Developing Countries: The GEM Executive Report 'U' Graph



their index of this phenomenon a measure of 'Total Entrepreneurial Activity' when their very first use of it demonstrates that it is not.

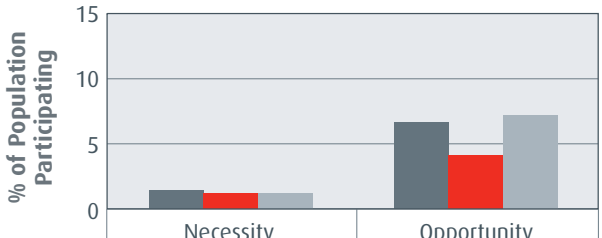
Let us return to the Australian context and consideration of the five factors beyond participation that combine to comprise the nation's entrepreneurial activity.

MOTIVATION

Since 2001, GEM's Adult Population Survey has included questions to differentiate the motivation behind starting a business by asking whether the business was started due to necessity (there being no other better choice for employment) or whether it was due to the recognition of an opportunity. Early-stage Australian business participation continues to be highly dominated by those seeking to pursue opportunity (10.7% of the population participating) rather than entering business ownership out of a necessity motivation (2.5% participating).

Figure 7 displays the motivations reported by business owners at all stages of business participation. The percentages are the proportion of owners within each business stage who report necessity and opportunity motivations. It can be seen that the young business category represents the highest proportion of those engaged in business due to necessity. Although cross-sectionally (for calendar 2004) the motivational proportions are similar for each business stage, the trend data reported later may indicate some important differences. This issue will be discussed, below, in Part Two of the report.

Figure 7 – Motivation of Participating Population



	Necessity	Opportunity
Start-up Business	1.4	6.7
Young Business	1.2	4.1
Established Business	1.2	7.2

Motivation

THREE ASPECTS OF INNOVATIVE PROPENSITY

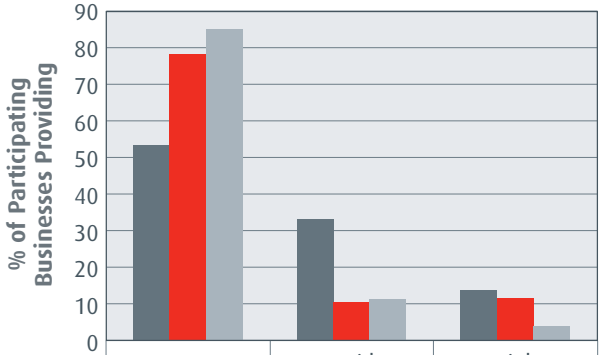
PRODUCT / SERVICE NOVELTY

Turning our attention to the first of the innovation attributes captured by GEM, 'novelty to customer', we find that young and established businesses have similar characteristics while start-up businesses display a somewhat different profile. Using the Kruskal-Wallis One-Way Analysis of Variance test (K-W test), start-ups were found statistically to be significantly different from young and established businesses on this characteristic. The Mann-Whitney U test (M-W test) confirmed the similarity between the established and young businesses. The number of respondents owning young and established businesses that report high and mid levels of product novelty to their customers is relatively small (refer Figure 8). The level of product novelty is determined by the question "Will all, some or none of your potential customers consider this product or service new and unfamiliar?" The response permits classification into the three categories of high, mid and low novelty orientation. Clearly, start-up owner respondents have a much more positive view about the level of novelty of their products and services being offered to customers. The relative similarity between young and established businesses suggests that either start-ups operate from a realm of false beliefs and over-confidence or that the market acceptance of new products and services in Australia is very poor, preventing those that try to introduce product novelty from doing so. Given that Australians are generally comfortable with technological change (ACETS, 2004) it is not likely that new businesses with product/service novelty are greeted poorly in the market. This suggests that other factors affect the finding that an important component of innovative orientation 'disappears' once Australian businesses move from the planning and very early stages of implementation.

DIFFERENTIATION FROM COMPETITORS

The second innovation propensity factor that we have explored is that of differentiation from competitors. A much more even mix of response is found here (refer Figure 9), although again the same pattern of difference and similarity is found between the start-up, young and established businesses as was discovered with respect to novelty. Again,

Figure 8 – Customer Oriented Innovation



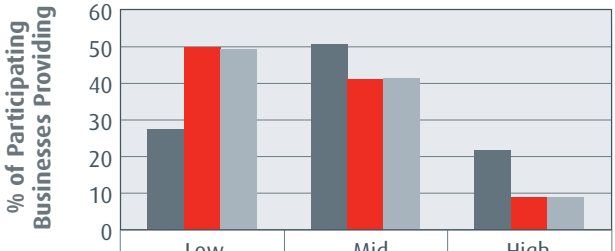
	Low	Mid	High
Start-up Business	53.2	33.1	13.7
Young Business	78.2	10.3	11.5
Established Business	85.1	11.2	3.7

Innovation x product newness to customer

these differences were found to be statistically significant through the K-W and M-W tests.

It might be reasonable to expect an 'entrepreneurial nation' to reflect a high propensity toward product differentiation and creative differences among its businesses. In the Australian case, we find the contrary. Only 9% of both young and established business owners suggest that their products are unique and that 'nothing similar is being offered by competitors'. In contrast, start-ups again are much more positive about their level of differentiation with just under 22% suggesting that no other competitor will offer a similar product or service. As with product novelty, this finding too suggests that, generally, start-up business owners may be overly optimistic and under-prepared for the mundane reality of market and industry dynamics prevailing in Australia.

Figure 9 – Differentiation Oriented Innovation



	Low	Mid	High
Start-up Business	27.4	50.8	21.8
Young Business	50.0	41.0	9.0
Established Business	49.5	41.5	9.0

Innovation x differentiation to competitors

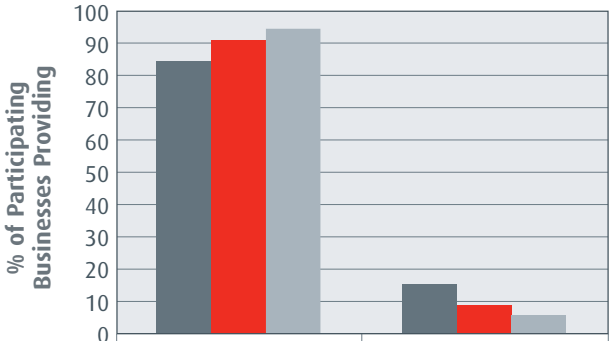
INCORPORATION OF NEW TECHNOLOGY

GEM's third measure of the innovative propensity of Australia's business owners is considered from the perspective of technology. Respondents provide an answer to the question "Were the technologies or procedures required for this product or service generally available more than one year ago?" A "yes" response indicates low utilisation of new technology and a "no" response suggests a high level of new technology utilisation. Overwhelmingly, the responses for all business stages suggest low utilisation of new technology for the products and services offered by Australian businesses (refer Figure 10). And there is an increasing trend away from the application of new technology as the businesses grow older. Among established business owners, only 5.9 % indicated a high technology utilisation. 15.3% of start-up owners indicated a high technology utilisation while young businesses occupied the middle ground with 9% of owners claiming the use of new technology as an important element of their product/service offerings.

The declining percentages of new technology utilisation as business grows older suggests a differentiation between the three business stages but tests for significant statistical difference were not conclusive. This means that Australian business owners' propensity to adopt new technology for products and services cannot be said to differ according to whether the business is a start-up, young or established. New technology utilisation by all stages of Australian business surveyed in GEM is very low.

In mitigation it should be mentioned that the development and commercialisation of new technology is not a rapid process nor is its frequency likely to be annual for businesses (with the exception of a very few specialist organisations). In other words, building innovative new technology into products and services takes time and may not occur or need to occur for every product offering every year. Therefore, as GEM methodology develops, perhaps the question relating to new technology should be modified to take both the time and originality dimensions of technological innovation into account. It would be possible to ask whether the technologies or procedures for the products and/or services of the business were newly developed by the business, alone or in partnership, within the last 12 months, the last three years, more than three years ago or not at all developed by the business itself. A question of this nature would deliver a more realistic understanding of the degree to which national business owners are focused on new technology development as a common practice for their businesses. Meanwhile, the current status of GEM data indicates that, in aggregate, Australian business owners are not significantly concerned with the introduction of new technology into the products and services that they offer.

Figure 10 – Technology Oriented Innovation



	Low	High
Start-up Business	84.7	15.3
Young Business	91.0	9.0
Established Business	94.1	5.9

Innovation x new technology

TWO ASPECTS OF GROWTH ORIENTATION

INTENTIONS AND EXPECTATIONS

The next component of national entrepreneurial activity embraced by our matrix approach is growth. All other things being equal, the higher the growth orientation and growth performance of a business, the more entrepreneurial it is. Of course, growth intentions and expectations of proprietors (which is what GEM measures) may be a poor predictor of actual growth performance of firms. However, it is fair to say that highly entrepreneurial businesses will tend to have high growth intentions and expectations. The adult population survey asks each participating business owner about their expectations and intentions with respect of the growth in number of employees five years from the time of the interview. Figure 11 reveals that just over 71% of established business owners expect to create no jobs. Just under 60% of young businesses expect the same. Using the politest of vague language, one might say that the growth expectations of most Australian young and established business owners could generally be described as 'modest'. The vast majority of those who do expect or intend any employment growth state that it would only be between one to five employees over the next five years.

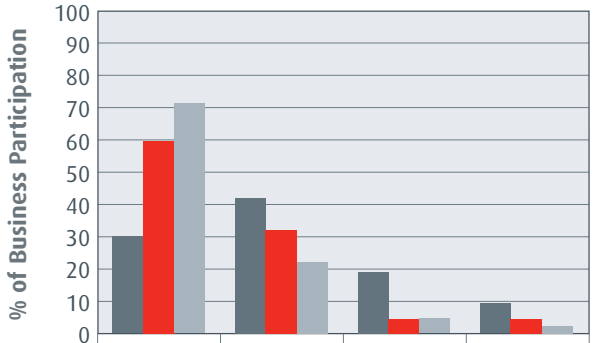
Start-up businesses on the other hand appear to be much more ambitious with respect to growth. The majority (70%) expect some form of employment growth. Encouraging as this may be, some questions need to be raised. Does this ambition fade as novice entrepreneurs experience the harsh realities of markets and competition or are the ambitions affected by other environmental factors such as government policy?

EXPORT ORIENTATION

A nation deserving to be characterised as displaying high levels of entrepreneurial behaviour would expect to see, among its emerging businesses, a strong focus on export sales. This is an especially reasonable expectation for a country such as Australia characterised by a relatively small domestic market size. On this measure, from Figure 12 it can be seen that in all three stages of business owner participation, Australia's business owners have low expectations concerning the proportion of their sales that might come from export markets. Start-ups claim to seek 77% of sales from the domestic market while young businesses expect that nearly 87% and established businesses just under 84% of sales from the domestic market. The GEM data indicates that Australians relatively rarely seek to grow their business through export market orientation.

It is disappointing to find that established businesses have a lower interest in exports then do the start-ups

Figure 11 – Growth Intentions/Expectations

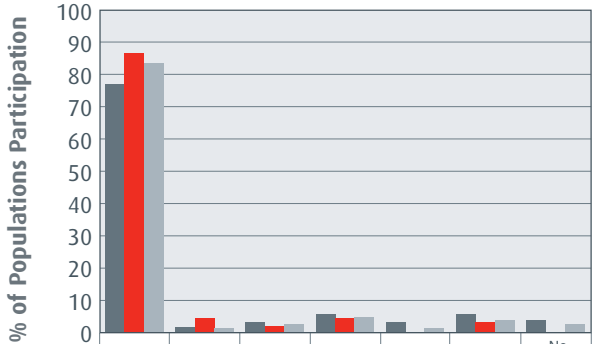


	No Jobs	1-5 Jobs	6-19 Jobs	20-UP Jobs
Start-up Business	30.0	41.8	19.1	9.1
Young Business	59.4	31.9	4.3	4.3
Established Business	71.1	22.0	4.6	2.3

Five year employee growth ambitions

as this might suggest that as businesses are growing they are either unable or unwilling to fulfil their early-stage export growth ambitions. Young businesses have the highest level of domestic-versus-export market focus. Whether this is because of a lack of exporting ability or interest or both is a moot point. Turning to the relatively rare 'top echelon' of export oriented businesses (those expecting or reporting that 76% or more of total sales come from export markets), 8.8% of start-ups expect to fit into this category while only a miniscule 3.3% of young businesses and 5.2% of established businesses have achieved this level of export market activity. Again, this suggests that start-up businesses may have difficulty in living up to any initial export expectations. Experience suggests that start-ups rarely achieve international success without the intent and plan to be 'born global'. The only positive in the somewhat gloomy picture of export orientation painted by the data is that one can see a positive

Figure 12 – Export Market Focus



	None	1-25%	26-50%	51-75%	76-90%	91-100%	No Response
Start-up Business	77.0	1.6	3.2	5.6	3.2	5.6	4.0
Young Business	86.8	4.4	2.0	4.4	0.0	3.3	0.0
Established Business	83.6	1.3	2.6	4.6	1.3	3.9	2.6

Percentage of market outside of country

shift from the young business export activity to a higher level among established businesses. Nevertheless this candle glows dimly in a dark place. Export orientation is not a feature of Australian owner-operated businesses.

FINANCING ACTIVITY

Financing start-up and young businesses is partly an infrastructure issue and partly one of a nation's culture and entrepreneurial capacity. Here we discuss two types of investment participation: that of the informal investment market where individuals, (known as business angels) invest in businesses from their circle of family, friends and acquaintances, and the 'classic' venture capital market where professional firms invest in high potential businesses expecting a return through an equity sale in the relatively short term. According to the GEM 2004 Financing Report (GEM 2004b) fewer than one in 10,000 start-ups have venture capital in hand when they open their doors for business. This illustrates that angel finance is far more important than venture capital to the vast majority of businesses.

BUSINESS ANGEL ACTIVITY

A good way to gain perspective on the utility and sufficiency of the business angel market to the capital needs of new businesses is to compare what angels are prepared to give with what new venturers think they need. GEM data facilitate this comparison.

In the 2004 GEM Australia survey, the average investment in the last three years reported by the business angel respondents was AU$152,423, while the average investment capital required by start-up businesses was AU$95,884[5]. The two figures seem to be 'in the same ballpark' despite the need for interpretive caution[6]. Table 4 below outlines the situation with angels and start-up business capital requirements. This table shows that around 68% of business angels invest no more than AU$50,000. On the other side of the equation, there were 57% of start-up businesses requiring this level of capital, and the data revealed that just over 51% of start-ups were personally able to provide between 76% to 100% of the capital required for their new venture. For these businesses, finance appears not to be the crucial problem it is sometimes argued to be on a non-evidentiary basis.

Moving to a different ('higher ticket') perspective on the same data set, around 16% of angel investors have invested between AU$50,000 and AU$500,000 over the past three years, while around 41% of start-ups claimed funding requirements greater than AU$50,000 over the last 12 months. Notably, nearly 10% required in excess of AU$500,000. Further, nearly 50% of start-up businesses have less than 75% available capital for their new venture. Clearly, and unremarkably, it is with the upper reaches of funding (AU$50,000 and above) that start-ups have the most difficulty and angel investors are not sufficiently munificent to fill the gap. According to the GEM 2004 Finance Report (GEM 2004b), it is the high growth-potential-businesses that will fall into this category of needing levels of funding (typically requiring around US$113,000 or roughly AU$150,000) and currently

Table 4 – Business Angel and Entrepreneur Financing Comparison

Investment Amount	Percent of Angel Investors	Percent of Start-ups and Investment Level Required
$10,000 or less	48.8%	30.2%
$10,001 to $50,000	20.9%	27.0%
$50,001 to $100,000	2.3%	15.1%
$100,001 to $250,000	7.0%	7.9%
$250,001 to $500,000	7.0%	8.7%
> $500,000	0.0%	9.5%
Did not respond	14.0%	1.6%
TOTAL RESPONDENTS	100.0%	100.0%

[5] In order to avoid distorting the figures excessively, three businesses that required well in excess of one million dollars were excluded from the average.

[6] Moving from percentages to actual sample respondents, the number of identified angels was 43 while the start-up respondents numbered 126. The angels invested over the last three years while the start-ups were counted over the last 12 months.

Australia neither has a sufficiently munificent angel or classic venture capital market to fill this void.

Business angel participants were also asked about the nature of their relationship with their 'investees' and Table 5 shows the number of business angels that have reported various types of relationships. 75% of the business angel investments in Australia were made to either family or friends and this is consistent with the GEM 2004 Financing Report (GEM 2004b)[7]. However, if you are a start-up in Australia of potentially a high growth company and you are without the securities required for a bank loan and further you do not have sufficiently wealthy family and friends with a spare AU$150,000 the question has to be raised: to whom would you turn? Currently the Australian financing landscape for this sort of venture situation is barren and yet another truly entrepreneurial business would fail to get started.

Table 5 – Business Angel/Investee Relationship

Relationship	%
Close family	43.2
Work colleague	13.6
Friend: neighbour	31.8
Stranger	4.6
Did not respond	6.8
Total	100

CLASSIC VENTURE CAPITAL

Turning to the classic venture capital market, 2004 saw an upturn in activity with investments equivalent to 0.092% of GDP being made in Australia (the venture capital data collected lags the GEM data by twelve months). This is up against the previous year from 0.087% of GDP. It should be noted that exchange rate fluctuations subject this figure to annual adjustments that may distort the trend line from year to year. Fortunately, the Australian dollar has been somewhat more stable this year than the previous year.

It is worthwhile to consider the nature and trajectory as well as the volume of classic venture capital investments. The GEM 2004 Financing Report shows "almost all companies start out with informal investment, then if they show 'superstar' potential, they attract classic venture capital. Thus, vigorous informal investing paves the way for robust classic venture capital investing" (GEM 2004b: 25). This statement highlights the funding gap existing in Australia. In Table 6 it can be seen that the average classic VC investment per domestic company is just over US$1.5m. And in Australia classic venture capital just does not fill this AU$150,000 gap.

[7] Unlike GEM, many researchers and programs specifically exclude family members of a new venturer from being eligible to be classified as 'angels'.

Table 6 – Classic Venture Capital Investment Summary

Average Classic VC invested per domestic company	US$ 1,569,050
Number of domestic Companies Receiving Classic VC	297

Later in this report, we will find from interviews with our expert key informants that there is a disconnect between the world of Australian capital markets and the world of Australian entrepreneurs. The final section of this report puts the action focus on a constructive way that entrepreneurs can bridge important aspects of the finance gap through making their businesses 'exit-ready'.

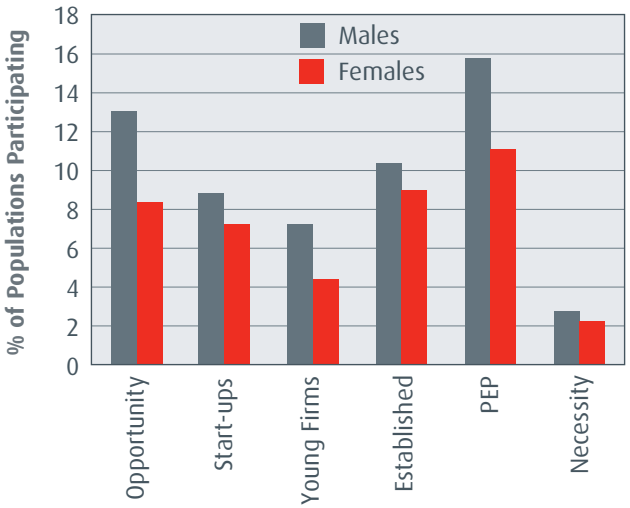
ENTREPRENEURIAL CAPACITY

Entrepreneurial capacity (or capability) can become a very fraught concept but, at a broad level of generality, it is the ability of the people involved in a new venture to do what is required to make it an entrepreneurial success. Entrepreneurial capacity therefore comprises the collective characteristics, experience, knowledge and skills embodied in a venture's human and capital resources. GEM national population survey data permit some broad insights into national entrepreneurial capacity. We can observe certain demographic characteristics and there is currently one specific question related to respondents' self-reported possession of the skills necessary to start a business.

GENDER

Overall patterns of Australian participation rates by gender are presented in Figure 13, which shows the difference between male and female participation rates from the perspectives of business stage and motivation. Globally, GEM has been arguing that the need to increase the proportion of females engaged in entrepreneurship (relative to males) is a

Figure 13 – Australian Business Ownership Participation: Males/Females

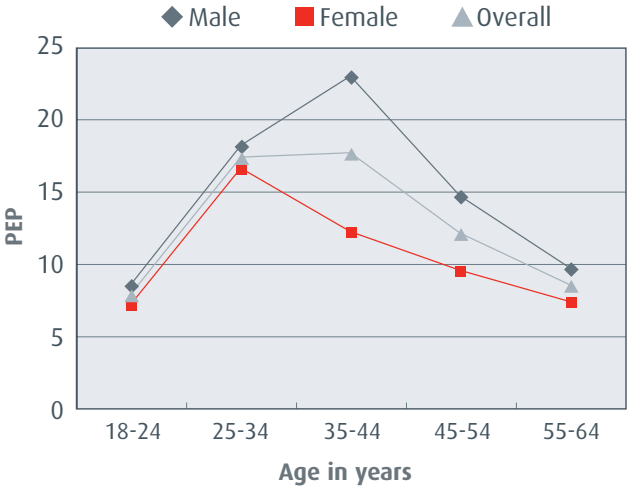


policy necessity for all nations. Australia is in the top 10 of most male to female comparisons among GEM nations. This suggests that Australia's performance in attracting females to business does not substantially lag that of other nations, even though higher rates are still possible and preferable.[8]

AGE

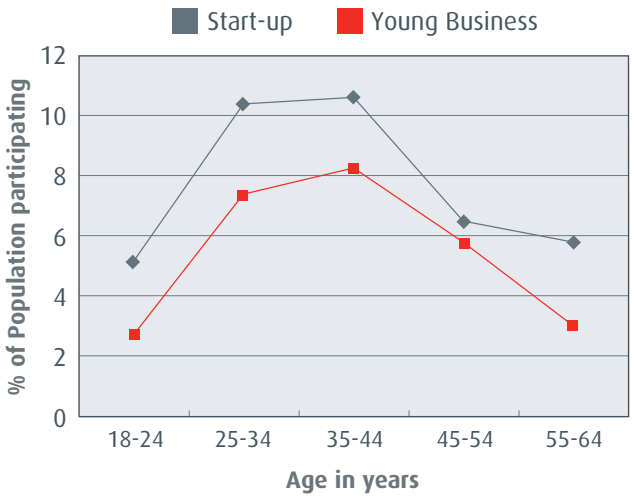
The pattern of total early-stage participation has also been monitored in past GEM years by observing the age splits for males and females across five categories within the 18-64 year working age definition. The pattern has regularly shown two distinct peaks in the age groups of 25-34 years and 45-54 years and it has been suggested that these two periods may be distinct life stages for entrepreneurial activity in Australia (Hindle and Rushworth 2004: 10). This year however the pattern does not repeat and the peak appears in the age bracket of 35-44 years (refer Figure 14). The peak of female participation in early-stage businesses in the past was also observed to be within the 45-54 age bracket. Again calendar 2004 does not repeat this pattern. The peak participation rate in 2004 occurred in the 25-34 age bracket. Statistical significance of findings at this level of detail is difficult to obtain because sample size renders low population representation in the aspects under scrutiny. In the case of GEM, the sample size is designed to be representative of the national population. Ability to conclusively test various sub-populations would require an extended sample size.

Figure 14 – PEP: Gender and Age Comparisons



Another phenomenon that has been observed by GEM Australia over the years is the relationship across age brackets between start-up and young business participation rates. While sample size remains a problem for obtaining estimates of statistical significance in comparisons between the groups, what can be observed is a change in pattern this year in two aspects. Referring to Figure 15, first, the peak in both start-up and young business participation falls in the age bracket of 35-44 years, which is at odds with the past two years' results where the peak occurred in the 25-34 year age bracket. Second, the higher incidence of start-up participation over young business participation in the 45-54 year age bracket also differs from the pattern obtaining in the two previous years.

Figure 15 – Early-Stage Participation: Age Comparisons



No clear explanation can be offered for the first of these two variations. However, the second observation may suggest something about the intentions of those within the 45-54 year age bracket. Although the pattern has changed, the persistent close proximity of start-up to young business participation rates seems to suggest that the intentions of those in this age bracket are more closely matched to the actions they take and perhaps the survival of their businesses. With more investigation it may be revealed that a combination of experience, maturity and perhaps need (as employment is harder to find for people of this age) is responsible for this phenomenon.

REGION

GEM Australia has traditionally reported the differences in regional, state and territory activity. For this exercise the smaller states and territories are combined with the larger neighbouring states to gain some level of numeric comparability. Here again the lack of sufficient sample size in each of the regions allows no possibility of statistical significance inference at this level of analysis. Despite sample limitations it is fair to observe that the pattern of regional entrepreneurship apparent in Figure 16 below does provide a stark contrast to last year's pattern. This year, WA has reversed the dominance of young firm participation over

[8] In the wider world, only two countries have female participation greater than male participation across any one stage of business. South Africa reports 113% female participation rate to male participation rate for start-ups, and Portugal reports 104% of female to male participation in the young business stage.

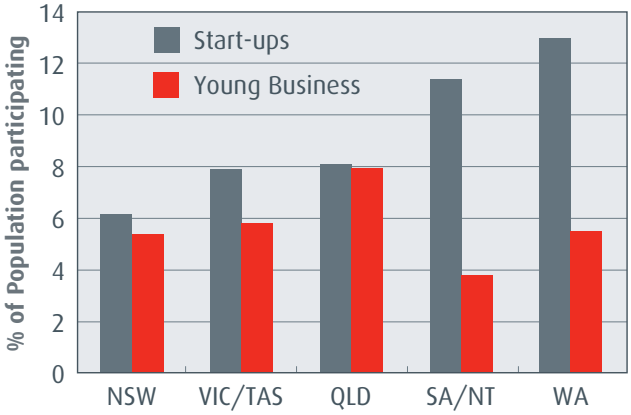
start-up participation with a more than doubling of the start-up participation rate being recorded while the young firm participation rate has reduced from just below 8% to around 5.5%. The South Australia/Northern Territory region displays a similar pattern of relationship to last year although increases are observed in both participation rates (start-up increased by around 4% and young business by approximately 1.5%). Queensland records a much higher young business participation rate (from around 3.5% to nearly 8%), to almost match its slightly higher (up by approximately 1%) start-up participation rate. The Victoria/Tasmania combined region displays a similar pattern of relationships although it is slightly higher in both start-up increase (up by nearly 2%) and young business increase (up by just under 0.5%).

The New South Wales and Australian Capital Territory amalgamated region warrants a special mention as it is the only region that has declined in both measures of participation rate. Earlier in 2004, a special study of the NSW/ACT region was commissioned by the NSW Department of State and Regional Development as an extract of the Westpac GEM Australia 2004 report. As the GEM sample size for NSW is higher than for any other state due to its proportionally larger national population representation, it is the one state that has a sufficiently high sample size for reasonably reliable statistical significance inferences to be made with regard to estimates of early-stage business participation. The commissioned study revealed that the NSW/ACT region seemed to demonstrate higher volatility in response to shifts in business confidence than did Australia generally (O'Connor 2004). Interestingly, according to the Sensis© Business Index, while NSW recorded a small increase this year in SME sector business confidence, it still slipped to the lowest level of business confidence of any of the states and territories in the 2004 August quarter (Sensis©, 2004). This along with the coincidence of timing of the GEM and Sensis® surveys in the same particular quarter and the corresponding relationship between the findings provide an ability to infer that the NSW/ACT region may serve as a barometer and an early indicator of Australian early-stage business activity. If this is the case, then one may – albeit extremely cautiously – predict that the GEM PEP index next year will be slightly lower than that recorded this year.

EDUCATION

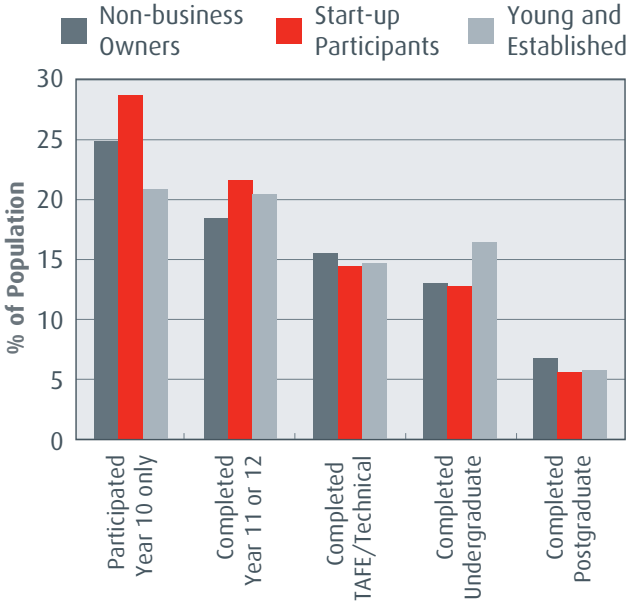
An individual's achieved level of education is an objective measure (albeit often a crude measure) of the depth of knowledge available to that individual. It must be emphasised that education is not the only contributor to knowledge but it can provide some insight into the nation's entrepreneurial capacity. For 2004, we requested information from our national survey respondents on the highest level of education

Figure 16 – Early-Stage Participation: Regional Splits



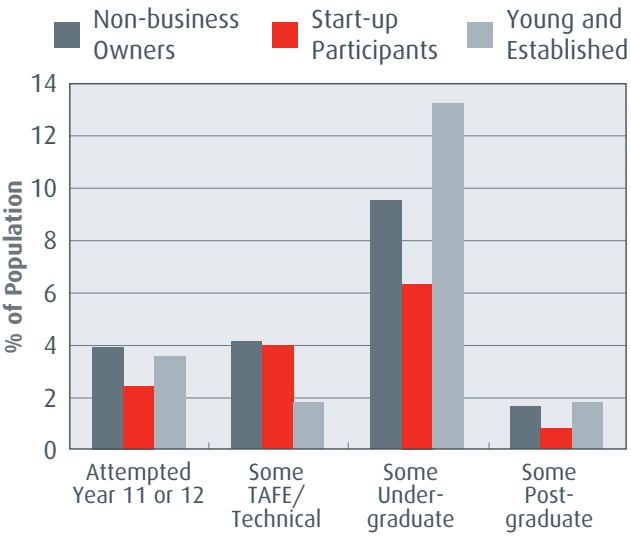
they had attempted and whether they had completed that level. Figures 17 and 18 below show the comparison percentages for 'no business' participation, start-up activity participation and active business participation (comprising people participating in both young and established businesses). Generally it can be noted that there is little difference in the relative percentages between the three groups. Completion or non-completion of education does not seem likely to influence the business participation rates at the nascent or active levels. There are, however, two noteworthy occurrences involving the level and type of education.

Figure 17 – Completed Education: Business Participation Comparison



For some time, the academic entrepreneurship literature has suggested that, for developed countries, a good general education tends to be related to the success of an entrepreneur and that success is enhanced when this education is combined with experience (Scott, Rosa, Klandt 1998). In Australia, we find that around half of business

Figure 18 – Non-Completed Education: Business Participation Comparison



participation stems from people who have attempted or completed up to Year 12. Then, those attempting or completing TAFE[9] courses are responsible for bringing the total up to around two-thirds of total business participation. *This is a vital point: the majority of Australian businesses are started by people of low educational status*. Parts Two and Three of the report will discuss this issue. People who have completed undergraduate courses contribute approximately another 15% and those who have attempted or completed a postgraduate course are responsible for adding a further 7% to business participation. *In summary, the level of education achieved by approximately 78% of those individuals participating in either start-up activities or active business ownership is less than a degree qualification.*

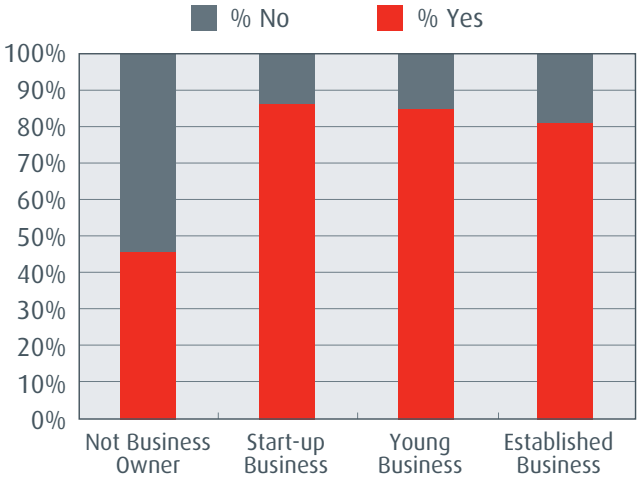
The *type* of education an individual receives also seems to impact on business participation rates. For both completed and non-completed education it is noticeable that the undergraduate level shows a relatively larger proportion of individuals who are active (committed) in business rather than just being engaged in nascent business activities (merely 'thinking about it'). Of course, there maybe several reasons for this distinction. For example it could be that more of those in higher education need to earn money through self-employment type of activities, or that the networks associated with a certain type of education more often lead to self-employment opportunities, or perhaps that broad exposure to different ways of thinking and experiencing the world better creates a mind-set more open to commitment to business enterprise, or merely the sheer confidence to believe in one's knowledge and capacity to succeed. So, the reason behind the seeming importance of undergraduate level education to the transition from nascent to active business creation is worthy of further research. Only active participation actually creates wealth and gives people experience of business involvement. Nascent type activities may potentially lead nowhere and create nothing. It is incumbent upon GEM to improve its evolving methodology to distinguish nascent from active start-up participation more starkly than is current practice.

[9] In Australia, 'TAFE' stands for 'Technical and Further Education'. The TAFE sector provides post-school, non-university, vocationally-oriented education.

SKILLS

All respondents participating in business ownership activity are asked the question: "Do you believe you have the skills and knowledge to start a business?". For cost reasons, only half (based upon a random allocation procedure) of those who are *not participating* in any manner of business ownership activity are also asked the same question. Figure 19 displays the distribution of those who believe they have the skills and knowledge to start a business.

Figure 19 – Distribution of Belief in Skills to Do Start-up

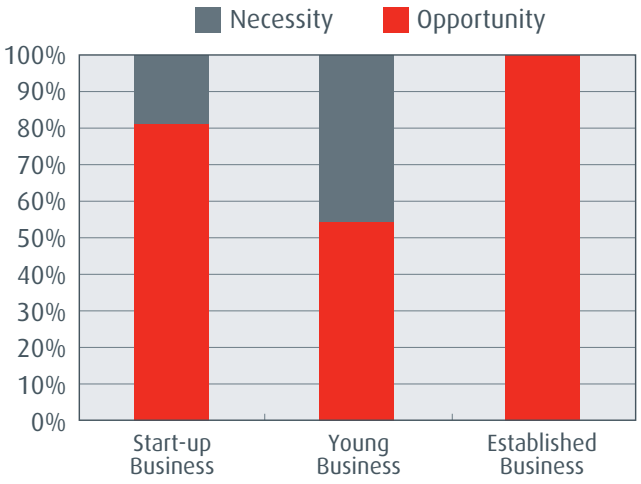


Unsurprisingly, those who are either nascently or actively engaged in entrepreneurship report a far higher belief that they have the requisite skills and knowledge to start a business. From the perspective of a national monitor on entrepreneurship, perhaps the more interesting figure is the percentage category split among the non-business owners. Nearly 54% of non-business owners believe they do not have the skills and knowledge to start a business. An entrepreneurial country would hope and expect to see a higher percentage of latent entrepreneurial capacity in its people. If we don't have enough people with the requisite business skills, we don't have the capacity to exploit opportunities as they arise. Australia must enhance entrepreneurial education to provide more people with the fundamental skills to build businesses. Figure 19 also reveals another interesting statistic: the percentage of people (either nascent or active in entrepreneurship) who do not believe they have the skills to start a business increases as we move from the nascent stage

through to the established stage. This is truly surprising. In conducting this statistical investigation, we began by hypothesising that perhaps any people who were committed to business despite believing that they lacked the skills to do so would largely be motivated by necessity, not opportunity. However, upon further analysis, we found that this was not the case. Among people who were in business (or contemplating it) despite believing they lacked the requisite skills (refer Figure 20), no established business owners were motivated by necessity and less than 20% of start-up business owners and less then half of young business owners reported necessity motivations. The net result is that Australia has a substantial proportion of nascent and active business owners who do not believe they have the skills and knowledge to start a business but who nevertheless are actually pursuing an alleged business opportunity[10] regardless of their personal human capital deficiencies.

This is an amazing phenomenon. It might be called the business contempt of the ignorant. How many people would consider that they could proceed to perform a medical operation – say, taking out somebody's appendix or doing a bit of freelance brain surgery – despite having no medical or surgical knowledge or ability? Yet many Australians, believing themselves just as ignorant of business knowledge and skills – as they no doubt are of general and brain surgery – are actively in business or pursuing an alleged business opportunity (tasks which even the scantiest reflection will reveal to be full of difficulty and demanding of high levels of knowledge and skill). It may seem that in Australia the business scalpels of the unknowledgeable and the unskilled are flashing and hacking away. How is this blasé and cavalier attitude to business possible? Why is it so prevalent? Answers to these questions – which are beyond the scope of GEM itself but a great illustration of GEM's power to create meaningful policy and research questions – are surely of vital importance to researchers, policy makers and the future wealth of this nation. When it comes to respect for the knowledge and skill needed to start and develop a business, does Australia suffer, to too high a degree from the contempt of the ignorant?

Figure 20 – Motivation Comparison of Those with 'No Belief in Skills to Do Start-up'



Detailed answers require detailed research but some brief speculations are warranted.

One might immediately jump to the superficial conclusion that too many Australians are collectively foolhardy in their approach to business. This may be true in some cases. However, there may also be other explanations that may relate to the increase in experience of the participants. For instance those who say they don't believe they have the skills at the start-up phase may well be the extremely confident individuals with respect to their abilities in related areas (say, the technology at the heart of a technology-based business) and are sufficiently confident that they will learn what is required as they go along or can 'hire in' the support skills which they currently lack. Also the rise in the participation from start-up to young business among those who believe they don't have requisite business skills may be related to the increased awareness of just what it means and requires (in terms of skills and knowledge) to be in business. When people face business reality, they may confront the revelation that there was a tremendous amount that was not known. Interestingly, in the established business category, no respondents suggested that they were participating out of necessity motivation. Perhaps this is due to a broader understanding of business. They may feel that partnerships are readily available to fill skill gaps when and if they are encountered.

So, one must not rush to firm judgment beyond saying that, at the very least, the self-reported lack of requisite knowledge and skills by people actually engaged in entrepreneurship is potent evidence that the volume and quality of entrepreneurship education in Australia is in urgent need of improvement and that the task should be a national priority. This theme will feature prominently in parts Two and Three of this report and the GEM Australia team commit themselves to providing special emphasis to the issues of entrepreneurial education and entrepreneurial capacity in next year's Westpac GEM Australia report.

[10] *GEM Australia* for the calendar year 2003 (Hindle and Rushworth 2004) contained an action focus devoted to providing SME proprietors with a 'down and dirty' method for distinguishing a genuine business opportunity from 'just a good idea'. Under the self-reporting criteria of the GEM survey it must be remembered that what respondents categorise, in their own minds, as a business 'opportunity' may not be a very viable opportunity when scrutinised in the light of more rigorous and objective opportunity evaluation techniques – such as that proposed in *GEM Australia* 2003.

MONITORING LONGITUDINAL ENTREPRENEURIAL ACTIVITY: SELECTED DATA 2000-2004

Participation in business ownership is the first component of the six used in our matrix approach to observing and describing entrepreneurial activity of the Australian nation. Figure 21 below shows the five-year trend of business ownership participation. The Percentage Early-stage Participation (PEP) Index combines both start-up and young business categories. It is useful to examine these categories separately. What can be observed here is that, while Australia's volume of participation in young businesses (and established businesses reflect this trend also) have shown a fairly *steady growth* pattern since 2002, start-up participation rates have increased much faster. Of course, the start-up category includes both nascent and active entrepreneurs. Nascent entrepreneurs are consciously considering business ownership but have not yet commenced paying wages (GEM's surrogate for measuring the change from nascent to active participation). Given the inclusion of nascents in the start-up category, the start-up stage of early-stage business participation is likely to be subject to significant movements every year as community confidence levels change[11]. So, perhaps the more interesting participation rate to monitor longitudinally is the young business category.

Although motivations for all three of the business stages have not been reported in the past, motivations accompanying the PEP index have been consistently reported and Figure 22 shows the time-series trend for the two motivation measures of the PEP participants.

Figure 21 – Australian Entrepreneurial Participation

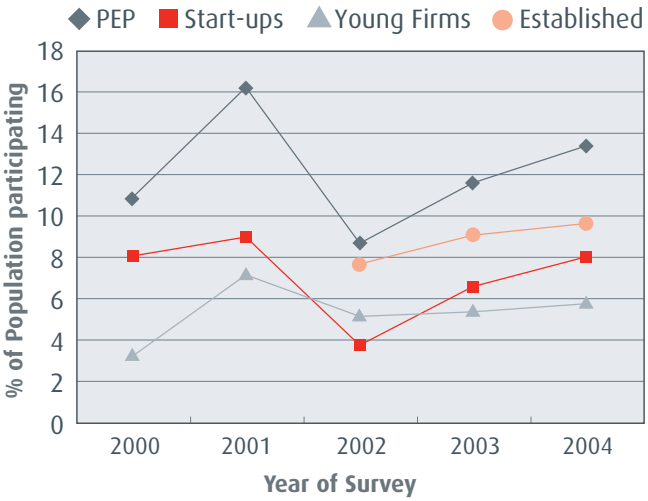
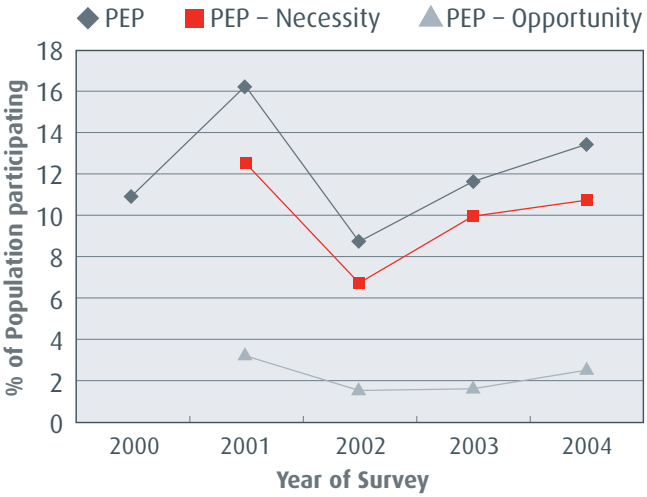


Figure 22 – PEP Time-Series



A troubling observation from this graph is the proportionally greater increase in necessity motivated activity in 2004 when compared to the opportunity motivated early-stage participation. This is better seen in a ratio table comparing the amount of opportunity to necessity activity as displayed in Table 7. The ratio can be seen to be dropping below that of the 2002 level suggesting that, while we are increasing the absolute rate of early stage business participation, the rate of increase, in calendar year 2004 at least, is driven more by necessity rather than by people perceiving and pursuing new business opportunities. This is contrary to an ideal national position of early-stage start-up participation for a developed country. It may be an early warning signal of cause for concern about the employment conditions within the Australian environment at a time when nearly all other measures used for employment forecasting seem to be painting a rosy picture. Moreover businesses started from a necessity motivational base are more likely to be less stable because, should better employment opportunities surface for the business owner, the chances are that the business will be abandoned. This may also be an underlying explanation for the rate of shut-down discussed previously when considering young firm participation rates.

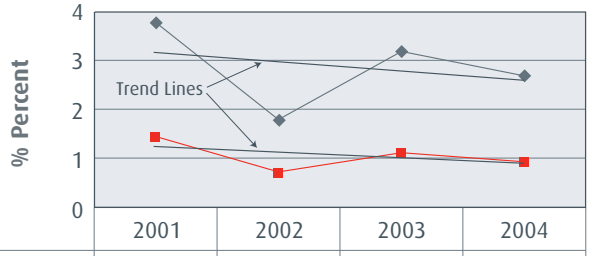
[11] Readers are referred to GEM Australia 2002 (Hindle and Rushworth 2002) – downloadable free from the website gemaustralia.com.au. It contains the most detail of any extant GEM Australia report on the nexus between business confidence and the start-up rate. Subsequent to the 9/11 shocks, the Australian start-up participation rate plunged dramatically.

Table 7 – Opportunity:Necessity Motivation Ratio Trend

Year	Opportunity:Necessity Motivation Ratio
2001	3.9
2002	4.5
2003	6.2
2004	4.3

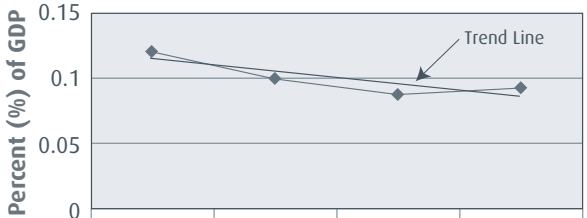
Another area of concern arising from longitudinal trend analysis is the area of business angel participation rates. Figure 23, below, charts the percentages of business angel participation and informal investment figures proportional to GDP. Both plots show remarkable similarity and the overlaid trend lines also reveal a disturbing picture that both business angel participation and investment rates are declining. This can be contrasted with the classic venture capital trend shown in Figure 24 that plots the percentage of classic venture capital as a percentage of GDP over a four-year time span. This too shows a decline although, unlike the informal investment sector, in 2004 there was an upturn in the reported figures. Should the recovery of classic venture capital investment continue without a parallel recovery in the informal investment capital market, the funding gap for promising new businesses is set to widen (with investment dollars flowing to increasingly safer and relatively more mature investment opportunities). Ultimately, this may retard the growth and prevent maturation of young businesses for the classic venture capital market. In turn, without a flourishing supply of good investment opportunities, the classic venture capital market sector in Australia may suffer a decline.

Figure 23 – Business Angel Participation and Informal Capital Trends



	2001	2002	2003	2004
Business Angel Participation – % of Population	3.8	1.8	3.2	2.7
Informal VC % of GDP	1.45	0.72	1.12	0.93

Figure 24 – Classic Venture Capital Investment Trend



	2001	2002	2003	2004
Classic VC % of GDP	0.12	0.099	0.087	0.092

ENTREPRENEURIAL ACTIVITY SCORECARD 2004

The Entrepreneurial Activity scorecard (Table 8) attempts to consolidate many of the findings presented so far into a summary table.

Table 8 – Australia's Entrepreneurial Activity Scorecard

	Relative Rating		Key Comments
	This Year (2004)	**Trend (2000-2004)**	
Participation			
Overall	High	Consistent	Relatively high rate of business participation compared to other high GDP nations.
Start-up	High	Fluctuates	Start-ups can be dramatically affected by setbacks in business confidence and environmental conditions.
Young	High	Improving	Young firms can be dramatically affected by setbacks in business confidence. Recent trend is improving with slow growth.
Established	High	Moderate Growth	Australia tolerates a high volume of low growth, low innovation businesses.
PEP Index (Start-up & young firms)	High	Recovering	This composite measure is highly influenced by changes in business confidence and has not recovered beyond pre-2002 level.
Motivation	High	Declining	While motivation is still largely opportunity centred, the proportion of necessity to opportunity motivation has regressed below the 2002 level.
Innovation	Low	Unchanged	Australian innovation tends to focus on competitor difference and little emphasis is placed on customer novelty or technology adoption.
Growth Orientation	Low	Unchanged	Growth ambitions are at best modest, with five year forecasts predicting an increase of only between one and five employees and little focus on export markets across all stages.
Financing			
High Aspiration Business	Low	Declining	Funding sources are scarce for high potential businesses that fall between the low financing levels of the informal investors and the high requirements of the classic venture capital market.
Low Aspiration Business	High	Declining	Angel investor contributions provide the majority of funding for businesses with low capital requirements: the declining trend is cause for concern.
Entrepreneurial Capacity	Mediocre	Unchanged	Ingenuity and opportunity potential contrast with low levels of skills and knowledge for high performance entrepreneurship.

THE ENTREPRENEURIAL SUPPORT ENVIRONMENT AUSTRALIA 2004

Whereas GEM derives most of its insights about the volume and nature of entrepreneurial activity from the national population survey, for insight into the context in which that activity takes place, we turn principally to our survey of expert opinion augmented by depth interviews with key informants.

EVIDENCE FROM THE GEM EXPERTS DEPTH INTERVIEWS

Who is typically an expert key informant?

For the calendar 2004, year we interviewed 41 expert key informants. Their expertise was, as GEM demands, defined with respect to their knowledge concerning the various framework conditions deemed to be important to the development and exercise of entrepreneurship in a nation. Our special focus this year was on gaining insight into how younger people and earlier stage businesses are faring in the entrepreneurial environment that Australia presents. With this as a conditioning selection criterion, our experts were sourced from a pool of candidates in an attempt to cover each of the specific framework conditions. As is our custom, Appendix 1 contains a brief biography of each key informant and classifies them under the heading of the framework condition most closely associated with their expertise. Of course, a respondent's comments and insights are never restricted to their allocated framework. All respondents comment on all framework conditions and whatever else they deem to be important to understanding the nature and extent of entrepreneurship in Australia. However, it is natural that an individual respondent's comments and insights will emphasise and be more directed toward the framework condition that represents the focus of their expertise. In 2004 no key informant was represented under the framework of 'Access to Physical Infrastructure'. While at an international level this framework condition is deemed to be vitally important, among Australian entrepreneurship experts it has attracted very little comment over the five years of the GEM study. Perhaps that will change in future.

It must be stressed that not all key informants are, or should be, entrepreneurs themselves. They must be knowledgeable about national entrepreneurship in general and an aspect (framework condition) of entrepreneurship in particular. For instance, it is obviously useful under the framework condition 'government policy' to talk to senior politicians with relevant portfolio responsibilities. Under the framework condition 'cultural and social norms', it is useful to talk to people knowledgeable in arts, sciences and social commentary to gain perspective on the way entrepreneurship is perceived in the wider community.

In 2004, more than one third of our respondents were female (36.6%) and the average age was 45 years. With respect to those respondents who had personal experience in the field of entrepreneurship, the range of experience was from two years and up to 40 years with an average of 13.8 years. Some of our respondents were selected for their position of influence or engagement with younger entrepreneurs. The philosophy adopted this year in selection was to strive for respondents who were facilitating or promoting entrepreneurship or themselves active as entrepreneurs. Those with lesser experience in the field are still considered as vital informants reflecting the emerging state of support for entrepreneurs in Australia.

For the 2004 calendar year, 25% of our key informant respondents were active entrepreneurs. The remainder are considered to be acting currently in a professional capacity either supporting, promoting, facilitating or providing services to entrepreneurs. Many of these professionals have also been themselves an entrepreneur at some stage of their life or have played a role in new venture development.

The educational standard of the key informants varied. Most held some form of university degree (81%), 49% have had some form of professional training at a Masters level or similar, 38% have had vocational or technical training and 32% have graduated in scholarly work at doctoral level or similar. The sum of the percentages exceeds 100% due to respondents holding multiple qualifications. On average it has been 13 years since a respondent's last successful completion of a qualification, although the range was between zero and 38 years.

In terms of education, among our 41 experts, there were 20 who nominated their professional qualification to be in a purely business or related area, for example, accounting, law, management or marketing. Fifteen others nominated their qualifications to include areas other than business such as engineering, information technology, education or science, with only three of these holding an additional qualification in a business related field.

In summary the profile of our typical expert respondent is a male, aged around 45 years, with nearly 14 years experience in entrepreneurship, holding at least a degree, most likely in a business discipline, which he would have obtained around 13 years ago.

Table 9 – Summary of Expert Key Informant Interviews

Accumulated Ranking	Weaknesses	Strengths	Proposals
Primary	Cultural and Social Norm [27]	Cultural and Social Norms [24]	Education and Training [24]
Secondary	Financial Support [25]	Entrepreneurial Capacity [16]	Government Policies [19]
Tertiary	Education and Training [10] and Government Policies [10]	Perceived Population Composition [12]	Cultural and Social Norms [17]

What constitutes our experts' unrestricted, open-interview 'collective wisdom'?

Analysis of the expert interview comments of calendar year 2004 reveals a familiar pattern to any regular reader of annual GEM Australia reports.

The same five framework conditions that have dominated expert commentary by volume, and with respect to their believed importance, feature yet again. They are: Cultural and Social Norms, Financial Support, Government Policies, Education and Entrepreneurial Capacity. A key GEM procedure is to ask respondents to list, with respect to entrepreneurship in Australia, in order and in their own words, the three most important weaknesses, the three most important strengths and the three most important opportunities for improvement (referred to here as 'proposals'). These responses were then coded under the most relevant 'framework condition' heading.

To arrive at each of the top three weaknesses, strengths and proposals, a three by three matrix was constructed to record the top three most mentioned framework conditions rated at each of the primary, secondary and tertiary levels of importance nominated by the experts. Table 9 summarises the findings. The number of mentions received is recorded in square brackets.

In addition to the five recurring frameworks highlighted by the key informants, a new issue appeared for the first time in calendar 2004 as one of Australia's key strengths. It is *Perceived Population Composition*, which refers to the *diversity* of cultures and *size* of the population. Both of these parameters our experts regarded as potential strengths for building entrepreneurship in Australia. This is explored a little further under the discussion on strengths below.

The downside – weakness Issues

Cultural and Social Norms

Cultural and social norms top the list with respect to Australia's weaknesses in developing entrepreneurship further. However, it is clear that it is not just one cultural weakness that acts as a barrier. The cultural impediments to entrepreneurship can be drawn on both sides of a proactive-reactive ledger. According to our experts, in the first instance Australians are not likely to be proactive in entrepreneurship as they are generally not encouraged or supported into being entrepreneurs. Our culture still tends to generate too many negative perceptions of entrepreneurship as something that is dark and dirty. Further our experts suggest that we as a nation do not pursue risk endeavours; we desire a comfortable life style and prefer the relatively easy option of securing employment to the hard option of creating employment through starting a business. These two aspects generally inhibit people from venturing into the entrepreneurial waters.

On the reactive side of the ledger two barriers surface. Here we find that those who do pursue the entrepreneurship pathway generally meet the reactive resistance of the nation. Our experts think that even if an individual takes the entrepreneurial step, there is generally little support or continued encouragement. Furthermore, if one were to succeed despite the odds against it, the dreaded 'tall poppy syndrome' would quickly beset the individual in a collective desire to maintain a state of egalitarianism which, emptied of the rhetoric of 'mateship' and 'the fair go', is really a desire for lowest common denominator mediocrity. On balance (see some of the positive aspects of Australia's culture, below) cultural and social norms in Australia seem to impact negatively on those who attempt entrepreneurship.

In brief, our experts tend to think that due to our culture there is little chance of getting people started on the path of business creation and, if they do start, they are not likely to be supported through to success or to be respected for success should they achieve it. From this perspective, at a fundamental cultural level, we are a non-entrepreneurial nation.

Financial Support

The common theme from our experts regarding the key framework condition of financial support also appears to split into two perspectives. First, there is the lack of access to finance, due to limited numbers of products. Second, there is a lack of understanding and awareness by individuals about how and where to access finance for new and growing businesses. These two components are worthy of further discussion and are characterised by comments such as "there is limited access to and understanding of access to capital for growth", and "we do not have funds geared toward angel, very early stage like mezzanine and venture capital stages".

It is a commonly held view by financiers that "money is not the problem" and yet overwhelmingly our experts portray the view that access to finance is extremely difficult. The suggestion is that there is a lack of funding channels for both early and growth stages. Or, in other words, the requisite 'financial product range' is just not available in Australia. This is referred to as a "market failure" by one of our respondents. According to GEM Australia's 2004 aggregate expert commentary, it may still be true that there is money available for good ideas. However the difficulty stems from the 'hidden' nature of the financing market.

If the first part of the weakness is true, then it follows that there is a lack of awareness and understanding of how and where to obtain funds. This raises an interesting viewpoint that, as suggested by some, may well be addressed through market forces and that is, if the demand for early and growth funding products increases then the supply side of funds will respond to that demand. The caveat here however is that it is not simply a volume issue (the number of businesses looking for finance), but rather a closely related factor of quality of financing opportunities as perceived by the financing market. Investors will seek opportunities with big potential and this will forever haunt businesses seeking early stage and growth funding. The financial markets as suppliers have a maturity and expectation that does not seem to be well matched by the demand side for funds (as evidenced in the following discussion of weaknesses in education and training) and therefore the supply of funds remains aloof and selective.

The Australian financial market then seems to face a serious problem in that the low supply of what may be considered as worthwhile high potential investments invokes a high search cost which acts as a deterrent to the finance industry to create attractive products. Furthermore, the better opportunities are also not given a reasonable estimate of scarcity value as the competition between funding products is poor. Anecdotes frequently reveal 'investee' businesses that report higher valuations for their intellectual property in off-shore markets. It is contended that this is a function of the more robust and dynamic market places of larger economies. The solution to the Australian financial support framework condition weakness would seem to be grounded in an increased number of high quality investment opportunities that would create a more dynamic market within which the finance products would be forced to respond or otherwise risk loosing the market to overseas investors. Inherent in the quality of investment for financiers is the issue of a satisfactory exit strategy and to this end this year's GEM Australia Action Focus (see Part Four, below) is directed to this subject.

Education and Training and Government Policies

The third most often mentioned framework weakness is shared between the *Education and Training* and *Government Policy* areas. Each of these areas accumulated one overwhelming failure.

The *Education and Training* weakness is reported by nine of the ten commentaries as a lack of specifically-focused, purpose-dedicated *entrepreneurship* training, skill development and awareness in the formal education system. Perhaps this is best portrayed by the comments "the education sector is unaware of the reason for entrepreneurship" and "[there is a lack of] accessible education and training from school level right up to university". This deficiency it seems manifests through low maturity with respect to entrepreneurship and an abundance of low-grade investment opportunities (which is a polite way of saying that most Australian business start-ups are not very high quality ventures).

The common complaint about *Government Policy,* on the other hand, related to the compliance burden faced by small business with unforgiving tax and compliance costs inadequately structured for start-up and early stage businesses. Overall the comments claimed that we have a one-size-fits-all mentality to business policy, and smaller businesses are simply not equipped to assume the same or similar level of reporting and compliance infrastructure as larger businesses.

All is not lost – the strength issues

Cultural and Social Norms

Interestingly the framework condition that is considered to offer the most weakness and negativities confronting Australian entrepreneurship also seems to contain the most often attributed strengths in support of entrepreneurial activity in Australia, and does so by a substantive margin with respect to the number of mentions. However, there is no one clear factor that emerges as dominant, but rather, two factors equally mentioned and one trend commonly observed. The two factors are first an attitude characterised

by 'optimism', 'can-do' and 'have-a-go' expressions and second a behaviour expressed as 'innovativeness' and 'inventiveness'. The trend our experts observed was an increasing support and recognition for entrepreneurs, although most hastened to add that it was emerging from a low base and not yet widely acknowledged.

In addition one explanatory factor was closely associated with the innovative type behaviour, which was said to be 'isolation'. Perhaps this is best summed up by one of our experts who said "Our settlement history meant that we were very isolated and had to make things work. As a result we have a more entrepreneurial spirit", and another "Australia is cut off from other nations therefore we have had to be innovative". The concept of isolation proved difficult to code to one particular framework as it did not fit neatly into one area. As can be observed below it was also associated with the size of our population which is recorded under *Perceived Population Composition*.

Entrepreneurial Capacity

Strictly speaking, entrepreneurial capacity is not a framework condition – although it makes communications sense, for ease of exposition, to treat it for coding purposes as if it were. Entrepreneurial capacity is the most obvious 'overlap area' between assessment of the entrepreneurial support environment (which GEM addresses through expert, key informant surveys) and measurement of actual activity and attitudes (which GEM measures in the national population survey). It is the bridge between activity and environment and therefore appears as 'its own box' in the diagram representing the GEM approach to researching national entrepreneurship (see Figure 1, above).

A number of themes permeate our experts' discussion of national entrepreneurial capacity. Many comments reflect the abilities of individuals to 'see' new combinations and to a certain extent act upon those combinations to manifest innovation. The list includes the following key concepts: innovative nature, competitive attitude, independent thinkers, creative, lateral thinkers, imaginative, have a global perspective, the ability to network and build teams.

The concept of innovation is potentially problematic from a research classification perspective in the context of 'framework conditions'. It was discussed under the *Cultural and Social Norms* as well as under the *Entrepreneurial Capacity* frameworks. Classification of innovation in the *Cultural and Social Norms* framework occurs due to its use in describing the thrust of a nation's culture or generally to describe the Australian people, whereas innovation in the *Entrepreneurial Capacity* framework collects comments closely related to individual behaviours and the capacity of individuals to be innovative. Much of the Australian innovation capacity seems to stem from the culture, particularly the isolation factor. This suggests a circular reinforcing loop where the culture tends to create the opportunity for capacity building and then the evidence of capacity is reflected in the culture.

It should be noted that the totality of national entrepreneurial capacity extends beyond merely the invention end of the spectrum, which is the conceiving of ideas and opportunities and being inventive, to include factors such as the knowledge and skills to start, grow and manage new enterprises. Little evidence of national strength is suggested at this latter end of the spectrum. This is consistent with reported *Education and Training* need to redress weaknesses by developing both requisite skills and basic awareness of entrepreneurship as a career option.

Perceived Population Composition

As noted above, *Perceived Population Composition* attracted comments regarding Australia's history of relative isolation and to this was attributed whatever 'inventive' and 'innovative' nature our people display. This coding category also deals with the size of the population and the closely related factors of small economy and market rather than cultural attitudes. It would appear that the perception of factors like isolation influences both attitudes and behavioural aspects of a population. Respondents did feel that despite the smallness of our population, its sheer diversity (represented by a multi-cultural mix of migrants) provides opportunity for any Australian truly dynamic entrepreneurship that does arise to be leveraged onto the global stage.

The second aspect of this framework that emerged was again related to diversity of Australia's cultural mix. This could act as a stimulus for ideas and encourage people to try new things.

What should be done to improve Australian entrepreneurship?

Education and Training

Topping the list of primary proposal mentions is the framework area of *Education and Training.* The opportunities outlined in this framework crossed all boundaries of education from kindergarten to postgraduate doctoral studies and training from general small and medium enterprise development to specific policy departments and segments of responsible entities for engaging the nation in entrepreneurship. Overwhelmingly, the view was that there is not enough known or understood about entrepreneurship across the education sector, which in turn affects our nation's *entrepreneurial capacity*.

The curriculum across all levels of primary, secondary and tertiary education attracted the largest number of opportunity comments. It was apparent that our experts felt that generally curriculum did not offer sufficient scope for the development and encouragement of entrepreneurs and particularly from the applied perspective. Comments such as "[entrepreneurship] could be built into curricula. [It is] currently generic but not applied" and "Develop high school curricula in how to set up business, be self-employed etc" are examples of the expert viewpoints.

Other experts took a broader view and suggested that entrepreneurship was a way of teaching requiring an enterprising approach that developed an opportunity perspective in students. This way of thinking was further supported in the number of comments that were directed toward teachers in all parts of the education sector being required to learn more about entrepreneurship in their preparatory and professional development training.

Teachers as a sector were not the only ones to be targeted for entrepreneurship awareness and understanding training. Generally our community leaders, policy makers, small business owners and tertiary institutions were also seen to be in need of development in entrepreneurship. These sorts of comments strike at the heart of building on the strength cited under *Entrepreneurial Capacity* and addressing some major weaknesses mentioned above in *Cultural and Social Norms*, *Education and Training* and the *Government Policies* frameworks.

Government Policies

Our experts considered Government Policies to be the next most important area of opportunity with respect to building an entrepreneurial nation. A large proportion of the attention was directed toward taxation policy and particularly the burden on small and start-up businesses of the red-tape and bureaucracy associated with maintaining reporting structures and regimes designed primarily for larger organisations. Some of the solutions suggested involved indexation of tax requirements to levels of earnings, 'training wheels' legislation for new businesses, and compensation or perhaps more accurately dispensation packages for growth orientated start-up and small businesses.

Tax incentives or advantages for new and young businesses were not the only area of concern. The informal investment market was also reported as needing more support. It was considered by a number of experts that angel investors were also not encouraged in the Australian economy through the taxation system and many were directed toward far easier investments in property rather than new business. Early-stage investment dollars are a key to a flourishing new and innovative business market and the current Australian tax system it was felt did not attract or reward investors for entering this higher risk field and this is a prime area of opportunity for more specific action by the federal government.

Better use of information technology in the government channels was also cited as a means to address the cost of red-tape and locating information within the diverse array of multi-level governments and departments when setting up and operating a new and small business. It was felt that attempts to date to provide any sort of online one-stop shop fell short of the mark with respect to usability and appropriateness of information for the small business operator market. Here too it was considered that governments at all levels would benefit from a greater knowledge of the experience of a small business operator and engaging expert system designers to increase the user friendliness of the information systems they use to get information into the hands of potential consumers. One expert suggested the use of an appropriately qualified internal government watch-dog that held responsibility for overseeing the policy making activities of all departments that would affect small business. They would provide a single point of coordination and advice across the multiple layers of government and would be primarily charged with making it simpler for the new and small business operator to start and progress through the early stages of growth.

While government was the particular target for actions under this framework area, it was also acknowledged that institutions, business, investment houses and chambers of commerce had a role to play by uniting to sound one voice for small business and act as a more powerful lobby group than has occurred in the past due to fragmentation.

Cultural and Social Norms

A core theme that occurs in this framework area fundamentally says 'there is an urgent need to bring entrepreneurship into the mainstream of Australian culture'. This theme is represented by calls for specific actions such as an increase in positive media on entrepreneurship, an increased number of entrepreneurial role models, a better, more entrepreneurship-friendly culture in the school system and broader community, and more visible and notable support for entrepreneurship from community leaders, politicians and thought leaders. In summary, this theme suggests that each and every person who is interested in the promotion and emergence of entrepreneurship as a legitimate paradigm and way of life should be prepared to take some form of action to showcase its potential and demonstrate its usefulness to the broader social and economic agenda. This will mean, for some, stepping out of

the shadows and into the light to bravely run the gauntlet against those who brandish the 'tall poppy' secateurs. For others it will mean taking every opportunity to publicly demonstrate a commitment and support for entrepreneurship in Australia. Others, especially policy shapers and influencers, will need to examine their daily decisions made with due consideration of their impact on the vital need to develop entrepreneurship in Australia. The call from our experts for a cultural ground swell can only be delivered through continued and dogged efforts by individuals from all sectors of the business, political, media and general communities playing their daily part and providing influence on as broad a front as possible.

Table 10 opposite summarises the top three frameworks with respect to our key informants' opinions concerning strengths, weaknesses and proposals (for improvement).

EVIDENCE FROM THE GEM EXPERTS' SURVEY

As well as providing information through a very lightly structured depth interview, GEM experts also fill in a formally-structured questionnaire. This survey assists to assess the effectiveness of the entrepreneurial framework conditions informing the GEM research model. The expert survey consisted of five to seven questions for each of the framework conditions examined by GEM. Each question contains a statement which the expert is asked to rate on a scale of 1 to 5, where a rating of 1 indicates strong disagreement and a rating of 5, strong agreement. The middle rating of 3, therefore, indicates that the respondent neither agrees nor disagrees with the statement. Anything above 3 is regarded as a positive rating; anything below 3 generally negative. An aggregate score for each framework condition covered by the question set was calculated by averaging the scores for the individual questions within that framework. For some frameworks, two aggregate scores are calculated, because they were deemed to measure distinct and independent aspects of that framework.

Internationally, expert survey data was available from 30 countries for the calendar 2004 GEM research project. The GEM Australia team has been tracking expert survey responses through four prior years and has found remarkable consistency between the results for Australia from year to year. That is, the responses, averaged out across all respondents over time do not vary greatly from year to year unless there has been a genuine change in the environment, which is explained by specific comments in the expert depth interviews. We therefore feel it is useful to compare the average, aggregate scores for Australia both with previous years' scores and with the scores of other countries in the current year.

The expert questionnaires are not only administered to this year's 'crop' of experts, but also distributed to expert interviewees from previous years, who may or may not deign to fill them in. In 2004, a total of 59 Australian expert key informants completed the survey. The GEM Australia team extends its particular thanks to those interviewees from past years who demonstrated continued support for the project by completing the survey again this year. The survey's aggregate scores and international rankings are summarised in Table 11 below. This section examines the meaning of those scores.

Table 10 – Summary of Top Three Strengths, Weaknesses and Expert Proposals

	Strengths	Weaknesses	Proposals
Cultural and Social Norms	• People display generally a positive attitude and outlook • Inventive and innovative nature • Perception that support for entrepreneurship is increasing • Perception that 'isolation' drives innovation	• Entrepreneurship is negatively perceived • Preference for comfortable lifestyle • Risk averse • 'Tall poppy syndrome' • Entrepreneurs not supported or encouraged	• Bring entrepreneurship into the mainstream through courageous collective efforts of multiple stake-holders
Education and Training		• Low entrepreneurship skills and awareness across many sectors of the population	• Increase entrepreneurship education and training throughout the school system from kindergarten to postgraduate studies • More emphasis on entrepreneurship practice • Train teachers / educators in entrepreneurship • Develop the SME sector owners and managers in entrepreneurship • Develop better understanding in the government sector
Government Policy	• Burdensome taxation system for small business	• Complex regulatory regime hinders start-up and management of small businesses • Develop 'training wheels' policies for new businesses	• Develop an indexed taxation system on levels of revenue • Develop dispensation tax incentives for new and growth businesses • Taxation incentives for informal private investment (angel) market • Better use of technology to improve information access and government 'e-commerce' systems • Improve the voice of small business advocacy and lobbying
Financial Support		• Limited number of early-stage financing products • Limited knowledge of how and where to access finance for new and growing businesses	
Entrepreneurial Capacity	• An ability to 'see' new combinations	• Low level of existing knowledge and skills concerning opportunity evaluation and new venturing	
Perceived Population Composition	• Small nation that heightens the sense of isolation and may sustain an innovativeness and inventiveness tradition • Diversity in cultural mix creates opportunities and global leverage possibilities		

Table 11 – Australian Expert Rating Summary

	Australia			All GEM countries	
ITEM	*Rank*	*Score*	*Median*	*High* Score (Cntry*)	*Low* Score (Cntry*)
Entrepreneurship Environment Ratings (Source: Key informant surveys; Scale: 1=Low to 5=High) [Available for 30 countries]					
Availability of capital	1	10	2.84	2.47	3.88 (US)	1.76 (EC)
Government policy emphasis	2	17	2.38	2.49	3.33 (SG)	1.72 (AR)
Low regulation and taxation burden	3	11	2.43	2.24	3.94 (IS)	1.34 (BR)
Government program effectiveness	4	12	2.66	2.42	3.49 (DE)	1.62 (EC)
Education and training: schools	5	11	2.19	2.06	2.74 (SG)	1.37 (BR)
Education and training: post-school	6	16	2.65	2.68	3.41 (CN)	2.06 (JP)
R&D transfer effectiveness	7	15	2.45	2.46	3.24 (US)	1.64 (PE)
Commercial and professional infrastructure	8	8	3.49	3.23	4.14 (US)	2.08 (JP)
Rapidity of change in markets	9	27	2.35	2.74	3.87 (JP)	1.94 (CA)
Low barriers to market entry	10	4	3.13	2.71	3.33 (CN)	2.03 (EC)
Ease of access to physical infrastructure	11	10	4.20	3.75	4.72 (SG)	2.60 (EC)
Entrepreneurial culture	12	9	3.09	2.65	4.58 (CN)	1.92 (PT)
Perception of business opportunities	13	2	3.92	3.26	4.07 (US)	2.81 (HU)
Capacity to act on business opportunities	14	18	2.41	2.48	3.61 (CN)	1.73 (JP)
Motivation to act on business opportunities	15	23	3.08	3.20	4.34 (CN)	2.73 (HR)
Protection of intellectual property	16	2	4.15	3.21	4.48 (SG)	1.87 (PE)
Support for female entrepreneurs	17	9	3.43	3.12	4.02 (IS)	2.17 (JP)
Entrepreneurship Expert Attitude Ratings (Source: Key informant surveys; Rating: Percent answering "Yes") [Available for 30 countries]					
Personal beliefs:					
Expect to start business in next three years	14	52%	48%	86% (EC)	18% (NL)
Have closed down a business in last year	16	11%	11%	39% (UG)	0% (++)
Know someone who started a business	5	98%	93%	100% (++)	85% (++)
Perceive good business opportunities now	5	92%	80%	96% (++)	36% (GR)
Have skills to start a business	4	98%	91%	100% (++)	67% (JP)
Fear of failure is NOT a personal deterrent	22	15%	18%	36% (CN)	8% (JP)
Views on general population's beliefs:					
Prefer all have similar living standard	14	63%	62%	94% (PL)	14% (IL)
Starting a business is a desirable career	16	45%	46%	90% (US)	13% (FI)
Successful entrepreneurs have high respect	20	63%	68%	100% (IL)	21% (HR)
Successful new firms often in media stories	11	68%	61%	96% (IL)	10% (HR)
Entrepreneurship Population Attitude Ratings (Source: adult pop'n survey; Rating: Percent answering "Yes") [Available for 34 countries]					
Personal beliefs:					
Expect to start business in next 3 years	9	20%	12%	63% (PE)	1% (JP)
Have closed down a business in last year	9	5%	2%	30% (UG)	0.5% (HU)
Know someone who started a business	13	42%	39%	73% (UG)	26% (SG)
Perceive good business opportunities now	6	51%	37%	72% (UG)	13% (DE)
Have skills to start a business	7	56%	43%	78% (UG)	13% (JP)
Fear of failure is NOT a personal deterrent	15	39%	38%	52% (GR)	21% (US)
Views on general population's beliefs:					
Prefer all have similar living standard	9	73%	62%	87% (BR)	27% (AR)
Starting a business is a desirable career	25	57%	62%	91% (UG)	28% (JP)
Successful entrepreneurs have high respect	16	70%	68%	87% (UG)	51% (HR)
Successful new firms often in media stories	14	60%	58%	81% (AR)	35% (PT)

** See References for list of country codes. ++ indicates several countries with this score.*

Between 2003 and 2004, in general, the changes in scores have been fairly minor and are within +/-10% difference. The few exceptions where changes exceed a 10% difference are a drop in positive perception for government policy emphasis and education and training for both schools and post schools, and a rise for perception of business opportunities. The rise in perception of business opportunities seems fairly self-explanatory given the rise in business confidence in Australia in 2004 as referred earlier. It would seem to follow that a high business confidence would encourage the perception of new opportunities. It is also worth noting that Australia rates second only behind the USA on this measure in the comparison between the 2004 participating countries.

The falls on the other hand require further clarification. The fall in the perception of the key informants in government policy emphasis on entrepreneurship is likely to have been caused by the Australian government's pre-occupation (and in turn, the media's pre-occupation) with both global issues, such as terrorism and the Iraq war, and the federal election campaign falling late in 2004. Given that government policy receives a high proportion of comment for recommendations for improvement from the key informants, any distraction for the government away from this area is likely to have repercussions in this survey. Therefore it is not surprising that the key informants have responded in this manner. Further, the emphasis given to various policy issues in election campaigns is a good indicator of just how low a priority entrepreneurship occupies in the hierarchy of national policy emphases. There was a total absence of entrepreneurship policy as a key pillar of either the government's or the opposition's agenda.

Education is another matter again. There has been a consistent call for entrepreneurship to be introduced into the education system and the longer this call goes unheeded the more likely it is for this element to attract continued criticism. It should be noted, however, that Australia is not alone in having a negative perception about education, particularly for the primary/secondary school system. No country rates the 'Education and Training' factor above a neutral position and the median score is the lowest of all category scores at 2.06. At the aggregate level, no nation in the world handles the issue of entrepreneurship education adequately.

While it would appear that the education system is doing nothing in this regard, that assumption is not well founded. Below the macro level, some praiseworthy micro initiatives do exist. For some time now, enterprise education has been on the debating (if not the action) agendas of education departments not only here in Australia, but around the globe. However enterprise education does face a significant challenge in quieting the critics from the entrepreneurship fraternity. For instance the Department of Education, Science and Training in 2002 embarked upon an *Action Research Project to Identify Innovative Approaches to, and Best Practice in, Enterprise Education* (Department of Education, Science and Training 2004), which included 192 schools. When one considers that there are more than 9,600 schools in Australia, (ABS 2002), the reach and impact of this exploratory type project needs to be accelerated and rapidly. The initiative is admirable.

The task ahead is to penetrate schools with enterprise learning programs that really work and really encourage the generation of well-motivated, highly-innovative, high-growth, well-financed ventures run by capable entrepreneurs. In other words, the six ingredients of the entrepreneurial activity matrix (see all of the report to date) need to be taught at all levels of the education system. The Department of Education, Science and Training (2004) seems to be right on this agenda when it defines 'enterprise education' as:

> *"learning which is directed towards developing in young people those skills, competencies, understandings and attributes which assist them to be innovative; identify, create, initiate and successfully manage personal, community, business and work opportunities, including working for themselves."*

It is clear that the principal thrust is for innovative individuals who can also manage innovation: a worthwhile aim. What is not clear is how well entrepreneurship is understood in its entirety and from the viewpoint of an individual who has high ambitions ranging from commencement and growth of a unique business venture through to the impact that such a business may have on both economic and social development. An entrepreneur offers much to an economy when she or he establishes a growth-orientated, dynamic organisation, employing thousands of Australians selling products and services around the globe. However the smaller-scale ambition serves little more than to fulfil a crude necessity motivation if 'entrepreneurs' are encouraged merely toward minimum self-employment. What is the department's orientation? Genuine, full-blooded entrepreneurship or getting a few people off the unemployment register through creation of a legion of non-growth, low-innovation, me-too marginal businesses? Australians should not be willing to settle for mediocrity and rest on a definition that suggests an entrepreneur is at best an innovative self-employer. Worse and even more undermining to the depths and benefits of a true understanding of the full richness of entrepreneurship as a multi-dimensional phenomenon would be the concept of enterprise education as developing 'innovative' (meaning

merely people capable of coming up with the odd good new idea) people destined only for an employee role.

The GEM Australia team, in common with over 200 expert key informants, is observant of the glacial pace of anything approaching systematic and dynamic policy-making in the area of entrepreneurship by any government during the five-year life of the GEM Australia project. The researchers are very sceptical about the depth of both understanding of and commitment to entrepreneurship policy by any government department or agency anywhere in the nation. We are hopeful, but sceptical.

In addition to noting significant changes this year as against previous years, it is also worth commenting on where Australia does well relative to other nations. We observe that Australia is in the top 10 on key informant perceptions when it comes to availability of capital, commercial and professional infrastructure, low barriers to market entry, entrepreneurial culture, perception of business opportunities, protection of intellectual property, and support for female entrepreneurs. This might suggest that Australia is doing reasonably well when compared to other nations on these factors. However one should hasten to add that we only avoid the middle range of the scoring in two aspects: 'ease of access to physical infrastructure' and 'protection of intellectual property', where both scores are above four. This suggests that, far from doing well, Australia sits amongst many countries that are perceived generally as mediocre on these important entrepreneurial environment factors by their key informants.

At the other end of the spectrum there are two elements for which Australia appears in the bottom 10 countries, namely, 'rapidity of change in markets' and 'motivation to act on business opportunities'. These measures may in some way be linked because relatively stable market conditions may not prompt or motivate a would-be entrepreneur to perceive opportunity and to act. Further, the motivation to act may have other observed Australian elements associated with it such as the relatively comfortable lifestyle and generally good employment conditions. On the one hand stable markets, comfortable lifestyle and good levels of employment sound like positive attributes and indeed they are. However, these conditions are not necessarily the most conducive to entrepreneurship and again this opens the question of education and training. If a nation wants to experience the good life and yet still desires to grow and compete internationally, the twin objectives must be addressed through the education system. Education must stimulate, encourage and support people of all ages to embrace at least an entrepreneurial mindset and further to open the maximum opportunity for those that are most inspired to 'have a go'. This call is echoed in the GEM Global Report (Acs et al. 2005) that suggests that education and training have a significant role to play in any type of economy albeit that the function of education changes as economies develop.

It is interesting to check how Australian ratings stack up against the ratings of other nations. Further, it may be important to ask whether the relative strengths of the Australian entrepreneurial environment are actually conducive to the creation of improvements that will actually deliver advantage from the perspective of global competitiveness. Table 12, below, summarises the position. The scores have been selected to be indicative of Australia's relative performance rating in each area. The brief description quoted under the heading 'Australian Score' is reproduced from the Australian Expert Rating Summary presented in Table 11, above. The scores shown in bold and red are those where Australia is rated below the median. Alongside the Australian scores the Australian ranking among the 30 participating nations for this part of the GEM research design is also shown in brackets.

On the strengths side, it can be seen that on two of the measures, Australia rates in the top ten of the participating nations. However a little explanation and consideration is required here. First, while the Cultural and Social Norms measure reflects well on the national stage it is still only marginally above the neutral position. The best performed country in this respect (China) rates well above four, indicating a very positive culture for entrepreneurship. Consider then that our experts were also split on this measure, with Culture and Social Norms featuring in both Australia's strengths and weaknesses, and this neutral position makes sense. Our score tends to suggest that, while the Australian culture offers some strengths, it is also one that is in dire need of strengthening to achieve greater entrepreneurial performance from the nation.

On the other strength receiving a better ranking measure, *Perceived Population Composition*, there is no exact equivalent measure to be taken from the international expert survey and therefore a proxy indicator has been taken to gauge the accuracy of this perception. This proxy is taken from the perspective of why the key informants felt that the population composition was important to entrepreneurship and that reason was largely given as both the relative small size of the nation and its mix of cultures that gave rise to people 'seeing' more opportunities. Interestingly, Australia performs well compared to other nations with respect to the perception of business opportunities and this suggests that the key informants are accurate in predicting this outcome. Again, we find that while the comparative ranking is high,

Table 12 – The Entrepreneurial Environment Summary

	Australian Score	Median	High
Strengths			
Cultural and Social Norms	Entrepreneurial Culture		
	3.09 (9)	2.65	4.58 (China)
Entrepreneurial Capacity	**Capacity to Act**		
	2.41 (18)	2.48	3.61 (China)
Perceived Population Composition	Perception of Business Opportunities		
	3.92 (2)	3.26	4.07 (USA)
Weaknesses			
Cultural and Social Norms	Entrepreneurial Culture		
	3.09 (9)	2.65	4.58 (China)
Financial Support	Availability of Capital		
	2.84 (10)	2.47	3.88 (USA)
Education and Training	Schools 2.19 (11)	2.06	2.74 (Singapore)
	Post-School 2.65 (16)	2.68	3.41 (China)
Government policy	**Government Policy Emphasis**		
	2.38 (17)	2.49	3.33 (Singapore)
Proposals			
Education and Training	Schools 2.19 (11)	2.06	2.74 (Singapore)
	Post-School 2.65 (16)	2.68	3.41 (China)
Government policy	**Government Policy Emphasis**		
	2.38 (17)	2.49	3.33 (Singapore)
Cultural and Social Norms	Entrepreneurial Culture		
	3.09 (9)	2.65	4.58 (China)

the absolute ranking is not impressive. Australia still does not score above four. The best performing country in this regard, the USA, scores only marginally higher than four. This suggests that, while it is an interesting indicator, it is not one worthy of high priority attention at this point in time.

The third strength to focus on is the one ranked as Australia's secondary strength by Australian experts: *Entrepreneurial Capacity*. This is reflected in a proxy measure caught in the expert survey: 'Capacity to Act on Business Opportunities'. Here we find an interesting situation where, while capacity is considered a secondary strength, Australia falls below the median score and well behind the highest scoring nation, China. That is, it may be a strength relative to our internal set of factors contributing to our own low level of entrepreneurship. However, on international comparisons, Australia does not do well and this reinforces the need to address policy areas that promote a higher national entrepreneurial capacity. GEM Australia reports for the last four years have been advocating policy initiatives to do just this. They have fallen on deaf ears. This year, yet again, we will resume our shouting (see Part Three, below).

Moving to weaknesses, it is interesting to note that in two of the four items nominated by the Australian experts, Australia ranks above the median and in the top 10 of nations. However, these scores are again occurring only around the neutral level of response indicating that, relative to the perceived potential of performance, Australia is neither doing extremely well nor very poorly. Perhaps, given Australia's relative international performance, this is an appropriate level and is not a real weakness at all. Another more trenchant and potentially productive view, however, is to consider the best performing countries on these measures. Unfortunately, in 2004 China did not participate in the Adult Population Survey. The USA did and

coincidently it also places second on the measure of entrepreneurial culture with the USA experts attributing a score of 4.31. Now we have the one country, USA, being perceived by experts as rating very highly on both availability of finance and possession of an entrepreneurial culture. Australia manages to surpass the USA with respect to participation rates in overall business ownership (refer earlier section on participation rates) while having mediocre scores on measures highly indicative of entrepreneurship. This re-confirms the folly and danger of monitoring 'entrepreneurship' – a multi-faceted phenomenon – based merely on individual measures (be they early-stage participation rates or anything else) that do not convey the full picture.

The third weakness considered by the Australian experts was 'Government Policy'. This has been discussed above. The global comparison shows that Australia is at the low end of the middle order. Even the highest scoring nation, Singapore, only scores just above the neutral position, suggesting that most nations do not consider their governments as providing adequate policy support for entrepreneurship. As will be discussed under the 'explanations' section (Part Two of the report), the issue of government policy support for entrepreneurship has multiple layers and it may be that governments that address one area of policy fail to address others and this in turn leaves people skilled and knowledgeable in entrepreneurship less than completely satisfied with the government's efforts.

The final area of global comparison focuses on the opportunities that the experts consider as key to improving Australia's position on entrepreneurship. The three items of Education and Training, Government Policy and Cultural and Social Norms have already been discussed. On each of these three measures Australia ranks in the middle order of the participating nations, suggesting that there is room for improvement. However, one may ask, why is it that the experts do not make the improvement recommendations in the two areas where Australia scores lowest? The answer most likely is that the experts perceive that changing the three nominated fundamentals will generally address and influence rapidity of change in markets and motivation to act on business opportunities. That is, a more entrepreneurship focused education system, a better government policy regime that promotes entrepreneurship and an improved culture that supports entrepreneurship will each affect the motivation of individuals and their behaviour when interacting with market opportunities.

To summarise aggregate expert opinion this year, our key informants believe that the Australian entrepreneurial environment contains both strengths and weaknesses. However, overall, the Australian entrepreneurial support environment, whether considered intrinsically or by way of international comparison, cannot be rated much better than mediocre.

Part Two

Explanations

Part Two seeks to provide tentative explanations to selected key issues arising from the observations made in Part One.

WHAT FACTORS BEST EXPLAIN BUSINESS PARTICIPATION RATES?

Logistic regression is a useful statistical technique for exploring and explaining factors likely to be associated with the entrepreneurial activity observed in Part One and has been used by the GEM Australia team for the past three years. The technique has two particular virtues. First, it shows which (if any) factors have a statistically significant association with the outcome being investigated. Second, the technique provides an odds ratio. This tells us *how much* of a difference a given factor makes. An explanation of this statistical technique is provided in Wright (1995).

This year again, logistic regression was used to identify the factors that increased or decreased the likelihood of an individual being involved in entrepreneurial activity. Factors investigated were demographic details and responses to questions in the population survey relating to attitudes to entrepreneurship and societal norms.

Extra questions have been introduced to the population survey over the last two years. However, for cost reasons, they are not asked of all respondents. Those respondents who said they were involved in a start-up or an existing business (young or established) were asked all eight questions. Those not involved were asked either the first four or the last four of these questions, at random. This resulted in fewer cases for which the responses to these eight questions were available. This in turn affects the likelihood of identifying the statistical significance of any factor (or *whether* it made a difference) and reduces the potential of calculating the odds ratios (that is, *how much* difference it made).

Upon analysing the variables this year (results are summarised in Table 13), some of the relationships found in previous years did not reoccur. Where this is the case an '✘' indicates a lack of significant contribution under the relevant participation type. The numbers and arrows show the factors of significance and their association with start-ups, young firms, percentage opportunity-driven entrepreneurial participation and percentage necessity-driven entrepreneurial participation. A positive influence is indicated by an upward pointing arrow (↑) and a negative influence by a downward pointing arrow (↓). The odds ratio is listed alongside. The interpretation of this table is as follows: an odds ratio coded '(x5)' means the factor influence would make an individual 'five times more likely' to participate under that particular category. An odds ratio coded '(x 0.4)' should be read 'times zero point four', and means the factor's influence would make an individual 'only 40% as likely' to participate under that category. An arrow without an odds ratio alongside means a relationship is indicated but was not statistically significant.

Table 13 – Assessing Factors Associated with Entrepreneurial Participation

Factor	Start-ups	Young Firms	Opportunity	Necessity
Belief you have the skills to start a business	↑ 4.32	↑ 3.41	↑ 4.87	
Knowing someone who started a business in the last two years	↑ 2.10	↑	↑ 2.17	✘
Perceiving good business opportunities in next six months	↑ 1.60		↑ 1.67	✘
Fear of failure	✘		✘	
Being female	✘	↓ 0.46	↓ 0.53	✘
Being an established business owner		↓ 0.25	↓ 0.51	✘
Having closed down a business in the last six months			✘	✘
Belief most Australians prefer similar living standards	✘			
Belief starting a business is a desirable career option	✘	✘		
Belief that entrepreneurs are held in high regard			↓ 0.62	

The most consistent influences on starting a business found over the past three years are the positive associations with the belief that one has the skills to start a business and that one knows someone who has created a business within the last two years. These twin elements indicate that an individual is more likely to start a business.

The positive influence of perceiving good opportunities within the next six months is probably not fraught with implications. The relationship between start-up participants and the opportunity motivated participants might seem an obvious connection. However, it may also suggest that creating the circumstances whereby near-term opportunities become more apparent might have beneficial effects upon the rate of start-up participation. Unfortunately, it is indeterminable whether opportunity recognition precedes start-up activity or whether pursuing the start-up activity makes one more aware of potential near-term opportunities.

The factors identified this year that are associated with reduced early-stage participation rates (and that have occurred in past years) are being female and being an established business owner. Explaining the latter factor is not too difficult for anyone who has had the experience of operating their own business. Business is often an all-consuming activity. The finding does suggest that those who run established businesses are not developing the business to a stage where the owner is free to pursue other opportunities or exit the business. Our Action Focus – see Part Four, below – this year may assist those who fall into the latter category. The finding is also consistent with the high number of Australian businesses that are either non-employing or employ only a few people. Whenever a business owner is in this circumstance, starting new businesses may not be a high priority or even a remote possibility. *The Australian* published an article in November 2004 with a headline "Stay Small AND BE Happy" (*The Australian* 2004a). It cited work of research consultant, Ross Cameron, claiming that a small business owner's goal of growth is overstated and that "They want to make more money ... but they don't want the hassles of growth." This seems to be the case, and GEM research supports it. Where is aggregate Australian business ambition? Absent, it would seem. The implications of low growth orientation are discussed below, in Part Three.

Being female was again shown to be likely to reduce a person's chances of participating in young and opportunity motivated business. This is consistent with the gender based participation rate analysis and while, by international standards, Australia seems to compare well, there ideally is no need for the level of female activity to be less than that of men by *any* margin. The cause of lower female participation rates is likely to involve cultural impediments. To address the disparity, more female role models need to emerge and be showcased. Coincidentally, on the opposite facing page of *The Australian* to the article mentioned above was an article on Sonia Amoroso, the winner of the Ernst and Young, Young Entrepreneur of the Year Award (*The Australian* 2004b). This is exactly the type of showcasing to which we refer. Interestingly, detailed and focused research, based on longitudinal global GEM data, on the impact of 'good news' entrepreneurship stories indicates that such stories do not influence *start-up* participation but are effective in providing sustaining support to people involved in *young* businesses (see Hindle and Klyver 2005).

In the GEM Australia 2003 report, it was reported that attitudes to entrepreneurship and wealth creation did not appear to have much impact on involvement in early-stage business activity. This year's data indicates a similar pattern. An additional factor that shows significance this year (belief that entrepreneurs are held in high regard) reveals a negative association with opportunity based participation. Put another way, the more positive are attitudes about the entrepreneurial status, the less likely is it that individuals will seek to start a new venture from an opportunity perspective. This might be interpreted as the more likely individuals will be to seek the status without necessarily having a firm grasp of an opportunity. This is a bad thing for Australia because high value-adding entrepreneurship is rarely driven by status seeking.

WHY HAS NECESSITY MOTIVATION INCREASED?

The low number of individual respondents participating in business start-up and ownership who are motivated by necessity means that statistical significance in the variation does not occur. This suggests that while the observation in raw numbers is apparent it may only be peculiar to the sample, and is not indicative of a general trend. However, we also reviewed secondary data on changes in GDP, employment and household debt to check if there were any factors that are coinciding that may suggest that this increase should be of concern (ABS 2005). None were found. We further cross-checked changes across gender, age and states to identify from the GEM data set any anomalies, and again the low number of respondents prohibited any findings of statistical significance. It seems that this variation is worth flagging for future monitoring. However, it should not raise policy concerns at this time.

WHY ARE MOST BUSINESSES NOT GROWTH INTENTIONED OR INNOVATIVE?

Australia has historically been reported as being, and likes to regard itself as being, an 'innovative' nation. However, in line with previous years, we suggest that for as long as Australian

innovativeness strongly features the novelty aspect but not the value-adding aspect of innovation (see Hindle and Rushworth 2004 *passim*, and Hindle and Rushworth 2002: 31-33; Hindle 2002), our alleged inventiveness, whatever its real or supposed virtues, simply fails to translate to entrepreneurial impact. As evidenced by the full pattern of GEM data, Australia is not an entrepreneurial nation. The reasons lie fundamentally in the domains of *cultural* and *social norms* and *education* (which is the domain most responsible for affecting and changing cultural and social norms).

Education has been flagged repeatedly by GEM Australia's expert key informants over the years as a high priority issue for Australia as a means to address our severely limited entrepreneurial ambitions. This year, we included a broad question on entrepreneurship education and training to capture the extent to which it may be conducted across the nation. The question was asked of all respondents in the demographic section of the survey and was phrased as follows: "Have you ever participated in any entrepreneurship education or training programs?" If clarification was sought on what we meant by entrepreneurship the reply was: "We mean education or training concerning the process and experience of starting new ventures."

Admittedly this question leaves much open to interpretation, although our intent was to commence the investigation into the broadness of the reach of entrepreneurship education, not to report specifics. Of the total unweighted sample of 2,000, approximately 22% (or 447 people) reported receiving some form of entrepreneurship education and training. This affirmative response rate was well above what we expected. Accordingly we are led to question the effectiveness of whatever it is that passes in respondents' minds as entrepreneurship education. If it were effective, then the Australian economy should be seeing the benefits of this high education and training in the quality of its new venturing. Yet the entrepreneurial quality of most new venturing remains low (see Part One, above). Effective entrepreneurship education should produce individuals knowledgeable in the process of new venturing and participating in start-ups and businesses that are opportunity motivated, growth intentioned, export focused and marketing highly innovative products and services. This is not happening (see Part One, above). It seems likely that the education and training reported as 'entrepreneurial' by respondents does not canvass the entrepreneurial issues at all and is more probably the reporting of small business management training such as how to use a proprietary accounting package and similar. So, in our analysis, participation in entrepreneurship education and training as reported by respondents did not reveal any significant correlation with any of the components that might describe an entrepreneurial business.

Striving for sanguinity, we then considered that perhaps this self-reported entrepreneurship education and training may possibly be performing another function by diverting start-up and business ownership participation away from low or narrow opportunity based businesses. If this were the case, then one would at least expect to see some correlation with the surveyed attitudes, for example, 'fear of failure' may change with respect to business start-up, belief that one has the skills to start a business might be influenced, the perception of opportunity in the next six months would be affected, and it might affect how one thought of entrepreneurship in terms of a career option. Again, no statistically significant correlation was found with any of these factors.

So, what does all this mean for Australian entrepreneurship education? One should avoid jumping to the conclusion that entrepreneurship education has no value; there is certainly not enough evidence to reach this conclusion. What it does suggest is that generally the understanding of entrepreneurship is poor and vague with many people unable to distinguish genuinely entrepreneurial venturing from micro management of a very small business. This misconception is likely to be just as prevalent within the education community as it is with those allegedly being educated. If policy is to be directed toward increased entrepreneurship, the three related issues of what entrepreneurship is (a multi-component approach to innovative, growth-oriented, well-financed new venturing by highly skilled, knowledgeable operators) and how it should be taught (it is not synonymous with small business administrative training) and how it affects the economy (through radical challenges not incremental tweaks) need to be drilled into a national psyche from which they are absent.

As a final depressing farewell to this area of investigation, GEM data indicates that the education and training that is misperceived as entrepreneurship education is not even effective at the lower level of providing basic business skills. A tighter framework of expectations around what is termed as entrepreneurship education is required and would assist development, funding and monitoring of education and training programs relevant to new venturers who have high aspirations. While national education and training continue to miss the entrepreneurial mark by confusing the vast differences between creative new venturing and me-too small business management, it must remain unsurprising that so very few Australian businesses are pursuing a genuinely entrepreneurial pathway.

WHAT IS HAPPENING IN THE FINANCIAL MARKET?

The angel and venture capital market dynamics offer some interesting observations, with a declining trend in both activities although the VC market has shown some sign of reversing that trend. Earlier in 2004, *The Age* reported that the venture capital firms were 'cashed-up', buoyed by successful exits and a rising stock market (*The Age* 2004a). Interestingly, only a month earlier *The Age* also reported on the decline on investments in early-stage and expansion venture capital and said that 55% of venture capital went into buy-outs and existing businesses (*The Age* 2004b)[12]. This, it is contended, is due to the perceived lack of quality investments with an estimated acceptable and comparable risk and reward structure for the VC market. So while there is indication of recovery in the VC market it is not likely to assist the start-up and early-stage business environment, especially whilst generally entrepreneurial capacity remains mediocre.

The need for a vibrant angel investment market cannot be understated. Earlier, we mentioned the *GEM Global Finance Report* and its statement of the importance of the angel investor in developing young businesses for the VC market. This view is shared by others. A UK *Small Business Services Report* highlights the financing barrier for start-up and new businesses and similarly a Danish report on *Public Policy for Start-up Entrepreneurship* (Keuschnigg and Nielsen 2003) stresses the importance of the informed capital provided by business angels and the later role of bank-owned private equity firms that 'package' successful young businesses for institutional investors. Essentially, all reports paint a picture of an end-to-end financing market dynamic. In Australia, while we have the VC funds in place, the angel market is deteriorating and this will diminish the chances of progressing promising businesses through the private equity pipeline.

Our angel market is also dominated by family and friends and this situation is experienced by many of the GEM nations. GEM research allows family members to be counted as angels. If they were excluded – as they are in most non-GEM definitions of the angel market – the true rarity and importance of Australian angel money would be revealed even more starkly. The macro points worth observing here are factors such as the increasing levels of household debt (ABS 2005) and an increasing inequity and widening of income gap level between the top and bottom 20% in Australia (ABS 2004). Both these factors mean that increasingly fewer numbers of people will have available funds to support family and friends with promising business ideas to get started. The Danish report calls for specific measures to alleviate tax burdens in order to encourage greater savings for self-funding business start-ups or for becoming business angel investors. While these measures may seem acceptable, Australia is not a saving nation either, as is indicated by a declining level of household saving (ABS 2003). This combination of factors, along with a poor understanding of entrepreneurship's characteristics and potential, may explain why angel investment is on the decline.

HOW DO WE ESCAPE THE MEDIOCRITY TREADMILL?

Australia's entrepreneurial mediocrity is better understood in the light of global opinion from the expert key informants contributing to the GEM project multi-nationally. The experts from each nation are asked identical questions about the strengths of their nation that contribute to entrepreneurship, the weaknesses that limit the development of entrepreneurship, and the opportunities that exist to improve the environment for and practice of entrepreneurship. They are asked to provide at least three points for each aspect – strengths, weaknesses, recommended proposals – and to rank order them for importance as they see fit. By referring back to Part One of this report the reader will find the type of output that each nation produces, essentially a three by three grid. These comments are then coded and arranged under the heading of GEM's entrepreneurial framework conditions in order to produce category findings. This classification and ranking system is designed to focus the attention of policy makers and indicate the key issues that policy may need to address.

An analysis conducted by the GEM Australia team this year aggregated the world expert opinion in these areas in order to highlight the relative importance of issues. We have further sub-categorised this aggregation to reflect the opinions of experts from the high and low GDP per capita country groups (in line with the previous participation analysis, covered in Part One, that compared these two groups). Alongside this we have placed the Australian viewpoints. The results of this analysis are contained in Table 14, below, and we have provided the top four (not just three) items for each category because it was indicated by the data. Inclusion of the fourth item formed a natural cluster of the top ranked frameworks of focus.

[12] *The Age* usually sources its data from *The Australian Venture Capital Journal*, a publication devoted to research in the sector. The reason we quote the popular secondary source rather than the more arcane primary source is because coverage of entrepreneurial issues is relatively rare in mass media. Ultimately it is the general public who will or will not advance the cause of entrepreneurship through their democratic influence on inertial government actors, politicians and policy makers. The general public may discover the importance of entrepreneurship in mass media. They will not discover it in specialist research publications.

Table 14 – Comparison of World Expert Views

Combined World Expert View			High GDP per Cap Country Experts (includes Australia)	Low GDP per Cap Country Experts	Australian Experts
	Comment Count	% of Total			
AREA OF RECOMMENDED PROPOSALS					
Government Policies	482	27.2%	Government Policies	Government Policies	Education and Training
Education and Training	357	20.1%	Education and Training	Education and Training	Government Policies
Government Programs	238	13.4%	Government Programs	Government Programs	Cultural and Social Norms
Financial Support	215	12.1%	Financial Support	Financial Support	Capacity for Entrepreneurship
STRENGTHS					
Cultural and Social Norms	280	15.8%	Cultural and Social Norms	Cultural and Social Norms	Cultural and Social Norms
Government Policies	184	10.4%	Government Policies	Market Openness/ Barriers to Entry	Capacity for Entrepreneurship
Market Openness/ Barriers to Entry	177	10.0%	Government Programs	Economic Climate	Perceived Population Composition
Economic Climate	175	10.0%	Economic Climate	Government Policies	Education and Training
WEAKNESSES					
Financial Support	321	18.1%	Cultural and Social Norms	Government Policies	Cultural and Social Norms
Cultural and Social Norms	310	17.4%	Financial Support	Financial Support	Financial Support
Government Policies	309	17.4%	Government Policies	Cultural and Social Norms	Government Policies+
Education and Training	220	12.4%	Education and Training	Education and Training	Education and Training+

+ Denotes equal third ranking

The collection of world opinions provides an interesting perspective on the Australian position. First, addressing the weaknesses perceived as limitations to the development of an entrepreneurial nation, it can be seen that the collective expert opinion is fairly common across nations; that is, the same four factors occur in every grouping. This clearly indicates the importance of getting these policy areas correct and then maintaining them for a flourishing entrepreneurial environment.

Turning to the strengths that contribute to entrepreneurship, international differences emerge. Notably, in the more developed world the emphasis clearly is on government and the policy environment it creates, both economically and socially. In developing countries, on the other hand, though government still features in commentary, the emphasis is on the need for market openness which can allow competition to flourish with strong opportunities for the creation of new businesses. In the short run, the developing countries' experts are anxious not to impede the high early-stage participation rates that are a dominant feature of their economies. They are, however, aware of the dilemma that high volumes of marginal enterprises may make it more difficult in the long run for developing countries to establish stable and durable businesses that provide a solid base for mass employment of higher quality than currently prevails. A more open market it seems is good for entrepreneurship participation but bad for growth orientated businesses. The absence of government-oriented 'mentions' in the Australian experts' top four strengths suggests that policies and programs are below the standard of most developed countries with respect to encouraging entrepreneurship, and our experts instead refer to the social indicators that are at the foundation of dynamic business creation.

The areas that world experts suggest provide opportunities for improvement are found to be identical across both developed and developing countries. The major observation here is that government policies attract the most comment for improvement. This is logically the case as it is the government with its leadership that provides many of the economic and environmental conditions conducive or inhibitive to entrepreneurship. Every other framework condition is in some way influenced by government intervention. World-wide, all respondents also stress the importance of education and training, supportive

government programs and an appropriate financial environment.

Australian experts, however, offer a slightly differentiated view. There seems to be a higher focus on developing the natural assets inherent in our culture and society than emphasis on government intervention programs. This suggests a transitional state within our economy whereby we have emerged from the competitive mire but generally as a society we have not yet grasped the concepts of economic contribution through enterprise and entrepreneurship. This is likely, partly at least, to be due to Australia's reliance on commodities that sustain a healthy income for the nation. By placing education and training at the top of their list, the Australian experts are pointing the way forward for a vital, fundamental change of mindset from commodity reliance to entrepreneurial venturing. They place the *government policies* framework area in second place. This signals the need to create the social conditioning for entrepreneurship through the policy mechanism. The *social and cultural norms* framework as well as the *entrepreneurial capacity* framework are both intertwined with *education and training* and the focus therefore is not toward improving the education system *generally*, but points to *specifically* increasing the status and role of entrepreneurship as a key curriculum component at all levels of education.

Our experts believe that the nation must develop education and training with a specific emphasis on increasing entrepreneurship in the curricula of our educational institutions from kindergarten to university.

They believe that the nation must develop and maintain a financial support environment conducive to the creation and growth of high-quality start-up and young businesses.

Part Three

Implications

KEY ISSUES IN THE NATIONAL ENTREPRENEURIAL PATTERN

GEM provides a rich, complex database fraught with issues that might easily be called 'key'. Selectively choosing just a few for discussion of their implications is a judgment call that is forced by constraints of researcher time and documentary space. We have selected the following as the key issues whose implications should predominate in the thinking of four constituencies: the general public, the research community, policy makers and business practitioners.

There are eight key issues emerging from GEM Australia research covering the calendar year 2004.

- HIGH VOLUME, LOW QUALITY NEW VENTURING. Australia consistently displays relatively high rates of business participation, especially in the start-up phase, but growth intentions (through both export and technology) and incorporation of innovation are low despite a high claimed level of opportunity motivation.
- GETTING WORSE? 2004 shows an undesirable increase in necessity motivation and the ratio indicator between necessity and opportunity has declined to below the level of 2002. This may indicate that, while the quantity of our new venture participation is increasing, it is possible that the quality of our early-stage venturing – already low – may be declining.
- MISUNDERSTANDING OF 'INNOVATION'. The major frame of reference on 'innovation' for the Australian business community seems to focus more on differentiation from competitors than newness to customers or the incorporation of new technology. This particular problem is part of a far wider misunderstanding about the complex nature of innovation and its relationship to entrepreneurship. This issue can be addressed through a focused, national educational effort.
- A FINANCIAL MARKET GAP. The financial markets do not appear to cater for home-grown new ventures that have genuinely high growth potential. The angel market seems to be in decline and, although the classic venture capital market shows signs of reversing a declining trend, net financial market dynamics with respect to new venturing will probably have a negative affect on the ability of new, high growth potential ventures to receive sufficient start-up and growth capital for survival. Accordingly, the nation must develop and maintain a financial support environment conducive to the creation and growth of high-quality start-up and young businesses.
- LOW PRIORITY, FRAGMENTED GOVERNMENT POLICY. In the previous four years of GEM Australia reports longitudinal data consistent with the views expressed by the 2004 expert key informants. Governments, state and federal, seem not to understand entrepreneurship very well and cannot prioritise it adequately as a policy issue. What passes for 'entrepreneurship policy' is accordingly diffused, fragmented, ill directed and ineffective. In the past, GEM Australia has been guilty of placing too much emphasis on the too few positive aspects of entrepreneurship policy in Australia. The time has come to place the emphasis where it belongs: on the negative. Current and projected entrepreneurship policy in Australia is too little, too ill focused and too ill informed to serve the nation adequately.
- EDUCATIONAL FAILURE. The nation must develop education and training programs with a specific emphasis on increasing entrepreneurship in the curricula of our key educational institutions from kindergarten to university.
- MIDDLE OF THE ROAD COMPLACENCY. Most of the factors contributing to national entrepreneurship that expert key informants perceive to either bolster or inhibit Australia's entrepreneurial performance neither lead nor lag other nations when compared with international expert opinion. This makes it possible to take one of two attitudes: justification of mediocrity or commitment to improvement. We might say, "Well, on balance, as an entrepreneurial nation Australia is really no worse than anyone else" and rest on rather thin and patchy laurels. This sums up the current aggregate national attitude to entrepreneurship. Or, we realise that our 'middle of the international road' status provides no grounds for complacency and treat the fact that most countries display a good deal of sub-optimal entrepreneurial performance as an opportunity rather than a brake.
- INADEQUATE ENTREPRENEURIAL CAPACITY. In aggregate, the nation simply lacks the entrepreneurial capacity to create globally competitive, high-employing businesses and is doing very little to address the deficiency. Key constituencies, including both business practitioners and policy makers, don't seem to understand the crucial differences between the traditional skills and training needed to assist small businesses with the basic tasks of managerial competence as distinct from the radical skills and training needed to create and develop genuinely innovative high-growth-potential businesses.
- SUMMARY: AS A NATION, DO WE CONFRONT OR IGNORE OUR NATIONAL ENTREPRENEURIAL MEDIOCRITY? Essentially, Australia has to face a very unpalatable fact. Although

Australia has high participation rates in business ownership when compared to other developed nations, this is not a component of entrepreneurial activity in which we can take any real joy because the low entrepreneurial quality of our new venturing activity and our new venturing environment are more important than the relatively high quantity of owner-operated businesses. When the other components of entrepreneurship are factored in (motivation, growth-orientation, innovation, financing and entrepreneurial capacity), Australia's national entrepreneurial performance is mediocre. Our educational institutions and policy-making apparatus are not helping to raise the standards. Our media and national commentary machinery are not voicing concern or sending a sufficient volume of relevant messages. There is no national sense of urgency about these problems. In summary, when it comes to entrepreneurship, we are a nation of quiet under-achievers. And we're happy with that. This is a short-term recipe for long-term national failure.

IMPLICATIONS FOR THE GENERAL PUBLIC

Though deeply entrenched cultural attitudes and misperceptions are resistant to change, it may not be too much to hope that the Australian general public, in the years to come, may become a little bit more articulate about entrepreneurship. Perhaps we may someday begin to see some realisation of the potential opportunities that GEM Australia's 2004 expert key informants spoke of (see Part One, above). They stressed as an environmental positive our national potential to increase our international entrepreneurial competitiveness based on the combination of the diverse nature and small size of our population. However, latent potential requires a catalyst in order to foment activity.

At this point in time, it is unrealistic to expect the majority of the general public to become wildly enthusiastic about or even mildly interested in genuine, job-creating entrepreneurship. Five years of GEM Australia data indicate how deeply rooted-in are our non-entrepreneurial or even anti-entrepreneurial cultural norms and attitudes. Those who are articulate about entrepreneurship may lament the frustrating reality that the Australian general public does not appreciate the vitally important fact that only entrepreneurship can guarantee their children a better life because only entrepreneurship is the creator of tomorrow's jobs. Lamentation will not solve the problem. Only education will.

Deep-seated cultural inertial factors can only be overcome through the education system, and the general public simply will not scream for more entrepreneurship education. If entrepreneurial inertia and apathy are not to prevail, the cause of entrepreneurship education itself needs a high-profile champion or two or 50 to articulate and fight for the cause. Otherwise, the issue of this nation's low entrepreneurial capacity will never get onto the general public's agenda and, through lack of application of the public's democratic pressure on policy makers, will never receive the policy attention it warrants. There has to be entrepreneurship educational policy *leadership* coming from someone who resonates with the general public – a political champion, a public service champion, a community leader, a respected ex-entrepreneur, whomever. How wonderful it would be if, say, Dick Smith who is an entrepreneur, a popular and famous national figure and a proven attractor of media coverage to causes would crusade as hard for the educational value of the process – entrepreneurship – that brought him his wealth and prominence as he does for other worthy causes.

This raises the issue of the role of the media in promoting entrepreneurship in Australia. Again, it is unreasonable and overly idealistic to expect mass media (who are in business to give the public what it currently wants – not what someone believes it should have) to give any more coverage in volume and quality than they now give to entrepreneurship until there is evidence of a higher level of general public interest. So, with respect to public aggregate understanding of and attitudes to the complex phenomenon of entrepreneurship, we are in the negative clutches of a vicious circle that can only be broken through the medium of educational leadership. All GEM Australia's educational policy recommendations[13] from past years have fallen on deaf ears but there are some grounds for hope that entrepreneurship education is starting to penetrate the citadel of Australia's rigid, non-entrepreneurial education system that trains our children to be employees rather than business creators.

There are a growing number of initiatives being undertaken. Apart from the enterprise learning approaches mentioned in Part One being undertaken by the Department of Education, Science and Training there are also initiatives being championed by individuals. Some of these are being carried out through government organisations such as the CSIRO, Austrade and Questacon, others are private ventures such as 'Youth 2 Youth', 'Bad guys & big wigs' or 'Entrepreneurs Networx' and yet still others are institutionally based such as 'Students in Free Enterprise' or 'Young Achievement Australia.' Each of these has a role to play in creating an entrepreneurial nation (refer to Appendix 1 for a brief biography of some of these 'entrepreneur' education champions). However this does not remove the need for informed leadership to maximise the efforts and energies of some very dedicated individuals.

[13] See Hindle and Rushworth 2002

IMPLICATIONS FOR ENTREPRENEURSHIP RESEARCHERS

In light of our comments in the previous section and all the data and analysis of Parts One and Two of this report, we make the following recommendation:

Research Recommendation. *The GEM Australia research team recommends the financing and conduct of a study into the current status and effectiveness of entrepreneurship education in Australia.*

This is a call to social scientists in general and entrepreneurship researchers in particular to apply for an ARC (Australian Research Council) Large Grant to conduct a critical evaluation of Australian entrepreneurship education in a national and international context.

This is a recommendation that can give concrete form to the call for educational leadership that the nation so urgently needs in respect of its low level of understanding and low sense of urgency about the importance of entrepreneurship to national social and economic destiny. However, one can not blithely recommend more entrepreneurship education and training without attempting to understand its effectiveness with respect to impact on a nation's entrepreneurial efforts. For instance, a review of the UK's youth entrepreneurship policies over 25 years summated "that enterprise support has little influence on young people's take-up of self-employment. This, therefore, may raise serious questions about the efficacy and value of the attempts to increase the 'entrepreneurial' propensity of young people" (Greene 2002). Entrepreneurship education, while being well intentioned, may risk missing the mark. Accordingly, our recommended study must stress the practical effectiveness of programs.

IMPLICATIONS FOR POLICY MAKERS

THE FINANCE GAP

We stop short of making any specific recommendations but table the following suggestions as guidelines for policy makers interested in addressing the deficiencies of the capital markets with respect to entrepreneurship.

To halt the decline in the angel market, policy measures will need to embrace a combination of savings and investment incentives with off-set tax concessions. This might help to induce more angel investment. There are other means by which funds for start-up and young businesses can be increased. The Green Paper on Entrepreneurship in Europe also addresses the challenge of early-stage funding difficulties and suggests "risk-sharing between banks and investors in the private sector and public financial institutions specialised in SMEs, or through mutual guarantee societies, is an efficient way of leveraging scarce public funds and has proved to be successful in increasing funding for business start-ups" (Commission of the European Communities 2003).

ENTREPRENEURIAL CAPACITY

For policy makers in the public sector, the seminal issue to emerge from five years of GEM Australia research is the weakness of our national entrepreneurial capacity, especially as it affects our ability to convert and develop the commercial potential of the new knowledge we create, often via heavy public sector subsidy. In a nutshell we are nationally inadequate at turning good ideas into good businesses. This is a legitimate issue for public funding. If our public instrumentalities are piling billions of dollars into the creation of new knowledge (via universities, CRCs and a myriad of programs) in the sanguine but unfulfilled hope that somehow successful new ventures may emerge, it is entirely reasonable to hope if not to demand that a fraction of that money ought to go in the direction of studying how best to conduct the new venturing process itself. GEM Australia has been making this point for five years. Recently, Yencken and Hindle (2005) have produced a study detailing the deficiencies in government programs which allegedly support entrepreneurship and the commercialisation of innovation – so we do not have to remake either the point that Australia fails as a commercialising nation through weakness in entrepreneurial capacity or the point that research into the new venturing process and entrepreneurial capacity is a neglected area. We merely repeat our cry that something needs to be done about it.

Policy Recommendation. *The GEM Australia research team recommends the financing and conduct of a feasibility study for the establishment of an Australian Institute for the Study of Entrepreneurial Capacity (AISEC) with the objective of facilitating and enhancing Australia's development of innovative growth oriented new ventures.*

In earlier GEM Australia reports covering calendar years 2002 and 2003 (Hindle and Rushworth 2002, 2004) recommendations have included the urgent need to create some form of national research centre explicitly for the social scientific study of subjects, themes, issues and factors germane to enhancing all aspects of Australia's national entrepreneurial capacity but with particular emphasis upon converting the new knowledge into sustainable, value-creating businesses.[14] All we can do this year is to try to

[14] Hindle and Rushworth 2002: 31-34, provided a discussion of innovation, opportunity and entrepreneurial capacity. A diagram in Hindle (2002: 32) illustrates how new knowledge (small – i innovation) is converted to sustainable value (Big – I innovation) through entrepreneurial capacity acting on productive opportunity.

make our calls louder in response to the continuing deafness with which they have been received.

At one level, the argument is as brutally simple as one, two, three.

1. Research indicates that the nation is deficient in entrepreneurial capacity (the ability, inter alia, to convert new knowledge into new, viable, valuable, sustainable businesses) coupled with an inadequate understanding of both the deficiency and its remedy. The problem is not being specifically addressed by any government funded or privately funded educational institution, program or think tank.
2. Entrepreneurial capacity is vital to Australia's short-term ability to reap (via the creation of innovative new ventures) the rewards of all the billions of dollars it spends on creating potentially valuable new knowledge (through programs such as CRC and a range of other initiatives[15]).
3. Accordingly, the GEM Australia team believes that some government agency, somewhere in the vast policy-making maw of one federal, six state and two territory governments, might, individually or collectively, find a few thousand dollars to investigate the possible value of a potential Australian Institute for the Study of Entrepreneurial Capacity (AISEC).

Five years of GEM Australia research clearly demonstrate that the nation is chronically deficient in entrepreneurial capacity – that is, the capacity to do all the things from perception and evaluation of genuine (as against spurious) business opportunities through to their implementation (via the conversion of new knowledge into sustainable value)[16] into truly dynamic, growth oriented, innovative, well financed, highly skilled, high employing, globally competitive Australian businesses.

Entrepreneurial capacity is vital to the nation and there is – with one tiny exception[17] – absolutely no government money going toward the study of the most vital component of what everybody says they want: the ability to turn new knowledge into dollars and employment. In previous GEM reports, we have been guilty of saying, in effect, let us proceed straight to the creation of such a centre – the need is chronic and urgent. This time, we bite our lip, aim lower and recommend something much humbler: a feasibility study to gain multiple perspectives and assessments as to whether our recommendation for what we tentatively call an Australian Institute for the Study of Entrepreneurial Capacity (AISEC) is worthy of serious policy attention.

An important issue here is the possible perception by some constituencies that there might be potential overlap between what we propose and what already exists. How might AISEC be positioned, having particular regard to the existence on the one hand of several centres for small business research and on the other the development of the privately funded Australian Institute of Commercialisation (AIC) that is concerned both with innovation in existing companies but also in the early-stage development of new technology-based small firms? What about the various entrepreneurship teaching programs at several Australian universities? What about commercialisation studies within various CRCs? Don't these institutions between them adequately cover the issue of national entrepreneurial capacity? The answer lies in distinguishing parts from wholes. Entrepreneurship, as the act of new entry or creation of a new venture, is an important domain for both small business research and for the AIC, and as a part of many programs concerned with research commercialisation support leading to innovation and wealth creation. But none of them have as their primary objective a concentrated focus upon the development and diffusion of entrepreneurial capacity among the people of Australia in the national interest.

One of our 2004 GEM Australia expert key informants offered the suggestion that Australia needs an 'Australian Institute of Entrepreneurship' that might be modelled on the Australian Institute of Sport, even if the former has to live on a much smaller budget. We do not recommend the immediate establishment of such an Institute. We simply recommend a feasibility study to explore the most suitable structure and possible funding sources for such an Institute, having regard to Australia's national, state and regional potential to benefit immensely from enhanced entrepreneurial capacity.

We end by asking, plaintively: Is there anyone or any agency in the Australian policy-making community willing to design and fund such a feasibility study?

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[15] See Yencken and Hindle, 2005, and Hindle and Yencken, 2004.

[16] Catherine Livingstone (cited in Hindle 2002: 53) provides a value orientated definition of innovation "I will interpret successful innovation as meaning 'the process whereby new ideas are transformed, through economic activity, into a sustainable value-creating outcome'. There are two key words in this interpretation which are worthy of emphasis: '**process**': innovation is not just the idea – innovation is only achieved when an idea has been transferred into an outcome which has value... The second key word is '**sustainable**' ... Sustainability requires good integration with those who assign value i.e. the customers, the market, and it implies rigour and continuous measurement."

[17] Last year, with the support of Westpac, an Australian Research Council grant was secured to study 'The accurate measurement of entrepreneurial capacity at the level of the firm.'

IMPLICATIONS FOR ACTIVE ENTREPRENEURS

The implications of the 2004 and previous years' findings for active entrepreneurs are a matter for their individual judgement because every business is unique in at least some of its aspects and all of its people. Whereas the GEM Australia team often makes specific recommendations to the research and policy-making communities, it is beyond the scope of the report to make general recommendations directly to the business community. Each year, instead of broad general recommendations, we try to offer some specific focused help.

The GEM Australia team is concerned not only with researching entrepreneurship but also with making research findings useful to practitioners. The principal GEM research output, both the data and evaluation of it, is fundamentally aggregate in nature: it is about the big picture. As such, it may be directly useful to policy-makers concerned with the development of Australia's economy and to researchers, students and any citizen wishing to understand entrepreneurship as a phenomenon of social, political and economic importance to the nation. This audience includes people directly involved in active entrepreneurship: those Australians at work in start-up firms, young firms, established firms and anyone in the SME sector who is interested in business growth through creating and commercialising dynamic new initiatives. Business operators can also gain particular benefit by perceiving the general entrepreneurial context in which their firm operates.

In previous GEM reports we have been at pains to stress that entrepreneurship is a choice, not a panacea. Furthermore, a big improvement in national entrepreneurial capacity and performance could be achieved through relatively small changes in attitude and behaviour. As a nation we are not either lazy or stupid but we are perhaps a bit too complacent.

For instance, is it reasonable to want a 'low stress' business (a phrase used by many Australian business owners) and at the same time to expect a future buyer to place a premium value on it? The creation of slightly – not vastly – more dynamic ventures could have multiple benefits to their owners, their customers and the community at large. There is really no need for Australian small business owners to fear or shun growth aspirations to the extent they do. For instance, *The Age* (Perrett 2005) provides a case study of an Australian small business (the Mona Vale Tennis Centre) whose proprietor, Phil, is clearly reluctant to grow the business – a very typical Australian small business attitude borne out yet again by the 2004 GEM data. One of the authors of this report (Hindle) was asked to comment on the case. See Box 1 – Case Study for an outline of the situation and a discussion of the attitudes that influence the strategy options for Phil.

Box 1 – CASE STUDY

Phil Davies and his wife Kerry operate four council leased tennis courts in the middle of a council park in Mona Vale. Their business consists of court hire and tennis coaching. The increased popularity of the sport since the recent media frenzy surrounding Lleyton Hewitt and his fiancée Bec Cartwright has created an unexpected spike in demand for courts and coaching. Phil sees himself as the business and he is physically stretched. He has turned down opportunities to expand the business into neighbouring suburbs and relinquished nearby courts to members of his team of coaches, which he justifies as an incentive.

Phil shows signs of innovation, for instance, he has recently adopted an on-line booking system, but he also shows signs of resisting growth. If he wants to achieve a lifestyle that allows him to take the occasional break, his business model probably needs to change to allow the Phil Davies Tennis School to grow. This does not necessarily mean that the business must expand hugely. But some growth is required to relieve Phil from managing so many aspects of the business – and ultimately to help him enjoy work more! Phil and Kerry's challenge should not be to maximise the earning capacity of what they have, but the capacity of what they *could* have. Establishing a small chain of, say, eight to ten courts would give them the genesis of a great Sydney-wide business. Phil could use his experience to train other staff to manage those locations, which would be a rewarding experience in itself.

With this strategy in mind, Phil could take on courts in other suburbs like the courts he had previously rejected. Perhaps, with just a slight change of attitude, it would not be hard for him to view any future expansion possibilities as an opportunity rather than a logistical difficulty. At present, Phil is aiming to use technology to keep his business small and manage the existing courts more efficiently. The same technology could be used to effectively manage courts at other locations without physically having to be there. Such an approach would remove current restrictions on growth and increase opportunities for staff, which would greatly boost the business' appeal. Phil would not be trapped working in a business situation but could be liberated to work *on* a business, building real value, employment opportunities and benefits for multiple stakeholders.

We want the revelations of the GEM data to be a positive inspiration for Australia's business community.

What applies to Phil applies to many Australian businesses. Very slight changes in perception and resistance to innovation and growth potential could see marked improvement in the entrepreneurial flair and value of many enterprises. Education and entrepreneurially sensible government policies will help a lot, but ultimately it will be Australia's own business people who must drive or block the emergence of a more entrepreneurial Australia. In Phil's case, it is hard to see how a four-court enterprise will ever be scalable or saleable at a value sufficient to fund his retirement. A small but upscalable network of courts all infused with a service-oriented business model could have a high value to a potential buyer.

The general lesson for all Australian growth-resistant enterprises is that a small adjustment to fixed ideas can open up a wealth of profitable opportunity.

In this spirit, in each annual *Westpac GEM Australia Report,* we try to add direct value to the SME community by offering entrepreneurial individuals and firms (and their advisors) an *action focus*, in the form of very practical operational guidelines about how to handle an issue directly relevant to the day-to-day specifics of running an entrepreneurial business. Each year, the area selected for attention is one that GEM research, and the wider field of entrepreneurship research generally, has shown to be important to the practical operation of entrepreneurial businesses but for which few practical management aids currently exist or are widely circulated.

Last year we provided practical guidelines for opportunity evaluation (Hindle and Rushworth, 2004). This year's action focus tackles the area of business exit strategy.

Part Four

Action Focus: Harvesting Value Through a Business Exit Strategy[18]

AN URGENT NEED THAT IS NOT BEING ADDRESSED

Contrary to mistaken popular opinion, start-up business survival in Australia sees as many as two thirds of businesses surviving their first five years and almost 50% still operating at 10 years of age (Productivity Commission 2000). The dynamics of the Australian business environment suggest that more and more entrepreneurs will need to seek an exit path through sale of their businesses and that the demand for the increasing supply of businesses is failing to keep pace. Therefore, this action focus has real significance for business owners seeking to set their businesses apart and increase the attractiveness of their businesses in a depleted buyers' market.

For the business founder, the road to success is seldom easy. The founder invests years of toil and struggle in the expectation that one day he or she might exit the business – whether by sale, or initial public offering or passing it on to children – having realised a substantial exit premium (call it goodwill or capital gain or due reward for hard entrepreneurial work). Given the importance of the area, it is remarkable that research shows that, in Australia, the thought of planning for exit is rarely considered by business founders and owners until only a matter of months prior to the event. This short time span and the accumulated neglect of the issue is, for most founders and owners, just far too little attention too late in the day. They will not realise the maximum possible value of their business when they exit. Recent research indicates that the average age of the Australian small business owner is 57 and that over the next five years $1.3 trillion of business value will change hands either through generational change or through business sale (Gome 2003; CPA Australia 2004).

One of the world's longest serving text and case books in the field of entrepreneurship education (Stevenson *et al* 1994) has always included exit strategy (called 'harvest') as one of the six key ingredients for the successful planning of an entrepreneurial venture. In starkest possible contrast it seems that very few Australian small business proprietors treat exit strategy as a serious issue until it is too late to realise maximum value (McKaskill 2004). In this year's action focus the GEM Australia team, drawing on the work of Professor Tom McKaskill[19], we provide some guidelines that can help to correct the situation.

WHAT DOES GEM RESEARCH TELL US ABOUT THE BUSINESS EXIT ISSUE?

Studying GEM Australia's early-stage activity data provides insight into how new business owners perceive their eventual exit from the business. This insight stems from consideration of owners' reported levels of expected returns on investment and the period within which they expect to receive that return. Figures 25 and 26 show a comparison between the return-on-investment expectations of Australian entrepreneurs and Australian business angels as revealed in the GEM Australia national population survey. In response to the question, 'In the next ten years, what payback do you expect to get on the money you put into this start-up?', it can be seen that 20% of the start-up entrepreneurs hold an expectation of a 20 times return on their original investment and that most of them expect to realise that return in five years or less[20].

This can be contrasted with the mixed return expectation profiles exhibited by Australian business angels. Nearly 14% expect a 10 times multiple on their investment. Very few (2%) expect a payback multiple of 20 times their investment. Angels generally report a shorter time horizon than those starting a business. 53% expect or require a return to be achieved in around 12 months. This suggests that many business angels adopt the position of investing in the short-term start-up period only. A substantial minority, 30%, responded with no expectation of a payback multiple in the first 10 years and a further 19% could not quantify their expectation. Thus, the majority of angels are more conservative in their return expectations than is the majority of the start-up proprietors in whom they invest. Perhaps this is explained through 43% of investments being in start-up entrepreneurs related to the investor while 35% goes to friends and colleagues (refer Table 5). Or it may be that this group of angels is more conservative than their investees due to long experience of the difficulties involved in business building and value realisation.

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[18] This action focus has been collaboratively authored by Professor Tom McKaskill, Australian Graduate School of Entrepreneurship, Darren Young, Customer Experience Manager SME Business Markets, Westpac Banking Corporation, Allan O'Connor, SME Innovations and GEM Australia researcher, and Professor Kevin Hindle, Australian Graduate School of Entrepreneurship.

[19] Professor McKaskill has recently published a book *Maximising Shareholder Value: Proactive Trade Sale Strategies*, that draws upon his international experiences with trade sales and business exits. For further information contact the author by email: tmckaskill@swin.edu.au

[20] An interesting minority is the 7.4% of all 2004 start-up entrepreneurs who responded with an expectation of no return within the next 10 years.

Whatever the reasons for the differences (and it would take specific and expensive research to discover them) it is fair to say that there is a misalignment between angel investors' return expectations and those of their investee company proprietors.

While business angels may make small, short-term and perhaps even unencumbered investments, venture capitalist (VCs) make much larger investments with high expectations of a return in a relatively short period. Accordingly, any business thinking of seeking VC funding simply must have a well-formulated exit strategy before commencing negotiations. A viable and well-articulated exit strategy – especially a vision of how the VC will realise its investment return – will greatly improve the success chances of any company seeking VC funding and the eventual harvest value flowing to the founders.

Figure 25 – Payback Expectations Comparison

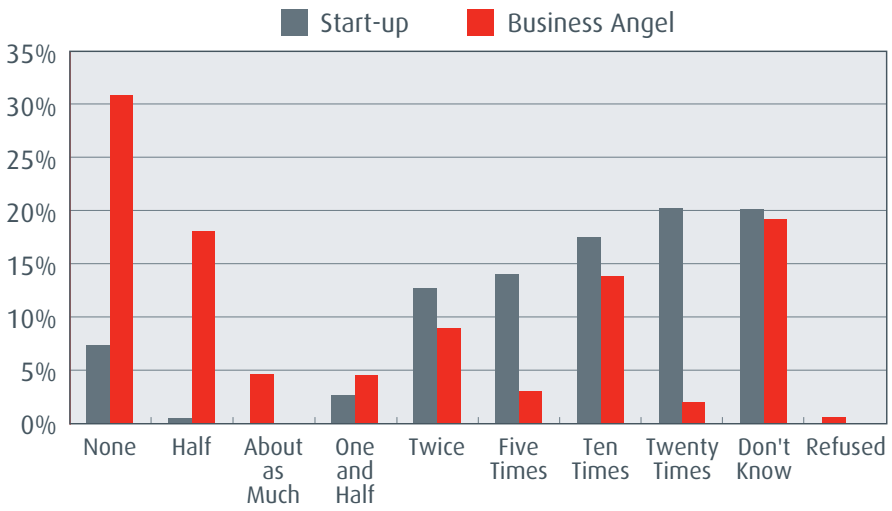
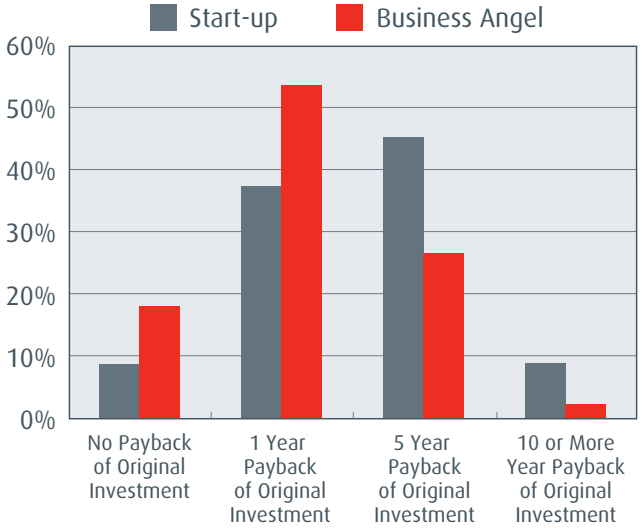


Figure 26 – Payback Time Period Comparison



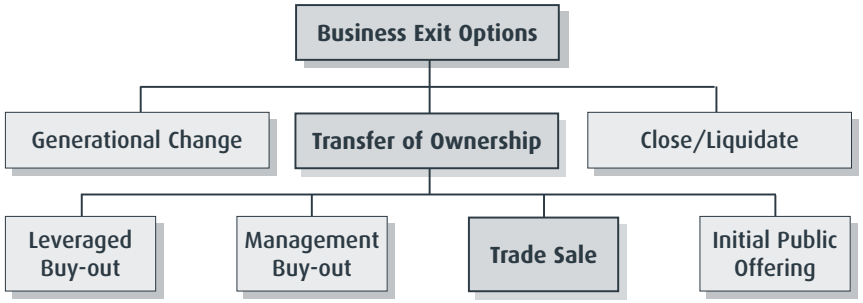
RELEVANCE TO ALL EXISTING AUSTRALIAN SME BUSINESS OWNERS

Even those business proprietors who seek neither angel nor VC funding can benefit substantially by preparing a conscious, well-articulated exit strategy at a time when they may not have any intention of leaving the venture and are in fact actively involved in growing it. The following summary descriptive scenario of the Australian business sale market explains why.

The owners of Australian businesses are aging and are likely to find increasing difficulty in sourcing buyers for their businesses at the prices they expect. Start-up entrepreneurs have exceedingly high expectations and seek to gain a significant return from their businesses within five years of commencement. The high volume of short-term oriented business creation in Australia – revealed by the GEM Australia research data (see Part One, above) – is constantly adding to the stock of business on the supply side of the business-for-sale market. Business angels and VCs both require short-term exits and (particularly the VC firms) expect high returns based on a well-planned exit strategy. Preparation for exit is clearly of great importance from many perspectives. This market environment is bound to be tough on the owner of a business who has been cavalier and careless about structuring it for transfer to new ownership.

Further, given that most business owners in Australia regard the money they will receive from transferring business ownership as the 'lion's share' of their retirement funds, it is absolutely crucial that early planning for business exit is undertaken to ensure that maximum value is achieved. There are primarily three strategies for business owners seeking to withdraw from the business: generational change, transfer of ownership, or closing down and/or liquidating the business. Generational change will be dealt with briefly here; however, this pathway of an entrepreneur's exit is not of a form that we seek to address in depth in this section. Closing down or liquidating a business are not options that an entrepreneurial business owner would consciously and actively set out to pursue and therefore this 'strategy' will be ignored entirely. The passing of ownership offers several sub-options and the most likely exit event for an entrepreneurial owner is the trade sale (refer Figure 27).

Figure 27 – Business Exit Options



THE CHALLENGES OF ENTREPRENEURIAL EXIT

GENERATIONAL TRANSFER

For some business proprietors, creation of a legacy effect (where the business would be passed onto future generations) is an integral part of starting the business. The family business as a motive and a tradition is well established. However, for a multitude of reasons, ever fewer children of business founders want to take up the family business opportunity. This is especially evident in rural Australia. Current studies indicate that only one in four children will succeed the business founder (CPA Australia 2004). The challenges for today's founders are many:

1. Do my children want to take over the business?
2. Are they ready?
3. How do I prepare them to takeover when I leave?
4. How do I fund my exit?
5. What is a 'fair price'?

A founder's retirement will need to be funded. A lump sum or continuing salary arrangement may place the business under strain. Will these options allow them to live the lifestyle they want? These considerations are critical in generational change.

TRANSFER THROUGH SALE

Almost 52% of small business owners (those employing 20 people or less) suggest that selling their business is their preferred option to exit (CPA Australia 2004) and given Australia's aging population it is reasonable to expect that the supply of businesses on the market over the next five to 10 years will exceed available buyers. Therefore, competent owners must strive to have their businesses at peak valuation by the time of contemplated sale – in the same manner as professional sporting-team coaches strive to have their teams reaching peak performance levels at the right time of the season. A sobering fact is that 16% of all young and established business owners in Australia are 65 years or older and 21% are in the age bracket of 55-64 years old (extracted from Westpac GEM data, 2005). While some of these proprietors remain in business through choice, some are simply trapped because they cannot realise any significant value through sale. They realise that any sale will yield insufficient capital to fund retirement. Their only choice is to keep working in a low value venture.

TRANSFER THROUGH STOCK EXCHANGE LISTING

The most entrepreneurial business owner would likely pursue expansion at a rate beyond that which is normally able to be funded through organic growth or more immediate funding channels, such as banks or angel investors. This type of owner would likely seek public funds and plan their exit by reducing and ultimately perhaps extinguishing their ownership through stock market share trading. This specialised manner of exit is mentioned to highlight its existence and perhaps inspire some that may be harbouring high entrepreneurial ambitions.

The topic is highly technical and there is not scope to deal with it adequately in the space available in this document. Besides, it is only a tiny minority of SME businesses that will ever contemplate this exit route and they will, of necessity, have available to them top level legal, financial and technical advice. The requirements for listing a firm via an IPO (Initial Public Offering) are quite onerous and expensive. Generally it will take a minimum of $50,000 in legal and accounting expenses for even the smallest and simplest IPO. Companies normally expect to incur expenses in excess of $250,000 for an IPO. At the same time, an IPO usually involves significant work for the top executives. This has often been thought to be 50% of the CEO's and CFO's time over the six months prior to the IPO. This is a very significant burden on the firm and requires an exorbitant amount of focus and energy by the management team during this time. Some of the characteristics of a business that would best suit an IPO are a revenue in excess of $20 million, a sustained net profit over three years with a minimum of $2 million in the year prior to listing and projected profits continuing to grow over the next few years, national or international markets, major national or global market leadership, and management with public

corporation experience and some with experience in larger corporations. Most companies in private ownership fail to meet these and many other attributes vital to IPO success and an exit strategy aimed at an IPO therefore is not a viable option.

By far the most important exit mechanism for the Australian SME sector is through sale.

THE BENEFITS OF SERIAL ENTREPRENEURSHIP

Every business owner should have the idea of sale constantly in mind. Few firms left in the hands of their founding ownership generate superior returns over a long period of time. History shows that most owner-managers of smaller firms acquired by larger ones will normally generate a higher income by selling out and then taking an employee position. The combination of the income and utilisation of the net wealth created from the sale together with the new salary will generally constitute a considerably better package than just the former owner's salary. A most valuable result for both the owner and society is the creation of serial, value-building entrepreneurs. This only happens when an owner sells out and then uses part of the proceeds to create a new venture. If this is replicated several times over, the serial entrepreneur's long-term net wealth can be considerable. Successful entrepreneurs can normally undertake the process of start-up more than once in their working life.

Here we will focus on the exit option that is suitable to the majority of business owners: the trade sale.

STRATEGIC GUIDELINES FOR CONDUCTING A TRADE SALE

THE FUNDAMENTAL BASIS OF A TRADE SALE

Most shareholders exit, or harvest their private equity investment, through a sale to another firm, generally a listed corporation. This is called a trade sale.

Often a firm will be sold through a business broker at or below the fair market value (FMV). The FMV is most often determined by examining the current business as an investment by an independent investor looking for a return on their money. The current profit is taken as indicative of the ongoing profitability of the firm and a return on investment (ROI) is calculated. Since few owner-managers operate the business to maximise profits, this will normally undervalue the business. A strategic sale occurs when the value placed on the business exceeds its fair market value.

Let us call our selling entity 'the firm'. The key to achieving a strategic sale for the firm is to find a buyer (let us call this 'the corporation') that has a need for the assets and/or capabilities of the firm. This strategic fit can come from any number of possible areas, including:

- Customer base
- Distribution channel
- Brands
- Patents, trademarks, licences
- Key employees
- Access to specialised knowledge, and so on.

Strategic buyers most often come from within the industry in which the firm is operating. They can be suppliers, customers, partners, alliance partners, joint venture partners, competitors or advisors. Sometimes inside parties will offer to buy. These could be managers, shareholders, directors or employees. Sometimes the sale will be to a corporation that is not in the sector. They may want to acquire a presence as a foothold or simply want to diversify their business.

THE FUNDAMENTALS OF TRADE SALE EXIT STRATEGY

The trade sale exit strategy developed by Professor Tom McKaskill of the Australian Graduate School of Entrepreneurship is a comprehensive methodology for achieving a strategic sale.[21] The strategy has five major components:

1. Alignment of interests
2. Due diligence and good governance
3. Identifying competitive assets and competencies
4. Selecting strategic buyers
5. Building relationship with potential buyers.

Figure 28 displays the flow chart of decisions for proactive trade sale strategies.

1. Alignment of interests

In order to be prepared for a trade sale, especially when there is time pressure to set up and consummate a deal, the various stakeholders need to agree on the possible outcome. There is little point in progressing a deal if the directors cannot agree on what they want, or the shareholders cannot agree on what price is reasonable. A negotiator cannot go into a meeting to secure a deal if the interests of the major stakeholders are unclear.

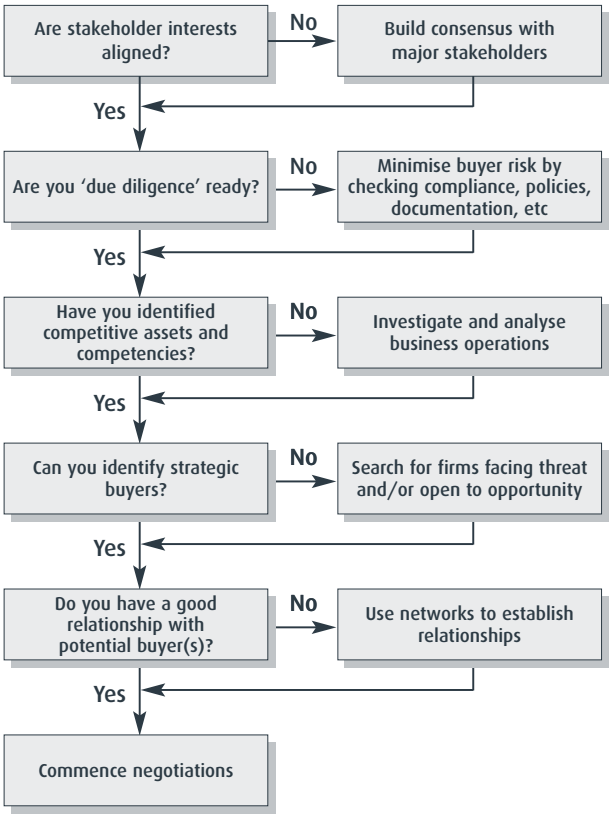
The major stakeholders that are critical to executing a deal are:

- Members of the board of directors
- Owner/managers
- Major shareholders
- Key employees.

The CEO needs to canvas the opinions of all the major stakeholders to ascertain their positions in regard to the two

[21] See footnote 19

Figure 28 – Proactive Trade Sale Strategies



extreme situations – a forced sale due to decline in the viability of the business, and a planned sale over a longer term. Once the CEO has a list of requirements, opinions, conditions and issues that need to be considered, they can start to work with the stakeholders to build a consensus from which an exit strategy could be developed in these two extreme situations.

2. Due Diligence and governance

Nothing kills a deal quicker than an uncertain or unmeasurable risk. Many people think that the valuation on sale is derived solely from revenue and profit. Generally this is merely the starting point of the valuation exercise. What happens next is that the buyer conducts an extensive due diligence into every aspect of the firm's operations in order to uncover actual or potential problems, risk and liabilities. Since each of these requires time and funds to resolve, the offered price is likely to fall as the audit goes forward and problems, risks and unrecorded and unmeasurable liabilities are uncovered. At some point, the risk, time and cost to fix the problems become so great that a deal is not possible.

The task of the selling firm's CEO is to set up the firm and its operations in such a way that risks to the buyer are minimised. This includes putting into effect such things as:

- Standardised and documented contracts with customers and suppliers
- Industry standard terms of employment, benefits and entitlements
- Full ownership and tracking of intellectual property
- Full compliance with industry, health, safety and environmental regulations
- Comprehensive reporting, budgeting and planning systems
- Policies, procedures and processes covering critical aspects of the operations
- Industry knowledgeable accountants and lawyers.

In addition, the seller needs to reduce the time, cost and risks of the transition of the firm across to the buyer's organisation. The key to passing a business over to a buyer is to put yourself in their shoes and think through the integration and operations of the business after the acquisition. The task of the CEO and management team is to ensure that the business can operate effectively after the acquisition without imposing an undue burden on the buyer.

Included in the planning for a sale should be a consideration of the roles of the key employees. In most acquisitions, some roles will change, some staff will be made redundant and some key employees are needed to ensure a transition of knowledge. How can you ensure that this process happens without disruption? This means working out retention terms for some, redundancy packages for others, and incentives for all staff to make the transition happen as smoothly as possible.

3. Identifying competitive assets and competencies

Strategic acquisitions occur because a corporation has a need for some asset or capability that the firm possesses already and that would cost the corporation a lot more to develop in any other manner than by acquiring the firm. Generally the key asset or capability is something that the firm already leverages to create its own competitive position. As part of the trade sale strategy, the CEO needs to think carefully through the operations of the business and isolate those things that it has and those things that it does that give it a competitive advantage and that it leverages to create revenue.

Competitive assets might be:

- Unique location
- Specialised plant and equipment
- Loyal customer base
- Established brands
- Good distribution system
- Intellectual property.

Competitive competencies or capabilities might be:

- Specialised R&D capability
- Ability to bring new products to market quickly
- Engineering capability to control quality.

Sustainable assets or capabilities generally have the highest strategic value. They need to be based on one or several of the following:

- Difficult or time consuming to copy
- Protected by patents, trademarks or copyright
- Only available through licensing or registration which is limited in supply
- Unknown due to confidentiality or trade secrets
- Require specialist knowledge to acquire or utilise.

Once you have identified these competitive assets and competitive capabilities, you have identified the key to finding a strategic buyer.

4. Selecting strategic buyers

A strategic buyer is a corporation that is prepared to pay a premium over and above fair market value because your firm solves a critical problem for them or offers them a good opportunity for additional revenue and profit. Thus, in selecting a strategic buyer, you are seeking to identify a firm with a threat, or one where you can offer them an opportunity that they can execute more easily through acquiring your business.

Typical threats that acquisition of your firm might reduce or remove include:

- Access to technology needed to catch up with a competitor
- Availability of product to match a competitor's offering
- Licence needed to satisfy new regulations
- Specific expertise to solve a technical or marketing problem
- Access to a distribution channel or to replace one lost to a competitor.

The types of opportunities that acquisition might enable include:

- Additional products to sell to their existing clients
- New distribution channels or customers to sell their existing products
- Access to new markets using your products or skills
- New technology which they can exploit.

The best strategic buyers are ones that can exploit an opportunity by scaling a unique product offering on a much larger scale than you are able to with your limited resources. Look for firms that can overcome whatever constraint is holding back your business.

The following strategic questions will assist to identify potential buyers:

- Who makes money when you make money (partners, suppliers)?
- Who does not make money when you do (competitors)?
- Who can make more money than you with your assets and capabilities?
- Who has a serious problem you can solve?
- Who wants to come into your market and needs a starting point?

Buyers normally come from within the industry, so start by listing all the companies in your industry. You then need to select those that have the capacity and experience to do the deal. Corporations with experience at acquisitions and that have requisite size and accessible funds are much easier to deal with.

5. Building relationships with potential buyers

Strategic sales are made mostly between parties that already have some knowledge of each other. This could be achieved informally through networking functions or between prior colleagues or could be created through a formal trading relationship such as a partner or distributor. Other relationships can exist through board of directors or boards of advisors or equity participation.

CONCLUSION

Using the trade sale exit strategy outlined here[22], a firm can be reasonably assured of providing itself with a strong chance to gain the best possible price and to know that the corporation doing the buying will make more money out of it in the future and thus not put pressure on the price. When a firm's owners have a very good idea of their trade sale exit opportunities, they actually run their firm better – even if they do not plan to sell. The discipline, organisation and knowledge resulting from attention to the five components of a trade sale strategy outlined in the previous section are powerful adjuncts to good enterprise management. There is no time wasted in simultaneously running your business better while building a strong case for a potential buyer.

An important component – possibly *the* most important component – of the overall value of any business is the business owner. You are the magic. Never underestimate the value you, personally, bring to the sale. Knowledge and skills don't float in the ether. They are embodied in people. The

[22] Obviously, only the barest outline of the trade sale strategic process has been given in the brief space available. Tom McKaskill's book contains far greater detail.

new owner may require all your skills and services during a handover period. Or the new owners may need you on board to ensure that all policies and procedures are properly documented so that the transition to the new ownership is smooth and effective.

Finally, ensure that your business is ready for your eventual departure. Seek expert advice and start planning now if possible. Although most business owners only plan less than 12 months prior to exiting, a five-year plan is ideal. As a check, have your business appraised and see whether its current fair market value lies within your expectations. If it is not, then you need to investigate ways to build wealth outside of the business or start planning to lift the business to the level required for it to be an attractive sale proposition. This may mean working harder for a year or two but the end result will be worthwhile.

This trade sale process is well proven. If you think of the firms that you have seen sold at a premium, you will always find an aspect of strategic fit and a high level of comportment with the guidelines proposed here. These principles were distilled from hard-bitten practice, not arcane theory.

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INTERNATIONAL COUNTRY CODES:

AR = Argentina	AU = Australia	BE = Belgium	BR = Brazil	CA = Canada
CH = Switzerland	CL = Chile	CN = China	DE = Germany	DK = Denmark
EC = Ecuador	ES = Spain	FI = Finland	FR = France	GR = Greece
HK = Hong Kong	HR = Croatia	HU = Hungary	IE = Ireland	IL = Israel
IN = India	IS = Iceland	IT = Italy	JO = Jordan	JP = Japan
KR = South Korea	MX = Mexico	NL = Netherlands	NO = Norway	NZ = New Zealand
PE = Peru	PL = Poland	PT = Portugal	RU = Russia	SE = Sweden
SG = Singapore	SI = Slovenia	TH = Thailand	TW = Taiwan	UG = Uganda
UK = United Kingdom	US = United States	VE = Venezuela	ZA = South Africa	

Appendix 1

GEM Australia 2004 Respondents

Names are presented in alphabetical order per framework

FINANCIAL SUPPORT

Mark Barnaba

Mark Barnaba is co-founder and CEO of GEM Consulting and Poynton and Partners, a private investment banking and management consulting firm. After four years from start-up, the firm was sold to a publicly listed RSA company. The firm served clients ranging from several of Australia's top 30 corporations, mid-sized organisations and start-up companies. Mark served a broad range of domestic and international corporations in the areas of strategic advice, company-wide performance improvement, pre-deal due diligence, mergers and acquisitions and equity capital raising. Over the past eight years he has structured, marketed and closed capital market transactions for private and public companies approximating AU$2.2 billion.

Shane Breheny

Shane Breheny is the CEO of CitiPower and Powercor Australia Ltd. He joined the electricity industry in 1987 from Telecom Australia and has held the positions of CEO ESV (SEC), Managing Director of CitiPower, Executive Director Finance for Powercor and was appointed as Chief Executive Officer and Director of both CitiPower and Powercor in April 2003. Shane is a Fellow of the ASCPA and AIM and is a Board member of the Committee for Geelong, a member of the Committee for Melbourne, a Director of Lifeflight Pty Ltd and AquaTower Pty Ltd.

Michael Burns

Michael Burns is a Director of Strategon, a specialist consulting firm working with early-stage and high-growth businesses. Michael's current focus is delivering the Commercialising Emerging Technology (COMET) program, an AusIndustry initiative. The focus of COMET is to fast-track companies through the capital raising and commercialisation process and involves working closely with the entrepreneur. Michael has a strong background in making companies "investment ready" drawing on 20 years experience in banking and finance and managing one of Australia's first structured business angel networks.

Amanda Heyworth

Amanda Heyworth is the Acting CEO of Playford Capital, the largest early-stage investor in South Australia, which specialises in seed capital for communications, electronics and IT companies. She also teaches Marketing for the Australian Graduate School of Management. Prior to joining Playford in 2001, Amanda co-founded a software company which has sold Delphi components to more than 60 countries, worked in a strategy role at the Australian Stock Exchange and as a researcher on the Wallis Inquiry into the financial system. She has experience as an accountant, investment banker and economic adviser in Australia and the United States.

Rob Newman

Rob Newman is the Director and CEO of Foundation Capital. Rob is known for his unique track record as a successful high technology entrepreneur in both Australia and Silicon Valley. He has twice founded and built businesses based on technology from Australian Universities and successfully entered overseas markets. These businesses combined have market values of over $200M. Rob is trained in engineering but has spent his career in marketing, business development and general management. Rob has now moved his career to venture capital and is running Foundation Capital's Innovation Investment Fund.

David Penfold

David Penfold is an entrepreneur and investor running his own consulting practice with a major focus on facilitating international trade. A specialist in business planning, marketing, network/cluster development and export, he has worked with many sectors and leading Australian companies. Now heavily involved with regional economic development, David runs a business export centre in conjunction with the state and local government in South Australia. The centre jointly funded by federal, state and local government, focuses on building regional innovation capacity through promoting new technology products into international markets, transferring IP from research facilities into industry, and delivering innovation development programs to targeted sectors through joint stakeholders.

Roger Sexton

Roger Sexton is the Chairman of the Venture Capital Board. He spent ten years in senior management positions within the Commonwealth and state governments. He was a director of the Industries Assistance Commission in Canberra and the Executive Director of State Development in South Australia. Roger subsequently moved to the private sector as a merchant banker and specialised in corporate restructuring and 'work-outs' which in 1994 led to his appointment by the South Australian government as Chairman of the Asset Management Task Force. Roger was responsible for the rehabilitation and sale of over A$2 billion of public sector assets and businesses as part of the state's debt reduction program.

Greg Smith

Greg Smith is a co-founder and Director of SciVentures Investments Pty Ltd, a venture capital fund manager. He is also the Director of three recently established start-up companies in which SciVentures has invested. Greg has over 20 years international experience in the identification and development of high technology business opportunities from research outcomes. In 2000 he was awarded the US-based Industrial Research Institute's prestigious Maurice Holland award for his work on front-end innovation. Greg has been a member of the federal government's IR&D Board and Advisory Council for Intellectual Property, chaired the board of Chirogen Pty Ltd and continues to chair NANO MNRF.

GOVERNMENT POLICIES

Simone Braakhris

Simone Braakhris commenced employment with the Victorian government in September 2002 as a Policy Adviser – Commercialisation. Her current role involves the development of policy that assists early stage technology growth companies and manages the government's relationships with Co-operative Research Centres. Simone previously worked with Victoria University to assist staff and students to establish linkages with industry and to facilitate licensing and other commercialisation arrangements. Prior to this she was a Manager in the corporate tax group at PricewaterhouseCoopers dealing specifically with high technology and research companies, as well as corporates with R&D divisions.

The Hon. John Cain

John Cain, LLB, is a Professorial Associate in the Centre for Public Policy. Established in 1995, the Centre provides a forum for teaching, research and informed discussion on issues relating to policy design and evaluation, public sector economics, management and change. A barrister and solicitor since 1954, he served as a Member of the Legislative Assembly from 1976 to 1992, including three terms as Premier of Victoria. He teaches in Australian politics and public policy. In February 2004 John released *Off Course*, a book co-authored with John Hewitt addressing the current university system. He is also the author of *John Cain's Years* and *On With the Show.*

Dr Angeline Low

Angeline Low is an entrepreneur with many years of Asian and Australian professional and business experience. Angeline was the first woman in Malaysia to be admitted to partnership in any of the big international accounting firms and of Deloitte Touche Tohmatsu. Her last professional appointment was as Director of Asia Pacific Consulting for Deloitte in Sydney. She is currently engaged in family businesses and is constantly evaluating new business opportunities in new markets. She serves on committees and boards in government and private organisations. Recently, Angeline was conferred a PhD for her research into entrepreneurship.

Peter Vaughan

Peter Vaughan is the CEO of Business SA. He is currently in his fifth year and has successfully steered the former Chamber of Commerce through a period of major change to its present position as the premier business organisation in South Australia. Peter spent seven years as a secondary school teacher which culminated in the presidency of the Victorian Secondary Teachers' Association. Several years in senior industrial relations roles followed and the past 15 years, his entrepreneurial and change-management skills saw him appointed to the Australian Federation of Construction Contractors, Chair of the Safer Chemical Storage Task Force and National Marketing Manager of Smorgon ARC.

Jodie Willmer

Jodie Willmer is the Manager of Policy and Membership Services for Tourism Alliance Victoria. Jodie began her career in the tourism industry and subsequently opened her own tour guiding company catering to German-speaking groups, which operated in the Northern Territory and Victoria. Jodie was actively involved in broking long-term insurance solutions for tourism operators during the public liability insurance crisis, and has developed a range of business development programs to assist operators improve risk management and safety standards. Recently she has gained government, industry and ministerial support to review the Victorian commercial tour operator permit systems to improve both business and environmental sustainability.

GOVERNMENT PROGRAMMES

Lionel Barden

Lionel J Barden is the Managing Director of Innovation Showcase Pty Ltd, a permanent exhibition, trade show and conference facility at Gold Coast Airport. Lionel has been involved in the design and commercialisation of architectural products for the past 35 years. He has held senior management positions since 1971. In 1999, as Managing Director of Fibre Light, he was awarded three of the six Telstra Queensland small business awards including best Queensland company. The company went on to win the national award of best company with 50 or less employees, the Gold Coast best manufacturer and Gold Coast Business of the Year.

Stewart Gow

Stewart Gow is the Director of Venture Capital and Commercialisation for the Queensland government's Department of State Development and Innovation. He and his team are dedicated to helping more start-ups get off the ground and survive their first tenuous years of business. In its first three years of operation, the highly motivated team has assisted 138 companies pitch to potential investors, conducted 122 investment ready workshops with 1,925 attendees, established 'Mentoring for Growth' programs throughout Queensland, attracted the Australian Venture Capital Association annual conference in 2000, 2001, 2002 and 2003 to Queensland, and helped 47 businesses raise $29 million through private capital in Queensland.

Phil Kemp

Phil Kemp is the Executive Officer for Coastal Business Centre Inc, a not-for-profit small business development organisation based in Fremantle, Western Australia. Coastal Business Centre Inc operates a business incubator and has an extensive suite of development services including mentoring and training services targeting small businesses from start-up to five years of operation. Phil has been assisting small businesses for seven years and was recognised for his efforts in 2000 by being awarded a Churchill Fellowship to study business development services in the United Kingdom and Ireland. Phil is chairperson of the BEC managers association of WA, vice president of SEAANZ WA and secretary of ANZABI.

Allan Ryan

Allan Ryan is the founder and Director of Managed Innovation International Pty Ltd. He is a leading innovation specialist and consultant with experience in fast-moving consumer goods, building, manufacturing, government and service companies. Allan works across all industry sectors to improve innovation performance and grow value with practical, "hands on" methods. Allan has developed the Managed Innovation© Program over the last five years and has worked with over 50 companies on a one-to-one basis through coaching, mentoring and training. He has also carried out research with over 200 companies to determine how innovation works for them and what is successful.

Owen Tilbury

Owen Tilbury is the principal consultant for TOTAL Business Consultants. He is based in Tasmania and works with clients around Australia. He has 20 years of consulting experience working on three continents with extensive experience in strategic planning, value chain and supply chain redesign, marketing, market research and training. In the last few years Owen has worked with clients in agribusiness, manufacturing, textiles, clothing and footwear, forestry, networks, supply, demand or value chains, tourism and hospitality, government, retail/wholesale, information technology, finance and printing.

Adele Whish-Wilson

Adele Wish-Wilson is the founder and CEO of Momentum Technologies Group. The company was founded in 2001 and shortly after Adele and the company's co-founders created their flagship product SquizBiz, a hardware and software package attaching to a standard video camera to send live video over the internet. Over the past three years Adele has secured government funding, a Telstra Broadband Fund Grant, and private investors for Momentum. SquizBiz has won an Australian Design Award (business category), the CommsWorld Innovation Award, the BlackBox Award, received an honourable mention in the Australian Telecommunications User Group Awards and was a finalist in Australian Interactive Media Industry Association Awards 'Best eBusiness Product or Service'.

EDUCATION AND TRAINING

Leigh Derigo

Leigh Derigo is the Manager Education Programs for Austrade. Leigh developed the Austrade Exporting for the Future program to create a 'culture of export' in tomorrow's business leaders. Over the past four years she has produced a range of print and internet-based curriculum resources as well as a comprehensive professional development program for secondary teachers. Teachers in 93% of Australian secondary schools now use this material to extend students' understanding of international trade and exploration of global business opportunities.

Jessica Kiely

Jessica Kiely is the Director of Youth 2 Youth. Jessica runs two successful companies, Youth 2 Youth and New Horizon Tutoring which she started at the age of 21. In addition to offering in house tutoring for school students through New Horizon, Youth 2 Youth assists young people to build their career, business and enterprise skills through interactive workshops in schools, universities, councils and in partnership with youth organisations. Jessica's key passions are equipping young people with the skills to turn their ideas into new business ventures or community projects and to inspire other young passionate people in business.

Noel Lindsay

Noel Lindsay holds the positions of Professor of Innovation and Entrepreneurship and Director, Centre for the Development of Entrepreneurs at the University of South Australia. In addition he is a Director of CVC Biz Vision Ltd, a venture capital fund that typically invests between $1 million to $3 million in growth oriented Australian entrepreneurial businesses. Noel has successfully established, grown and harvested a number of entrepreneurial ventures in Australia, South Africa and Malaysia. Prior to his more entrepreneurial activities, he worked in the corporate insolvency field. Noel is a Fellow of CPA Australia.

Rosemary Paxton

Rosemary Paxton is Director of BioConnection Pty Ltd. BioConnection has a partnership agreement with San Francisco based Gramercy Venture Advisors. Rosemary has previously worked for CSIRO as a virologist in animal health research, in marketing for several Australian scientific distribution companies, as CEO of an Australian IT company, and as Managing Director of the Australian subsidiary of a NASDAQ listed German biotech company. She has been a mentor for VECCI's Venture Capital Access Program, and for Young Achievement Australia's Biotechnology Entrepreneur Program. Rosemary, in association with Gramercy, is working toward taking an Australian biotech company through to listing on NASDAQ.

Susan Sayer

Susan Sayer is the Victorian State Manager of Young Achievement Australia (YAA), and is responsible for the formation and coordination of partnerships with corporate, government and educational organisations throughout Victoria. YAA is a national not-for-profit organisation which since 1977 has provided enterprise education programs free of charge to approximately 170,000 young Australians. In Susan's 10 years with YAA, there have been approximately 15,000 Victorian students participating in nearly 1,000 YAA businesses, gaining experience in identifying business opportunities and running a small business. A 2001 study provided evidence that students participating in YAA programs demonstrated superior entrepreneurial skills when compared to a control group.

Vicki Stavropoulos

Vicki Stavropoulos is the National CREST Coordinator at CSIRO Education, an educational program that encourages students to undertake their own research or technology design based projects. Prior to this she was a teacher in the ACT for eight years teaching science, maths and LOTE. She is interested in education programs that allow students to take charge of their own learning experiences. Vicki is a council member of the Science Educators' Association of the ACT (SEA*ACT) and currently holds the portfolio of conference convenor.

RESEARCH AND DEVELOPMENT TRANSFER

Craig Fowler

Craig Fowler is Executive Director of Science, Technology and Innovation (STI) Directorate in the Department of Further Education, Employment, Science and Technology in the South Australian government. Prior to this, he was a Principal in Tax with Ernst and Young, working with both large corporates and start-up companies in areas of innovation and R&D incentives, including recently participating with Howard Partners as a consultant in the review of the CRC Programme. He was a coordinator of Ernst and Young's life science practice in Asia Pacific, and technical editor of the firms' life science reports in Australasia. He has conducted numerous innovation consultancies at national, state and enterprise levels.

Bob Frater

Dr Bob Frater is Vice President for Innovation with RESMed Corporation (a US$1 Billion medical devices company). He has been with RESMed since leaving CSIRO, where he was Deputy Chief Executive, in 1999. In RESMed his activities range across planning, R&D, marketing, IT, training and mentoring with an emphasis on improving the flow from ideas to products. He was made an Officer of the Order of Australia in 1996 for his contributions to science on the Australian and international scenes, including his work on the construction of the highly successful $50 million Australia Telescope at Narrabri in northern NSW which was opened in 1998.

Karyn Joyner

Karyn Joyner is currently the Business Manager for the Institute for Glycomics at Griffith University, Gold Coast Campus, Queensland. In this role she is responsible for the implementation of operational and commercial strategies in order for the institute to become a self-funded premier research facility by 2010. Her role has included the successful identification and recruitment of a CEO for a start-up company and the successful partnering between the university and external parties to ensure quality negotiations and the establishment of improved financial and operational management. An important activity has been the identification and protection of the institute's core asset: intellectual property.

Christine Rawards

Christine Rawards is General Manager, Client and Innovation Services of Meat and Livestock Australia. She is responsible for a $30 million per annum R & D and commercialisation portfolio in the red meat industry which includes food safety research, automation technology, environment, product development and value-adding, biotechnology, supply chain management and building industry innovation capability. Christine has established two start-up companies, one of which achieved a successful trade sale to a large public company. In 2002 she was the recipient of the Australian Institute of Food Science and Technology Food Industry Innovation Award (meritorious innovation in the Australian food industry).

Fiona Wood

Fiona Wood is currently Director of the Western Australian Burns Service and co-founder and Director of Clinical Cell Culture Limited, the commercial side of a research project to create spray-on skin. In addition, she is a consultant plastic surgeon to both Royal Perth and Princess Margaret Hospitals and a member of the Board of Governors for the McComb Research Foundation. Fiona has been the recipient of the 2003 Australian Medical Association Contribution to Medicine Award and an Order of Australia Medal for work with Bali bombing victims. She received the honour of being named West Australian of the Year in 2003, and was named a National Living Treasure in 2004.

COMMERCIAL AND PROFESSIONAL INFRASTRUCTURE

Con Abbott

Con Abbott is a fellow of the Institute of Chartered Accountants and was appointed as the Institute's Western Australian Manager in July 2000. He joined the Institute from the Insurance Commission of WA following six years as its Chief Financial Officer. Con has experience as a corporate regulator, primarily working in the evaluation of listed companies' financial statements and in audit. His professional interests include corporate governance, financial reporting by listed companies, GST, business planning, performance indicators, management reporting and the public sector, in particular financial administration, audit and governance by PS agencies.

Paul Adler

Paul Adler co-founded Invizage Technology in 1997 at the age of 21. Invizage Technology is a computer services firm specialising in the SME market. From very small beginnings and with no outside investment, the founders have grown the company substantially to where it is in the top 1.5% of the largest IT services firms in Australia. Invizage Technology was awarded the Telstra & Victorian Government Small Business of the Year in 2002 and Paul was a co-winner of the Ernst and Young Victorian Young Entrepreneur of the Year in 2001. Paul is a member of the Federal Government Small Business Advisory Council.

John Kenny

John Kenny practises as a solicitor in Brisbane, having law degrees from Sydney and London Universities. Beginning his interest in intellectual property in the Australian music industry in the seventies, John's concentration is now on the governance aspects of the "New Economy". He has lectured at each of the four local universities, including the QUT Graduate School for Entrepreneurship's MBA Program, and has co-written the "IP Toolbox" for IP Australia on the commercialisation of intellectual property. John is a local commentator on technology matters and has been a long-time lecturer and committee member of the Achaeus institute which conducts the nationally successful Queensland Enterprise Workshop.

MARKET OPENNESS/BARRIERS TO ENTRY

Michael Hornsby

Michael Hornsby founded VME Systems in 1986 to distribute industrial computer products. In 1997 VME started distributing flash memory cards. Today it has grown to be Australia's largest importer and wholesaler of flash memory cards for digital cameras. The company sells to photographic retailers and mass merchants. VME Systems was the Telstra and Australian Small Business of the year in 1994. Michael holds a Graduate Diploma of Management and Master of Enterprise Innovation from Swinburne University of Technology.

Graeme Wood

Graeme Wood is the CEO and founder of Wotif.com. Founded in 2000, Wotif.com is a global specialist in last-minute accommodation with a portfolio of over 6,000 hotels, motels, serviced apartments, resorts, guesthouses and bed and breakfasts in 32 countries. Graeme leads a team of over 65 employees on a global front with headquarters in Brisbane and offices in Canada, New Zealand, Singapore and the United Kingdom. In this role he focuses on website design, technical innovations and targeted marketing strategies. Before Wotif.com, Graeme's experience included numerous marketing and IT positions and more than 25 years in the technical field of information systems development and implementation.

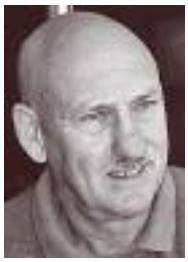
CULTURAL AND SOCIAL NORMS

Harry Kleyn

Harry Kleyn is the founder and publisher of *WA Business News*, a weekly WA focused business newspaper. Started in 1992 the publication now has a staff of 37 with divisions covering events, editorial, production and design, research, subscriptions and sales. In 2003 it was recognised internationally when it was awarded a Bronze for the Best Business Newspaper by the AABP in the USA. Prior to his involvement with *WA Business News*, Harry spent many years with the Community Newspaper Group as founding partner and Managing Director. He sold his interest and retired from the group in 1985.

Jim Landau

Jim Landau is the Director of Landau Management Services Pty Ltd. In 1983, with two partners, Jim started Software Corporation of Australia. Within 18 months the company was listed and sold. Jim was then appointed Managing Director of the third party engineering and computer maintenance services group, Datronics Corporation Limited. Since that business was sold in 1990 Jim has worked in a variety of government, academic and corporate roles. He is a member of the Victorian Government Small Business Advisory Council, Deputy Chairman of the Melbourne University Research Centre Industry Advisory board, the Euro Australian Cooperation Centre, and has been actively involved in its biotechnology innovation programs.



Phil May

Phil May was one of the founding partners in Dome Coffees, a café chain which commenced in September 1990 with its first shop in Napoleon Street, Cottesloe, and expanded into Singapore, Malaysia, Indonesia and UAE franchising the concept and developing over 70 stores. Since selling out of the Dome Group, Phil has developed a tea concept store called Leaf Tea Merchants. Regarded as a global first, it is a café style operation specialising in exotic teas from around the world. The first operation is in Napoleon Street and the growth strategy is to master franchise the concept to firstly SE Asia, then into Europe.

Valerie McDougall

Valerie McDougall is a strategic communication consultant and entrepreneur. She now uses her 20 years of experience in start-ups, not-for-profits and Fortune 500 companies to help global clients communicate most effectively. Valerie is reinventing herself after returning from eight years in the US and is thankful for technology that allows her to live on the Gold Coast and have clients around the world. Her out-of-hours work is helping women entrepreneurs maintain life balance while achieving their business goals.

Kimberly Palmer

Kimberly Palmer is founder of young entrepreneurs' group, Entrepreneurs' NETWORX. The group has 700 members and is a spin off of the successful young professionals group, NETWORX Marketer's Meetings, founded in 2000. Kimberly has worked in marketing for 10 years both in Australia and internationally before starting her own marketing and events consultancy, Brazen Productions. She is committed to providing development and support for other young entrepreneurs, like herself, around Australia.

Peter Searle

Peter Searle is the Managing Director of Luke and Searle Builders based in Geelong, Victoria. He is also the Managing Director of SSS Roof Scaffold, a company he founded in 2001 after seeing a new market opportunity with changes to Occupational Health and Safety legislation within the building industry. Peter has been distributing his scaffolding product across Australia and is now beginning to export. Peter was a recipient of a Gold Medal and Commendation from the Jury 31st International Exhibition of Inventors Geneva Switzerland. He is a member of the Master Builders Association, Housing Industry Association and the Australian Institute of Export Vic.

Appendix 2

GEM Australia Principal Sponsor

WESTPAC BANKING CORPORATION

As Australia's first bank, Westpac was founded by pioneering entrepreneurs. Today we continue to value the entrepreneurial spirit within our organisation as we strive to provide our business customers with innovative solutions to improve their experience with the Bank and help them achieve their own individual goals. So we are proud to support the GEM Australia team who, in addition to producing the annual national entrepreneurship report, is building up a valuable data base and conducting many related initiatives of great use to researchers, policy-makers, business people and the entire community. GEM Australia compliments our support of several entrepreneurial initiatives including: the prestigious Ernst and Young Entrepreneur of The Year awards and the inspiring Champion of Champions Small Business awards. These sponsorships demonstrate our ongoing commitment to our business customers.

Our business service proposition has been a key focus over the past 18 months. During this time we have undertaken an initiative to return face to face business banking services to branches to service the small business sector. This presence allows all of our business customers to have access to a range of experts who provide specialist advice to help them grow their business. This face to face service, along with the phone service provided by our expert staff at *Westpac Business Direct* offers flexibility for our business customers for all their business banking related enquiries and requests.

Westpac has also created a 'Guide to starting a new business'. This free guide aims to help budding Australian entrepreneurs in the initial stages of their business life. It includes information on the ins and outs of starting a business, as well as tips on what new business operators can expect from their first meeting with a financial institution and how to best present their business case if lending is required.

Our other industry-leading initiatives include:

• *Westpac Business Packages*

Westpac recognises that different businesses have different needs and offers business packages to suit these individual needs. Not only do the business packages offer benefits on selected key business products, package customers also have access to special offers and resources such as business advice, books, software and more. The service is designed to cater for businesses' changing needs – from start-up right through to exit.

• *Industry Specific Solutions*

It makes sense that financial and banking solutions are more effective when they are developed for specific industries. Westpac has been pioneering this approach for over three years, with extensive industry and customer research leading to comprehensive financial solutions for the Childcare, Pharmacy, Independent Schools, Beef, Financial Planning, Accounting and Aged-care industries.

• *Beyond Survival®*

More than 5000 business owners have already benefited from Westpac's *Beyond Survival* seminars. In two inspiring days, *Beyond Survival* focuses on the key financial drivers in your business and provides world's best practice tools which could mean the difference between a business merely surviving and thriving.

• *Access to finance for early-stage firms*

We have recognised how difficult it can be for start-up and young businesses to obtain access to working capital and have recently reviewed our credit procedures to alleviate this problem. The new process allows customers access up to $5000 credit by allowing approval for a *BusinessChoice* Charge or Credit Card facility to be granted based on the personal banking history that a new business customer has with Westpac. Since these processes have been enhanced, we have facilitated access to $5000 credit for almost 3000 start-up businesses.

For more information about Westpac Business Banking visit your local branch, www.westpac.com.au/business or call Business Direct on 132 772.

Westpac Banking Corporation ABN 33 007 457 141 also trading as Bank of Melbourne and Challenge Bank.

Appendix 3

GEM Australia Methodology

The purpose of this appendix is to detail the data collection methodology used in the GEM Australia 2003 study. GEM uses four major data sources

- An adult population survey, randomly sampling at least 2,000 typical adults in each GEM country
- Each GEM country conducts personal interviews with at least 18 experts/key informants, focusing on various aspects of entrepreneurship
- Standardised questionnaires to be completed by these same experts and experts interviewed in prior years of GEM research
- The use of standardised economic data selected from credible international and national sources.

1. THE NATIONAL POPULATION SURVEY

SURVEY METHODOLOGY

GEM's first major area of investigation – 'What are the differences in the level of entrepreneurial activity between countries?' – is addressed through a national population survey which examines a representative sample of adults in each country. A minimum of 2,000 respondents is required, but countries may choose to pay for a larger sample to achieve lower variability. All national population survey data collection and checking is coordinated by the GEM coordination team at the London Business School. The aim is to produce, within and across nations, the most reliable benchmark data within the cost constraints of the project.

KEY ENTREPRENEURIAL PARTICIPATION INDICATORS

The key indicators of entrepreneurial activity measured by the survey are:

- Participation in genuine business *start-ups* (paying wages no longer than three months)
- Participation in *young firms* (firms less than 42 months old at time of survey – for GEM 2003, this means established in 2000 or later)
- Participation in business angel investment.

The first two of these participation rates are combined to form an index known as the Total Entrepreneurial Activity Index (TEA). The TEA is best thought of as an 'index for comparing the relative performance of countries', rather than 'an actual event that happened'.

To measure participation in new venture creation, the questions asked were:

- You are, alone or with others, currently trying to start a new business, including any type of self-employment; and
- You are, alone or with others, trying to start a new business or a new venture with your employer – an effort that is part of your normal work.

A response of 'Yes' to either of the above led to three supplementary questions to determine whether the venture was a genuine start-up. These were:

a) Over the past 12 months, have you done anything to help start this new business, such as looking for equipment or a location, organising a start-up team, working on a business plan, beginning to save money, or any other activity that would help launch a business?

b) Will you personally own all, part or none of this business?

c) Has the new business paid any full-time salaries or wages, including your own, for more than three months?

A 'yes' response to a), 'all' or 'part' to b), and a 'No' response to c) were required for the respondent to be classified as a genuine start-up participant; i.e. they had to be active in the business and expect to own at least part of it. 'Yes' to a), b) and c) indicated a potential young firm participant.

Participation in young firms was measured by the question "You are, alone or with others, the owner of a company you help manage". Respondents who answered 'yes' to this question and whose business had first paid wages in 2000 or later were classified as young firm participants. Respondents who said they had not yet paid any wages were reclassified as start-up participants.

2. DEPTH INTERVIEWS OF NATIONAL EXPERTS

Interviews are conducted with people who are considered to be experts in at least one of the nine identified framework conditions of entrepreneurship. This allows for a collection of varied opinions from professionals and entrepreneurs with specialist knowledge about different dimensions of entrepreneurship.

The nine frameworks are:

- **Financial Support**: availability of financial resources, equity, and debt, for new and growing firms including grants and subsidies
- **Government Policies**: the extent to which government policies as reflected in taxes, regulations and their application, are either size-neutral, discourage, or encourage new and growing firms

- **Government Programs**: the presence of direct programs to assist new and growing firms at all levels of government – federal, state and local
- **Education and Training**: the extent to which training in creating or managing small, new, or growing business is incorporated within the educational and training systems at all levels; and the quality, relevance and depth of such education and training
- **Research and Development Transfer**: the extent to which national research and development will lead to new commercial opportunities and whether or not R&D is available for new, small, and growing firms
- **Commercial and Professional Infrastructure**: the availability and quality of commercial, accounting, and other legal services and institutions that allow or promote the emergence of new, small, or growing businesses
- **Market Openness/Barriers to Entry**: the extent to which commercial arrangements are prevented from undergoing constant change and re-deployment, preventing new and growing firms from competing and replacing existing suppliers, subcontractors, and consultants
- **Access to Physical Infrastructure**: ease of access to available physical resources – communication, utilities, transportation, land or space – at a price that does not discriminate against new, small or growing firms
- **Cultural and Social Norms**: the extent to which existing social and cultural norms encourage, or do not discourage, individual actions that may lead to new ways of conducting business or economic activities and, in turn, lead to greater dispersion in wealth and income.

In 2003 we interviewed 42 respondents, more than twice the minimum number. We sought out experts with multi-framework experience and backgrounds that extended beyond for-profit entrepreneurial activity. Interviews are conducted face-to-face wherever possible, recorded on tape and subsequently transcribed.

The interview is semi structured with three objectives:

1. to identify the factors that limit the development of entrepreneurship, including the number of independent and/or corporate start-ups in the expert's country
2. to identify the factors that contribute to the development of entrepreneurship, including the number of independent and/or corporate start-ups in the expert's country
3. to identify suggestions about what can be done to increase the development of entrepreneurship and the number of independent and/or corporate start-ups in the expert's country.

To meet these objectives the key informants are asked what they believe are the top three weaknesses impeding entrepreneurial activity in Australia, the top three strengths supporting entrepreneurial activity in Australia and to suggest changes they believe would improve Australia's entrepreneurial effectiveness.

The interview content is then classified, using qualitative analysis techniques, into the nine framework conditions, with the freedom to create new categories where comments do not fit any of the framework conditions. Extensive use is made of sub-categories – for example, financial support weaknesses might include a sub-category of problems relating to obtaining funding for early-stage ventures.

3. THE INTERNATIONAL SURVEY OF EXPERT OPINION

Subsequent to the interview, each key informant is then asked to complete an extended questionnaire. The objective is to gather quantitative information on the nine entrepreneurial framework conditions, on entrepreneurial opportunity and capacity, as specified in the GEM conceptual model.

The questionnaire comprises of the following:

- Statements relating to the nine framework conditions and to entrepreneurial capacity, opportunity, respect for entrepreneurs, IPR protection, and women entrepreneurship (between five and seven statements per category). The five point items measure the expert's perception of the conditions influencing entrepreneurial activity in their country.
- Population survey items. They are the same as those used in the adult population survey and are used to compare the expert's attitudes to those of the general population.

The results of these surveys are summarised by country at individual question level and at section summary level. This allows expert opinion to be compared between countries. A similar approach is used in The IMD World Competitiveness Yearbook 2003.

4. SECONDARY SOURCES

The GEM coordination team provides a database of standard secondary data (for example, rates of GDP growth) from sources such as the International Monetary Fund, the World Bank, the Organisation for Economic Co-operation and Development (OECD) and the World Economic Forum. This ensures that all teams are using the same sources for important economic indicators and other national information (such as population, labour force etc) and optimises use of GEM human resources.

Additional Australian sources are also used to supplement the GEM data such as Australian Bureau of Statistics material, and surveys such as the quarterly Australian Chamber of Commerce and Industry surveys.

Relevant reports from other sources, both national and international, are used whenever they can add insight to the GEM findings.

LIMITATIONS

Like every study, GEM has its limitations. The most obvious one is that entrepreneurship is difficult to measure, especially on a large scale and with consistency between more than 30 countries, speaking many different languages. The quantitative element of GEM therefore concentrates on measuring an activity that is commonly understood across all nations and cultures: owning and operating a business. While many of the businesses identified by the survey will not be entrepreneurial in intent, starting a business is a prerequisite for a genuinely entrepreneurial new venture and thus provides a useful baseline.

The set of experts interviewed in depth changes from year to year. It could be argued that it is not valid therefore to compare either aggregate survey ratings or interview key issues from year to year. This is mitigated by the requirement to choose experts from specific backgrounds, consistent with the nine entrepreneurial framework conditions. In practice, the survey scores from Australian experts have been highly consistent from year to year and, where there has been a change, it is consistent with comments made in the interviews that a particular factor has improved or deteriorated.

Finally, we are limited in the amount of material we can include in the yearly report. There are many interesting insights offered by the GEM data and from the expert interviews and there is scope to dig deeper! The GEM Australia team welcomes enquiries from anyone interested in doing so.

NOMENCLATURE NOTE

Most concepts, constructs, variables and indices have standardised names among all GEM participant research teams. However – following methodological recommendations in Hindle (2005) – the GEM Australia team uses nomenclature that currently differs from most other nations with respect to two items. This position has been adopted due to the potential and actual misinterpretation that has been experienced over the years through using key terms that, in the Australian team's opinion, inaccurately represent the phenomena they allegedly describe. Table 15 details the terms we use versus they way they are named in the Global Executive Report and certain other nations' reports. We are confident that the Australian nomenclature will eventually replace the use of the older, less accurate terminology.

Table 15 – Two Nomenclature Differences Between Australia, the Global Executive and Some Other Nations' Reports

Australian GEM nomenclature	Equivalent GEM nomenclature of the executive report and some other nations	Description
PEP Index (Percentage of Early-stage Participation)	TEA Index (Total Entrepreneurial Activity)	This item measures the percentage of the working-age population participating in either *start-up* or *young* business ownership (less those involved in both). It is thus a measure of percentage of early-stage participation and that is what we call it. It is simply wrong to call this a measure of 'total entrepreneurial activity'. So we don't.
Young firm	New firm	This item describes the category of businesses whose owners have paid wages for more than three months but not more than 42 months. The Australian team originally was confronted by reader confusion between the terms 'start-up' and 'new'. Australian GEM readers were confused because, in their view, start-ups are new firms by definition. The term 'young' firm more aptly distinguishes a business just beyond the start-up stage.

Research Team

Professor Kevin Hindle

Australian Project Director of the Global Entrepreneurship Monitor (GEM) is Kevin Hindle, Professor of Entrepreneurship at the Australian Graduate School of Entrepreneurship, Swinburne University of Technology, Melbourne, Australia. Professor Hindle has taught entrepreneurship for a range of award and executive development programs in Europe, Asia and America as well as Australasia. He is co-author of two textbooks on entrepreneurship. His several professional awards include winning the (American) Academy of Management Entrepreneurship Division and McGraw Hill Innovation in Entrepreneurship Pedagogy Award in 2004 and the Business/Higher Education Round Table (B-hert) Award for the Best Entrepreneurial Educator of the year. As a researcher, Professor Hindle has authored over 80 publications including more than 50 peer-reviewed papers in a range of respected international journals and conference proceedings. He is a ministerially appointed foundation member of Australia's National Innovation Awareness Council and on the advisory board of the International Danish Entrepreneurship Academy (IDEA). The unifying theme of all his work is to develop and execute constructive, internationally relevant research whose findings can be used to enhance the teaching and development of ethical entrepreneurs in Australia and the world.

Allan O'Connor

Allan O'Connor is currently undertaking PhD studies focusing on youth education and entrepreneurship. His qualifications include mechanical engineering, management and a Masters degree in Enterprise Innovation. He is a regular lecturer for the Australian Graduate School of Entrepreneurship and serves on the board of the Swinburne Powercor Hatchery. Throughout Mr O'Connor's career in private enterprise he has gained direct practical knowledge and experience with the challenges of growth, innovation and entrepreneurship. He regularly consults to organisations facing the challenge of building entrepreneurial capacity.

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- **To our principal sponsor**, Westpac Banking Corporation without whose support this research would not be possible. Thanks to the senior management who continue to support the project through their sponsorship, the coordination team of Tara Beath and Darren Young, along with Bella Curtis and Jacki McKinnon for their commitment and diligence to ensure the project remains true to its mission.
- **To our Swinburne support team**: Kate Babic, Heather Crosling, Kathleen Lynch, Debbie Schickerling, Demi Themelios, Roslyn White and others who operate behind the scenes to ensure the project stays on the rails.
- **To our interstate co-researchers**: Professor Tim Mazzarol, Douglas Adams and colleagues in Perth, Professor Noel Lindsay and Robbee Spadafora in Adelaide and Rebecca Loudoun in Brisbane for extending our research reach so effectively and seamlessly.
- **To the Australian entrepreneurship community** who continue to affirm the value of the research by responding with interest and enthusiasm to each year's report.
- **This year we owe a special debt of thanks to SME Innovations** for project management and research support that often went beyond the call of duty.

GEM Australia's research effectiveness relies on the enormous amount of work done by the GEM 'mission control' team who coordinate the research, collate and clean the data, gather and organise data from secondary sources, and provide the results to each of the GEM national teams in a consolidated data set. The Australian team extends their particular thanks to Professor Pia Arenius, Professor Zoltan Acs, Professor Bill Bygrave, Professor Erkko Autio, Professor Michael Hay, Dr Stephen Hunt, Niels Bosma, Marcia Cole and the terrifying Mick Hancock.

Finally, the academic staff at the Australian Graduate School of Entrepreneurship provides support and intellectual stimulation that create an environment that inspires higher achievement. Special thanks go to Susan Rushworth for her help in the transition of the project management.

SME Innovations is proud to have served as part of the GEM Research team in 2004.

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