TASMANIA 2030

A VISION FOR A GREEN, DYNAMIC & PROSPEROUS TASMANIAN ECONOMY

greensvision2030.com






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Preface

We frequently see "economic plans" and "job plans" for Tasmania. This report is different. The Greens believe a "plan without a vision" is bound to fail. We also accept that a "vision without a plan" is equally unlikely to succeed. The Greens have long held a clear and consistent economic vision for Tasmania, and have consistently advocated plans to build on our state's competitive advantages, diversify our economy, empower people and build communities.

Whilst some may not agree with our long standing economic vision, or the philosophies which underpin this, many of its central components are now main stream. The Greens have been quiet achievers in helping build Tasmania's economy and caring for people.

In 1992 the Green Independents outlined their vision for the Tasmanian economy and plans necessary to achieve this. Senator Christine Milne was an integral part of this first vision report titled 'The Green Independents' Business & Industry Strategy' and Senator Milne along with many other Greens MP's and members over the past 20 years has been a tireless political champion advocating for a green Tasmanian economy. There is still a long way to go, but the transition over time is gaining momentum.

This report reviews the Tasmanian economy in light of the 1992 report recommendations, and outlines our broad vision and plans for the socio-economic development of Tasmania over the next 20 years. It is written in an easy to read style, approachable to all.

Whilst the report outlines dozens of current and proposed Greens policy proposals across many sectors of the Tasmanian economy, it introduces 4 key policy initiatives the Greens will be costing and releasing prior to the federal and state elections. All these policies are centred on the "collaborative economy," targeting commercial and social enterprise development in areas such as creative industries and emerging technology, agriculture and food, tourism and waste management.

The Greens feel one of government's key roles is to help provide the legislation, infrastructure and services necessary to protect, enable and empower the potential of businesses and communities. These proposals, built on the existing work of many social and economic commentators in Tasmania, target government funding into new ways of facilitating business and community development, and will help build the resilience and flexibility required to capitalise on emerging opportunities for the future of Tasmania.

We hope this document stimulates discussion and debate on the future directions of the Tasmanian economy, and we look forward to being part of any future economic conversation.

Introduction

As the most progressive party in Australian politics, the Greens have a responsibility to offer a vision of how our economy will change to become more environmentally, socially and financially sustainable. We have a proud tradition of economically significant reform and of focusing attention on the long-term economic development of Tasmania:

> *Tasmania is at a critical point in its economic development. While Tasmania's economic history is relatively prosperous, it has had the nation's highest unemployment and lowest wages for many years. Twenty six thousand Tasmanians are now unemployed. This is simply unacceptable.*
>
> *The inability to adapt to the changing world economy is the primary cause of Tasmania's economic ills. Tasmania has continually attempted to regain prosperity by relying on the industries of the past. Even though Tasmania now has the country's highest per capita export income, most economic indicators reveal it is lagging behind the rest of the nation.*
>
> *The Green Independents believe it is now vital for Tasmania to chart a new economic future. New industries, new markets, and new organisational methods are all vital to improve Tasmania's economic prosperity.*[1]

These three paragraphs read just like the introduction to so many current analyses of the Tasmanian economy, but they were written over twenty years ago as the introduction to *Green, Dynamic and Prosperous (GDP)*, the long term business and industry strategy of the Green Independents, the forerunner of the Australian and Tasmanian Greens. While the report is full of references to VHS recorders, computer telephones and Telecom, it is still very relevant today.

As the nineties began, the Green Independents described Tasmania as being at a "critical point". In early 2013 the Griffith Review dedicated an entire edition to discussion of Tasmania at a "tipping point." Twenty years seems a long time to be at one point! In terms of economic development the idea of any particular point is misleading. Instead, Tasmania's economy has been going through a period of transition, changing from an economic model that is perhaps two hundred years old to something quite different for the future.

> **Tasmania's economy is not at a "tipping point," it is in transition from the hydro-industrialised, resource intensive past to a more diverse future.**

The "old model" of Tasmanian development was based on cheap power (from hydroelectricity, or earlier still from convicts) and natural resources – minerals, forest products and agricultural commodities. With cheap power and access to these resources, Tasmania could competitively extract and convert them to forms which were easily exportable to the key markets of the day – England, mainland Australia or later to Japan.

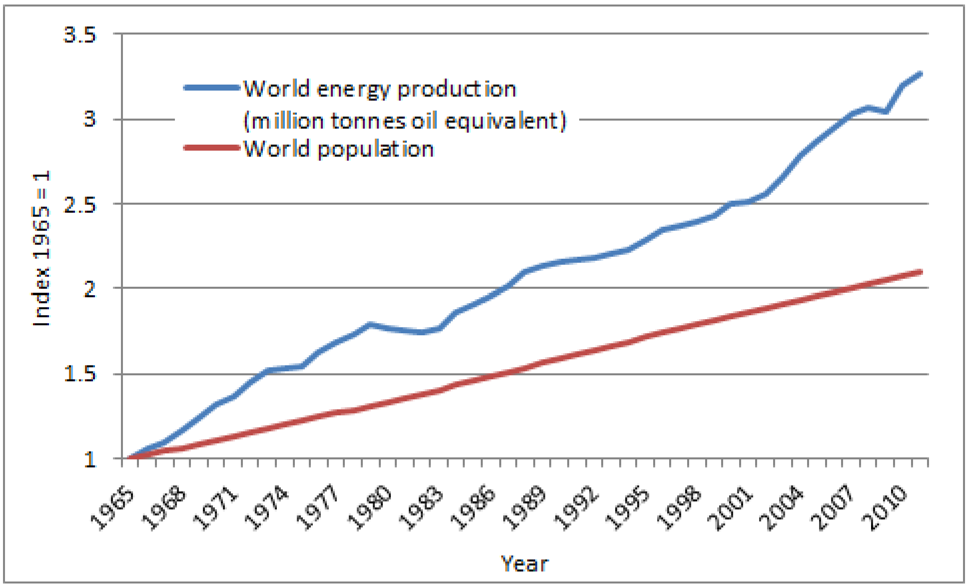
The hydro-industrialisation policies achieved many successes – thousands of jobs over a long period, employers who were prepared to invest in, indeed become the centre of, some of Tasmania's most

[1] Office of the Green Independents, 1992, Foreword p1.

vibrant communities, and has produced some of our most successful companies, notably Hydro Tasmania. Although creating controversy around dams, most obviously on the Franklin River, Tasmania's cheap hydroelectricity did achieve its goals of attracting investment and building heavy industry. Our smelting and manufacturing industries in Tasmania are based around our ability to provide cheap, plentiful power.

In recent decades, however, fundamental shifts have occurred in the world economy. The need for a new economic direction for Tasmania has been imposed on the state due to these changes. A major change of paramount importance to Tasmania's economic development has been in world energy production and consumption. Since 1965, the world's energy production has increased by nearly three and a half times, while population has grown by just over double:

Figure 1: World Energy Production and Population



Source: (i) BP Statistical Review of World Energy
(ii) World Bank

While Tasmania may seem a long way from such concerns, the implication of this data is clear – there are many more places in the world that can now provide very cheap energy. Tasmania's ability to provide cheap electricity is less able to compensate for other costs incurred here, such as labour and shipping costs, which are higher than much of the world. Rather than cheap energy our new advantage lies in clean energy.

> **Cheap electricity and bulk commodities are no longer a competitive advantage for Tasmania. Clean energy and quality products provide future opportunities.**

Bulk commodities have also become more volatile and generally cheaper. This trend has been in place since well before the Green Independents wrote their economic strategy:

> *The industries which in the past provided Tasmanians' material standard of living and job security are unable to do so any longer. A down-turn in the relative value of our commodity exports has forced the state's large resource intensive industries to dramatically cut their*

work forces and lobby harder than ever for increased government subsidies and reduced royalties.[2]

These impressions are confirmed by examining the trend in prices paid for primary commodities since the Green Independents' report. Most commodities important to Tasmania have experienced minimal growth in real terms over the last twenty years. Refined metals like zinc and aluminium have been stagnant, aside from a boost before the economic crisis. Bulk commodities from forest products in particular have been in decline:

Figure 2: Hardwood chip price

Source: (i) ABARES, Agricultural Commodity Statistics (ii) RBA

Important factors in the decline of woodchip prices are detailed in a recent report by The Australia Institute:

- *an increase in competition from domestic hardwood plantations;*
- *an increase in competition from plantation hardwood chip exporters from developing countries in South East Asia, Africa and South America;*
- *a contraction in the Japanese pulp and paper industry, which has been driven by falling per capita paper and paperboard consumption, population decline, increasing competition from pulp and paper producers in developing countries, and the global financial crisis; and*
- *declining competitiveness due to high harvesting and haulage costs, the high Australian dollar and a market preference for plantation-sourced woodchips* (page 3).

Clearly, Tasmania's economy has had to change in response to these global trends. While some industries and companies have tried to respond by trying to increase the volumes of commodities exported, the Green Independents noted a longer term shift:

In today's rapidly changing economic environment, innovation and upgrading are quickly becoming the keys to economic prosperity. This does not necessarily mean that dramatic

[2] Office of the Green Independents, 1992, p4.

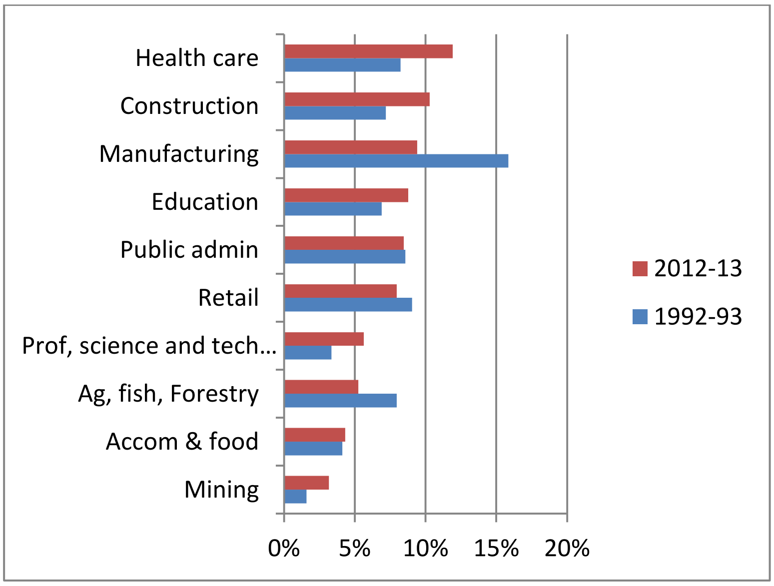
break-throughs must become the norm. To a large extent it simply means an accumulation of incremental steps aimed at improving products, production methods, work-place structuring, marketing focuses, distribution channels and the implementation of new technologies.[3]

These are important insights that are still relevant today – Tasmania's economic prosperity does not depend on dramatic breakthroughs or mega projects, but on an "accumulation of incremental steps" in and across many industries.[4] The Tasmanian Labour-Green government's Economic Development Plan, launched in 2011, emphasises that "our state economy is rapidly transitioning from its reliance upon traditional industries" towards the state's "key advantages" such as our "pristine natural environment," "clean green credentials" and move towards a "knowledge economy". This plan draws heavily on the Green Independents' ideas on our advantages in environmental quality and the skills of Tasmanians.

Tasmania's economic prosperity does not depend on dramatic breakthroughs or mega projects, but on innovation across industries.

This transition is well underway and has been since before the Green Independents' report. Over the last 20 years, Tasmania has changed from an economy dependent on cheap energy and resources, to a diverse modern economy based on services and skills, with important contributions from traditional industries:

Figure 3: Tasmanian employment by sector 1992-93 to 2012-13



Source: Australian Bureau of Statistics. Figures based on May to February quarters 1992/93 and 2012/13.

Tasmania's economy is now driven by service industries that cater to the needs of Tasmanians

[3] Office of the Green Independents, 1992, p8.
[4] Office of the Green Independents, 1992, p8.

We see that some of the main sectors of the Tasmanian economy are now those that service the needs of Tasmanians – health care, construction and education. These sectors have experienced strong growth since 1992-93. As the Tasmanian treasury recently noted:

> *Rising real incomes, changing patterns of consumer spending and growth in output have resulted in some industries expanding, particularly services and the construction sector.* (Page 1)

Components of the service and construction industries are closely linked to the taxpayer-funded public sector and stimulus programs, which rightly concerns many Tasmanians. Part of our aim in producing this document is to identify opportunities to sustainably expand Tasmania's private sector and reduce long term fiscal pressures.

While services and construction have expanded, other sectors have declined in importance as employers. For example – the manufacturing industry has declined from employing over 15% of Tasmanians to around 9%. A shift from primary industries and manufacturing to services is typical of most economies as they develop and change:

> *As economies develop, their manufacturing sector usually expands in the early and middle phases, before becoming relatively less important as the services sector becomes more established as the largest sector.* (Page 15)

It is important to note, however, that Tasmania still has one of the strongest manufacturing sectors in Australia as a portion of GSP. Manufacturers that have closed or are under pressure have been those that "produced undifferentiated goods that faced strong competition from other lower cost countries" while those that remain and are growing "produce more specialised products, often relying on highly trained and skilled employees" (page 15).

Tasmanian firms producing undifferentiated goods have faced strong competition, while producers of innovative goods and services have prospered.

Similarly, "agriculture, fishing and forestry" as a whole has declined, particularly in areas such as forestry which have been producing undifferentiated products such as woodchips and pulp. As Treasury notes, however, "much of the growth in the services sector has been to support Tasmania's primary sector", particularly the "professional, scientific and technical services" sector servicing growing agricultural industries (page 1). In the main the growing parts of agriculture produce differentiated products, marketed as Tasmanian and targeted at high value markets.

One area where Tasmania has shown great innovation over the past 20 years has been in realising an economic return from our conservation of nature. Through such "incremental steps" as the Green Independents discussed, we have seen the growth of tourism and local use of our magnificent parks and reserves. Conservation contributes to many sectors such as transport, accommodation, retail and services making it difficult to see its impact in the employment chart above. However, the value of conservation is clear to economists such as Tasmanian-born Saul Eslake:

[A] significant proportion of the nearly $2bn per annum spent by interstate and international visitors to Tasmania could be ascribed to Tasmania's parks. (Source)

Even a sum like $2 billion does not reflect the true value that our natural landscapes contribute to the lives and happiness of Tasmanians today or in the future. It does however, reinforce that conservation does contribute to our economy in a tangible way and that Tasmania's economic development must focus on the collaboration between nature and the economy rather than conflict.

As mentioned in the preface to this report the Greens will propose a number of collaborative economy initiatives based on the work of authors such as McCall, West and Eslake who are interested in the new and emerging collaborative economy landscape.

These trends, that Tasmania is an economy undergoing a steady transition to a more diverse economy, focused on services, differentiated products and sustainable development are to be welcomed, but they need to be carefully managed.

As the University of Tasmania's Tony McCall points out:

When Small Sub-National Peripheral Economies [like Tasmania] *change….they tend to do so in a very slow manner*. *…Diversification, long term development and regional growth plans should be in the first place focused on current assets and the knowledge based competences attached to those assets.*[5]

Tasmanian economists, such as McCall and Australian Innovation Research Centre's (AIRC) Jonathan West have put considerable thought into what the current and future needs of the Tasmanian economy are. Echoing some of the Green Independents' messages, West and the AIRC's researchers emphasise that:

It is now time that each major sector of the Tasmanian economy, especially the private sector but including the public sector, should develop comprehensive innovation strategies. These should formulate coherent sets of initiatives to upgrade the sectors' capability to introduce new products, new processes, and new business models. (Page 6)

Innovation policy cannot restrict itself to 'research-intensive' industries. … the so-called low- and medium-technology industries include significant proportions of innovating firms, that they develop new products, and that they generate significant sales from new and technologically changed products. (Page 8)

A number of other authors, particularly Saul Eslake, emphasise that innovation must occur in all sectors, particularly those in which Tasmania can leverage our natural advantages to produce "highly differentiated goods and services embodying a higher intellectual content and which can be sold at high prices" (source).

The Greens' economic vision for Tasmania is to embrace the changes occurring in the Tasmanian and world economies. The Green Independents saw that these changes had begun 20 years ago. They

[5] McCall, 2013, pp10-11.

saw that it was not possible for Tasmania's prosperity in the 21st Century to be based on cheap energy and natural resources, that we needed to focus on industries that were economically viable, environmentally sustainable and that promoted innovation and differentiation. This vision still remains the key to unlocking economic development in the next 20 years.

Over these past 20 years the Greens have a track record of economic policies based on this vision. With policy successes like carbon pricing, the clean energy package and many others mentioned in this report, we have sought to ensure that industries can benefit from and contribute to sustainable economic development and Tasmania's image as a clean, green place that is being well managed for the future. Tasmania needs more than just the image of sustainability and good management – it needs to be the reality. This is important for industries that trade on the image and even more so for Tasmanians living now and in the future.

Tasmania's economy is now, more than ever, managed for Tasmanians. Our economy is less reliant on foreign firms exporting natural resources to overseas markets. Our major industries service the needs of Tasmanians. Growth in our exports over the last 20 years has come largely from tourism and agriculture – industries which rely on Tasmanian-owned businesses. Increasing the wellbeing of Tasmanians is central to the Greens economic vision.

In this report we explore some of the main areas of the Tasmanian economy and the changes that have been experienced in the 20 years since the Green Independents wrote their report. We discuss some of the many challenges and opportunities that lie ahead. With good planning and strong policies, the Tasmanian economy will move towards the Green Independents' vision of "GDP" – Green, Dynamic and Prosperous.

Clean Green Future of Energy

> *The state's few extremely large bulk electricity users who consume two thirds of Tasmania's electricity generation, receive power for around $0.02 per unit while small businesses are forced to pay up to $0.13 per unit. Clearly small value added businesses are disadvantaged and are subsidising these large resource intensive industries. This amounts to a subsidy of around $55 million from the domestic/small business sector to the bulk consumers with a total subsidy of around $97 million per annum.*[6]

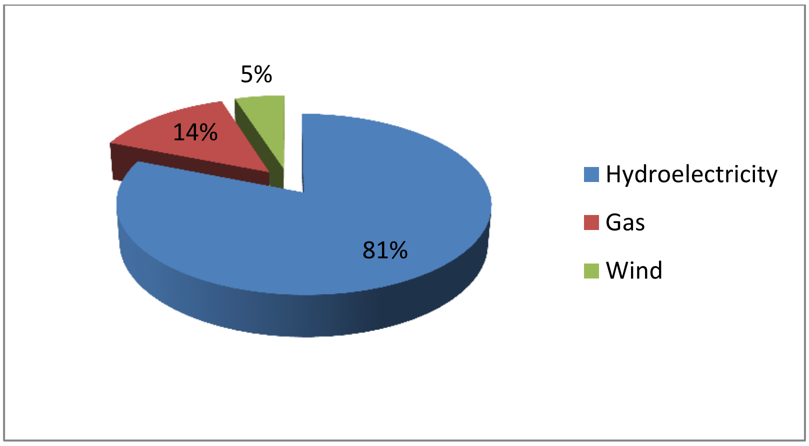
No sector is more closely linked to Tasmania's old economic model of hydro-industrialisation than the energy sector, and the sector is still important for the state's long-term economic resilience and sustainability. For almost a century, the state's main economic strategy was to develop heavy industry through provision of cheap electricity from hydro-generation.

The expansion of hydro-electricity ended in the 1980s after the bitter political battles over the environmental impacts of projects such as Lake Pedder and the Franklin. While hydroelectricity was not always developed in a sustainable way, the legacy of the strategy is the basis of the electricity sector today. Exciting new opportunities exist in the next 20 years for a revolution in Tasmanian renewable energy generation, restructuring of old electricity markets, and to place Tasmania at the forefront of renewable energy expertise nationally and internationally.

1992-2012

Tasmania's long history of investment in hydro-development means that around 86% of all registered electricity generation capacity comes from renewable sources (page 33). There has also been a more recent increase in large-scale wind-generated electricity and household solar. This puts the state in a unique position in the national electricity landscape and makes it a national leader in renewable energy production. Electricity generation in Tasmania will likely be dominated by hydro-electricity for decades to come, but we will also see an increasing diversification of our renewable energy supply to include wind, solar, wave and geothermal:

Figure 4: Electricity generation capacity in Tasmania

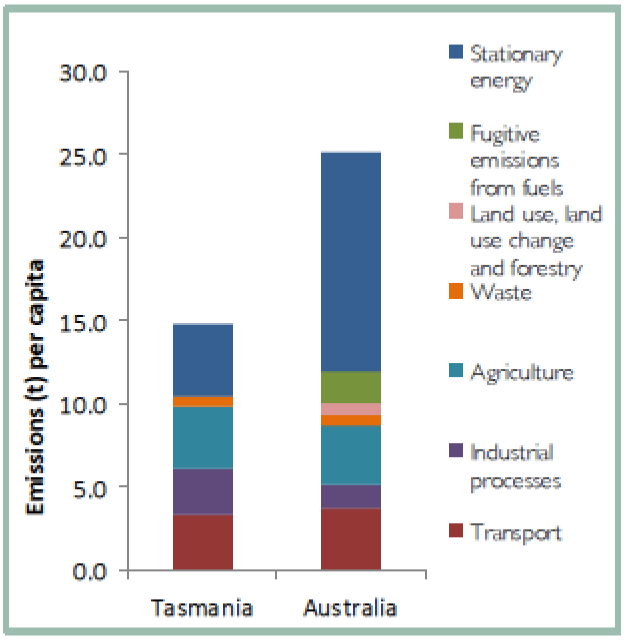


Source: Electricity Supply Industry Expert Panel (page 33)

[6] Office of the Green Independents, 1992, p41.

The strength of hydro-electricity entails obvious benefits in minimising our carbon footprint. Stationary energy sources account for a substantially smaller proportion of our greenhouse emissions than they do in the other states. Although Tasmania has lower emissions per capita than the rest of Australia, we still have a long way to go, with higher per capita emissions than many developed countries, including the United Kingdom and Germany (source).

Figure 5: Per emissions capita by sector, Tasmania and Australia, 2009-10

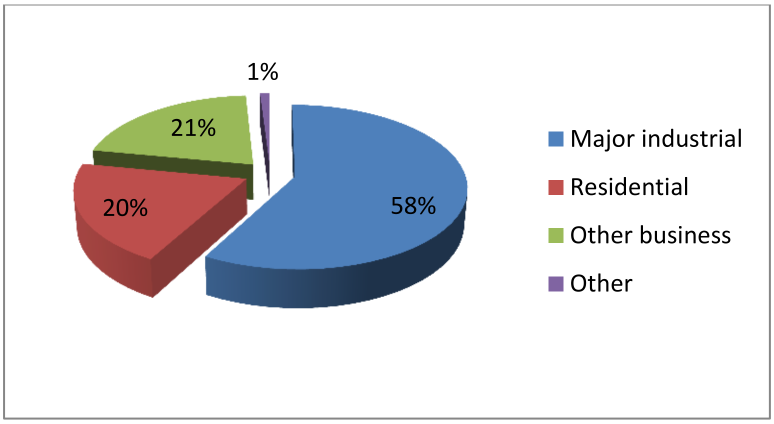


Source: Tasmanian Climate Change Office (page 9)

It is interesting to note that opportunities to develop renewable energy in Tasmania from non-hydro sources were not outlined in the Green Independents' 1992 report. Investment in renewable energy explicitly to tackle global warming is a fairly recent development. In the past decade, Tasmania's location in the Roaring Forties combined with federal and state government incentives to tackle climate change has enabled a substantial commercial wind energy sector to emerge. The Woolnorth developments in the state's north-west have a combined generation capacity of around 130MW, while the Musselroe Wind Farm in the north east is capable of generating 168MW. Further plans for a 240MW wind farm near Cattle Hill in the Central Highlands were approved by the Environmental Protection Authority in late 2011. There are also plans for a 200 turbine TasWind wind farm for King Island that would see an investment of $2 billion in the Tasmanian economy.

Energy consumption patterns in Tasmania are also as distinctive as the means of generation. Twenty years after the Green Independents' report, major industrial users continue to account for the bulk of electricity consumption. Households and smaller businesses each use around 20% of the state's electricity:

Figure 6: Electricity consumption in Tasmania



Source: Electricity Supply Industry Expert Panel (page 16)

Industrial electricity use is dominated by just four users – the Pacific aluminium smelter, the BHP Temco manganese smelter, the Nystar zinc smelter and the Norske Skog paper mill. Together these operations account for around 50% of the state's electricity consumption (page 22).

The original purpose of hydro-industrialisation was to supply subsidised electricity to users such as these major industrials as an incentive for them to locate and remain in Tasmania. However, as noted in our Introduction, the availability of energy around the world has increased and with Tasmania's distance to markets these operations may not be viable in the long term. Both the manganese and aluminium smelters have threatened to close operations in the last year. The closure of any of these major users would result in substantial surplus quantities of power, which would present both opportunities and challenges to Tasmania.

The launch of Basslink in 2006 opened new electricity trading opportunities for the government-owned Hydro Tasmania, allowing us to trade on the National Electricity Market (NEM). Ideally, Tasmania sells power to the NEM when mainland prices are high and we buy electricity when needed, especially when low rainfall inhibits the operation of hydro-electric dams.

However, the Greens' early concerns about the economics of Basslink have proven to be warranted. To date, the price difference between Tasmania and the mainland has rarely been consistently large enough to make trading through Basslink profitable and the infrastructure is only maintained by the Tasmanian government paying a service fee to Basslink's foreign owners. At present Tasmania remains a net importer of electricity across the strait, importing 1262 GWh against 986 GWh of exports in FY2011/12, a net import amount of 276 GWh (page 62). The main opportunity to develop Basslink into a profitable venture will lie in developing renewable energy and selling it to the mainland under a carbon price.

The state's entry onto the NEM does little to help Tasmanian household consumers. Retail electricity prices – including generation, transmission, distribution and retailing costs – increased faster than all other household costs in Tasmania over the 2005-2010 period (page 9). A total of 1,396 residential customers had their electricity supply disconnected in FY2009/10 alone, a 37.9% increase on the previous year, while over the same period disconnection rates in other Australian states actually fell (pages 73-74).

Natural gas is unavailable in large parts of the state and the majority of residents rely on electricity for heating. Tasmanians are also dependent on heating for a longer proportion of the year than other Australians, and the proportion of households affected by fuel poverty (which is calculated on the basis of what a household needs to spend to keep warm) is increasing. This trend therefore presents serious consequences for long term health in the state.

Since 2010 the Greens as Ministers in the State Government have implemented far-reaching Energy Efficiency programs aimed particularly at low income households. Between 2010-2014 over $15 million will be spent on low income household energy efficiency upgrades. This will benefit over 6,000 homes in the public and private housing sectors. This investment has also led to two Low Income Energy Efficiency Program grants being brought into the state for research and ongoing upgrades.

The Greens have long argued that domestic and small business users should not miss out on the availability of affordable clean energy in Tasmania. In 2010 we established an independent Energy Expert Panel to review Tasmania's electricity supply industry. The findings of the panel have helped the Greens to spearhead reforms to keep electricity prices low whilst raising the supply of renewable energy.

A cornerstone of the Greens' negotiations around energy reforms was securing accelerated commitment to developing a smart network for Tasmania. Done properly this has the potential to bring significant demand side management for the benefit of customers, integrate renewable energy better across the electricity system, facilitate take up of electric vehicles and attract new high tech industries that create jobs, are low emissions intensive and complement Tasmania's brand.

Cutting the Pollution that Drives Global Warming

Australia and Tasmania are charging big polluters for their pollution - and investing in renewable energy - thanks to the Greens, by:

- A price on carbon
- Establishment of the $10 billion Clean Energy Finance Corporation to invest in clean energy
- Establishment of the Climate Change Authority as an independent expert to provide advice on the operation of the carbon price, emissions reduction targets, caps and trajectories
- Establishment of the Australian Renewable Energy Agency to grow the renewable energy sector in Australia

2012 to 2032

The need to reduce the greenhouse emissions that contribute to climate change has become increasingly urgent over the past 20 years, and this trend must accelerate in order for us to transition safely into a low carbon society. Calls to migrate to low-carbon energy production have gained international momentum, culminating in Australia with the introduction of a national price on carbon pollution and the rollout of the Clean Energy Package. This package, which included a price on carbon pollution, the Clean Energy Finance Corporation, the Australian Renewable Energy Agency and other initiatives was negotiated by the Greens at the Federal level. It has driven significant technological innovation and structural change in our Australian economy.

The renewable energy and clean technology sector has already led to significant new national investment and the rapid generation of "green" jobs. The *Australian CleanTech Review 2013* estimates that at least 53,000 Australians are currently working in this sector, with strong growth since 2009.

Modelling by several organisations forecasts continued growth in renewable energy and clean technology over coming decades. Austrade believes current renewable energy targets in combination with other elements of the Clean Energy Plan including the carbon price will deliver about A$20 billion of investment in renewable energy by 2020.

With around 87% of its annual electricity output already generated from renewable sources, Tasmania is already a world leader in the global shift to a carbon-constrained future. The Clean Energy Council's (CEC) *Clean Energy Australia Report 2010* forecasts the number of renewable energy jobs in Tasmania to grow from 737 in 2010 to approximately 3007 full time jobs by 2020. The Climate Institute is more conservative in its estimation but still predicts the creation of 1329 new clean energy jobs in Tasmania by 2030. Examples of these jobs are: engineers establishing new wind farms, financial planners, tradespeople building and maintaining the electricity generators and workers installing household solar.

Tasmania and the New Carbon Economy

Tasmanians are already benefiting from the advantages offered by the new carbon economy. By ramping up renewable electricity generation, Hydro Tasmania is bringing $70 million to $100 million per annum in dividends to the state under the Clean Energy scheme (page 4.24). These contributions, which represent an estimated 12.5% of the state government's current non-federal revenues, are important in meeting the costs of services like education and health.

Due to our cooler weather and only recent increase in natural gas use, Tasmanian households use more electricity than mainlanders and electricity costs are a more significant household expense. This is also because on average Tasmanian incomes are lower than in other states. As in other states, the recent rapid increases in energy costs for households have been largely caused by expensive investment in transmission and distribution infrastructure (poles and wires). Commonwealth Government schemes that impose a cost on carbon pollution or support renewable energy have had a relatively minor effect on electricity prices. The Greens have worked with the federal government to ensure that the Clean Energy Future package includes a range of household assistance measures that ensures most Tasmanian households will be better off. The neediest Tasmanians have been targeted for assistance, with pensioners, retirees, jobseekers, students and low-income earners receiving extra benefits. At a state level Greens in government have also prioritised these cohorts for energy efficiency programs.

Tasmania-Trading on its Low Carbon Natural Advantages

Our successes in renewable energy demonstrate that migrating to a 100% renewable electricity production platform is entirely feasible. The Greens have already announced their objective for the state to reach this goal by 2020.

Support should also be given to the solar industry, which requires a fair price for feed-in tariffs – prices paid to solar panel owners for electricity generated and sold onto the grid. Residents and small businesses should be encouraged to invest in solar hot water systems and solar panels that are appropriate for their own energy needs and so reduce their reliance on power supplied from retailers. The Greens support a distributed electricity network that will encourage power to be produced close to the point of high-demand and so help to defer network investment, meet peak demands and improve system reliability.

Tasmania is currently a net importer of electricity, but the expansion of wind farms across the state will increase our capacity to contribute to the National Electricity Market. Tasmania can therefore play an important role in cutting the mainland's use of fossil fuels by exporting renewable energy interstate.

Becoming the first state in Australia to be 100% renewable would also boost the state's brand and reputation for green food production and eco-tourism. Locally, the availability of electricity that is both cleaner and more affordable than coal or gas will attract new investment and businesses that are increasingly seeking to align themselves as being clean and green. The Greens believe Tasmania should actively seek these opportunities, and we will be targeting this area in policy development.

Tasmania – Leading the Rollout in New Renewables?

Our island state could also lead the way in technological innovation if surplus renewable energy could be invested into an electric road transport network. Transport contributes more than one fifth of greenhouse gas emissions in Tasmania and petrol prices are some of the highest in the nation. Given its large rural areas the state lacks the critical mass to support an efficient state wide public transport system, making many Tasmanians reliant on cars and vulnerable to oil price volatility and exposure to peak oil. If we were to produce surplus renewable energy efficiently then we could support plug-in, grid interactive electric vehicles with battery storage that would contribute to grid security and stability.

The Greens believe there are big opportunities in battery-electricity storage development, if economic incentives are sufficient and concerns around the sustainability of battery components can be overcome. We are optimistic that future developments in this area have the potential to be a disruptive event – a game changer – in the electricity landscape which could deliver a revolution in Australian and Tasmania electricity markets, by allowing households to store and better manage their own renewable electricity generation.

The commercialisation of more efficient solar technologies, such as CSIRO's sensitised solar cells (Third Generation Solar Technology) and Sol Voltaics "nano-tech wires" within solar cells, plus significant technological breakthroughs around electricity demand management – such as smart grid technology and solar inverter boxes – will rapidly increase further household energy efficiency and the logical move to energy "self reliance." Tasmania's world first "Sense T" Project, which collects and digitalises sensory data, could also prove a competitive advantage in the research necessary to commercialise new technologies and their energy applications.

Sustainable Transport

Federal Government investment in transport infrastructure continues to preference roads over other transport infrastructure. An increased focus on public transport and cycling infrastructure is important in the move to a low carbon economy.

In Tasmania the Greens are advocating for the Hobart Light Rail project based on using the existing rail line through the northern suburbs of Hobart. The line will no longer be used for industrial freight because of the opening of the Brighton Hub. The use of existing infrastructure will assist in keeping costs down while providing a public transport that meets environmental, social and economic outcomes.

The Greens will continue to advocate for improved cycling infrastructure through increased investment and to ensure cycling is integrated with other transport infrastructure such as bus transport for longer distances. This will build on national funding of $40 million for bike infrastructure the Greens secured during the negotiation of the stimulus package through the Parliament in 2009.

Threats to a Low Carbon Economy in Tasmania:

Tasmania's many future economic opportunities in this area, and its natural competitive advantages, will be threatened by any removal of a "price on carbon pollution." Global carbon trading markets underpin the long term price on carbon pollution and much of the investment in renewable energy. While there has been recent volatility and price weakness in global carbon markets, this is inevitable given these are newly established markets with little precedence. As more carbon markets are established and these mature in the next 20 years, volumes should increase, volatility will be reduced and efficient carbon pollution reduction will be achieved. An important factor will be the linking up of international platforms such as in Europe and China:

> *Emissions trading schemes have now been established in many countries and regions around the world, including the European Union, the United Kingdom, Japan, New Zealand, and the State of California. Similar schemes are scheduled to commence in South Korea and the People's Republic of China in the coming years. In addition, eight countries, 41 cities and 48 regions around the world have shifted or committed to shifting to 100 per cent renewable energy in at least one sector.* (Pages 6-7)

Established carbon markets will also provide the investment certainty necessary for carbon offset creation in other sectors such as agriculture and forestry. In these sectors as well as in energy, Tasmania has great opportunity to benefit in a clean energy future. To realise this opportunity, any future federal government must have the courage and commitment to implement a suite of proven policy measures that take strong, long term action on tackling climate change.

Green Actions:

- Establish an Energy Savings Agency to promote distributed generation, peak demand management and energy efficiency in the electricity market.
- Investment in infrastructure to support the uptake of electric vehicles in Tasmania.
- Investment in the Hobart Light Rail Project.
- Investment in cycling infrastructure.

Information and Communications Technology (ICT)

When the Green Independents wrote their 1992 Economic Strategy few people owned a mobile phone and almost none of us had sent an email. Yet the need for policy emphasis on ICT adoption and education was already evident:

> *The development of comprehensive computer skills and a computer culture, a pre-condition for successful competition next century, could be achieved within a few years of introduction.*[7]

With the advantages and challenges of the NBN now upon us, it is interesting to look back 20 years on how the Green Independents saw the future:

> *The option of a statewide trial of computer-telephones warrants serious investigation. Tasmania's autonomy and size makes it a desirable option for a comprehensive trial prior to introduction nationally. The trial could be organised in conjunction with Telecom or their competitor.*[8]

The idea was ahead of its time, now being realised not with computer telephones, but fibre-to-the-home technology, and rather than Telstra, the government-owned NBN Co.

No one could have predicted or recognised the exponential global developments in technology in the last 20 years, especially in hand held communication devices and digital technologies. Their capabilities touch just about every aspect of our lives today. Developments will continue to be dynamic over the next few decades and provide the potential of fulfilling and flexible employment should this industry sector reach its potential in Tasmania. The Greens have already taken steps to make sure this occurs and believe there is no reason Tasmanians cannot become Australia's 'digital state.'

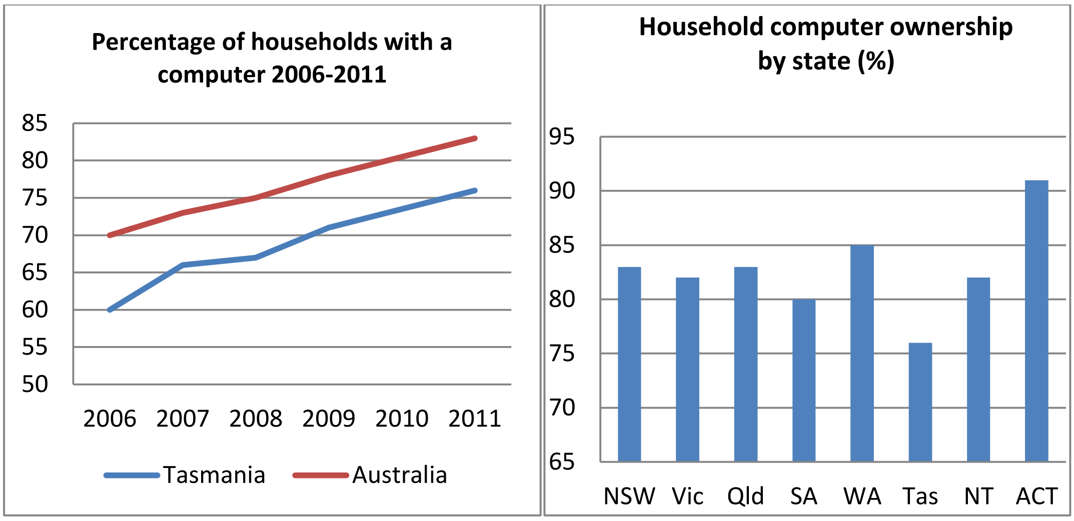
1992-2012

ICT covers a broad array of business activities and its contribution to an economy cannot be measured simply by the number of people employed directly by ICT businesses. ICT business applications can increase economic efficiencies and grow sustainable employment across all business sectors - however the ICT industry feels this is seldom recognised by economic development plans and funding.

Tasmania's record on ICT business development and applications since 1992 has been chequered. Despite some good opportunities, we believe the island's ICT industry has not reached its full potential. Today, Tasmania remains the lowest ranking state on most indicators of ICT usage and adoption. Although Tasmania is still the lowest of all states and territories some trends are encouraging. We see below that the gap in household computer ownership between Australia and Tasmania has reduced. The gap was 10% in 2006, narrowing to around 6% in 2011.

[7] Office of the Green Independents, 1992, p22.
[8] Office of the Green Independents, 1992, p22.

Figure 7: household computer ownership



Source: ABS, Household Use of Information Technology

Following the sale of Telstra under the Howard government, Tasmania received $40 million for an “Intelligent Island” initiative, which aimed to develop an internationally competitive ICT sector on the island. The Intelligent Island’s centrepiece was to be the Tasinfomatics Centre of Excellence, to be hosted by the University of Tasmania. However, the centre was never built due to state and federal government disagreements over funding and its research content. Despite extensive research and consultation with the ICT industry over the past 6 months by the Greens, we still lack detail on exactly what was achieved by the Intelligent Island industry development plan and suggest a review of the lessons of this program prior to any future targeted (company specific) ICT industry development funding.

Other programs have been equally unsuccessful. Despite millions going to programs such as the *Trials in Innovative Government Electronic Regional Services (TIGERS)* and *Building Additional Rural Networks Program*, Tasmania’s ICT standards continued to underperform. Recent initiatives such as the establishment of NBN Digital hubs should address lower ICT adoption across Tasmanian households and businesses but it should be noted these broadband hubs are not designed for industry development or the commercialisation of new technologies which we feel are necessary for Tasmania’s future.

Some ICT businesses established in Tasmania have flourished. Launceston’s Autech Software and Design, who have developed world-leading technology to convey colour tones and graphics; or Hobart’s Aegres, who provide IT solutions to design and construction projects, are such examples. Telstra’s successful but little known Broadband “e-Lab” in Launceston has also led to the successful employment of 25 full time software engineers and programmers who do much of the telco giant’s live media data streaming and network distribution from Launceston. This business is an excellent example of the potential for major ICT businesses to locate in Tasmania and of the importance of Australia’s first major broadband rollout in creating industry development incentives.

2012 to 2032

The Tasmanian ICT sector has the potential to play an important role in Tasmania’s economic future. Globally it is impossible to predict what developments will occur in the next 5 years – let alone 20 years across this sector, but the dynamic nature of this industry means it is unlikely to "mature" and will continue to offer new opportunities. The Greens believe the sector offers significant employment and wealth creation potential if Tasmania can "tool up" and "play the game." This will require a fresh approach to developing new ICT industries and employment opportunities in the state.

ICT Collaboration

Tasmania's ICT development must target training, mentoring and research and development in areas where it can maintain competitive advantages. The ICT sector also has significant potential to work with other industries to facilitate the collaborative business models that economists and regional development specialists consider important in economies like Tasmania. Furthermore, strong digital presence and communications will be essential for enhancing education and healthcare services, marketing our tourism offerings and niche products and building Tasmania's brand.

National Broadband Network

The National Broadband Network (NBN) began its rollout in Tasmania in 2010, supported by the Australian Greens. The NBN presents an opportunity to boost the ICT sector and the services that the ICT sector provides to many Tasmanian businesses. The NBN will allow Tasmania's knowledge-intensive businesses to better connect with the rest of the world and the opportunity to market their services to a global audience. Better connectivity will allow other business, investors and individuals who are not constrained by any particular geography to work from Tasmania, attracted also by our enviable lifestyle, natural and cultural environment. This particularly applies to creative industries and industries with high intellectual property content, epitomised by the UTAS-led proposal for a state-wide Academy of Creative Industries and Performing Arts, which will utilise new opportunities provided by the NBN.

Realising the opportunities the NBN presents for other sectors will require careful policy consideration. The Australian Innovation Research Centre's Jonathan West fears that "many Tasmanian businesses are presently ill-equipped to seize this opportunity" (page 64). He has considered the challenges and opportunities that the NBN presents for these wider sectors:

1. **Expanded marketing opportunities for export focussed businesses**
   Specialist producers, particularly in the food sector, could better access export markets and specialist buyers. West feels that a role exists for government in training export businesses in internet utilisation, in assisting producer groups to collaborate on communication and marketing. By better communicating the details behind products, their provenance and production, there is an opportunity to differentiate Tasmanian products.

2. **More effectively delivered public services**
   Tasmania's public sector is large compared to our population and our dispersed population makes delivery of some services difficult and expensive. West urges study of world's best practice on web-based public service provisions, particularly from small and isolated regions like Tasmania. By developing consistent web platforms for government agencies, local councils and other bodies, regulatory arrangements, approvals and services could become more efficient.

3. **Assist Tasmanian businesses facing greater competition from the NBN**
   While opportunities will be created for specialist exporters and service providers, other businesses will face increased competition. Retailers in particular have been struggling to adapt to the advent of internet shopping. Other services such as accountancy and bookkeeping which have hitherto relied on local customers, may face increased competition from internet-based competitors. Urgent training is required for such businesses to enable them to adapt and meet these challenges.

4. **Social issues**
   Increases in cybercrime, excessive online gambling, gaming and pornography that may come with the NBN also provide concerns for governments and communities. Being educated and prepared for these issues will be an important challenge.

A long term development platform for such industries in Tasmania must capitalize on new high speed broadband, a thriving arts community, world class knowledge and research institutions, and governments with the will to invest in the innovative, low emissions, global industries of the future.

Tasmania's Positioning

There is no reason Tasmania could not become a national leader in some areas of digital media employment, such as scalable content creation and digital design. These are dynamic, evolving industries which would be socially and environmentally beneficial for Tasmania. They could also help develop an identity of innovation and creativity in the state, which would enhance existing industries such as tourism, education and high value product exports.

Tasmanian Greens leader Nick McKim announced in his recent budget reply speech a *Surfing the Creative Economy* initiative that will encourage filmmakers and digital technicians to work in Tasmania and foster investment in digital clusters and partnerships between government, business and educational institutions.

In the past couple of months the Greens have been driving a project in collaboration with business and the ICT community to help establish a commercially orientated technology centre of excellence in Launceston, designed to stimulate entrepreneurial activity across this sector. If this model is successful, it can be rolled out through other parts of the state.

Considering Tasmania will be the first state to have the NBN completely rolled out. Careful consideration should also be given to providing incentives for established ICT companies to locate themselves in the state.

Green Actions:

- The 'Catalyst Project' – a Tasmania-wide approach to position the state in the new economy and capitalise on existing and future opportunities in digital media and technological innovation.
- Establishment of a collaborative digital content and technology hub in Launceston's Macquarie House as a part of the *Catalyst Project*.
- The implementation of the *Surfing the Creative Economy* initiative to help develop Tasmania's creative economy.
- Support the continued roll out of the National Broadband Network.

- Carefully consider incentives to attract ICT companies to Tasmania.
- Review the effectiveness of expenditures under the intelligent island program.

Tasmania's 'Brand'

> *The Green Independents stress we must act now to foster the image of Tasmania which has already emerged as a centre of quality, clean produce. Tasmania must research new markets, and develop new products and clean, green production methods.*[9]
>
> *Tasmania has the cleanest air in the world, fertile soils and a growing reputation for producing quality goods. These factors mean that the word "Tasmania" and the concept of excellence can become fixed in the minds of the market. The domestic market already associates King Island with quality. The challenge is now global. This image must be integrated with tourism to promote the holistic concept of Tasmania as the environment in which human health and creative potential know no limits.*[10]

The Greens believe Tasmania's "Brand" is significantly valuable to this state, but its economic value has not been properly quantified or recognised. Nor has its potential been fully exploited. Whilst it is universally acknowledged that much of the economic value of large global corporations (such as Apple or Microsoft) lies in their brands, we seldom apply such thinking to economic entities like the state of Tasmania. In other words, if something adds to Tasmania's brand value, it is adding value to our local economy (likewise if it detracts from our brand, it risks harming our economy).

Whilst "appellation systems" in places such as France have locked in significant brand value, and protection of brand, for various agricultural products through strict rules, regulations and other restrictions, Australia and Tasmania have consistently lagged behind such countries in generating branding opportunities. The challenge for Tasmania will be how to protect against future risks to our brand value, and how to better extract value from Tasmania's brand though improved labelling and marketing.

1992 – 2012

Tasmania's image and reputation has grown and matured since the Green Independents wrote about it in 1992. Over the past 20 years our state has been known as "The Apple Isle" and later as "The Holiday Isle," but during this time we have also seen the diversification and sophistication of our image. As tourism offerings have matured and the cultural and arts scenes have grown, our clean and green image, spectacular scenery and relaxed lifestyle becomes ever more important. As Tourism Tasmania Managing Director Andrew McEvoy recently pointed out "Brand Tasmania, [is] about celebrating Tasmania's natural wonder and doing it with some style and some class (page 1)."

In 1992, the Green Independents urged the formalisation of the Tasmanian "brand," urging governments to:

- *Commission the design of a new "Made in Tasmania" logo that would more adequately reflect Tasmania's emerging image*
- *Where appropriate, differentiate Tasmanian products by marketing which promotes the natural and unique advantages of the state.*

[9] Office of the Green Independents, 1992, p xi.
[10] Office of the Green Independents 1992, p xii.

- *Introduce a Green Appellation scheme to identify product conformity, purity and state of origin of ingredients.*[11]

Twenty years later, formal efforts on these fronts have been mixed. The formation in 1998 of the Brand Tasmania Council was a movement in the right direction. With a stated aim to promote Tasmania as "a leader in the world of islands," the organisation has allowed members the use of:

> *cross-promotions, partnership guidelines, information sharing, mentoring and network opportunities, as well as the use of the generic brand values of Tasmania in a way that will increase market awareness and marketing opportunities for themselves and all Tasmanian businesses.* (Source)

The Greens believe Brand Tasmania's success and recognition still has a considerable upside. Current generic branding, networking and promotional opportunities targeted at Tasmanian "organisations" are a start, but the Greens believe this now needs to evolve into a well defined scheme for branding individual Tasmanian "goods," especially for food, natural and agricultural products. For example no individual Tasmanian food products have the Brand Tasmania logo on their labelling, meaning it fails to create a recognisable "made in Tasmania" image.

Protecting Our Brand

Nearly all Tasmanian producers benefit from our image and emphasise Tasmania's environmental friendliness, purity and quality in their marketing:

> *Truffles are grown in the pristine Tasmanian environment where we have the cleanest air in the world.* (Source)

> *All our wasabi is grown in the pristine Tasmanian environment, ensuring maximum flavour and quality.* (Source)

> *Tasmanian Special Timbers (the company) has a long history of managing Tasmania's exotic timbers in a sustainable manner.* (Source)

Often more specific links to our biosecurity and environmental quality are made:

> *One of the longest running and strictest quarantine programs in the world means that the island and its produce is kept pristine. We strictly use ONLY Tasmanian grown barley to make our whisky because it is the best.* (Source)

> *Overseas markets are praising our Tasmanian beef as a high quality, world class product. Japanese consumers are recognising the Tasmanian difference – the state offers something better than the rest of Australia with its wonderful pristine environment. We also have a true competitive advantage with Tasmania's guarantee of no hormone growth promotants (HGPs) and that all feed is GM free.* (Page 27)

The economic value of our brand being generally environmentally friendly is not disputed. Most economists to assess the Tasmanian economy emphasise this:

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[11] Office of the Green Independents, 1992, p14.

> *An emerging theme of this work has been the opportunity that Tasmania has to combine its strong 'clean green' wilderness brand with both tourism and niche manufacturing and agriculture, to create powerful economic clusters capable of sustaining regional communities resilient to globalising market forces.* (Page 3)

> *Tasmania's brand should explicitly be oriented at promoting Tasmania as a source of the highest-quality food and as a place for dynamic young families to settle, and resource allocations to support the brand should be substantially expanded.* (Page 49)

It is important to realise that some industry sectors rely on more than just a general clean image, but gain benefit from some of our strongest policies on biosecurity and environmental protection. Notably, Tasmanian salmon producers responded to federal changes to our biosecurity regulations with strong opposition. They stated that the changes failed "to recognise regional biosecurity differences and presented "an unacceptably high risk to pristine, disease free Tasmanian waters" (page 4).

> *In Tasmania a primary industry can be the mainstay of a regional community, it can be the item on every single menu across the state, it can be the iconic image on tourism advertisements, and it can provide the impetus to keep local schools and shops open.* (Source)

As first priority, the Tasmanian Salmonid Growers Association (TSGA) submitted, "our unique pest and disease [free] status should be recognised and maintained to ensure the ongoing viability of primary industry in Tasmania". The Greens recognise this that is why we are advocating for an independent expert based bio-security authority.

Initiatives to protect the brand:

- The Greens food labelling bill the Competition and Consumer Amendment (Australian Country of Origin Food Labelling) Bill extends country of origin labelling to all food for retail sale and simplifies labelling.
- Creation of an independent expert based bio security authority to help protect agriculture and aquaculture from pest, diseases and weed incursion threats.

2012 – 2032

Developing a "Made in Tasmania" Logo

The Greens believe a "Made in Tasmania" or "Product of Tasmania" logo and certification process needs to be further developed into the future, and must strictly reflect the "Clean Green Image" that is Tasmania's competitive advantage. There is plenty of evidence to suggest that well marketed identifiable products adhering to high ethical, health and environmental standards can be rewarded with market price premiums. Whilst the Greens acknowledge the high potential cost and regulatory burden required for a labelling and certification scheme on all Tasmanian agricultural and food retail products, we see significant potential in a commercial "opt in" model.

A voluntary "Appellation" scheme to identify product conformity, purity and 100% state of origin of ingredients might require government involvement for its establishment, but it could be self-funding over time. Such a scheme should capture the need for consumer guarantees of quality and authenticity, through effective “traceability” and “proof of provenance” measures. New technology and R&D in food innovation, such as supply chain management and monitoring of agricultural inputs, should make this possible in the near future. This would also be a way to better market Tasmania’s hormone and GM free status, an opportunity the Greens believe is currently not being well capitalised.

Food production and labelling standards should not be the only key focus of such as scheme. For it to be successful and worth the extra cost constraints to participants it should also exist within a clever collaborative marketing model which better targets growing demand for select Tasmanian produce in key export markets.

The Greens will be investing in a policy which ties together a new innovative ‘Tasmanian Brand’ labelling and marketing initiative.

Keeping Tasmania Clean and Green - We are all Brand Custodians

The Greens believe Tasmania’s image as a beautiful, clean, sustainably managed place provides enormous value to many industries (explored in many chapters of this report – such as agriculture, lifestyle and tourism), and that to maintain and build on the value of our “brand” this image needs to be backed by reality and world’s best practices.

Our stunning landscapes need to be protected in well-managed national parks. Visitors need to see and taste that our water really is as clean as it looks on the product labels, or breathe the air advertised as the cleanest on the planet. Our beaches and roads must not be littered with plastic drink bottles and cans. Damage to our environment, like rivers poisoned by mining on Tasmania’s West Coast, needs to be considered as a risk to the reputation of all our businesses.

Environmental standards cannot be simply dismissed as “green tape,” when they are a central part of the value that our businesses require for the sale of their goods and services. Tasmanians must be vigilant and careful that as our industries grow, we ensure they are not merely paying lip service to environmental standards while promoting the purity of their product. The Greens, more than any other political party, understand that careful regulation, monitoring and vigilance of environmental impacts is critical to ensure the protection of our valuable brand, and therefore our state’s future economic development.

Green Actions:

- Establishment of a collaborative Tasmanian ‘Brand’ labelling and marketing scheme .
- Maintenance of the moratorium on genetically modified crops in Tasmania.

Tourism

> *Tourism is presently the world's largest industry and shows no signs of slowing its growth. Tasmania is well placed to maintain an important share of this market. While it is an important industry, it is imperative we do not place undue concentration on this, or any other single industry. Tourism has the capacity to adversely affect the local quality of life and is subject to fluctuations in demand in line with movements in the world's economy. Tasmania would be best serviced by broadening the tourist sectors it services, serving niche markets and by spreading demand across the year…. Used creatively, tourism can fulfil a variety of roles from education to regional business networking.*[12]

These messages from 1992 still resonate today. Tourism is currently still one of the most important sectors in the Tasmanian economy, not simply via its direct employment and economic contribution, but also by the fact it supports and promotes the Tasmanian brand, our hospitality businesses, the sale of agricultural and creative industry products, and it advertises our state's many lifestyle advantages.

This importance is highlighted by a recent study that suggests tourism marketing spend could have an impact on Tasmanian GSP of up to $19 million for every $1 million spent-or put another way every dollar spent on tourism marketing can deliver $19 in economic benefits to the state. Significant evidence also exists that the underlying value of the Tasmanian tourism industry today is in nature based tourism, much of which is directly linked to conservation outcomes.

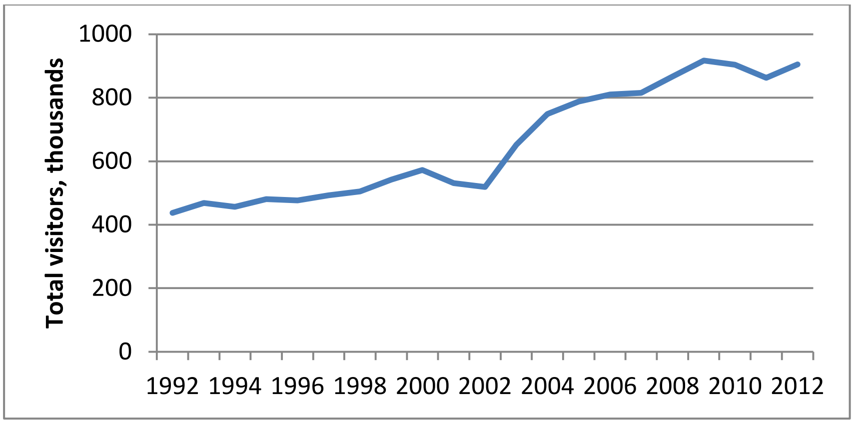
The Greens believe the next 20 years offers increased opportunity for Tasmania to leverage of this important industry, provided we continue to innovate, allocate funding for tourism marketing, and are clever about how to grow the sector sustainably. One key challenge is for government to engage with the tourism sector to provide"co-funding" for marketing campaigns.

1992 to 2012

As the Green Independents predicted, tourism has continued to grow worldwide and Tasmanian tourism has developed into a strong and diverse industry. Total annual adult arrivals have doubled from less than 450,000 in 1992 to over 900,000 in 2012.

[12] Office of the Green Independents, 1992, p74.

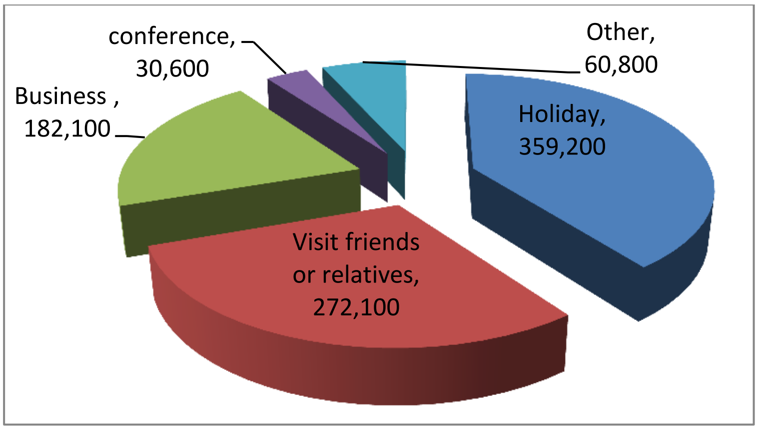
Figure 8: Total visitors to Tasmania 1992-2012



Source: [Tasmanian Visitor Survey (webreporter)]

A large majority of arrivals are leisure travellers, with arrivals for holiday and visiting friends and relatives categories making up over two thirds of the total:

Figure 9: 2012 arrivals by purpose of visit



Source: [Tasmanian Visitor Survey (webreporter)]

Measuring tourism's contribution to the economy and employment is difficult as it affects so many different industries and sectors. The latest formal attempt to estimate tourism's overall impact through satellite accounts assessed the year 2006-07 and was published at the end of 2008. Given the growth in arrivals since 2006-07, these figures represent a conservative estimate of current levels.

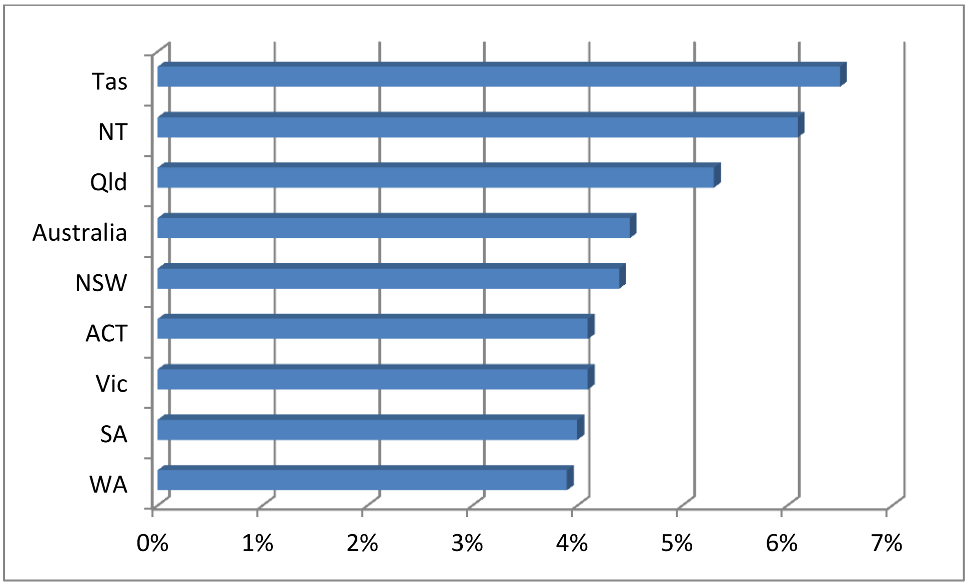
Figure 10: Tourism impact on GSP and Employment

	Gross State Product ($million)	Employment
Direct	$1,024	13,696
Indirect	$757	11,145
Total	$1,781	24,841

Source: Ho et al., [Tourism Satellite Account Tasmania]

Including indirect employment, this represents over 10% of Tasmania's labour force, making tourism the second largest employer behind health care, larger than construction and manufacturing. According to national tourism satellite accounts, Tasmania has the highest percentage of direct tourism employment in Australia:

Figure 11: Tourism employment by state 2010-11



Source: Pham & Marshal, Tourism Satellite Account

Tasmania's tourism success has been built on conservation of our natural landscapes, but this is seldom acknowledged. Research by Tourism Tasmania in 2011 found:

> *Tasmania's natural assets, that is, Wilderness and Coastal Experiences, have the strongest emotional associations, the strongest appeal and are the most potent motivators to shift travel intention to Tasmania. Tasmania's wilderness is a key point of difference and represents to many potential visitors "peace and solitude to explore iconic pristine Tasmania."* (Page 6)

This has been a consistent theme in tourism research through the 1990s and the early part of the century:

> • *Tasmania's natural environment sets it apart from the other States and Territories and is an important element of its image as a tourist destination.*
>
> • *The majority of visitors to Tasmania (361,000 or 69%) participate in nature-based tourism.*
>
> • *In particular, 86% of overseas visitors engage in this activity.* (Page 2)

Nature tourism rates are approximately double those of other states. This strength in nature-based tourism represents a strong economic return on conservation of our natural heritage. The economic value of World Heritage Areas has been examined quantitatively by research commissioned by the federal government:

Figure 12: Economic impact of World Heritage areas

	Impact on value added	Direct and indirect jobs
Visitation	$182,600,000	194
Management	$6,100,000	3,886
Total	$188,700,000	4,080

Source: Gillespie Economics & BDA Group

Other commentators estimate that:

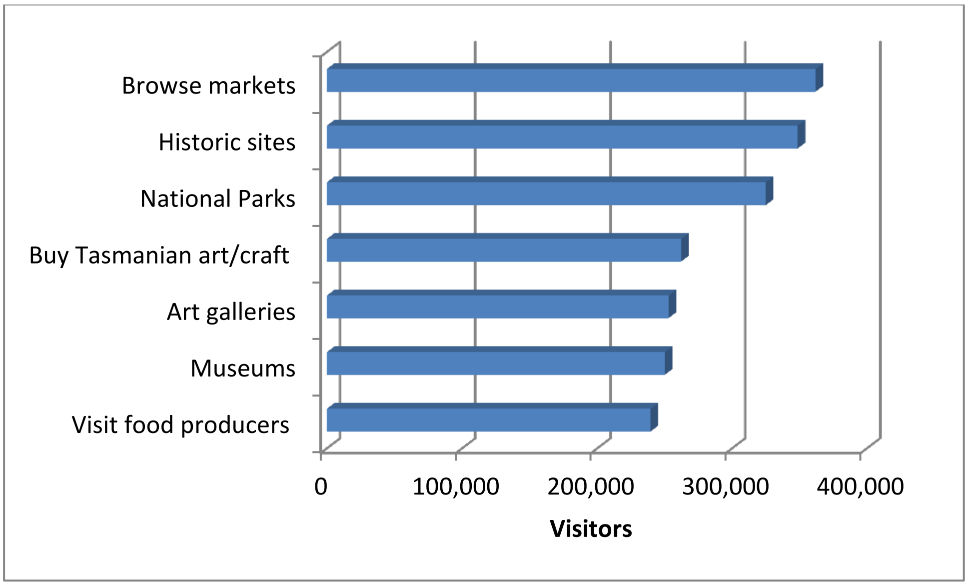
> *a significant proportion of Tourism's contribution to employment and the Gross State Product in Tasmania is directly attributable to our World Heritage Areas (probably some 20 to 30% direct contribution).* (Page 24)

It is important to remember that much of this valuable economic contribution is attributable directly to the efforts of the Greens and their predecessors to protect the natural beauty of our state. Greens Senator Peter Whish-Wilson emphasised this in his maiden speech to the Senate:

> *Recently I heard a well-known Tasmanian identity on radio, labelling those who oppose new developments in Tasmania's world famous national parks as "economic vandals." Others have used the same phrase to describe conservationists opposing open cut mining in the Tarkine wilderness area - an area of recognised World Heritage significance - and the continued clear felling of our rare ancient forests in the Weld and Florentine.*
>
> *The irony of this statement is that these so-called "economic vandals" are largely responsible for the preservation of Tasmania's world famous landscapes and thriving ecosystems, which today deliver a significant economic boon to Tasmania.*
>
> *There is a "premium" on wildness in the world today, and few would dispute that our national parks, World Heritage areas and other conservation areas are the best assets we own in Tasmania, or that this is what distinguishes Tasmania from the rest of this great nation.* (Source)

Whilst nature based tourism is a critical plank in the economic value of Tasmanian tourism, and by default the Tasmania economy, it is important to highlight that the tourism industry has not only grown but diversified. While our core tourism brand is still based around nature tourism, cultural and culinary offerings have expanded. Activities undertaken by visitors are now across several areas in addition to nature tourism:

Figure 13: Most popular tourism activities 2012

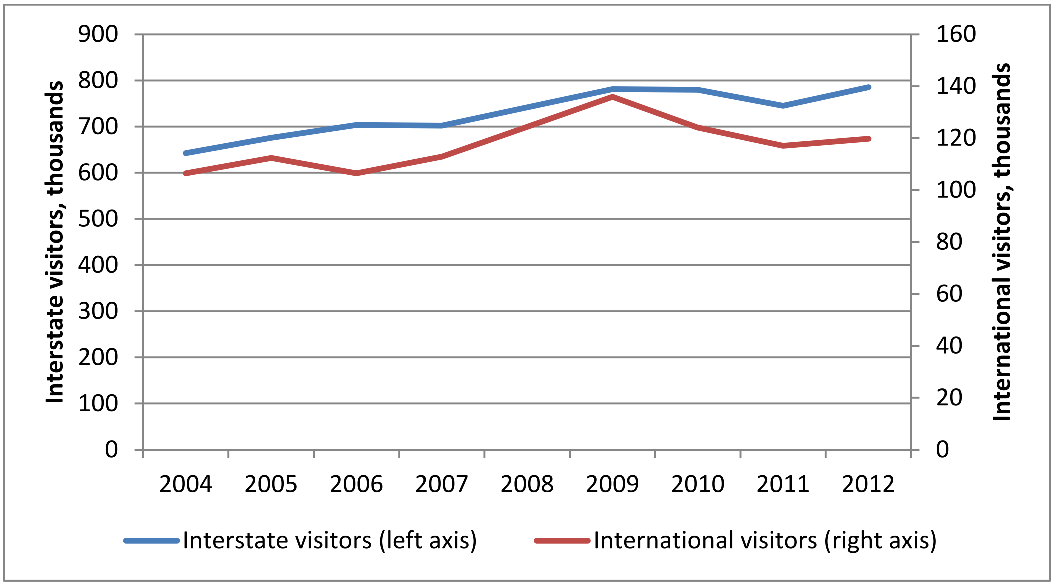


Source: Tasmanian Visitor Survey (webreporter)

This diversification of tourism offerings is important for two reasons. Firstly it reduces the volatility of tourism arrivals. Cultural and culinary tourism can be popular during the winter, when nature tourism can be difficult to promote. Tourism Tasmania is currently promoting this year's winter attractions – Tasmanian Red Wine Weekend, MONA's events Dark MOFO and new exhibition The Red Queen, Festival of Voices, Chocolate Winterfest and the Tasmanian Truffle Degustation Dinner at Stillwater Restaurant in Launceston – all culinary and cultural events. Conferences also provide an option for easing seasonal downturns, with several major conferences keeping accommodation rates high into May this year.

Secondly diversification of tourism offerings also reduces volatility of tourism arrivals over time. As shown in figure 8 above, tourism growth has been static since the global financial crisis and the strengthening of the Australian dollar. The high dollar means Tasmania has become around 25% more expensive as a destination for international visitors and overseas destinations have become cheaper for domestic visitors. Over this period averting a much larger decline in arrivals would have been impossible without diverse and high quality tourism offerings. We see below that arrivals from interstate have been steady, while international visitation – possibly more sensitive to the exchange rate – have declined. Domestic arrivals are often repeat visitors – 43% have visited us before (page 21).

Figure 14: Interstate and international visitors



Sources: (i) Tasmania Visitors Survey (ii) ABS Tasmania At a Glance

The timing of the opening of MONA has been fortuitous according to many in the tourism industry:

> [In] *Hobart at least local businesses have experienced an upswing thanks to the pulling power of Walsh's temple [MONA]. Restaurants, hotels and bars are reporting increases in business.*
>
> *Katrina Birchmeier, co-owner of Hobart restaurant Garagistes, says on weekends the proportion of customers from outside Tassie is as high as 75%. The diner is regularly forced to turn people away.*
>
> *"We know from speaking to our customers that, particularly over a weekend, there is a large number of people coming down to visit MONA who otherwise would not be coming," she told* Crikey, *adding that locals were now coming in during the week instead of on weekends*. (Source)

One important outcome of this diversification of tourism – perhaps even more important than reduced volatility in arrivals – is the increased interaction and collaboration with other sectors of the Tasmanian economy. Tourists engage with our food and wine producers, developing a taste for our high-quality produce, making it more recognisable when they return home. This is an important part of improving recognition of Tasmanian products and is recognised by prominent economists such as Jonathan West:

> *Food-related tourism will ultimately be the best form of brand development and marketing for Tasmania. As more people visit Tasmania to enjoy the state's special food, more will become ambassadors for our products.* (Page 69)

This trend presents opportunities far beyond the food sector. As figure 13 above shows, 250,000 tourists buy arts and crafts in Tasmania every year. Scarcely a Tasmanian town exists without a shop selling crafts based on our unique timbers, high quality wool or other inputs. This develops recognition not only of our artisans and artists, but the specialty timber, wool and other industries on which they are based.

The Greens believe that recently Tasmania missed a significant opportunity to strengthen and diversify our tourism sector and economy when the Tasmanian Legislative Council voted down Same Marriage Equality laws. Tasmania would have been the first state in Australian to pass such laws, and would have beaten both New Zealand and key European countries to the punch. Economic studies suggest strong economic impacts for first mover advantages that allow same sex couples to marry free of discrimination.

2012 to 2032

Continued diversification and innovation is required to grow Tasmania's tourism sector over the coming decades. The Greens believe this will come from new collaborative opportunities-such as the better use of technology, and Tasmania continuing to build on existing competitive advantages in tourism product offerings-such as nature, culture and outdoor experiences. Such developments must occur within an overall framework of sustainability.

Technology and Experiential Tourism

CSIRO has recently claimed "experiential services" will be one of the big growth industries of the future. Tourism is by nature "experiential", but future tourism experiences can be significantly enhanced by technology. It is possible that everyone visiting Tasmania 5 years into the future will have access to GPS linked "virtual tour guides" in their hand held devices. "Apps" can be developed that provide visual or audio visitor information, interpretation services, entertainment experiences and interactive guides. Tasmania's cultural history, geography, geology, botany, forest wars and much more can literally be at a visitors fingertips. These apps are likely to be the digital equivalent of the Lonely Planet Guides and should be developed and the content built in "collaborative spaces" such as the proposed Launceston digital Media Hub project, or Hobart's Theatre Royal/UTAS/MONA creative industries project. Not only can such services be sold commercially to visitors to Tasmania, but if we are to develop this technology, a global market awaits for the people and companies with the skills to develop similar offerings for other locations.

Nature and the Outdoors

Nature tourism can continue to develop new offerings in places such as the Styx Valley in the new world heritage area and the Tarkine. The Greens will soon propose new costed tourism development projects such as a World Heritage interpretation centre designed to better educate and promote nature based tourism. We also intend to commission a report on the economic benefits of a Tarkine National Park to the Tasmanian and North West economy.

The history of Tasmania's conservation battles and the birth of the world's first Green political party is a subject seldom advertised to tourists, but is a critical part of our history and identity, and of significant interest to many visitors. A proposal for a world heritage centre would capitalise on tourist interest in this history, and should naturally follow on from the establishment of new World Heritage Reserves.

Other projects the Greens are interested in include developing “Land and Sea” Eco Walks, which promote both whale watching and wilderness-bush walking experiences around the state. Whale watching is one of the most significant tourism growth markets around the country and internationally. Areas such as Cockle Creek in the states south offer significant cultural, heritage and environmental experiences that could enhance such walks.

Many established outdoor tourism activities, have significant room to grow their product offerings. These activities include cycling, mountain biking, canyoning, rock climbing and surfing.

The Greens will push for the establishment of a National Surfing Reserve in Tasmania, in a location such as King Island or Marrawah, both areas that need increased tourism. Under the National Surfing Reserve program, special surfing areas around Australia are recognised for their unique surfing history, culture and the quality of their waves. With millions of surfers around the world, surfing tourism is an untapped tourism market in Tasmania, which should be carefully managed and promoted in consultation with local surfing communities. We could also better promote existing charter boat trips to Tasmania’s remote SW wilderness beaches, which offer some of the best waves in the country along with fishing, diving and Aboriginal heritage experiences.

Capitalising on the Global Food Revolution

One of Tasmania’s key tourism advantages is our high quality food and beverages. There is a great potential to develop “authentic food experiences,” which highlight Tasmania’s unique “paddock to plate” or “vine to glass” industries. Although the global “food revolution” trend is underway, tourism developments based on this trend are only just beginning. New offerings such as farm stays, food preparation and cooking workshops using local produce are already proving highly popular. The success of cooking schools The Agrarian Kitchen and Red Feather Inn are examples of the potential for innovative attractions based on our food.

North West Geotrail

The Greens have been supporting the development of a tourist trail that would showcase the amazing geological history of the state’s northwest. Despite the North West and West coast regions having some of the State’s outstanding natural attributes, tourism opportunities are underdeveloped. State Greens MP Paul ‘Basil’ O’Halloran has spearheaded the development and a feasibility study is currently being organised.

Challenges and Opportunities of the Asian Century

Particular opportunities exist to promote Tasmanian tourism to growing Asian markets, especially using new technology. Tasmania currently has the lowest visitation rate by international tourists of all states. With Chinese visitor expenditure forecast to grow from $3.8 billion to between $7 billion and $9 billion by 2020, it will be important for Tasmania to tap into this growth.

The Greens support the investigation of how Tasmania can achieve that as a matter of urgency. Specialised research is required to determine how our tourism sector can provide rewarding experiences to the Asian tourism market. The investigation should also test our preparedness for an increase in the number of Asian visitors to our state and to determine what new skills, technology and promotional material need to be developed, such as brochures, websites, signage, etc. Further federally funded programs could then focus on the training required to address any skills shortages.

Sustainable Tourism

Proposals for tourism development must be assessed on their merits and environmental and economic studies scrutinised closely. The Greens do not support tourism that is environmentally unsustainable – as noted by the Green Independents in 1992, tourism has the ability to negatively affect communities and local environments if not carefully managed. Ongoing controversy over commercial property development in national parks or the recent Three Capes Walks are such examples. The key challenge in the next twenty years will be to ensure that our tourism is sustainable and continues to contribute to our environment and economy:

> *Many tourists are not fooled by a thin veneer of trees between them and decimated forests or by endless forestry propaganda signs lining the route to their destination. In fact it simply makes them more cynical that Tasmania is not 'walking the talk' in relation to the tourism brand message.* (Page 15)

The Greens plan to commission a report into developing a long term model of "sustainable tourism" for Tasmania, based on the work of international author and consultant Rachael Dodds. This report would be comprehensive and help inform policy decisions around future tourism development and funding. We aim to have this report for release in 2014.

Current Greens tourism initiatives with a focus on sustainability include promotion of bicycle tourism. The Greens would like to see a "cycling tourism plan" funded and developed as part of the road program, to ensure our roads are suitable for use as cycling tourism routes. The proposed North-west coast cycleway is a good example of the potential in this area.

Increased Marketing

The Greens recognise the importance of the positive impact of investment in tourism marketing. We believe increased tourism marketing at a federal level is important. Currently there is a very heavy reliance on State funding for tourism marketing, and the industry is at risk of losing this funding when state revenues are under pressure - usually when additional marketing funding is most needed. The Greens will seek industry-government collaboration opportunities to construct mechanisms to deliver "co –contributions" directly linked to state based marketing, making more money available when it is needed and reducing industry exposure to the vagaries of the annual state budget processes. Tax breaks for industry co –contributions or one off marketing levies are examples of initiatives to be explored.

Green Actions:

- Establishment of a world heritage interpretation centre that, amongst other things, explores the history and the people behind the environmental conflicts in Tasmania.
- Increased funding for tourism marketing

- Establishment of a Tarkine National Park
- Establishment of a tourist trail to highlight the geological history of the State's northwest.
- Establishment of a National Surfing reserve.
- Exploration of collaboration opportunities between industry and government for tourism marketing.
- Creation of a model for sustainable tourism to further inform possible policies, decisions and data gathering.

Waste and Recycling

In 1992, the Green Independents used the term “industrial symbiosis” to describe the process whereby:

> *a variety of companies network their activities to minimise or reuse waste products and production associated by-products. This can occur where networking leads to an increase in the efficient use of material and energy inputs or where input costs are reduced through shared processing. Industrial symbiosis leading to inter-company networking can play an important role in creating competitive advantage while improving environmental efficiency.*[13]

As Tasmania transitions from a resource-intensive economy to a more diverse and efficient economy, significant opportunities still exist to reduce waste and greenhouse gases, create new infrastructure and employment, deliver cleaner land, water and oceans, and improve collaboration between industries. Better waste management and recycling will also strengthen our communities and energy self reliance (security) as a state.

1992 to 2012

The Greens believe good waste management policy should aim to deliver the following:

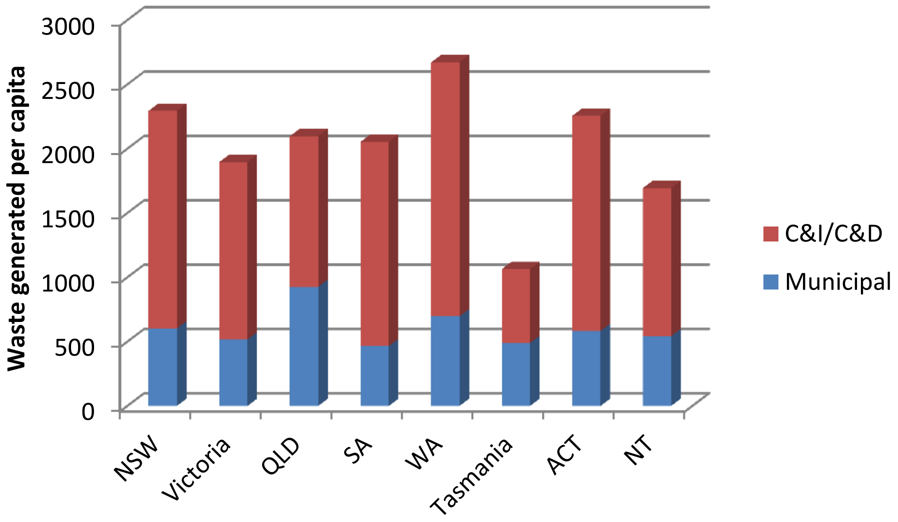
- cleaner land, water and oceans by reducing litter and toxics in the environment.
- less greenhouse gases
  - by removing organics from landfill, or capturing methane to make electricity;
  - by offsetting the need to extract and refine virgin material;
  - by substituting dirtier fuel for a cleaner fuel
- improved energy security by creating an alternative fuel source,

On many of these measures, Tasmania’s waste management track record since the Green Independent’s report has been mixed, but mostly very poor. In a 2009 interview with the ABC, Sustainable Infrastructure managing director Stephen Thompson remarked that Tasmania’s waste management system was “well behind many of the other states in Australia.” In particular, the state’s poor track record for waste recovery highlights the urgency of introducing new measures to improve recovery rates.

At first glance, data on Tasmanian waste generation seems very positive. A 2011 report for the federal environment department suggests that Tasmanians generate less waste per capita than any other State or Territory in Australia by a considerable margin:

[13] Office of the Green Independents, 1992, p6.

Figure 15: Waste generation per capita by state and territory, 2008-09

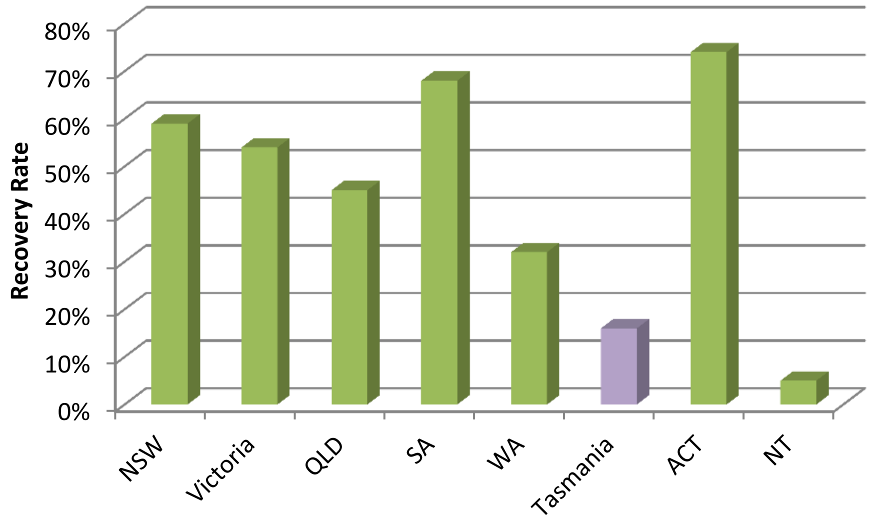


Source: Smith, et al, page 37

Municipal waste is lower than most states, although at generally comparable levels. The main difference with the rest of the nation is on the categories of commercial and industrial (C&I) and construction and demolition (C&D) waste. Some difference may be accounted for reduced economic activity during these years – post financial crisis – while the resource rich states and states with larger populations saw less of a reduction. However, the Greens believe that another factor is, unfortunately, poor data collection and enforcement. Tasmania's rural nature means it is easy for waste to be dumped illegally on public and private land. Researchers at the University of Tasmania have found that Tasmania has the lowest average fines and costs for illegal waste disposal cases. Our legal structure means much of this caseload is dealt with in the Magistrates court, where there is little specialist judicial training and experience with environmental offences (source).

Waste recovery rates are also poor. Tasmanians generated a total 534,600 tonnes of waste in 2008-09. Of that amount, 448,500 tonnes ended up disposed of as landfill while the remainder was either recycled or recovered for energy production. This represents the worst waste recovery rate for any state or territory in Australia except the Northern Territory.

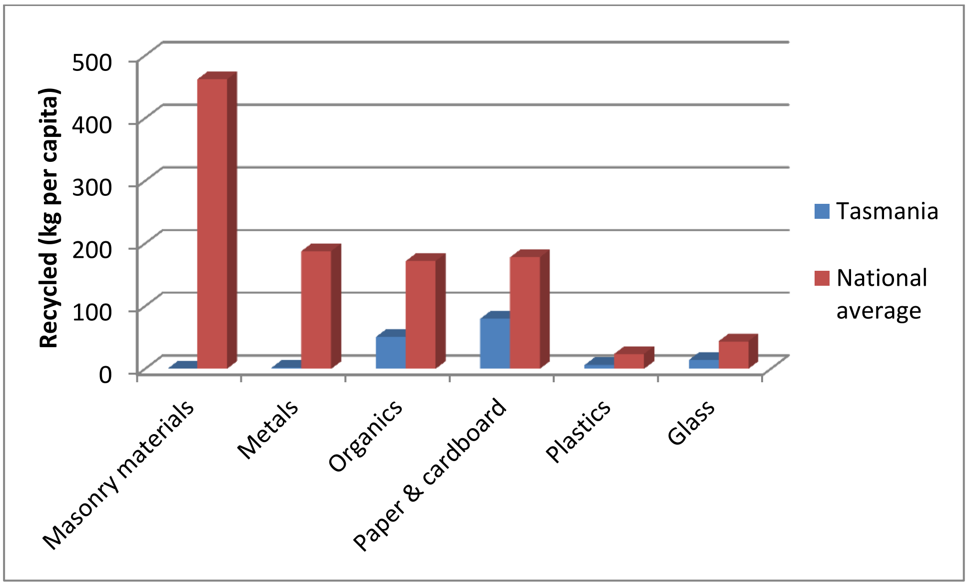
Figure 16: Recovery rates by state and territory 2008-09



Source: Smith, et al, page 37.

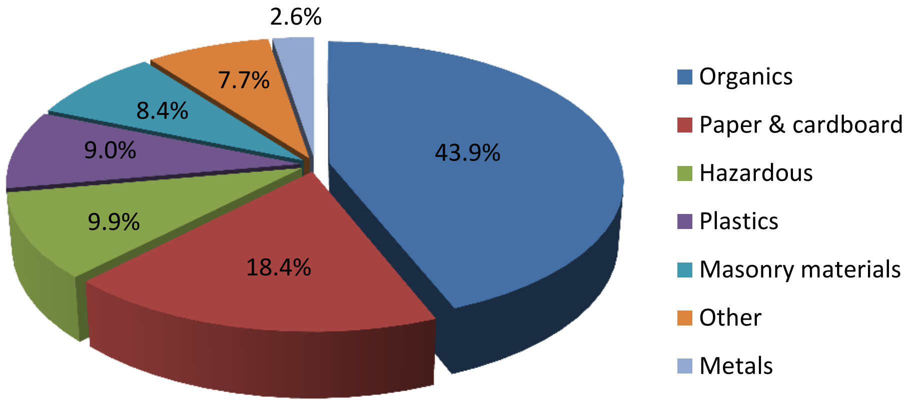
This poor record for waste recovery is due to the state's low recycling rate, with Tasmania underperforming against the national average on every material category (page 37).

Figure 17: Tasmanian recycling volumes by material



Source: Smith, et al page 88.

Figure 18: Waste generation by material 2008-09



Source: Smith, et al page 88

As we see in graph 1.4, Tasmania produces more organic waste than any other category, through agricultural residues, timber waste and food. Currently, very little of this waste is collected in an organised or meaningful way. This waste represents a potential source of either compost or renewable energy, as it can be burned directly or gassified through application of heat or digestion by micro-organisms. An interesting example is the launch in 2012 of a biodiesel plant at Cressy that uses poppy seed waste to produce fuel. The facility was expected to produce 3 million litres of biodiesel per year.

2012 to 2032

Initiatives and Opportunities

With significant opportunities yet to be realised from both energy generation and increasing recycling, waste management and recovery will grow significantly in the coming years. This will not only create new industries and employment opportunities, but improve collaboration and networking of Tasmanian businesses from across different industries and further strengthen our reputation for clean and green innovation. Tasmania was an early adopter of wind farm technology and of other environmental innovations, such as Coles Bay's world-first ban on plastic shopping bags. There is plenty of scope for adopting innovations and further improvement in waste management.

Key future initiatives the Greens feel will be required to achieve positive developments in the waste sector include establishing container deposit and other product stewardship schemes to recover high value materials (and stop pollution in the environment), the introduction of a state wide landfill levy on municipal waste, expanded kerbside recycling services to include single use plastics, the establishment of a network of organic treatment facilities that make compost, produce cleaner energy and provide energy security, and upgraded infrastructure at collection and transfer stations.

Energy from Waste

The opportunities that energy recovery presents for Tasmanian agriculture have been further demonstrated recently by Almond Board of Australia's finding that converting just 20 per cent of the almond industry's husk and shell waste into biofuel could offset its entire energy demand. Murdoch University biofuel expert, Dr Karne de Boer, has observed about waste from poppy crops that Tasmania is "uniquely placed to make the most of the new technology." Advanced trials in "Biochar" plants are also shaping up as a possibility opportunity for genuine waste to energy conversion, with this technology now available for advanced energy creation trials.

Encouraging bio fuel production from genuine waste will be a small step in the direction of addressing Tasmania's considerable exposure to oil price volatility. An example is the new specialist abattoir on Flinders Island – run by Flinders Island Meats, which is currently building a bio digester to process all waste to bio fuels. The Greens are supporting a similar project for King Island. Such projects will support local businesses and jobs, while building resilience for our economy, which will be required as the effects of peak oil become more pronounced. The Greens will continue to support policy initiatives which incentivise waste conversion to energy providing economic opportunities. This includes inception funding and incentives (such as levies) for the establishment of a network of organic treatment facilities –on farms, at businesses, through municipal councils, that will provide the inputs required for waste-energy conversion. There is the potential for distortion of the economy when crops are grown or forests logged especially for bioenergy, but genuine waste products and low-scale bioenergy production could present an opportunity for Tasmania if managed well.

Tackling Food Waste

Another portion of organic waste that could have improved processing is food waste. In NSW, an EPA auspiced program, Love Food Hate Waste, estimates that households throw away more than $2.5 billion dollars worth of edible food per year. A UK program of the same name estimates the UK throws away 7.2 million tonnes of food and drink every year, worth 12 billion pounds. By partnering with environmental protection agencies and working with households and businesses the programs aim to reduce this waste. For example, the NSW program, is working with partners to eliminate food waste through initiatives with suppliers, educating consumers, better in-store practices, donating surplus food to charities and composting food waste. The Greens support the investigation of a similar program for Tasmania and ongoing support for organisations such as 'Produce to People' and 'Second Bite'who ensure excess produce is delivered to organisations who can utilise it in feeding people across Tasmania.

Recycling Refunds and Product Stewardship Schemes

Recycling initiatives also have great potential, particularly a container deposit scheme on beverage containers. Beverage containers are believed to account for around 30% of all litter volumes found in Tasmania.[14] A recent feasibility study commissioned by the Greens estimated that introducing a "cash-for-containers" scheme into Tasmania would raise container recycling rates from 45% to 84%

[14] Boomerang Alliance, (2011), What Container Deposits Will Do for the Tasmanian Economy, p2.

and could generate nearly $8m in income and create between 280-300 new jobs,[15] echoing an earlier report with similar revenue estimates of $7-$10m which estimated through multipliers that this could lead to an increase in Gross State Product of perhaps $20.3 million.[16]

Recent analysis by the recycling industry estimates that Australia-wide a container deposit scheme would result in investment in infrastructure by private industry of approximately $500 million. They estimate that more than 3000 jobs could be created nationally. Such a scheme would also reduce landfill, littering and damage to wildlife, which are important to Tasmania's clean image and the sectors which trade on it – particularly tourism and agriculture.

Taken together as examples, these developments underscore the importance of encouraging product stewardship schemes within a more collaborative culture – a culture of industrial symbiosis – over the next 20 years. The principle of product stewardship is that, at the point of sale, consumers pay the full life cycle cost of a product (including disposal/recycling etc). Current successful product stewardship regimes around the collection and treatment of e-waste and tyres, involving producers, retailers and the customers is a good case study of how these schemes can work. Similar approaches to other forms of waste could make it easier for some Tasmanian businesses to maximise the re-use or recovery of waste products and by-products.

Green Actions:

- Establish container deposit and other product stewardship schemes to recover high value materials and to stop plastics and other toxic metals from polluting the environment.
    - The Tasmanian Greens have secured a funding for a cost-benefit study into a state-based Container Deposit scheme.
- Implement a $10 per tonne state-based waste levy to reduce landfill and promote recycling. Tasmania and Queensland are the only states without a legislated waste levy.
- Investigation of funding and incentives (such as levies) to drive the establishment of a network of organic treatment facilities –on farm, at businesses, through municipal councils, that will provide the inputs required for waste-energy conversion.
- Establishment of a National Waste Register to provide transparency on what waste is produced, where it is and to drive innovation and collaboration about how the waste is processed and recycled.

15 Unpublished Greens research.

16 Boomerang Alliance, 2011.

Food -Agriculture

> *The Green Independents stress we must act now to foster the image of Tasmania which has already emerged as a centre of quality, clean produce. Tasmania must research new markets, and develop new products and clean, green production methods.*[17]

Tasmania has worked to develop a reputation for clean air and water, strict pest and disease controls, and now almost a third of the state's entire land area is dedicated to agriculture. As a result, we are well placed to meet the challenges and benefit from emerging trends in food production in the next 20 years. The agriculture sector alone contributes around 16% of Tasmania's GSP and 20% of employment when post farm gate activity is taken into account and is central to our future economic prosperity over the next few decades.

Significant challenges and opportunities facing agriculture include:

- changing supply chains, market access and business models
- bio security concerns and trends towards "authentic" food experiences
- impacts of climate change
- need for increased productivity and innovation.

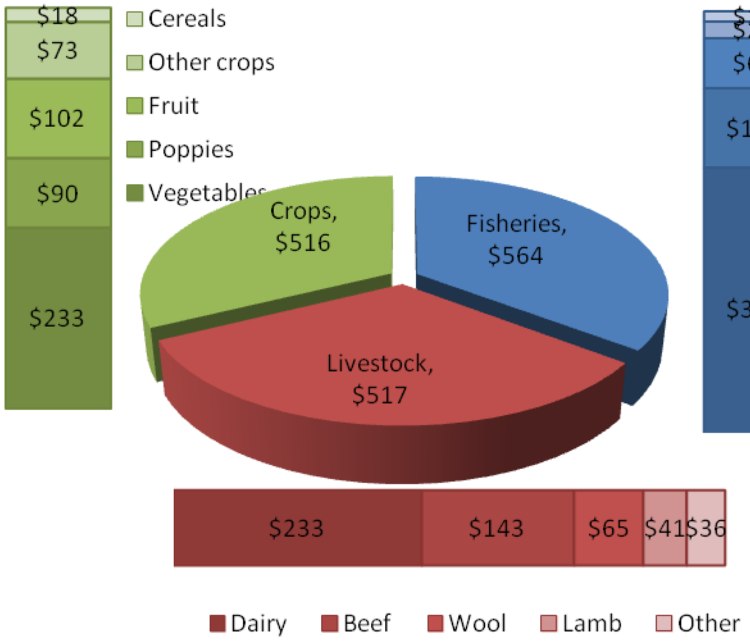
These challenges have been growing over the last twenty years and will develop as global trends continue. Opportunities exist for Tasmania to adapt to and benefit from these trends, by consolidating our reputation for quality, developing better marketing strategies and market access, building resilience to climate change and promoting innovation and collaboration. Policies need to be based on a strong understanding of local, national and international conditions and opportunities.

1992 to 2012

Tasmania's food sector has grown and diversified through the past two decades and now produces around $1.8 billion worth of produce per year. Livestock, crops and fisheries account for around a third each of agricultural production. Salmonids (salmon, trout and related species), dairy and vegetables are the highest value producers:

[17] Office of the Green Independents, 1992, p11.

Figure 19: Tasmanian agricultural production by sector 2009-10

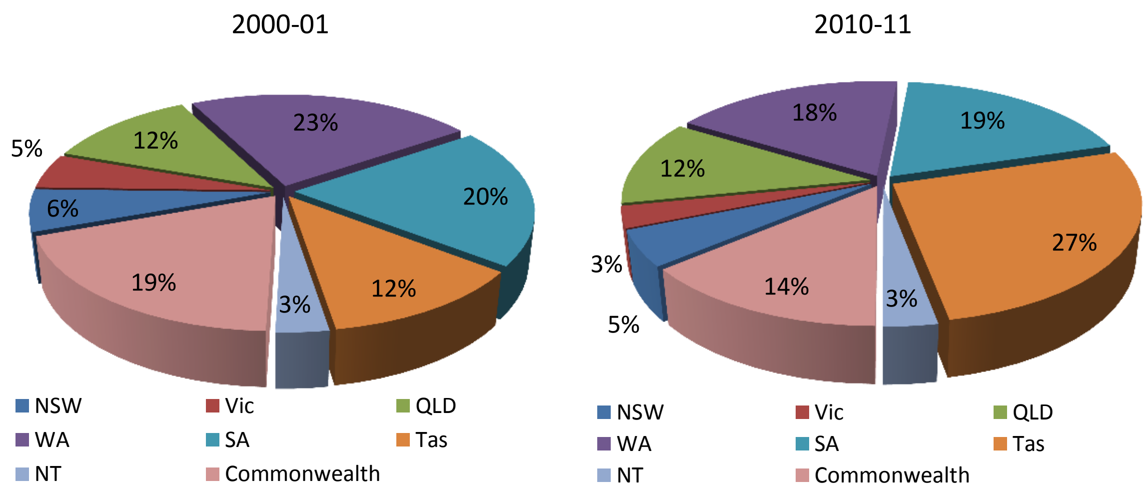


Source: *Macquarie Franklin*

Fisheries and Aquaculture

The gross value of seafood production in Tasmania rose substantially in the past decade, from $306.7 million in 2001 to almost $600 million by 2010-11. As a share of production nationwide this is a jump from 12% to 27% of the overall market. We are now the biggest seafood producer by value of any state or territory (see below).

Figure 20: Shares in gross value of seafood production by state



Source: *Australian Fisheries Statistics*

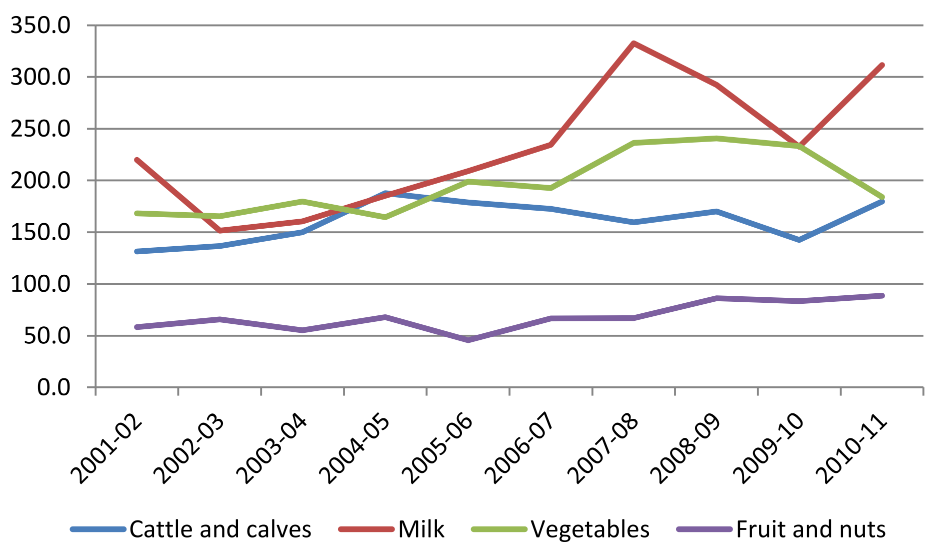
Salmonids are the most valuable seafood group in Australia and Tasmania accounted for over 98% in 2010-11. Tasmanian salmon is heavily marketed on Tasmania's clean image and engagement with the industry will be necessary to ensure its practices are sustainable - it requires 2–4 kg of wild fish to produce 1 kg of salmon – and the effects of farming on the marine environment (e.g. interaction with wildlife, effluent, antibiotics and anti-foulants) could bring the long-term sustainability of mass production sea cage farming into question. Many countries in the Northern Hemisphere now farm fish in "closed containment" facilities entirely removed from the sea, and the feasibility of similar operations in Tasmania needs to be considered into the future. Salmon and ginseng farming company 41° South Tasmania has already adopted this technology and now operates a totally land-based fish farm near Deloraine. More research also needs to be undertaken in developing alternative sources of fish feed for farmed fish, for example the use of maggots.

The state also accounts for 55% of abalone volumes produced nationwide (page 9). Unlike salmon, which is mostly supplied to the domestic market, more than 60% of abalone is exported to Asia (page 9).

Livestock and crops

Beef cattle production is the most common agricultural business in the state, and the state has developed a strong reputation as a producer of world class meats. Dairy farming and vegetable crops are high value producers, although have shown volatility due to problems with market access, further discussed below. Overall, horticulture has shown steady growth over the past decade. By gross value, vegetable production increased from $168 million to $183.8 million in the 10 years to 2010/11, while fruit and nuts production also rose from $58.3 million to $88.5 million over the same period.

Figure 21: Gross value of Tasmanian agricultural production, 2001-11



Source: ABS, Tasmanian State and Regional Indicators, 2007-10

Wines, Beers, Cider and Spirits

Since 1992 Tasmania's major brewers have become household names in Australia and a number of craft breweries have also started operating around the state. The two main beer breweries in Tasmania consume a combined total of around 15,000 tonnes of malting barley per year during the beer production process, with this entire amount being sourced from farmers within the state. Growing demand for premium beers saw the volume of beer produced in Tasmania double in the decade to June 2010 (page 2). The recent relocation of brewing operations from Western Australia to Launceston has created a significant boost to local employment and demonstrates a strong future for Tasmanian brewing.

The Tasmanian wine industry has experienced solid growth over the last 20 years which should continue with responsible management. In 1986 there was only an area of 48ha bearing grapes in the whole state, which rose to 1,251 in 2010. As of 2010, Tasmania also had 160 individual licensed wine producers operating 230 vineyards across the state. Tasmania is well-suited for growing cool-climate wines which are in strong demand. Tasmania is the only state in Australia that is able to market its entire production of wine grape and at premium prices – our growers received an average price of $2,371 per tonne in 2011, nearly five times the national average of $413 per tonne (page 3).

It is important to realise that the wine industry's economic contribution extends well beyond its production value as measured in agricultural statistics. The industry is a major tourism drawcard, with around 150,000 tourists visiting wineries, often as a main motivation for visiting the state. The wineries are critical in promoting and supporting other hospitality and small businesses in regional areas.

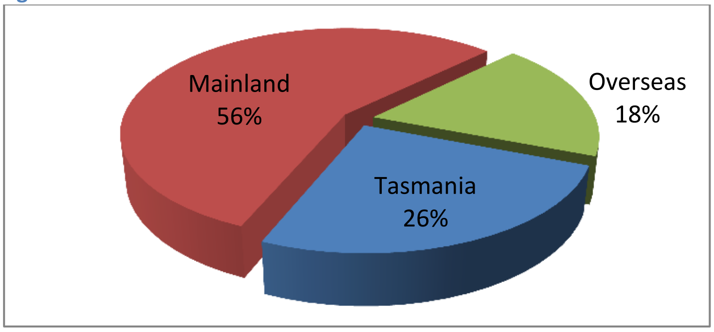
In recent years Tasmania has also begun to develop an international reputation for the quality of its cider houses and whisky distilleries. In 2012 a Hobart distillery Sullivan's Cove was awarded the title of Southern Hemisphere Whisky of the Year and described as "one of the best in the world". The succesful company uses Tasmania's environment and heritage in its promotion (their slogan is "inspired by nature and distilled with conviction!") and in turn promote many of the island's tourism businesses. This is another example of the close collaboration between Tasmanian food and beverage producers and the tourism industry.

The Greens believe our growing cider and heirloom apple industry has an important role to play in Tasmania. This is why prior to the coming election the Greens will announce an 'apple and cider trail' initiative to promote these industries to locals and tourists.

Markets

Our biggest market is mainland Australia, which consumes more than half of Tasmanian produce. While exports often capture media attention, with boutique products such as truffles, whiskey and wasabi entering exotic markets, less than 20% of Tasmanian produce is exported outside Australia. A greater portion is consumed here on the island, around 26%.

Figure 22: Markets for Tasmanian food



Source: Macquarie Franklin

While there are opportunities to expand international export markets, as emphasised in the recent white paper on Tasmania in the Asian Century, these need to be carefully considered. For example, during the last decade the Tasmanian cherry industry received significant federal and state government support to develop cherries tailored to premium markets in Japan and Taiwan. While the program was initially successful, cherry growers have since lost the bulk of their market share to producers in Chile, which produces cherries of a slightly lower quality but at lower cost. Ensuring brand recognition and a focus on more than one market remains important for all sectors of Tasmanian agriculture.

75% of Tasmanian agricultural products are not marketed as being Tasmanian, leaving us to compete on bulk and price.

Improving the prices received for Tasmanian produce in local and national markets is therefore very important. The last decade has seen rapid growth in the number of farmers markets in Tasmania, assisting producers to receive better prices and encouraging consumers to engage with where there food comes from and the people that produce it. The Australian Farmers' Markets Association now lists eight farmers markets running in all areas of the state.

Despite our reputation and capacity to produce high quality produce 75% of food and agriculture products (excluding aquaculture) are not branded as Tasmanian. This leaves our producers to compete on price and bulk, which is a natural disadvantage for us, as an island far from major markets. This disadvantage is shown in disputes with domestic buyers such as supermarkets and international food companies.

Supply Chain Challenges

All observers of agriculture note that the world's population is growing and assume that with rising food demand, agricultural success will be easy:

> *A majority Liberal Government will leverage off Tasmania's brand to position Tasmanian primary production to respond to, and take advantage of, the global food security challenge.* (Page 6)

Most observers, however, fail to understand the realities of agricultural markets. Over the last two decades farm productivity has risen rapidly, while food demand, particularly for staple foods in mainland markets, is relatively inelastic. This has resulted in falling farm gate prices and great pressure on agricultural producers.

This trend is clear in Tasmania. In 2009, a dispute broke out between Tasmanian farmers and a major Japanese-owned dairy producer, National Foods. The company offered local producers a milk price considerably below the average cost of milk production to individual farmers. Dairy farmers responded with "a comprehensive community, media, legal and political campaign" to protest against the price cut. The dispute was settled in 2010 after the company failed to attract enough farmers, forcing it to re-enter pricing negotiations.

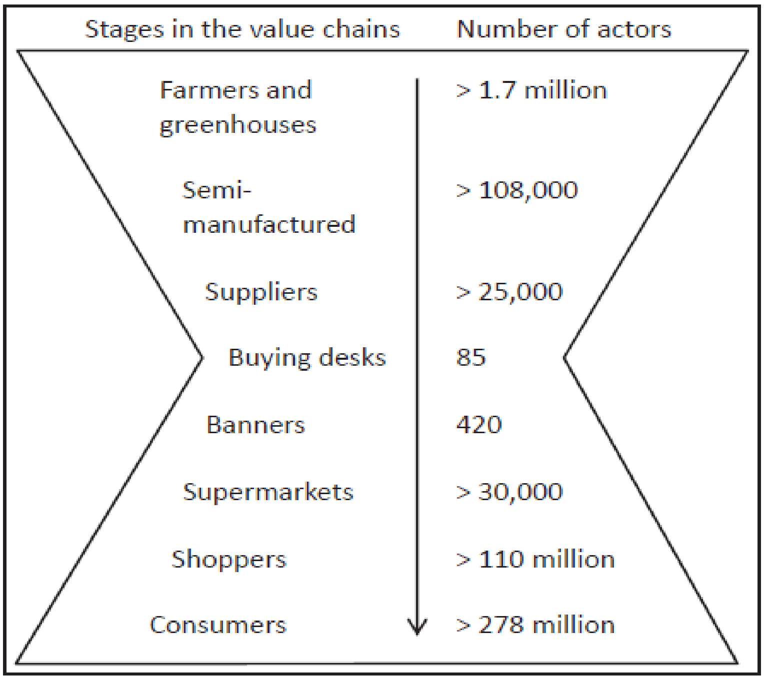
Relying on increasing global demand for food to benefit Tasmanian agricultural industries is not sufficient. Policies need to address supply chain issues.

Similar disputes are common:

- Major vegetable buyer, McCain, sells undifferentiated Tasmanian produce into Australian and international markets. Citing higher costs, it closed its Smithton vegetable processing plant in 2010, costing the region an estimated $20 million in farm production.
- Meat processor JBS Australia shut down its King Island abattoir in 2012, leaving beef producers on the island without access to a local meatworks. JBS cited high freight and power costs as the reason for the closure but also refused to make the facility available for sale or to be operated by another meat processor.
- Simplot Australia, frozen and canned vegetable processor has indicated that their processing plant at Devonport may close down in the next three to five years citing the high cost of manufacturing in Australia.

This reflects a global trend towards a "funnel" in the agrifood supply chain. There are large numbers of agricultural producers and, as noted, a growing number of consumers, however between them are a much smaller number of buyers in the middle of supply chains. The following chart is based on analysis of European markets, but as the above examples demonstrate, a similar situation exists in Tasmania:

Figure 23: Agrifood supply chain



Source: Gereffi & Lee, 2012, based on Grievink, 2008. See also Mazzarol, 2013.

We see that while there are indeed large numbers of farmers and consumers, the small number of buying desks gives those companies great power over the rest of the supply chain. This is particularly the case in Australia, where only two major supermarket chains have enormous control over food markets:

> *These firms and large global buyers now dictate quality and the timing and price of food from producers. Major retailers and buyers will demand more quality and stricter controls over food safety issues. Some will work with small groups of selected, often large scale producers, to supply produce at pre-determined levels of quality, price and delivery times. Many smaller farmers will not meet the necessary standards.* (Source)

The challenges brought about by the funnel in the supply chain and the difficulties small farmers face in accessing major markets locally, nationally and internationally will be central to development of the industry in the coming decades. Collaborative models such as the proposed King Island abattoir project which the Greens have been advocating for will be important for the future viability of smaller farms. [18]

2012 to 2032

While the challenges facing Tasmanian agriculture are large, the Greens believe many can also be big opportunities. These include developing collaborative business models to improve market access and grow demand, capitalising on global trends for “authentic” food experiences (developing traceability and provenance processes), and natural positioning for meeting food security and climate change concerns over the coming decades.

[18] http://www.themercury.com.au/article/2013/06/19/381772_editorial.html

Collaborative Business Initiatives

In response to the supply chain challenges that have emerged over the last twenty years, producers have three options – “get larger, find niches or cooperate”. Getting larger is not an option for most Tasmanian farms, leaving niches and cooperation, ideally both. Tasmania already produces for many particular niche markets and in a more general sense can cater to the market for clean and green food. Collaboration needs to be incorporated into the business model of Tasmania’s primary producers.

Collaboration will be particularly important to assist with supply chain issues such as access to processing and agricultural marketing. Many agricultural producers simply don’t have the time or expertise to develop markets and generate direct sales for their products. Many also lack access to infrastructure and processing facilities to access wider markets. These problems result in smaller farmers being trapped in, or excluded from, the existing food supply chains.

Promising ways to meet these challenges are the development of food hubs and collaborative marketing, policies that have met with success in Wales, another small, high quality food producing region:

> *On the simplest level the Food Hub can represent any kind of organisational model where food sourcing and supply is co-ordinated, and may be contrasted with a wholly dispersed market system (becoming more credible through internet shopping) comprising of direct links between the producer and the consumer.* (Page 3)

Food hubs have served to:

> • *create common pools of resources and knowledge that actively sustain increased collaboration and the connections between all aspects of the food sector (including consumers); and*
>
> • *to alleviate supply chain ‘bottlenecks’ and problems of quality and supply consistency that may arise from small and dispersed producers.* (Source)

In addition to infrastructure and supply chain interaction, the Welsh strategy provides assistance through funding for the hubs’ “consultancy for brand strategy, market research and development of market entry activities marketing consultants” (page 6).

Great potential exists for similar policy developments in Tasmania, extending and building on work already done in areas like the Coal River Valley. The Greens will be targeting such initiatives to assist Tasmanian food producers into the future.

Provenance and Traceability

The Greens see the biggest global trends in food consumption and farming over the next few decades being driven by the need for “provenance and traceability”. Consumer concern and awareness about where and how food is produced – and how this can be certified and promoted-will continue to grow amid increasing public awareness about environmental impacts, animal welfare, food safety and organics. Some are already labelling this as the "authentic food" revolution.

The Greens have already begun securing this future for Tasmania, through:

- Phasing out of inhumane battery farming and sow stalls, including $1 million secured in the recent Tasmanian Budget to keep the transition on track and to increase the capacity of free range and barn egg producers.
- Funding for 10 Apiarists at TasTAFE to ensure the ageing workforce can be replaced to allow the continuation of the Tasmanian honey industry.
- Continued support of the moratorium on genetically modified crops and on hormone growth promotants and antibiotics in livestock.

With its low population, clean air and water, biosecurity and growing reputation, Tasmania is well placed to benefit from this trend both within Tasmania and further afield. The Greens will continue to support initiatives that will assist Tasmanian producers to innovate, differentiate their products and sell into diverse higher value markets in the state, on the mainland and overseas. These include:

- Better capitalising on the Tasmania brand, to include product labelling
- Strengthening product labelling regulations on country of origin requirements
- Working with supermarkets to encourage diversity within supply chains
- Innovation in marketing and product distribution, by encouraging direct links between farmers and consumers, such as the successful farmers markets now operating in many towns
- Increased Research in agriculture/food production with special emphasis on the technology and logistics processes required for providing traceability and provenance

A promising role model for such trends is an initiative by Sprout Tasmania, a not-for-profit organisation that hopes to enable small-scale farmers to market their produce directly to households and restaurants in Tasmania as well as further afield. Launched in 2012, Sprout hopes to have hundreds of small producers signed up within the next decade and are developing sales and marketing partnerships with retailers in Hong Kong to buy produce from their growers. In addition to marketing assistance, they host workshops for small farmers on sustainable production and assist by making available agricultural equipment that small producers would not be able to afford on their own.

The push for provenance and traceability will extend to Asia. The Greens will pursue an initiative to establish franchise stores promoting Tasmanian produce across Asia, to enhance both the recognition of Tasmanian food and why it is unique, and to leverage off our tourism sector. The stores would be privately owned and operated by local business people, under a franchise model established in conjunction with Tasmanian stakeholders.

Enhanced Local Consumption of Local Products

The Greens encourage the movement towards increased community consumption of local food production over the next 20 years. Education and awareness is critical in promoting more home grown produce through to developing new community gardens, as well as the use of alternative distribution channels such as local fresh food box sales and the development of more farmers markets. This will bring both new economic and employment opportunities to Tasmania, as well as reduce our dependence on external food chains. This is achieved by developing important farmer-customer sales relationships, a crucial part of the "provenance" trend in future food production. Farmers markets and community gardens also encourage increased social interactions (people spaces), reduce import consumption (much of which cannot be traced), and provide an important education opportunity on how food is grown, important to help tackle obesity and other health issues.

Climate Change Impacts

Climate change presents major challenges and opportunities for Tasmania's food industries. Recent modelling of the effects of climate change, oil and fertiliser markets and population growth on the future availability of food in Victoria suggests that food production could be challenged without sophisticated strategies being urgently developed. As Victoria is currently one of the biggest dairy and horticultural hubs for the country, changes there and in other eastern seaboard regions have important implications for Tasmania.

While Tasmanian producers could benefit from increased demand from the mainland, other impacts of climate change are already producing challenges. Warming of the waters off the Tasmanian east coast have caused salmon farmers to invest heavily in establishing farms along the cooler west coast. This warming has already seen the collapse of some ecosystems - 95% of giant kelp forests on the east coast have been destroyed in recent years. The CSIRO warns that around one-third of the major fisheries species in south-east Australian waters are at "high risk" from climate change, particularly abalone and rock lobster, the state's second most important wild harvest fishery.

The Greens support strong action on climate change and also increased funding for research on how Tasmania can plan for and benefit from its impacts.

Industry Specific Financial Growth Initiatives

There is potential to help grow Tasmania's high value industries by targeted government incentives. Tasmania wine industry is one such example. This industry produced 7,791 tonnes of wine grapes in 2011, only 0.5% of wine grape volumes nationwide; a quarter of what the state would be expected to produce if wine production matched share of population. The Greens have had input into, and cautiously support, recent initiatives to increase grape production by existing wine producers, such as low interest loans for vineyard expansion. We do not support growth for growth sake, but growth that is commercial based and environmentally sustainable. The Greens will explore similar incentive policies for sustaining other Tasmanian agricultural industries, particularly in the food sector.

Brand Integrity

Our "clean green image" is clearly important to food markets and to be maintained it needs to be more than an image – it needs to be backed by policies and practice (see section on the Tasmanian Brand). Recent Green policy successes such as the phase out of inhumane battery farming and sow stalls by the middle of 2013 is an example of action needed to underpin our brand. In the 2013-14 Tasmanian Budget the Greens secured a further $1 million dollars to keep the transition away from battery farming on track and to increase the capacity of free range and barn egg producers. We also strongly feel that maintaining a moratorium on genetically modified crops and on hormone growth promotants and antibiotics in livestock will be critical to our competitive advantage. The Tasmanian Greens also recently secured funding for 10 apiarists at TasTAFE to ensure the ageing workforce can be replaced to allow the continuation of the Tasmanian honey industry.

Competition Policy

Competition policy and the market consolidation of the two major supermarkets, Coles and Woolworths is a crucial consideration in assessing the future of the food market. The Greens recognise this and have already launched policies which will place a temporary ban on expansion by the supermarket duopoly while an assessment of the Australian Competition and Consumer Commission's decision making processes are made. Policies addressing misuse of market power have also been announced. Further competition policy initiatives will be announced closer to the next election.

Summary

With strong policy to overcome supply chain challenges, improve marketing and support our strong environmental and animal welfare credentials, Tasmanian primary producers can establish a unique position in the changing food sector. This position can be enhanced by a strong understanding of our position in wider markets and encouraging local links between consumers and producers. Interaction with other parts of the economy, such as tourism, as well as preparing for the impacts of climate change will also be a part of The Greens policies on Tasmanian agriculture and food production over the next twenty years.

Green Actions:

- New branding and marketing initiatives for Tasmanian produce.
- Increased innovation in marketing and product distribution, by encouraging direct links between farmers and consumers, such as the successful farmers markets now operating in many towns
- Increased Research in agriculture/food production with special emphasis on the technology and logistics processes required for providing traceability and provenance
- Maintenance of the moratorium on genetically modified crops in Tasmania.
- Creating on an independent expert based bio-security authority to help protect Australian agriculture from pest, disease and weed incursion threats.
- Continue to push for legislative change such as, in September 2012 the Greens introduced a bill into Federal Parliament to help improve food labelling so consumers are clear where the food they are purchasing has come from.
- Investigate the possibility of locating a bank of seeds that are free of genetic modification in Tasmania and available for export.
- Appropriate competition policy to contain the growth of the supermarket duopoly.

Natural Resources

> *The industries which in the past provided Tasmanians' material standard of living and job security are unable to do so any longer. A down-turn in the relative value of our commodity exports has forced the state's large resource intensive industries to dramatically cut their work forces and lobby harder than ever for increased government subsidies and reduced royalties.*[19]

1992-2012

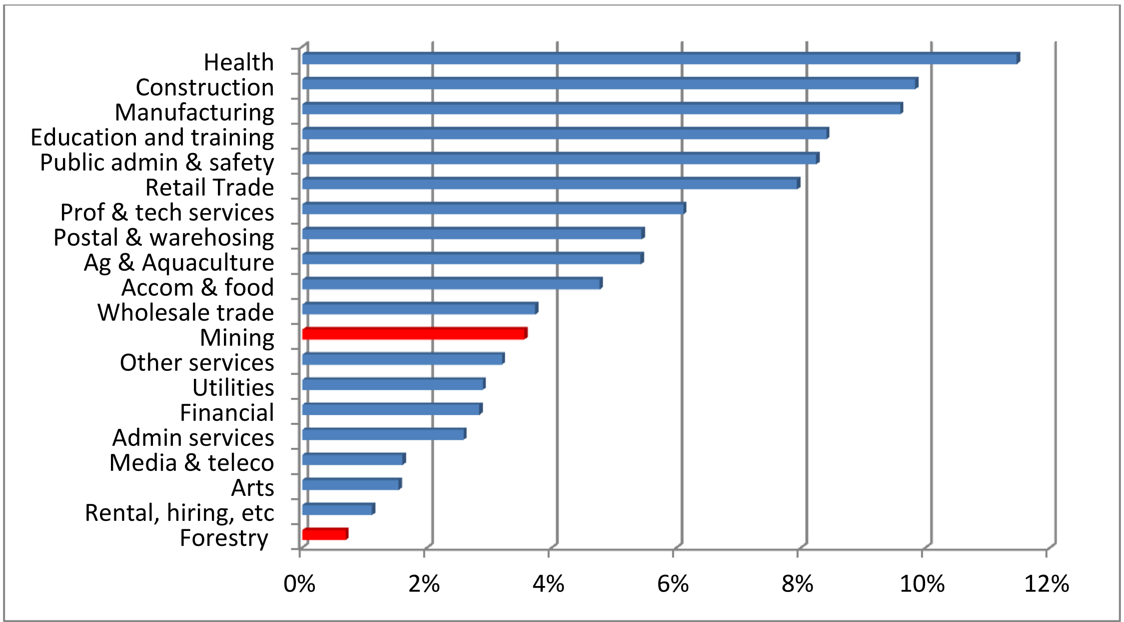
Few parts of Tasmania's economy are more widely discussed and more widely misunderstood than the forestry and mining industries. These industries have played a significant historical role in Tasmania's development and they are still a large part of the State's political debates. Unfortunately, in political debates, impressions are often presented as fact.

Take for example the recent headline in the Mercury of a "Mining jobs bonanza," which claimed:

> *The mining sector is Tasmania's major employer after significant growth in the past two years, Deputy Premier Bryan Green says.*
>
> *Australian Bureau of Statistics figures show direct employment in mining has jumped by more than 2000 jobs in the past two years to 5500 jobs.*

ABS February 2013 figures show that 5300 people work in the mining industry in Tasmania, indeed showing strong growth over the past two years, however, the sector is far from Tasmania's major employer:

Figure 24: Tasmanian employment by industry

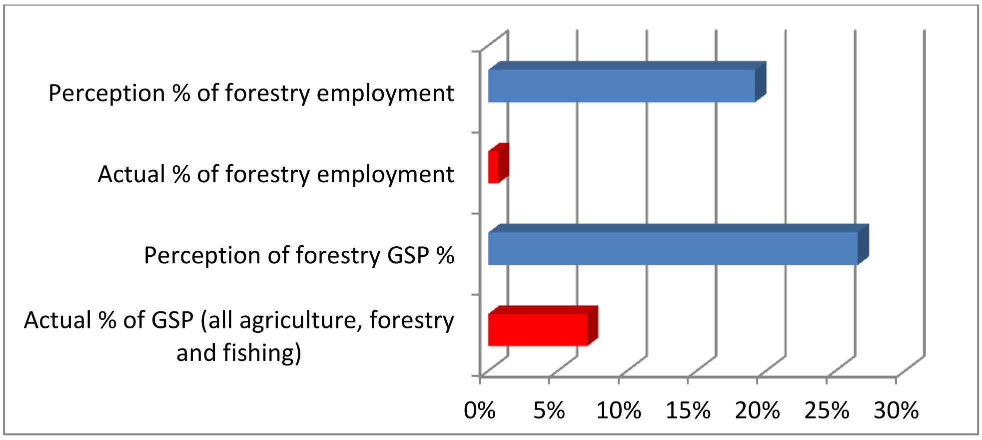


Source: ABS, Census 2011 (for agriculture and forestry) and Labour Force data

[19] Office of the Green Independents, 1992, p4

Similarly, while forestry currently employs around 1% of Tasmanians, its historical role and heavy political and media presence give Tasmanians the impression that it is much larger. Last year, Canberra-based think tank, The Australia Institute, conducted a survey of 542 Tasmanians. Respondents were screened to ensure an accurate cross section of Tasmanian society by age and by area of residence, particularly rural/urban. Respondents were asked a series of questions about how they perceived the role of forestry in the Tasmanian economy. On all measures, respondents perceived the size of forestry's contribution to the economy as being many times bigger than it actually is:

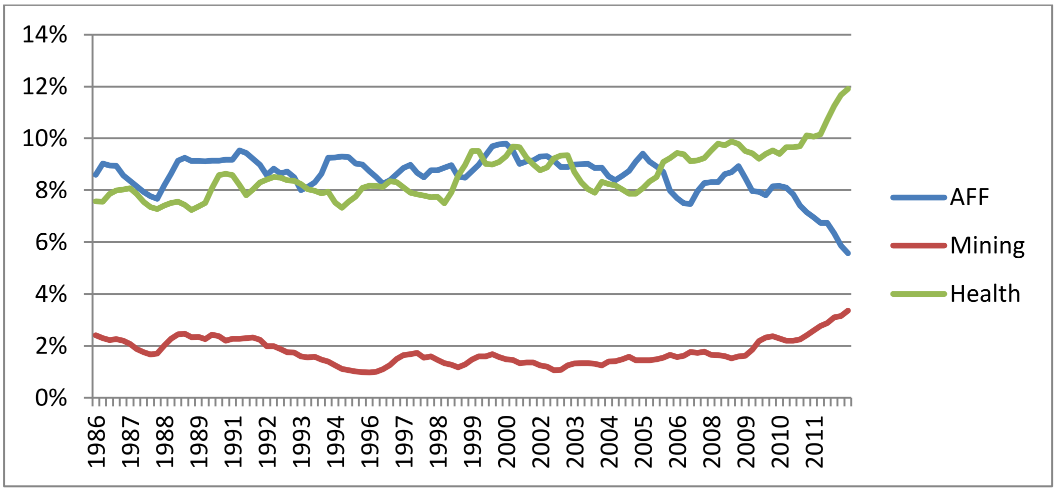
Figure 25: Perceptions of Tasmanian forestry



Source: TAI, 2012

These trends are not a recent development, but have been in place since before the Green Independents wrote their report in 1992. Below we see that mining and agriculture, forestry and fishing have long been lower contributors to employment than services such as health care.

Figure 26: Tasmania employment time series



Source: ABS, 2013

In this chart, we see that health care has been growing in importance in the economy since the early 2000s, assisted by Tasmania's slowly growing and aging population. This population trend will ensure the ongoing importance of health care. Mining employment has grown slowly through the mining boom era as commodity prices have risen, now reaching levels higher than seen since the 1980s. This rise is, however, dependent on commodity prices which are volatile, meaning mining's current contribution to employment may not be sustainable.

Agriculture, forestry and fishing categories have seen a decline in recent times. Due to ABS statistical measures it is not possible to break out forestry from other agricultural employment in the above chart, however the decline seen here reflects significantly on recent job losses in the forestry sector. Forest industries lost more than 3000 jobs between 2008 and 2011, mostly from native forestry which almost halved in this period with almost 1500 jobs lost.

The "perfect storm" facing Tasmanian forestry, and indeed forestry Australia-wide, has been examined extensively. Most important are long term economic shifts:

> *Low consumption growth and surging plantation resources characterises Australia's wood products industry. Australia's wood consumption (to make all the sawn timber, wood panels and paper we consume whether domestically produced or imported) increased by only 0.8% pa over 1990 to 2009. Domestic plantation wood supply grew by 6.3% pa over the same period.* (Page 1)

Native forest woodchips in particular face a difficult situation caused by:

- an increase in competition from domestic hardwood plantations;
- an increase in competition from plantation hardwood chip exporters from developing countries in South East Asia, Africa and South America;
- a contraction in the Japanese pulp and paper industry, which has been driven by falling per capita paper and paperboard consumption, population decline, increasing competition from pulp and paper producers in developing countries, and the global financial crisis; and
- declining competitiveness due to high harvesting and haulage costs, the high Australian dollar and a market preference for plantation-sourced woodchips. (Page 3)

Private sector analysts concur that this situation is unlikely to change in the near future.

The surge in domestic plantations has not been due to market demand, but has been distorted by tax minimisation opportunities provided by managed investment schemes and other politically-motivated policies to expand the plantation estate. The Greens do not support policies that provide perverse incentives to over-invest in plantations.

Importantly, all assessments concur that conflict with the conservation movement is not a serious factor in the industry's problems. In fact, analysis of the Tasmanian Forest Agreement suggests that the implementing the agreement will reduce jobs losses in the industry:

Figure 27: Job losses with and without Tasmanian Forests Agreement

Source: O'Hara, Farley, & Smith, 2013

2012 - 2032

While mining and forestry are small sectors in the Tasmanian economy, this does not mean they have no role to play. The Australian Greens recognise the role that they play in some regional areas in Tasmania.

The Greens support the timber industry in Tasmania. Tasmania is, after all, a very good place to grow trees. We are famous for specialty timbers, wooden crafts, wooden boats and have promising furniture and musical instrument manufacturers. These industries, not to mention our second highest employer - construction, should be supported by a Tasmanian forestry industry. With this in mind we published a Forest Transition Strategy in 2010. The strategy outlines how over 540 forestry jobs can be created while improving forest conservation:

- More wood to be made available through access to regrowth production forests and the plantation estate
- More efficient use of wood through better log grading
- More job-intensive use of wood from production of veneers, engineered and manufactured timber products such as plywood, LVL (laminated veneer lumber) and ESL (elongated strand lumber)
- Vocational training and other support for timber workers
- More tourism offerings developed through the protection of world-class conservation areas such as extensions to the World Heritage Area, Styx Valley and The Tarkine.

The Greens note the 2010 analysis is still valid today, and many of its key components were recently supported by an independent verification group.

Similarly, Tasmania will continue to have a mining industry. Mining can be beneficial for the state, but these benefits need to be carefully weighed against economic, environmental and social costs. In many communities, despite the minerals boom, it could be argued the mining industry is failing communities. The shift to FIFO and DIDO workforces has had particular impact on west coast mining towns which were formerly thriving:

> *20 years ago, it was a thriving football community, each of the club rooms here were full and each had their own followers and people knocking on the door to get in to play. When now we find we're down to one team in Queenstown and as a club we find it difficult to attract the players.* (Source)

The mining industry needs to engage with local communities to ensure they are not undermined by employment practices that focus on short-term profits.

Close monitoring of environmental safeguards is essential and our state has many examples of where mining has been in conflict with conservation values, damaged natural resources and potentially human health. Tasmanian Resources Minister Bryan Green recently revealed up to 40 rivers have been contaminated by mining industries. Such concerns have the potential to undermine and damage Tasmania's brand, which is central to our tourism and agricultural integrity.

Much of the Tasmanian mining debate in the past decade has focussed on mining in the Tarkine wilderness area, especially in areas proposed for national and world heritage listing. This area is considered prospective for tin, iron ore, magnetite, tungsten and other minerals. The Greens strongly believe the long term value of protecting the ecosystem services of the proposed national park area, could out weight any financial benefits to the region from short term mining proposals. The area has recently been recognised globally for its unique and precious wilderness values, and offers significant potential for eco-tourism and the development of "community clusters" surrounding the proposed listing area.

The Greens support mining that is environmentally responsible, supportive of local communities and beneficial for the state. We have just secured $100,000 in the state budget to conduct a feasibility study into creating a centre of excellence in mine remediation and innovation. Such initiatives will support projects such as the proposal to restart extraction of the old tin mine near Luina which will help to rehabilitate the currently contaminated site, whilst creating hundreds of new jobs. This project demonstrates that it is possible to have mining projects that will contribute to our image of a clean, green and clever state. There are opportunities for similar projects in many areas of the state.

Education

To gain a sustained competitive advantage in industries with high margins and long term profitability, high quality education is vital. High education standards will also create a community responsive to change and capable of innovative thinking. Higher education leads to higher employment, higher wages and more satisfying work.[20]

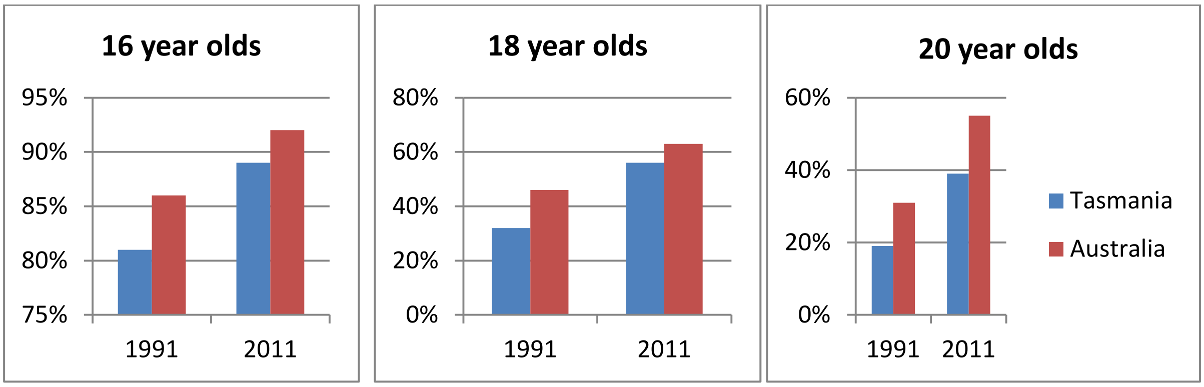
Improvements in education are vital for Tasmania's economic transition towards more knowledge-intensive industries. This need that was noted by the Green Independents in 1992 is now considered common knowledge by major commentators such as Saul Eslake:

"Low levels of employment participation and productivity are (at least in part) due to low levels of educational participation and attainment"[21]

1992 to 2012

Since the Green Independents compared education participation rates with the mainland and OECD countries in 1992, there have been considerable improvements in education participation.

Figure 28: Education participation rates, 1991 – 2011



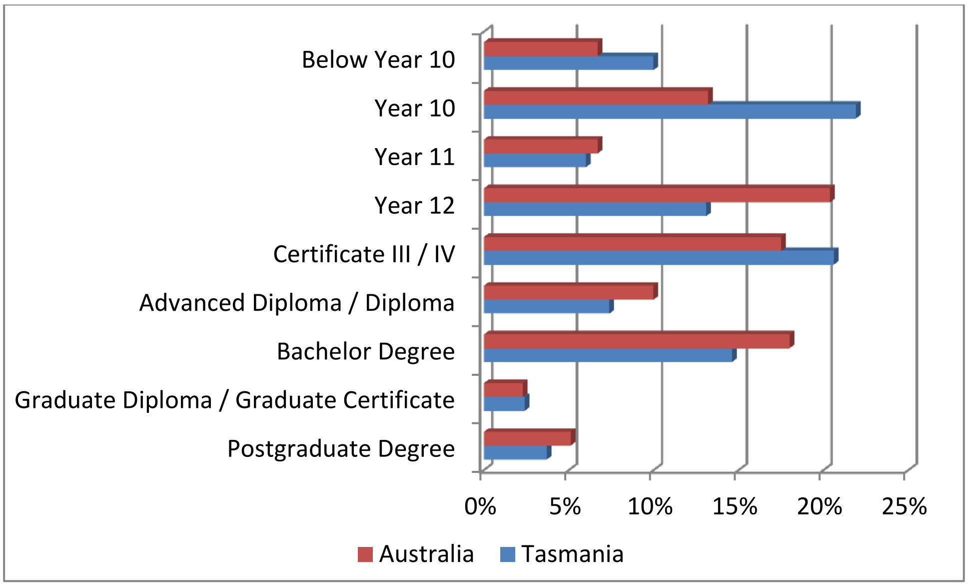
Source: (i) Office of the Green Independents[22] *(ii) ABS Census 2011*

The proportion of 18 year olds participating in education leapt 23 percentage points in Tasmania to 56% by 2011. As a result the state has recorded one of the largest increases in the proportion of 20-24 years olds with a Year 12 qualification (alongside Queensland and South Australia). However, this still puts us behind the national average, where 64% of 18 year olds participate in education.

Overall, in spite of considerable improvements in educational standards over the last twenty years, Tasmania continues to lag behind the mainland. As Figure 29 (below) shows, qualification rates are higher in the mainland states for the majority of post-secondary categories. Certificate III/IV attainments are the notable exception to this trend and demonstrate the high level of engagement in vocational and education training (see below).

[20] Office of the Green Independents, 1992, p39.
[21] Eslake, S, (2012), The global, national and Tasmanian economies, Economics Society's annual Tasmanian Economic Forum, 8th October 2012 (pp. 1–55), Hobart, Tasmania, p54.
[22] Office of the Green Independents, 1992, p20.

Figure 29: Highest level of education attained, 2011



Source: ABS Census 2011

When looking at this graph, we also need to bear in mind that interstate arrivals are increasing the proportion of Tasmanians with a post-school qualification. The DCAC report on migration trends found that interstate arrivals had outweighed the loss from departures in every level of educational qualification (page 24).

Access to education is likely to be an important factor behind the low participation rate. Tasmania has "the most regional and dispersed population of any state in Australia". Notably, while there are 58 high schools (for Years 7 – 10) operating around the state, only eight colleges teach Year 11 and Year 12 in the public education system. This was recently highlighted by University of Tasmania researcher Anne Langworthy, who in a report on participation in education suggested that:

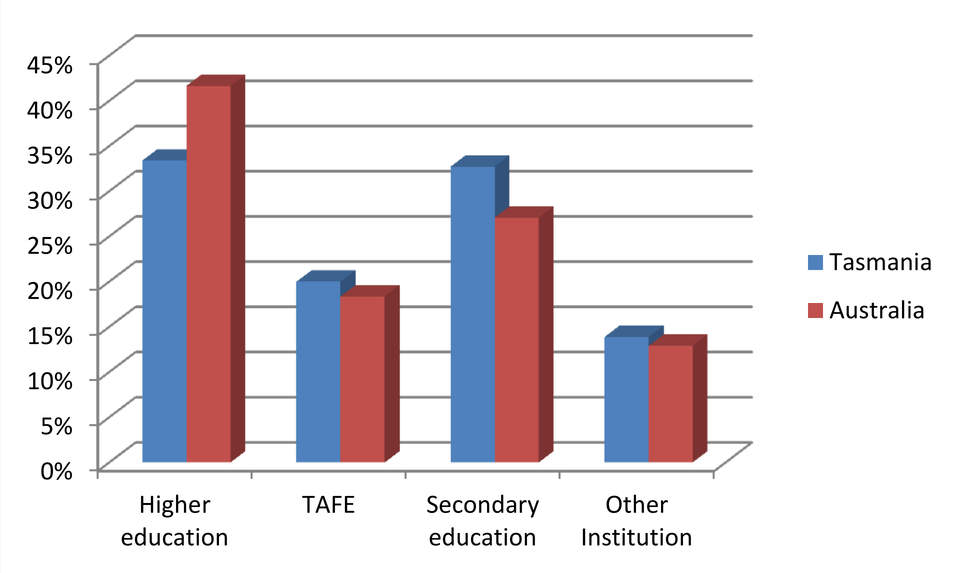
> *"Given its classification as largely outer regional and remote and its relatively high proportion of low SES [socio-economic status] residents many within Tasmania experience double disadvantage in terms of higher education access and participation."* (Page 120)

This has been acknowledged by Greens Education Minister Nick McKim who announced in May 2013 a plan to increase retention rates for Years 11 and 12 students in regional Tasmania, including investment in expanding the Year 11 and 12 curriculum to regional high schools.

Vocational education and training (VET)

The high population in regional areas is also a contributing factor for the greater proportion of VET enrolments, with research by the National Centre for Vocational Education Research showing that VET is "particularly attractive to those in regional and remote areas of Australia" (page 120).

Figure 30: Breakdown of enrolments by education system, 2012



Source: [ABS Census 2011]

According to the 2012 *Education and Work* report by the ABS, 55% of Tasmanians who are enrolled in a course of study live outside the capital city; far higher than the proportion for other states (30%).

In 2009 the Bartlett Government introduced substantial changes to Tasmania's TAFE system that continue to affect vocational education and training sector to this day. Under the Tasmania Tomorrow initiative TAFE was broken up into two separate entities: the Tasmanian Polytechnic, for vocationally oriented school and mature age students, and the Skills Institute for work-based training such as apprenticeships and traineeships.

The changes were controversial and in December 2011 new Greens Education Minister Nick McKim announced a review of the post-year 10 education sector, amid claims by Tasmanian Education Association president Greg Brown that the Tasmania Tomorrow system was "haemorrhaging taxpayers' funds" and that post-year 10 enrolments were continuing to drop.

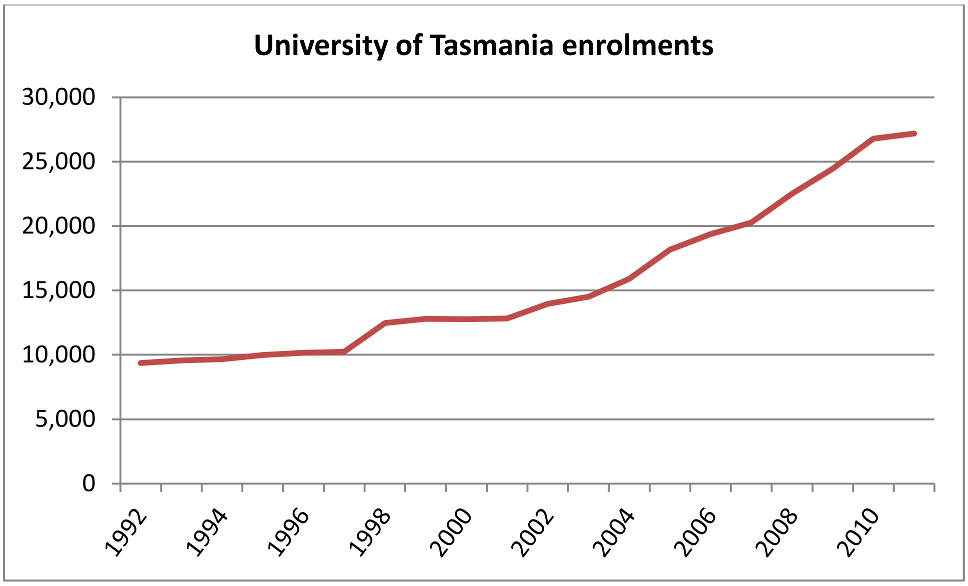
In June 2012 Mr McKim announced that Tasmanian Polytechnic and the Tasmanian Skills Institute would be merged into a new body, TasTAFE. Mr McKim said the decision meant the state would "move from what is currently a fragmented and inefficient structure to one that is coherent, connected and streamlined."

Higher Education

By setting very strong growth targets under its Excellence, Distinctiveness, Growth and Engagement (EDGE) agenda, the University of Tasmania (UTAS) has recorded unprecedented growth over the past decade, with the number of available student places leaping by 30% in the five years to 2007 alone.

More than 27,000 students are now enrolled at UTAS – a three-fold increase on its 1992 population – making it the third largest employer in the state.

Figure 31: UTAS enrolments, 1992 – 2012



Source: University of Tasmania

In 2010 the Good Universities Guide awarded the University five stars for access and equity and indigenous participation, and also commended it for enrolling students from low socio-economic backgrounds.

UTAS now enjoys a global reputation, particularly in the fields of marine and polar science. The University was designated a UNESCO-Cousteau Ecotechnie Chair in Antarctic and Southern Ocean Environmental Sciences in 2007, the only UNESCO Chair in Antarctic Studies in the world.

The Launceston-based Australian Maritime College (AMC), one of the biggest VET providers in the state, was integrated into UTAS in 2008, further strengthening the University's marine and maritime profile. Then Federal Parliamentary Secretary for Transport and Regional Services, De-Anne Kelly, said the merger would help to ensure AMC "can continue leading the way in maritime training, education and research".

More recently, the University has celebrated the establishment of a new Medical Science Precinct in Hobart, and the launch of an Institute for Marine and Antarctic studies, which attracted more than $45 million in Federal government funding.

2012 to 2032

The Greens are encouraged by the growth in educational attainment over the past twenty years. The opportunities for Tasmanian education are large. The National Broadband Network will also provide opportunities for exciting education services to be delivered to students within and outside Tasmania. The University of Tasmanian will continue its growth and its reputation will strengthen, especially amongst international students from Asia. We cover the importance of UTAS to the Tasmanian economy in the section on research and development.

National Broadband Network

The roll-out of the nationwide fibre to the home broadband network will help to mitigate the effects that distance has on education participation rates in regional areas.

Skills Tasmania's e-learning coordinator Jennifer Dunbabin said learning experiences would be "greatly enhanced" and would provide "so many more people (including teachers) the opportunity to learn and break down the barriers of distance and time."

There are signs that Tasmania's education system is already benefitting from being the test-bed of the new technology. The headmaster of St Peter Chanel Catholic School in Smithton, Clynton Scharvi, said the broadband network "removes many of the barriers and limits to what children can investigate".

Growth of Asia

The rise of Asia in the 21st Century will have profound effects on Tasmania, and it will be vital that the public education sector adopt strategies to meet the opportunities that this provides. Improving Asian language literacy will be central to this agenda. Following the launch of the Labour-Green Government's white paper on Tasmania's Place in the Asian Century, Education Minister Nick McKim said:

> *"The work we are already undertaking including Raising the Bar, Closing the Gap and the review of year 11 and 12 in regional schools will be vital in ensuring the students of the future are prepared for the jobs on offer in the Asian Century."*(Source)

The University of Tasmania has also demonstrated its commitment to aligning its strategies to the Asian market. In August 2012 Vice-Chancellor Professor Peter Rathjen announced the University had set a "very realistic" target to double the number of international students to 8000 by 2018.

Professor Rathjen identified "the safety of Tasmania, its natural beauty and the fact that we are without many of the distractions of the big cities" as factors that made the University "extremely competitive" in attracting students.

Greens Actions:

School:

- The Greens have been advocating a fairer funding model for schools for over a decade and want the current 'Gonski' reforms legislated as soon as possible. We support the Gonski school funding reform because they implement a funding system based on need. Tasmania has high levels of student disadvantage and our public schools will be better off.

University:

- Increased sustainable funding to public universities is essential this is why the Greens oppose recent Federal Government cuts including an efficiency dividend on Universities which will cost the sector $900 million.
- Increase support for students by opposing changes to start up scholarships for students which add these scholarships to their student loans and calling for an increase to the Youth Allowance payment of $50 per week

- 10% increase to base funding per student at public universities to maintain current standards as recommended by the Bradley Review into Higher Education.

TAFE:

- Prioritise funding to public TAFEs to ensure we can meet future crucial high-level skills and workforce development.

Research and Development

Investment in R&D is vital for Tasmanian industries to be able to anticipate and meet challenges as they emerge. A focus on R&D is also key to Tasmania's ability to innovate and maintain competitiveness in the face of accelerating rates of change. This is a point that was emphasised by the Green Independents in 1992:

Increased spending on research and development is vital for an economy to upgrade its competitive advantage and to move into sophisticated industries.[23]

1992 to 2012

As Tasmania's economy has shifted to more knowledge-intensive industries over the past two decades, science and research has grown as a sector, now contributing $286 million to Tasmania's GSP and employing 3,200 people, 1% of the Tasmanian workforce. The University of Tasmania (UTAS) has grown substantially and now ranks as one of Australia's top universities and is the third largest employer in the state. Research at UTAS and partner institutions has entered exciting areas over the last two decades including the Kingston-based Australian Antarctic Division and the CSIRO (through its marine and atmospheric division and ICT Centre).

Tasmania's location in the Southern Ocean gives us a natural advantage as a base for research on the Antarctic and marine sciences. UTAS scientists have worked hard to develop the institution's reputation as a research leader in these fields. In 2007 their efforts received global recognition when UTAS was assigned a UNESCO-Cousteau Ecotechnie Chair in Antarctic and Southern Ocean Environmental Sciences, the only UNESCO Chair in Antarctic Studies in the world. This was reinforced in 2010 by the establishment of the Institute for Marine and Antarctic studies. In an announcement detailing more than $45 million in federal government funding for the project, then deputy Prime Minister Julia Gillard said the institute would "create a critical mass of marine scientists in Hobart" and "build a platform for Australia's research in temperate water, Southern Ocean and Antarctic marine science."

The development of the Medical Science Precinct in Hobart, largely completed in late 2012, also underscores our growing strength in medical research. As an "integrated health research facility" the facility will greatly improve collaboration between the Menzies Research Institute, the UTAS Faculty of Health Science (FHS) and the Department of Health and Human Services (DHHS). Menzies Research Institute director Simon Foote said the development would increase "collaborative links throughout Australia and internationally, and provide more opportunities for employment and professional development for researchers and medical professionals".

By other measures our knowledge sector is in urgent need of improvement. Tasmania ranks at the bottom with respect to intellectual property generation, a key indicator of innovation standards. The state made only 14 patent applications to IP Australia in 2012, according to the *Australian Intellectual Property Report 2013* (page 18). While this was a 40% increase on the 10 applications that were lodged in 2011, the state still lags well behind every mainland state and territory except

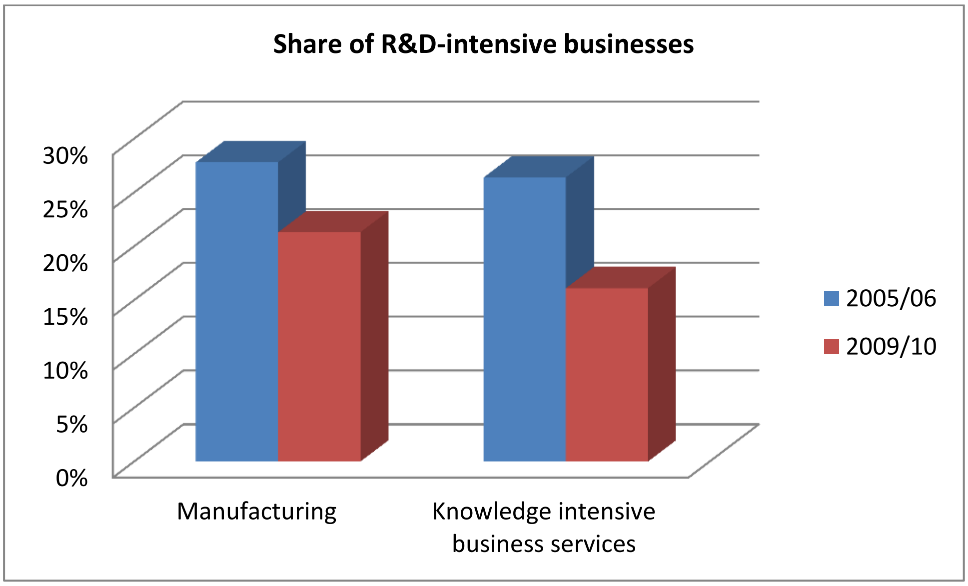
[23] Office of the Green Independents, 1992, p23.

the NT (page 18). By way of comparison, the ACT lodged 66 applications over the same period, and NSW and Victoria made 1005 and 662 applications, respectively (page 18).

UTAS's Australian Innovation Research Centre tracks private sector research, development and innovation in its Tasmanian Innovation Census, conducted twice so far, in 2007 and 2010. The census found that 87% of Tasmanian businesses with over 5 employees introduced innovative practices to their business between the censuses, an investment worth over $553 million. Among firms that had responded to both censuses, innovation expenditure increased by nearly 25% (page 14).

Not all the news from the Innovation Census is good, however. In-house R&D expenditures by Tasmanian business slumped 12.6% between 2007 and 2010. The proportion of R&D intensive businesses also decreased from 18.2% to 12.9% over the same period. Sharp declines were seen in the percentage of R&D-intensive firms in the manufacturing and business services sector (page 18):

Figure 32: Percentage of R&D intensive firms by sector



Source: Arundel, Torugsa, & O'Brien, 2012

Several factors contribute to this decline. Firstly, the period includes the global financial crisis, when firms may have been reluctant to invest in risky activities like R&D. A second factor is the overall downturn in the manufacturing sector. Manufacturing accounts for nearly half of all Tasmanian in-house R&D investment, but the sector has been hard hit by structural shifts as well as cyclical factors such as the high Australian dollar and the global financial crisis.

This downturn in private R&D spending may be another reflection of the structural transition in the Tasmanian economy away from sectors which traditionally innovate through in-house R&D, such as heavy manufacturing, and towards sectors that rely on collaboration with research institutions, such as food:

> *In many industries, including very often food, R&D is performed not inside the firm, but externally by not-for-profit researchers, whether government or other, and then adopted by firms, and is therefore not counted in the statistics. The Innovation Census of Tasmania revealed that 71 per cent of innovation expenditure in the food industry was non-R&D-*

related, but that external acquisition of R&D accounted for 31% of R&D expenditure, versus 8 per cent for the overall economy. (Page 27)

It is not surprising, therefore, to see collaborations such as that between UTAS's Tasmanian Institute of Agriculture and industry groups like DairyTas and Wine Tasmania to improve the quality and efficiency of Tasmania's key agricultural sectors. The Greens recognise that collaborations such as this will in time continue to grow in importance in the Tasmanian economy.

Another sector of natural advantage is clean energy. Here again, Hydro Tasmania spends $4.5 million annually on R&D in collaboration with UTAS's Centre for Renewable Energy and Power Systems.

2012 to 2032

Tasmania's success in the 21st Century relies on fostering innovation in all sectors, particularly those industries where Tasmania has a natural advantage. This will require further investment in the 'collaborative economy.' A good example of where this has already started to occur is the opening of the Centre for Food Innovation in Launceston, which will enable scientists and technologists from UTAS, the Defence Science and Technology Organisation (DSTO) and the CSIRO to collaborate on developing new food products and processes. UTAS Dean of Science and Technology Margaret Britz said the facility would help local food producers "grow and explore new ideas which will take the food manufacturing industry into a different space." DSTO Human Protection and Performance Division chief, Simon Oldfield also said the centre "completes the circle of innovation."

Discussions between UTAS and the Tasmanian Health Community are also underway to progress the establishment of an Allied Health School in Launceston, with an aim to develop a centre for excellence in sports practice, medicine, psychology and "wellness" (preventative healthcare and pain management). Given the strong connections northern Tasmania has to sport such as cycling, rowing, cricket and football, and outdoor activities (rock climbing, mountain biking, kayaking, bush walking etc) the location of such a centre in northern Tasmania has an intuitive "identity fit." Such a research centre would also be expected to deliver positive impacts on community health (e.g., by using sport to tackle obesity) and could facilitate significant spending on health research, from public and private sources such as insurance companies. Heath care is one of the country's fastest growing industries and the Greens believe Tasmania's future is well suited to scientific, economic and quantitative research and development in this industry.

The Greens will continue to be active supporters of Tasmanian's role in Antarctic research and have consistently called for increased funding and investment.

The importance of promoting a culture that recognises the benefits of science and research also cannot be overstated. As University of Tasmania's Professor of Environmental Change Biology, David Bowman, recently told The Conversation:

"There is enormous scope to grow the science and education sector. With stewardship, Hobart could become a globally renowned college town. But this would demand changed attitudes by locals who have never recognised university and research sectors as being the core to the Tasmanian economy."

The Greens' policies to boost science and education funding will also play a vital role in building R&D in Tasmania.

Green Actions:

- Increase R&D spending to at least 3% of GDP
- Increase investment in agricultural and food system research and development.
- Foster commercialisation of Tasmanian innovations by local companies
- Extend new technology to rural and regional communities
- Support the development of a strategic national research policy
- Seek government investment in new collaborative economy initiatives such as the 'Catalyst Project.'

Arts and Culture

Tasmania's arts and culture sector provides direct employment, boosts tourism and contributes to the lifestyle and happiness of Tasmanians. Importantly, the sector also nurtures the creativity and innovation on which many other sectors of Tasmania's economy depends. The Green Independents emphasised these points in 1992:

> *Culture industries create wealth in their own right, indirectly benefit other industries and are a major contributor to our quality of life.*
>
> *Although the indirect benefits that the culture industries provide to other industries have a low community profile, they are never-the-less just as real and particularly strategically important. They provide a cultural environment which allows design skills to prosper and enhances innovation across the spectrum of industries. They also provide one of the vital elements of a successful tourist industry and a means to market a variety of other high quality products.*[24]

1992 to 2012

Tasmania's arts and culture sector has grown strongly in the last twenty years and provides support to other industries, particularly tourism, and contributes to Tasmanian's lifestyles. Today the sector provides direct employment to over 9,200 people and supports some of the Island's most loved events and tourism icons.

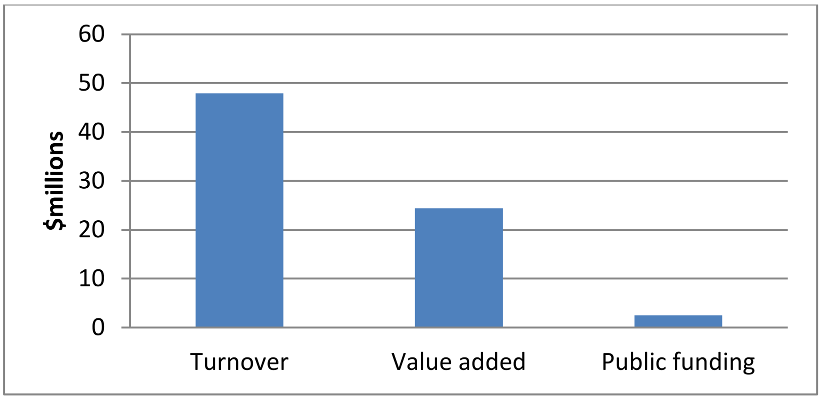
The Museum of Old and New Art (MONA), established in early 2011 is now one of Australia's great cultural and economic drawcards. More than 210,000 visitors to Tasmania went to MONA in the year to June 2012, making it Tasmania's second most popular attraction after the Salamanca Market. Other arts and crafts markets were a draw for over 384,000 visitors, with sales contributing directly to the livelihoods of Tasmania's thousands of artists and artisans.

Tasmania's many festivals provide another outlet for creativity and arts, drawing tourists and loved by locals of all ages. While festivals such as Ten Days on the Island, Festivale, Taste of Tasmania, the Falls Festival, the Tasmanian Writer's Festival, MONA FOMA, Junction Arts Festival and others are now embedded in the Tasmanian calendar. Most of Tasmania's major arts festivals have begun in the last twenty years since the Green Independents' strategy document.

Ten Days on the Island, is Tasmania's most prominent arts festival, which began in 2001. Showcasing Tasmanian, Australian and international talent in 64 different towns across the state. A KPMG economic impact statement commissioned by the Ten Days festival estimated the festival generated $24.3m in value added in 2011, from only $2.5m in government funding.

[24] Office of the Green Independents, 1992, p66.

Figure 33: Ten Days on the Island, economic impacts



Source: KPMG[25]

While MONA and the big festivals create headlines and major economic impacts, community focussed arts projects such as Big hART, which began in Burnie in 1992, make a different form of contribution. The company has worked with 330 young people and 1,060 adults creating quality theatre and music productions by engaging with disadvantaged communities. By engaging with disadvantaged communities, Big hART estimate they keep more than 30 young people per year in school that would otherwise have dropped out. Drawing on modelling by the University of Canberra's National Centre for Social and Economic Modelling, the company estimates in 2006 their work saved the community $2.3m.

2012 to 2032

The Greens believe the arts and culture scene will continue to grow, enhancing the lives of Tasmanians and attracting visitors. The sector's success will help to nurture the creativity that will drive the industries of Tasmania's future, utilising our skills and knowledge. Our creative population will not only attract innovative firms, but will help to retain skilled employees in the state.

Tasmanian Brand

Perhaps most importantly, arts and culture will contribute to the Tasmanian Brand , driving our image as a sophisticated destination in addition to our environment and lifestyle. MONA and the state's other galleries and museums were a large part of the reason travel guide Lonely Planet declared Hobart one of the worlds 10 coolest cities for 2013.

Contribution of Creative Industries

The importance of creative industries has recently been discussed in NSW, where the government's recent draft industry action plan emphasises the sector's role in raising the profile of the state, driving innovation and productivity and contributing to education and training. The plan aims to strengthen creative industries through improved communication with government and an industry

[25] KPMG. 2011. Ten Days on the Island: Economic Impact of 2011 Festival. Research commissioned by Ten Days on the Island.

leaders group, promotion of industry achievements, improving investment and business skills and providing physical and digital infrastructure.

The Greens have strong policies in place to support the arts and culture sector in Tasmania over the next twenty years. We recognise that artistic expression and cultural engagement are not only important aspects of social wellbeing but also contribute to our economic welfare. We work to encourage awareness of the broad social and economic benefits of the sector and will advocate for programs to support emerging artists, such as the introduction of a fixed income support scheme and better access to small business start-up grants and schemes.

Tasmanian Greens leader Nick McKim announced in his recent budget reply speech a *Surfing the Creative Economy* initiative which included a $5 million 'Bringing the World 40 Degrees South Incentive Program' fund to encourage filmmaker to bring productions to Tasmania.

We support improved access to professional development opportunities for artists, helping them promote the commercial potential of their industry. We will work to create an independent, viable, local publishing industry to foster a Tasmanian literary culture, funded through sales but with state support, run as an incorporated body.

Importantly, we will advocate for increased access to arts and cultural experiences in rural and regional areas and in areas of social and economic disadvantage.

Green Actions:

- $10 million for regional arts including $6 million to restore funding to the Regional Arts Fund and $4 million for regional and remote local governments to employ people responsible for developing and attracting artistic projects into their community, or taking their projects on the road.
- $3 million (per year) Artists fund to assist in the payment of artist's fees by publicly funded galleries.
- $5 million (per year) *Arts Research and Development Fund* to support new Australian work, risk-taking work and truly innovative social artistic ventures.
- Funding increase for *Playing Australia* the body which administers grants for touring performing arts in Australia by $2 million per year (from $6.8 million in the 2012-13 Budget) until it reaches a threshold of $10 million per year – where it should be indexed annually in line with the consumer price index.
- $5 million (over 4 years) fund to encourage filmmakers through the *Surfing the Creative Economy* initiative to encourage filmmakers to Tasmania.
- Increase the location tax offset for films from 16.5 per cent to 30 per cent.
- Support for the Academy of Creative Industries and Performing Arts, which the Tasmanian government has committed $15.2m to for the development of the centre, which could generate significant direct and indirect economic benefits and will utilise Tasamania's position as the first state on the NBN.

Dynamic Business Community

> *While some conservative economists, industry analysts and politicians have argued that Tasmania must rely on large foreign owned companies, the Green Independents have argued, and will continue to strongly argue, that Tasmania must emphasise small to medium sized Tasmanian-owned businesses.*[26]

As the Green Independents noted in 1992, small businesses are the most important contributors to Tasmanian, and Australian, employment. Small businesses employ 106,000 Tasmanians, almost half the island's labour force. They are also vital for driving innovation and the shift towards more sustainable and equitable prosperity for Tasmania.

The Green Independents in 1992, and in more recent times prominent economists such as Saul Eslake, have urged Tasmania to avoid "mega projects" and to place emphasis on one of our advantages, our dynamic small and medium enterprise sector. The Green Independents also remind us that:

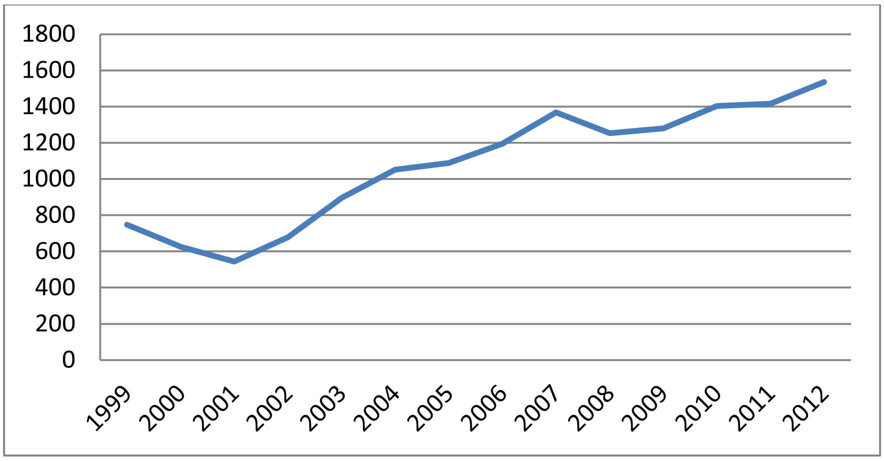
> *It is important to stress that increasing the emphasis on small business does not mean abandoning larger businesses. While the Green Independents highlight the insufficiently emphasised benefit of small businesses to the economy, they also recognise the legitimate role larger companies have to play. In some industries it is simply not appropriate for small businesses to be the major players….International Catamarans illustrates* [a] *desirable industry in which larger enterprise plays an important role.*[27]

1992 to 2012

Small businesses account for more than 95% of all active businesses in the state. Around 36,000 small businesses now operate in Tasmania, a 37% increase on the number operating in 2001 (page 3). Growth in numbers of new businesses – the vast majority being small and medium sized firms – has been strong through this period:

[26] Office of the Green Independents, 1992, p28.
[27] Office of the Green Independents, 1992, p30.

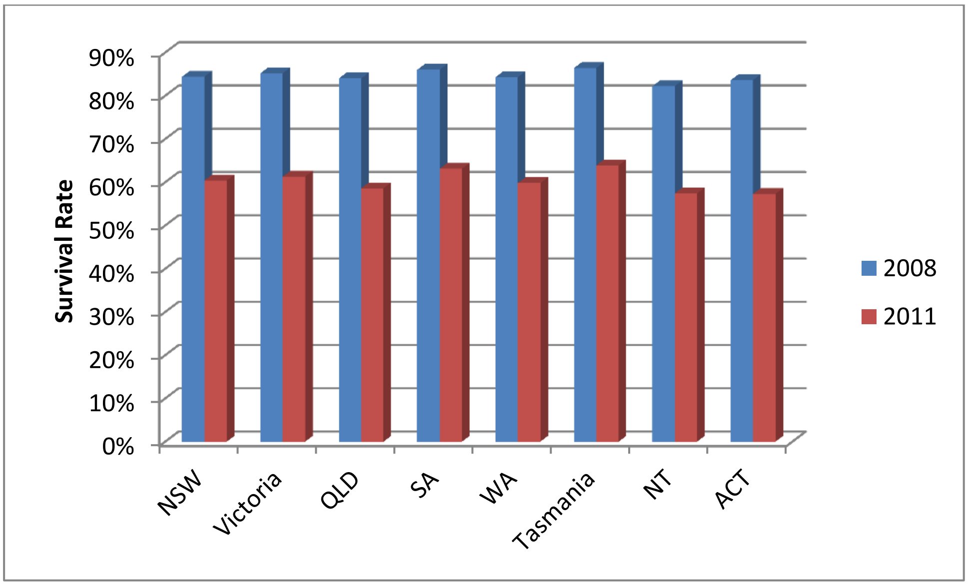
Figure 34: New company registrations in Tasmania



Source: ASIC, New Company Registration Statistics

Small businesses generally have a much lower survival rate than medium and large businesses. However, small businesses in Tasmania have consistently recorded the highest survival rates of businesses in any Australian state or territory over recent years. As Figure 35 indicates (below), 64% of registered businesses survived from June 2007 to June 2011.

Figure 35: State-by-state business survival rates, 2007 – 2011

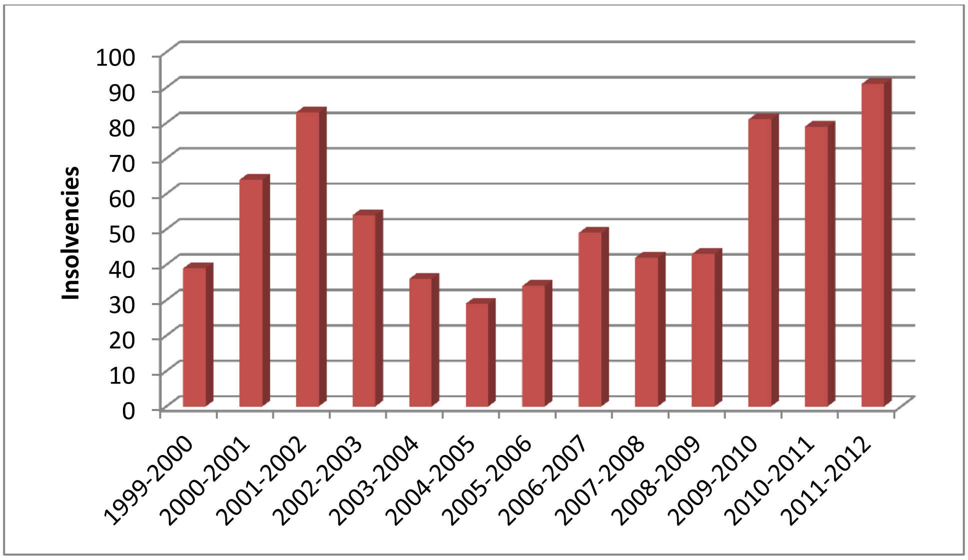


Source: ABS, Counts of Australian Businesses, 2012

One possible explanation for this is the comparatively high number of sole traders and home-based businesses operating in Tasmania. Businesses of this type tend to have a better survival rate than other forms of small business (page 4).

Recently there have been signs that the strength of Tasmania's small business sector is being tested. In particular, the number of companies being placed into external administration has risen substantially since the onset of the global financial crisis. This culminated in 2011 with ASIC's release of figures showing that businesses were failing at their highest rate in a decade (see below).

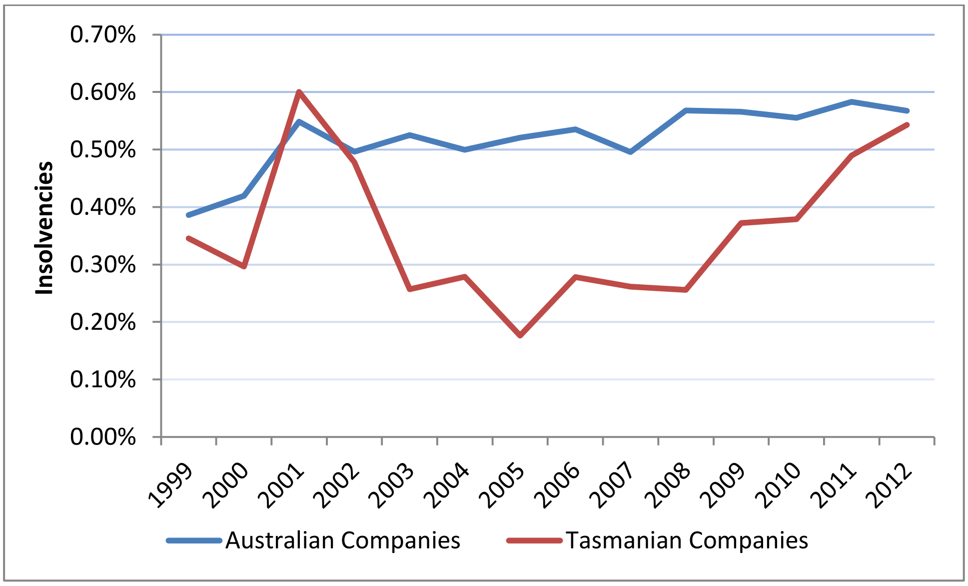
Figure 36: Tasmanian companies entering external administration, 1999 – 2012



Source: [ASIC, Insolvency Statistics]

Despite this, the percentage of registered companies being placed into administration is still lower than the annual average for all states and territories combined (see below).

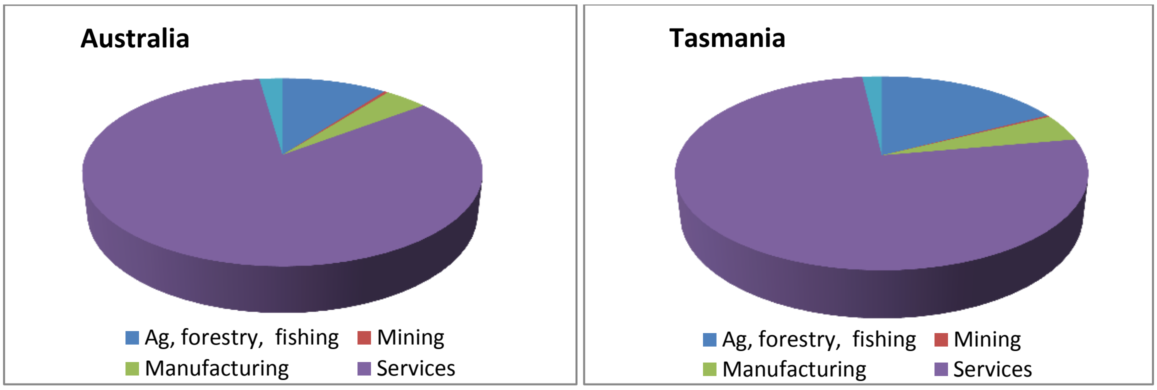
Figure 37: Companies entering external administration, Tasmania v Australia



Source: Figures calculated using figures from ASIC registration statistics

As with all Australian states and territories, the majority of Tasmanian small businesses operate in the services sector, particularly in tourism, where more than 90% of tourism operators are classified as a small business. However, the overall profile for services in Tasmania, at 76%, is lower than the national average of 83%, with a greater emphasis on the agriculture, forestry and fishing sector (17% compared to 10% elsewhere), reflecting Tasmania's strength in these areas (page 11).

Figure 38: Small business by sector, Australia and Tasmania



Source: [Department of Innovation, Industry, Science and Research]

By contrast, "mega projects" and large companies based on resource intensive industries have not done well during this period. Larger companies by contrast face a higher risk of getting trapped into failed business models, as demonstrated by the failure of Gunns, and the closure of McCain paper mills at Burnie and Wesley Vale.

Whilst much has been done recently to attract business to the state during winter months (such as AFL games, winter festivals, conferences etc) Tasmanian businesses still face a serious challenges relating to "seasonality". Tourism arrivals drop sharply between May and October due to the colder weather and related reductions in air and sea services. The only way to tackle such natural limitations to Tasmania's economy is to diversify our business and the services and products they offer. The highly successful Dark MOFO festival organised by MONA is an example of a Tasmanian winter event that attracts large numbers of tourists.

2012 to 2032

Tasmanian businesses will face continued economic uncertainty in the short to medium term from the global financial crisis and the high Australian dollar. In this challenging environment, the most successful businesses will be those that are the most entrepreneurial and adaptive to change. In this area small business has a natural advantage over politically motivated projects and enterprises. This is a point recognised by economist Saul Eslake in the *Launceston Examiner*:

> *"Tasmania's future economic success is far more likely to be found in the production of highly differentiated goods and services, embodying a significant intellectual content (for example in their design or branding), for which customers can be persuaded to pay premium prices. There are many successful examples of that strategy working in Tasmania - but they are all relatively small enterprises, not mega-projects."*

The high and growing proportion of Tasmanian business operators working from home will be in a strong position to capitalise on the ICT opportunities provided by Tasmania being the test bed for the new National Broadband Network.

The Greens recognise that small businesses are the most valuable contributors to our Tasmanian economy, and will be for the next 20 years. Much of our broad policy work over the last 20 years has been designed to help small businesses grow and thrive, especially in sectors such as tourism, hospitality, agriculture and food, high tech, research and development, environmental services, clean tech and renewable energy, healthcare and education services (to name a few). We will continue to advocate for small businesses in the next two decades because we are confident they are best suited to Tasmania's sustainable, dynamic and collaborative future.

We will shortly be releasing new costed small business polices. These policies are designed to reduce cost and compliance burdens to Australian and Tasmanian small businesses, as well as offset increased electricity costs from the "gold plating" of the nation's electricity grid (see Energy Section).

Green Actions:

- Tasmania should join other States and appoint a Small Business Commissioner as a champion for small business in the state.
- The Greens have a bill before the Senate that would give the Federal Small Business Commissioner legislated powers to help small business navigate their interactions with the Federal Government their departments and agencies.
- Deliver infrastructure and services funding for collaborative spaces and business enterprises to enhance small business productivity and access to resources and expertise.
- New costed small business policies will be announced prior to the election.

Manufacturing

The manufacturing industry has been at the forefront of Tasmania's economic transition from its resource-intensive, hydro-industrialised past, to a future aimed more at higher value, specialist products. The Green Independents lamented that:

> *Australia and Tasmania are anomalies in the global economy – Australia's ratio of exports to imports of "elaborately transformed manufactures" is 1:8, the second lowest in the OECD. In addition, Australia is the only advanced economy not to have increased the percentage of its exports which are manufactured in the last 30 years.*[28]

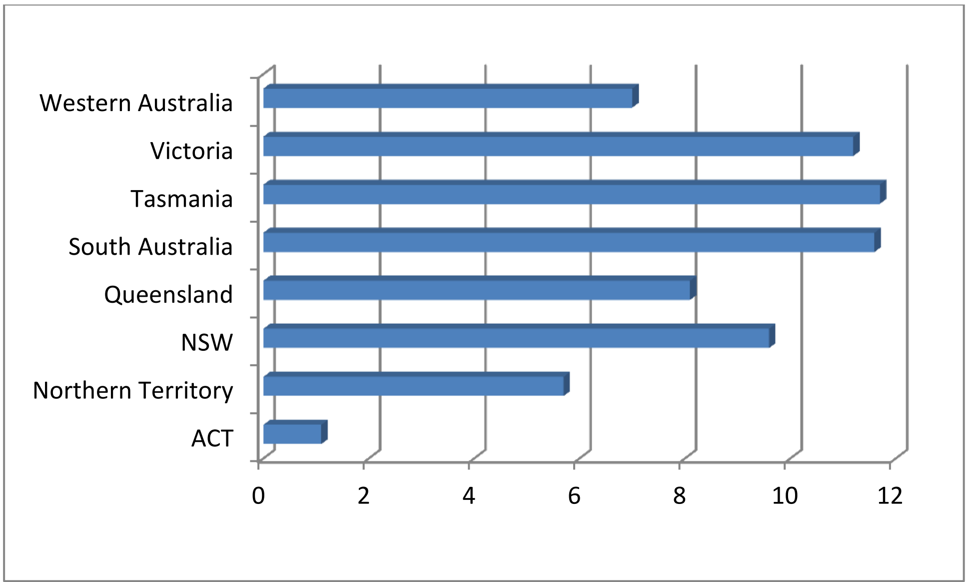
They were quick to emphasise that this did not mean pursuing manufacturing exports for its own sake, indeed, that pursuing export revenues was a "flawed economic goal" (p6), and that:

> *Tasmania's best prospects for the future lie in emphasising knowledge, design and skill-intensive industries producing sophisticated and differentiated products.*[29]

1992 to 2012

Over the past twenty years, formerly large manufacturers, often important centres of local communities have closed, while niche producers in other areas have prospered. Manufacturing's share of industry total value added fell from 21.8% to 11.4% between 1990 and 2009. Despite this, manufacturing remains the biggest contributor to Tasmanian production and accounted for 11.7% of GSP in 2009-10 – the highest proportion for any state or territory in Australia that year:

Figure 39: Manufacturing industry contribution to state production 2009/10 (%)



Source: ABS, Year Book Australia

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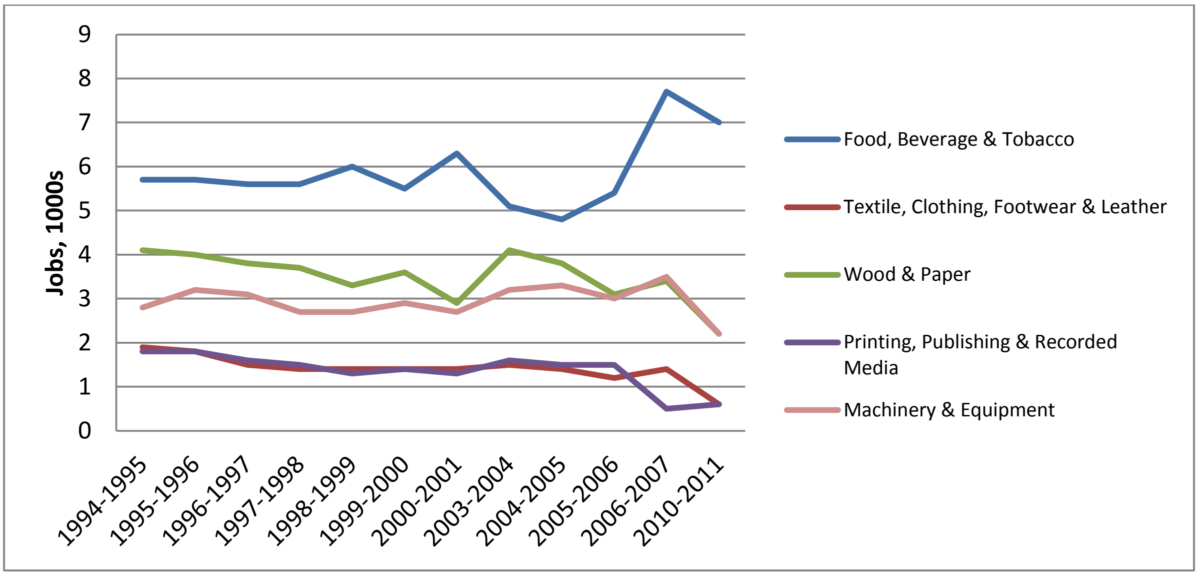
[28] Office of the Green Independents, 1992, p6.
[29] Office of the Green Independents, 1992, p8.

Today, just over 19,000 workers or 8% of the Tasmanian labour force are employed in the manufacturing sector, a slight decline from around 10% of the labour force in 1992. Employment in the manufacturing sector stands at 9% Australia-wide, down from 11.9% in 1993 (page 10).

Noting and analysing change within the manufacturing sector is important. Sectors which have been able to innovate and collaborate to increase productivity and form value chains between participants, have increased their value and employment, while others lower down value chains and exposed to volatile prices have suffered. The recent high Australian dollar has made progress difficult across manufacturing.

Figure 40: Manufacturing employment by sector



Source: (i) ABS, Manufacturing Industry, Tasmania, 1992 – 2000; (ii) ABS, Manufacturing Industry Australia, 2006 – 2007; (iii) ABS, Australian Industry, 2010 – 2011.

The main drivers of growth in Tasmania's manufacturing sector relate to our other strengths in farming and design and include food products, fabricated metals, wood and paper products and machinery and equipment.

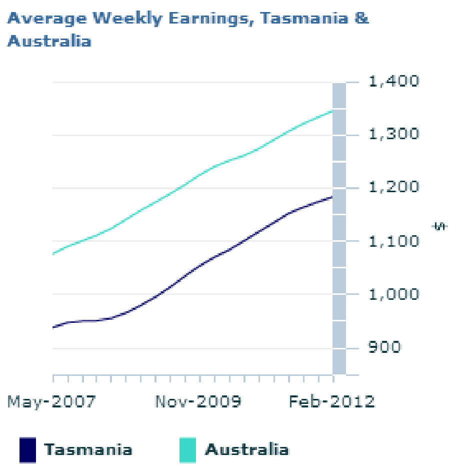
In particular, Tasmania greatly benefits from its international reputation for dairy goods. As the diagram above shows, a surge in jobs in the food, beverages and tobacco sector helped offset a downward trend in employment numbers affecting other parts of the manufacturing sector. This was also recently acknowledged by Tasmanian Premier Lara Giddings, who attributed a significant proportion of growth in the state's milk production as being driven by Chinese demand for powdered milk.

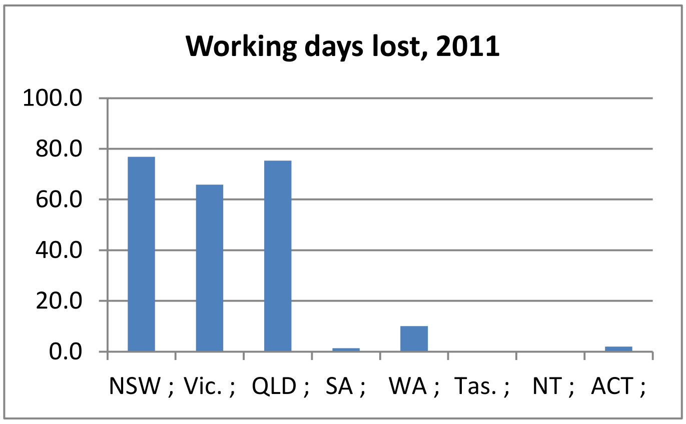
2012 to 2032

Tasmanian manufacturing faces challenges in the years ahead, but will remain an important part of the economy. Tasmania has several advantages that ensure manufacturing can remain strong into the future. Firstly the state's strong base in manufacturing linked to other industries, particularly agriculture and forestry. The Greens have policies to further enhance the manufacturing value added and employment potential of both these sectors (also see sections on Natural Resources-Forestry, Food-Processing and R&D).

Tasmania has developed an advantage in manufacturing as its manufacturers benefit from attractive labour costs compared to mainland states. While Tasmania will never compete with overseas low-cost labour for manufacturing low-quality, high-volume products, the state has developed a skilled workforce at lower cost than the mainland:

Figure 41: Industrial relations





Sources: (i) ABS, State and Territory Statistical Indicators, 2012; (ii) ABS, Industrial Disputes, Australia, 2011.

As can be seen above, workforce stability is also an advantage, with industrial disputes and labour turnover both being comparatively low. Tasmania consistently has the lowest rates of work interruption of all states.

There exist great opportunities for niche and design-oriented manufacturers to take advantage of these conditions. While energy intensive manufacture of low-value bulk products will continue to face difficult conditions, Tasmania's background in manufacturing and potential for innovation and cross-sector collaboration could enable a new generation of manufacturers to emerge, not dependent on subsidised energy.

An example of new approaches to manufacturing are fabrication laboratories, or 'fab labs.' 'Fab labs' provide members and communities with access to digital design and fabrication technologies, such as laser cutters, computer-controlled milling machines, 3D printing, programming tools and custom software for integrated design, manufacturing and project management.

Users of 'fab labs' come from different sectors, but have common requirements of skills and technology. The labs deliver a broad range of outcomes from technological empowerment and peer to peer networking, to local problem solving, business incubation and grass roots research.

'Fab labs' have now been set up in Adelaide and at Melbourne University and can be established for as little as $50,000. They require minimal capital equipment for potentially large payoffs.

The Greens believe Tasmanian manufacturing is well suited to a rollout of such facilities across Tasmania. This will assist in the transition from mass produced, low value products, which are a disadvantage for us, towards knowledge-intensive products, which can be tailored to local or niche needs in ways that are not practical or economic using mass production. An example would be the development and local production of the inputs required for island-wide projects such as the UTAS

“Sense T” project, development of experiential tourism applications and devices and location specific renewable energy devices.

Another collaborative manufacturing project which works with Tasmania’s strengths is the UTAS School of Architecture and Design’s The Castle project. The Launceston UTAS SOA has recently developed partnerships with Youth Futures to build “mobile houses” useful for community housing, using local timber and metal workshops coupled with digital design and fabrication equipment. These impressive manufactured structures use locally sourced Tasmanian timbers, local youth employment and specialised high tech equipment (sourced from the Labs at UTAS SOA). The Greens believe such collaborative projects between businesses, research institutions and community groups are exactly the type of structures Tasmania needs to build and commercialise new niche manufacturing products in this state.

Green Actions:

- Innovative projects such as Hobart light rail and electric cars will help drive the local manufacturing industry.
- The Greens will continue to call for strong local content rules for infrastructure and large investments to ensure work is available for Australian manufacturers.
- Investigation of the feasibility of a fabrication lab to take to regional centres.

Lifestyle and demographics

> *Tasmania has a unique natural and built environment, and a quality of life which is the envy of the rest of Australia. The Green Independents would utilise this to market Tasmania to highly qualified individuals and sophisticated companies who would bring with them unique and valuable skills.*[30]

Tasmanians enjoy a unique lifestyle that combines access to some of the most pristine natural wilderness in the world with an affordable cost of living and a rich cultural heritage. Unsurprisingly, many Tasmanians are happy! Research for the community engagement initiative, Tasmania Together, shows that 90% of Tasmanians are "satisfied" or "very satisfied" with their life and personal circumstances (page 8).

Discussion of economic strategy and transition often ignores factors like lifestyle, focussing instead on industries and output. But people work to live rather than live to work, and Tasmania's lifestyle is a major factor in many people and businesses setting up and remaining in the state. Recognising the value of the Tasmanian lifestyle and capitalising on the opportunities it presents should be central to the state's direction into the 21st Century. Any future policies targeting demographic change in Tasmania must however carefully reflect principles of sustainability and equity.

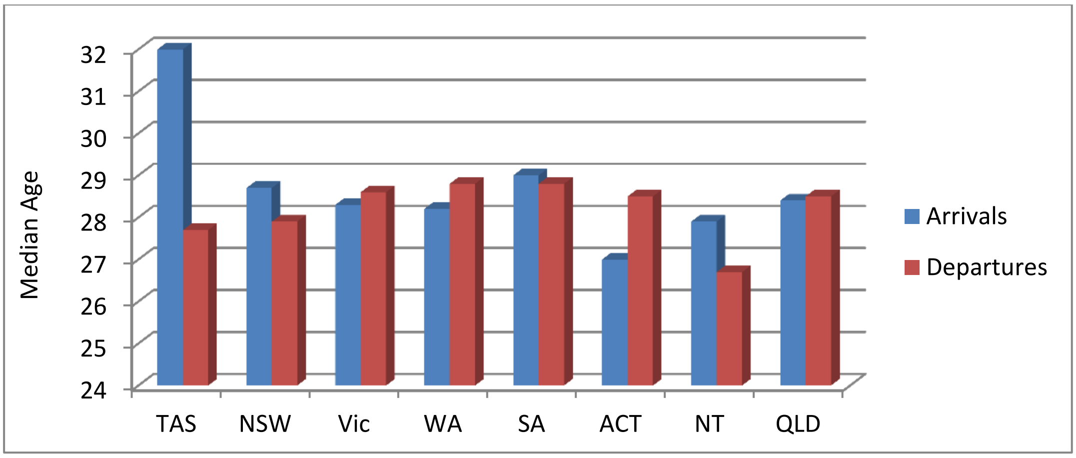
1992 to 2012

Tasmania's resident population grew by 8.4% to 511,200 in the decade to June 2011. This was the slowest rate of growth recorded by any Australian state or territory for that period, equal to South Australia, even though Tasmania has the highest fertility rate in Australia (2.2 babies per woman), the main driver for population growth in the state. Tasmania was also one of only three states in Australia to record an average net gain in national interstate migration numbers over the decade from June 2001 to June 2010, mainly the "treechangers" – older people moving to Tasmania for a more relaxed lifestyle (page 10).

This is shown by the median age of interstate arrivals to Tasmania (32 years), significantly older than for any other state or territory. Combined with the high rate of young people leaving the state for work or education, this has led to Tasmania ageing at a faster rate than the rest of the country. The 2011 Census found the median age for Tasmanians to be 40 years of age, compared to 37 years for the rest of Australia.

[30] Office of the Green Independents, 1992, p26.

Figure 42: Median age of migrants

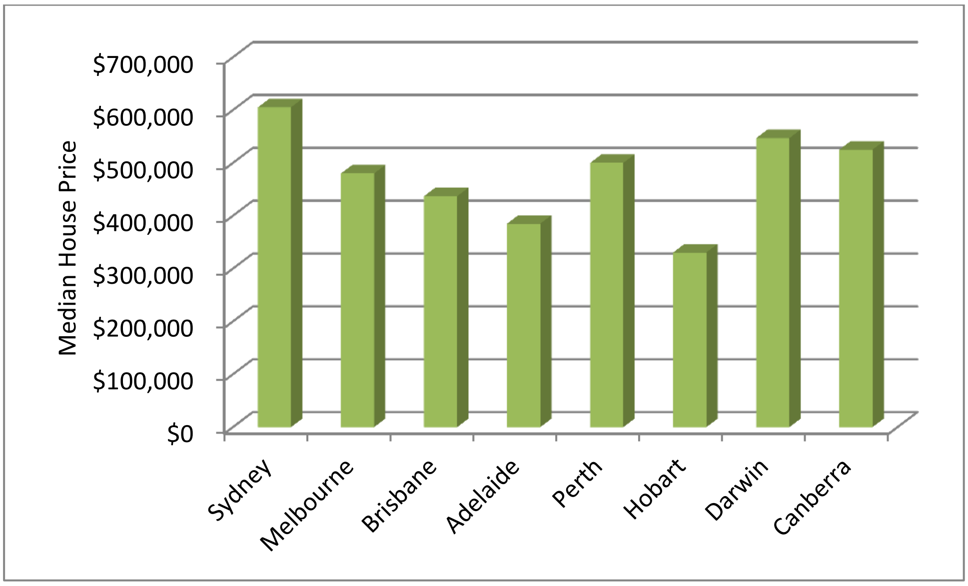


Source: ABS, 3412.0 Migration, Australia, 2009-10

The factors behind Tasmania's ageing population warrant further comment. In a 2010 report, *Migration Trends in Tasmania*, the Demographic Change Advisory Council (DCAC) found that a significant proportion of mainland Australians who move to Tasmania are retirees, attracted by the state's comparatively affordable real estate, lower cost of services, natural beauty and more moderate climate compared to other parts of Australia.

The affordability of real estate in Tasmania was recently confirmed by the release of two independent surveys undertaken by the ABS and the Real Estate Institute of Australia for Q2 2012. Both surveys found the median house price in Hobart to be substantially lower than the price for housing on the mainland (see graph below).

Figure 43: Median house prices, capital cities

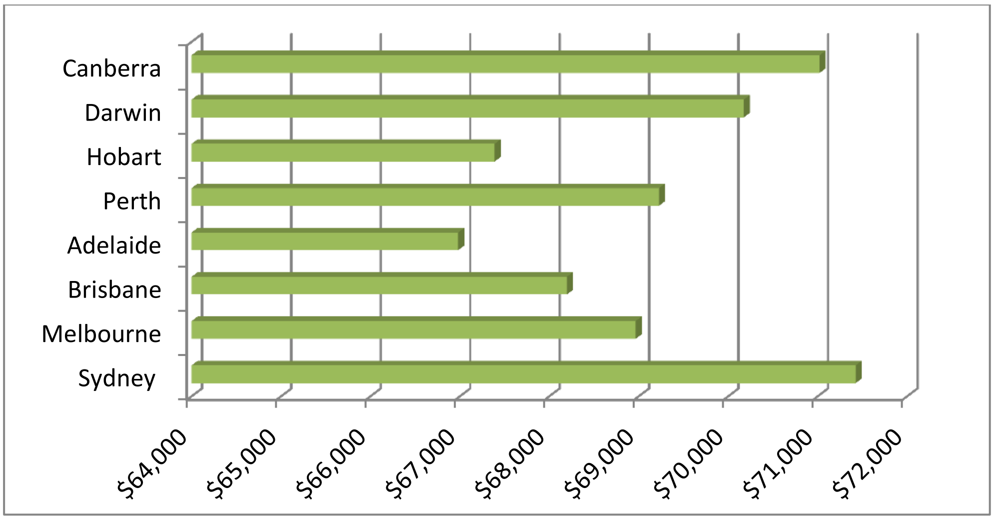


Source: ABS, House Price Indexes: Eight Capital Cities, Dec 2012, 2013, p12.

Tasmanians also benefit from a comparatively low cost of living compared to many other parts of Australia. As the chart below illustrates, the National Centre for Social and Economic Modelling's

(NATSEM) 2012 cost of living report showed Hobart to be the second-cheapest capital in the country, behind Adelaide.

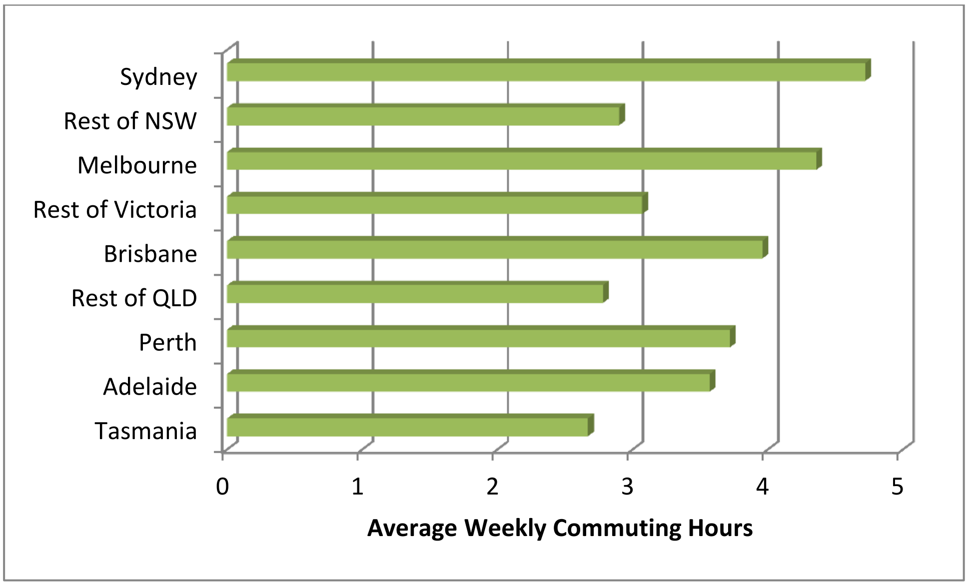
Figure 44: "Basket of Goods" cost comparison by capital city



Source: NATSEM, 2012, Prices These Days!

Nearly 60% of Tasmanians live outside Hobart, making Tasmania "the most regional and dispersed population of any state in Australia". This in turn lowers the amount of time required for Tasmanians to attend work. As the chart below indicates, Tasmanian workers spend fewer hours in commute than workers of any other state.

Figure 45: Average weekly commuting hours



Source: The Australia Institute, 2005, Off to Work

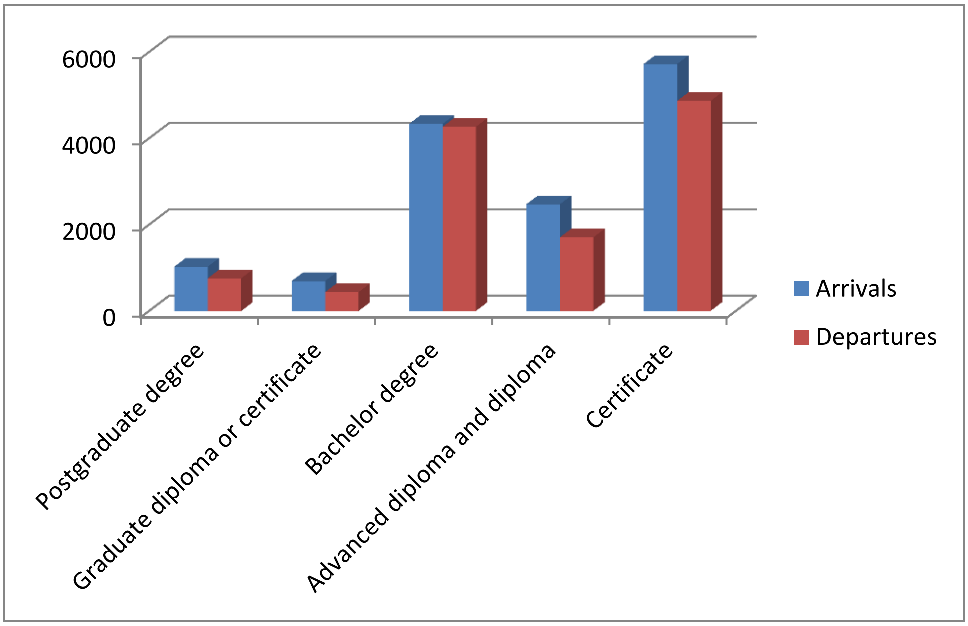
Tasmania's small geographical size and rich natural and cultural heritage also affords residents easy access to a wide range of leisure and recreational pursuits. A 2001 survey by the ABS on leisure and cultural participation in the state found that 42.7% of residents aged 15 years and over had participated in one or more outdoor recreational activities over the past year (e.g. bushwalking).

The *2010 Attendance at Selected Cultural Venues and Events* ABS survey showed that Tasmanians aged 15 years and over had the second-highest attendance rate (21.1%) for theatre performances out of all states and territories in Australia, and the third-highest highest attendance rates for musicals and operas (17.3%), art galleries (26.8%) and museums (36%) (pages 21–23). The overwhelming success of Hobart's Museum of Old and New Art (MONA) since its opening in January 2011 is likely to have had further positive effect on the participation rate of Tasmanians and visitors in cultural activities across the state.

Major annual events, such as the Taste of Tasmania and the Targa Festival, are also popular among Tasmanian residents. Almost 60% of participants in the 2001 survey had attended a major Tasmanian annual event in the year to October 2000 (page 5).

The DCAC report on migration trends also found that interstate arrivals had increased the proportion of Tasmanian adults with post-school qualifications from 36.7 per cent in 2001 to 37.0 per cent by 2006. As the chart below indicates, the "brain gain" from interstate arrivals outweighed the loss from departures in every level of educational qualification (page 24).

Figure 46: Education of arrivals and departures



Source: *Demographic Change Advisory Council*

Conversely, the number of international migrants arriving into Tasmania over the past two decades has been low. Tasmania had the lowest net overseas migration (NOM) growth rate of any state or territory in Australia for 2009-10 (page 15). In a 2012 article critical about the lack of skilled migrants arriving into the state, Tasmanian Chamber of Commerce and Industry chief economist, Phil Bayley, observed that the state "has a narrow ethnic mix, low awareness of Asian cultures and lacks Asian language skills" compared to the rest of Australia. This is supported by the 2011 Census, which found that only 5.7% of Tasmanian households speak two or more languages at home, compared to 20.4% for the rest of Australia.

However, there are signs that the situation is improving. The net number of permanent skilled visa holders arriving in Tasmania increased 75% in the five years to 2009, with the ABS finding that permanent skilled visas now “ranked second highest (after international students) in Tasmania in terms of their contribution to NOM”. According to TCCI chief economist Phil Bayley, Tasmania also has the highest humanitarian intake of overseas migrants of all Australian states and territories on a proportional basis.

A concerning development in the last twenty years has been the growth of fly-in-fly-out and drive-in-drive-out (FIFO and DIDO) working arrangements, particularly in resource intensive industries such as mining. The shift to FIFO and DIDO workforces has had a serious impact on many Tasmanian communities and families.

To maximise the benefits that are derived from Tasmanian resources and employment opportunities, employers must be encouraged to engage with and build relationships with local communities. The Greens support policies to reduce the trend towards and impact of FIFO/DIDO workforces and build local communities.

2012 to 2032

The Greens believe population growth should not be driven by economic goals or to counter the effects of an ageing population, rather it should be determined by commitment to factors such as ecological sustainability, social justice and equity. Any population policy must also consider the geographical distribution of human settlements rather than just concentrate upon population size at the state level.

Managing Tasmania’s population in the next 20 years to ensure an inclusive and ecologically sustainable society is critical. No-one knows the answer to what is a sustainable population for Tasmania or even Australia. Numbers are not the only consideration for a sustainable population, and while population is a significant factor in whether or not Australia is sustainable, factors such as our per capita consumption, and waste to energy ratios are critically important too.

What we do understand however is that Tasmania will continue to trend towards an older population as Australians from interstate are lured by the more affordable cost of living and perceptions of the state as offering a relaxed and “natural” lifestyle. Australia’s population is ageing and Tasmania’s population is ageing at a faster rate than the rest of the nation. By 2030 approximately 17% of Australia will be aged over 70 up from around 11% in 2010. This means the aged care industry will also continue to grow as will the employment opportunities in this sector.

Whilst the growth of the aged care sector will provide sustainability challenges, it will also present increased opportunities for skilled health care professionals to work in Tasmania. Although Tasmania has been described negatively as the “retirement home of the nation” the Tasmanian aged care sector could lead the nation in skills development and technology (particularly with the NBN rollout) if the opportunity is recognised. The Greens support proposals to develop an allied healthcare and “well being” clinic in Tasmania to help build these skills and commercialise opportunities in the aged care sector. Aside from training, attracting and retaining skilled healthcare professionals to the state will also need to be a key policy priority.

It is also important that Tasmania retain more of its young people to live, work and study in the future. Whilst the availability of unique, specialist courses at Tasmania’s universities (e.g. Antarctic

Studies at UTAS) should also continue to attract young, educated newcomers from interstate and overseas, more focus is needed on making Tasmanian employment attractive to youth.

Political and community leaders often talk about young people and their importance, but very rarely do they talk to young people about what would keep them in Tasmania and what industries they want to work in. The importance of youth culture and empowering youth to shape their own economic futures is something the Greens have recognised.

That is why in April 2013 we launched our youth employment survey (www.tasyouth.net) for young people between the ages of 14 -24 to have their say on what they want Tasmania to look like.

Work also needs to be done in attracting and retaining skilled workers to Tasmania. For example marketing Tasmania as tourist destination should be done alongside the marketing of the state as a place to live and work. Simple initiatives such as information booths at airports and the Melbourne and Devonport ferry terminals would be a relatively cost effective place to start. In terms of retention further Government support for initiatives to assist new arrivals to the state could assist in ensuring once people have arrived they stay on.

Green Actions:

- Greens Tasmanian youth employment survey will collect information on the kind of Tasmanian, young people want to live and work in. This will help guide our policies.
- Increased marketing of 'move to Tasmania' initiatives.
- Investigation of initiatives to attract and retained skilled workers in Tasmania.