Northern Tasmania Development
&
Enterprise Connect

'Innovative Capacity of the North East'

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In recent years there has been a significant loss of secondary industry from the district, including down stream processing within the vegetable, milk and timber sectors.

The future for the region will require the community to learn from and build on the past and to embrace new opportunities that may well result in the Dorset regional economy being one that is vastly different from that of now or indeed the recent past.

The key high impact sectors of agriculture and forest and forest products will continue to be the dominant source of employment and wealth creation for the region. However, the agriculture sector will need to adopt production systems that are better able to offset the high input costs associated with the transition from a low value commodity to a high value production unit. This may be in the form of new enterprises; increased efficiencies gained from expansion or from new cooperative farming methods that allow 'farmers to farm big without being big'. Customers are beginning to demand a connection with the producer, resulting in the rapid growth of farmer markets, regional produce and 'paddock to the plate' retail outlets.

Farmers, indeed entire communities and governments will have to grapple with the concept of farmers being paid for delivering environmental services for the good of the community, and equally farmers will find opportunities to be rewarded for 'carbon farming', for storing 'green' carbon in farm woodlots and 'brown' carbon in the soil.

The opportunities provided by a regular and reliable water supply will come at a cost. A cost that will force farmers to adapt, improvise and look to innovative new crops, products and markets. The rising cost of production will have to be balanced with an equal or greater increase in returns; bulk commodity food products may no longer be able to provide adequate returns.

The forest industry sector is currently being challenged by changing customer demands for sustainably sourced products, global downturns in product demand and reduced contractor quotas. The Dorset region relies heavily on the forestry sector, however this reliance will rapidly shift from native forest resources to hardwood and softwood plantation timbers as the regions extensive plantation stocks begin to mature. The region has the largest softwood and the second largest hardwood areas of plantation in Tasmania.

The Tasmanian government is in the process of establishing a ‘Forest Industry Roundtable’ to explore, identify and establish a way forward for the sector. It is vital these deliberations include the social and environmental aspects and do not focus exclusively on the economic outputs derived from only the timber and its by-products. The region’s extensive natural forest resource should and must be utilised in a manner that gives the maximum return for the community.

High value production systems need to be given priority over low value high volume commodity outputs. Enhanced valued added utilisation systems for all harvested materials, by-products and mill wastes need to be introduced.

Importantly, there must be dedicated and on-going research into developing the most efficient and effective production systems that will return wealth, employment and amenity to the community.

Significant opportunities exist within the region in the areas of tourism, renewable energy and in the roll out of the National Broadband Network.

Tourism, whilst still a small regional sector has the potential to develop greatly. The region’s natural features including its beaches, sand dunes and expansive and diverse forest network, food and wine and world class golf links, provide a cluster of appealing products. Notwithstanding these, at present the region is seen as a ‘drive through’ destination and not as an end destination in its own right. The development of additional tourism products together with well targeted cooperative marketing will enhance the regions reputation as a stand alone tourism destination.

The renewable energy sector is one that has great potential for the region, however government pricing policies will determine the short and potentially medium term outlook for this sector. It is important to note that Northern Tasmania is home to a diverse range of renewable energy opportunities, including wind, hydro, geothermal, tidal, wave, solar and biomass. Indeed it is recognised as one of the few locations within Australia that has access to such a diversity of renewable energy forms. It is this diversity that ideally places the region as a ‘living laboratory’ of renewable energy.

Scottsdale, along with Smithton and Midway Point will be the first Australian communities to be connected by fibre optic to the National Broadband Network. The opportunities and benefits of being ‘the first’ will however be soon lost if adequate and on-going training for the business community is not provided.

The Dorset region is home to a resilient community and a diversity of natural resources and outstanding natural attractions. It is a community that has a proud history and a prosperous future. How prosperous will depend on the ability of the community to look forward and to grasp the opportunities that are presented as the traditional industry sectors are challenged by both external and internal forces to renew and to meet societies changing demands.

The Dorset community should not be expected to meet these challenges on its own - it needs to be supported and assisted. There must be collaboration, coordination and communication between government departments, industry sectors, community associations and individuals from across the community. The Dorset region is already serviced by a range of community based organisations and another is not needed. What is now needed is for governments to work with the community at all levels in an on-going manner to facilitate and service the community, to be pro-active, involved and engaged within the community rather than being reactive at a point of crisis.

The recommendations contained within this report are not exhaustive, rather they are a collection of ideas, concepts and pathways that will lead to innovative opportunities that will enhance the regions economic development and employment potential.

Introduction

The *'Innovative Capacity of North East Tasmania'* project aims to identify the region's core opportunities for innovation and sustainable development that can lead to productivity gains and improvements in the region.

The project will identify where and what opportunities for innovation can be adopted that build on the current strengths of Northeast Tasmania's core industry sectors, and that also fit within the region's existing social demographics. The project will also look at ways to minimise the region's reliance on a primary sector commodity-based economy.

It will identify what skill sets may be required in future years and what infrastructure will be needed to support new and expanded industries.

The Australian Government through the Innovative Regions Centre's – Small Grant Round has provided funding to Northern Tasmania Development to undertake this project.

It is of vital importance that we do not discard all that has gone before us, because whilst we must focus on the future, it is imperative that we know from where it is that we have come.

The past has seen the economic development and employment spotlight focused on North Eastern Tasmania with a degree of regularity. There has been a multiplicity of reports and studies into employment and economic development opportunities targeting the region ranging from the generic regional overviews to the specific focusing on niche opportunities. A review of these past studies highlights the common recurrence of interconnecting and interdependent themes, both over time and between studies.

It is important the findings from these past studies are not discarded with the passing of time. It would be irresponsible to disregard this input and effort merely on the basis that it was completed two, three or even ten years ago. The political, social and technological environment has changed dramatically in recent times. What may not have been a key ingredient in the 'innovative opportunity mix' in the past may well be a vital ingredient now; new technologies, new processing options, communication, consumer trends and indeed social and demographic demands may well re-position projects from the scrap heap of yesterday to the board rooms of tomorrow.

For example:
As we move ever closer to 'peak oil' with projected fuel cost of $3 per litre by 2030; and with current oil prices of around $80 per barrel at what point is it prudent to revisit the February 2005 report; 'Sugar Beet – Preliminary feasibility of ethanol production from sugar beet in NE Tasmania'….what advances in technologies, water security, communication or even waste product utilisation can now be added to the discussion? ….I would suggest many; and it may well be worth revisiting this study to determine if the gap between 'good idea' and 'realistic viable business opportunity' has been lessened or indeed if the economically viable threshold has now been crossed.

This report also looks at where and how it will fit within the broader context of the Australian and Tasmanian Government's innovation policy and initiatives and also the Dorset Council's "Projects of Importance" program.

It would also be irresponsible to not take into consideration the impacts, challenges and opportunities that are presented as externally imposed policy, economic, social and environmental initiatives are imposed.

The district's economic stability has been largely reliant on large scale national and multi national manufacturing firms retaining their presence within the community. However, such reliance leads to economic fragility which can be shattered when decisions to 'close' the doors are made. The key to building strong resilient local communities relies in them taking responsibility for their own destiny and encouraging and supporting local businesses. Businesses that add value to the region's commodity driven exports create import replacement opportunities, provide new products to meet new market demands, and those that invest in innovation and technology that allow a competitive advantage to be maintained.

"Where ever you look economies that rely on foreign corporations are more fragile, often end up using public money to subsidise the business and are always open to the threat that the business will close leaving the local economy in tatters".

Michael Shuman – International Localisation Expert – Director of Policy, Business Alliance for Local Living Economies

In recent years there has been a significant loss of secondary industry from the district, including down stream processing within the vegetable, milk and timber sectors. There has been three significant closures of down stream processors in the last decade including: Bonlac diary manufacturers at Legerwood in 2000, Simplot vegetable processors at Scottsdale in 2003 and the Auspine softwood sawmill at Scottsdale in 2008. This significant reduction in the district's manufacturing base has had a marked impact on the regional demographics. With 60 percent of the job losses occurring in the Scottsdale community and 90 percent from the district in total, the economic and social impacts have been substantial.

For the district to once again prosper the community must look towards systemic change to capitalise on the sustainable advantages that the region has to offer. These advantages may well be found within existing industry sectors where new and innovation processes are adopted in the value adding or processing of primary resources or they may come from innovative start up opportunities within the primary production, processing and manufacturing, service delivery sectors and from import replacement opportunities.

Regional economies must be prepared to let inefficient and obsolete businesses falter and if ultimately they don't re-new and adapt to meet current market demands then they should be let to fail. The community should urge, encourage, support and allow efficient and innovative enterprises to move in and replace them. Industry sectors and their business components must be demand driven with the market place determining the regions future, not inefficient businesses, practices and industry sectors that are being propped up by taxpayer subsidies.

> *"There are numerous opportunities for Tasmania to build and strengthen the local economy by encouraging small local businesses to create industries around import replacement opportunities".*
>
> *Rod West – Tasmanian Businessman*

Fit and linkages

Whilst it is important to scrutinise individual industry and service sectors no one sector should be laid bare in isolation as it is the mix of industries, services and people that are what gives 'character' and point of difference to each and every community. In regional communities the interdependency within and between sectors is far more evident than in larger and especially urban centres.

Every element will have economical, social and environmental interconnections and ramifications and each and every one of these will need to be carefully evaluated in the total and complex scheme of what is important now and for future generations.

Today more than ever before, we must consider all our decisions under the harsh and glaring scrutiny of the need for sustainability. We cannot continue to use resources faster than we are able to replenish them; the triple bottom line must include in addition to profit the impact on people and the planet.

The recommendations of this study may or may not ‘fit’ into what is considered to be the appropriate directions for the Dorset community at this present time. Indeed innovation can take on many forms; it can be incremental or it may well be a paradigm shift in product and process.

Innovation generally creeps into regional communities as businesses strive to increase profits by increasing sales and margins, and by reducing costs. We are no longer ‘saddling the horses’ to do business within a half days ride, today we can ‘do’ business anywhere in the world without leaving our office; indeed our office next door to the lounge room!

The opportunity for incorporating, embracing and indeed the implementation of innovation must also be realistically considered within the parameters of community acceptance of change; some processes will require generational change.

Background

Key industry sectors are clearly looking towards the future as being one that is markedly different to that of the present or indeed the recent past. Who would have believed 20 years ago that there would be more mobile phones in Australia than people. A glimpse in the rear view mirror helps you to know and understand from where you have come and indeed how you have arrived at this point, however the road ahead is littered with challenges and opportunities. Opportunities that have never before been considered possible, however due to the changing demands of a rapidly expanding market place, new technologies, climate change, secure water supplies to name but a few, these opportunities are now becoming clearer and more focused in the eyes of the progressive members of our communities.

Key drivers of this futuristic vision include, but are not limited to:

- Climate change: what impact will changing temperature, rainfall and wind patterns have on farmer’s ability to maintain and increase outputs?

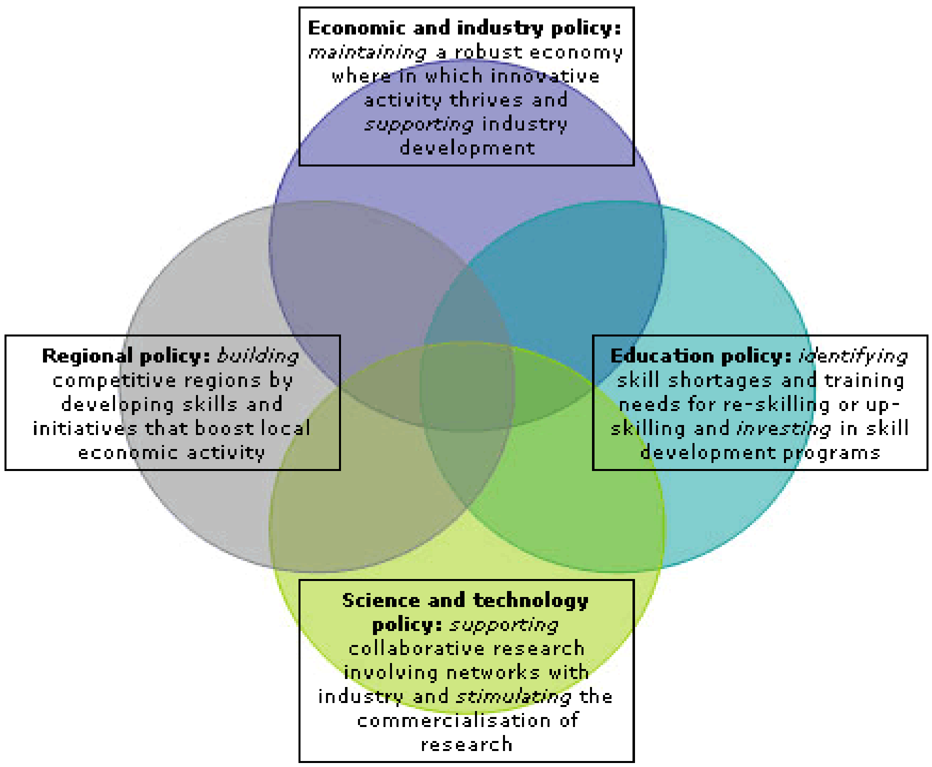
- Secure water supplies: how will a reliable water supply support the transition of low value to high value farm enterprises?
- Primary producers as service providers: will farmers in the future be selling and trading in environmental services?
- Integrated supply chains: how will the rapid transfer of information up and down the supply chain change how goods are distributed and services are delivered?
- NBN roll out: Will the NBN roll out deliver health and home care opportunities hitherto only imagined?
- Demographic demands: rapidly growing populations demanding more and higher quality food products and consumer goods.
- Industrial ecology: how do we encourage innovative enterprises to cluster and feed off each other in a process of by-product synergy?
- Appropriately skilled work force: can the region provide and train, or attract and retain a work force with the appropriate skills to meet the needs of new and emerging opportunities?

The need to embrace new and innovative management systems that respond to issues such as: globalization; technology including communication that enables interaction between distributed work teams; improved supply chain logistics of inputs, outputs and wastes; sustainability and the re-emergence of ethics and corporate social responsibility all present as significant challenges and indeed opportunities for all managers at all levels in all organisations.

What is innovation?

Innovation is the application of fresh ideas that enable a business to better compete in the future.

Such ideas can include any new or significantly improved goods or services and operational processes or managerial processes.
A number of policy instruments are available by Government to encourage innovation. These include:



The distinction between Innovation and Invention

Innovation is as much about the way new ideas and products are brought to effect as it is about the uniqueness of the original concept. An innovative individual, business, sector, community or region does not need to have invented the new product or process that they adopt.

The difference between innovation and invention is an important distinction as you do not have to have invented a new product or service to be truly innovative. The process of improvement through innovation; be it by incremental or paradigm shifts that give rise to sustained economic, social and environmental benefits is seen as being more important than the actual process of invention. There is no shame in adopting successful practices and processes from around the globe and adapting them to your individual needs.

Tasmania's productivity level must be increased. The state's capacity to produce products and services that are in global demand must be identified and supported. Those prepared to seek out and invest in these high impact sectors must be encouraged and supported through the provision of appropriate and relevant infrastructure.

The future of our state may look very different from that of our past. That is not to say that the industries of the past will not be important in shaping and redefining our future; however, the practices and processes adopted into the future may bring new found employment and wealth creating opportunities to communities willing to embrace innovation, change and an 'unblinkered' view to the future. We are no longer 'saddling the horses' and relying on a regional economy based on a days horse ride; the Tasmanian economy has a real place within the global economy, we can and we are doing things in Tasmania equal to and better than anywhere else in the world, and it is towards the production of these goods and services that we should now be directing a goodly proportion of our energies. It is towards these sectors that we need to be realising our full potential and it is towards these sectors that we should be directing our education and skills based training for future employment opportunities.

Who is responsible for innovation?

Innovation is the responsibility of governments, the private sector and indeed the consumer.

It is after all the consumer who will dictate demand, albeit as the end consumer purchasing the organically grown fresh vegetables from the farmers market or the craftsman who selects the high quality specialty timber from the saw miller to promote the regional resource further along the value chain via the manufacturing of furniture.

The customer will drive demand, and they will ultimately dictate not only the type of product but also the processes that have been employed and utilised throughout the product supply chain.

In todays modern, discerning, concerned and connected society price is only one of a number of inputs used to decide to purchase. Quality, continuity of supply and reliability, fair trade, waste, packaging, chemical use, sustainability and corporate social responsibility to name a few are becoming all important in the decision making process to purchase your product or not.

Many businesses prosper or fail depending on the success of their relationship with those who they supply. Businesses that rely to this extent on each other are linked within what is termed a supply chain, each one supplying the next right up to and including the consumer.

Supply chains encompass all activities and information flows necessary for the transformation of goods from the origins of the raw materials through to when the product is finally consumed or discarded.

The relationship between suppliers up and down the chain is becoming increasingly important as end consumers are now basing their purchasing decisions on the process decisions that are made along the entire value chain.

Collaboration underpins supply chain management. Collaboration means businesses share information in an accurate and timely manner so that all businesses in the supply chain can adequately plan forward for their inputs, outputs, dispatch product, manage risk and maximise returns.

Irrespective of how good or how innovative the value adding process is, or indeed how cheap the end product may be, the primary production process, many steps removed from the consumer, may well be the critical element in determining overall demand. In the past consumers didn't mind so much as to where you sourced your product or inputs from, nor did they care much about the processes involved in adding value or what you did with your wastes. *'The times are a changing'*….indeed they have changed and we must move with these changes or we will be left wondering what might have been!

For Example:
Will Japan continue to buy our regions woodchips if they are not sourced from Forest Stewardship Council (FSC) certified forests or will household cooks purchase and feed their families factory farmed chicken or pork products?

Governments should not, nor should they be seen to be competing with the private sector. Moreover their primary role in innovation should be in the provision of infrastructure at the basic and essential levels that all communities have come to expect and at the higher regionally identified and prioritised areas that reflect individual and specific community needs.

In the Dorset region no single infrastructure elements stands out more than the road network and the dire need to upgrade the existing transportation network to enable residents, visitors, goods and services to enter and to exit the region.

Innovation is clearly not the domain of any one single entity.
Whilst it is recognised that innovative individuals as well as businesses tend to cluster, thereby providing support and 'parasitic feeding' opportunities, truly innovative communities foster and develop an embedded community culture that supports innovative processes across and between all sectors of the community be it; individuals, businesses, industry sectors or governments.

These truly innovative communities are few in number; however the processes and capabilities together with the capacity to develop such communities are already to be found within most communities.
The key challenge for these communities is how to bring these elements together and capitalise on initiatives and opportunities.

Identification of high impact industry sectors

The high impact sectors within a regional economy are those that are contributing significantly to the regions capacity to generate both wealth creation and employment. In short they are the sectors that are most likely to grow the regions economy through generating value added growth and by developing, engaging in and initiating innovative practices and processes that lead to new markets and greater competiveness in the global market place.

These high impact sectors are those that have clearly demonstrated a past that has contributed significantly to the regions economy. However; that is not to say that the regions future will closely mirror its past; indeed in ten or twenty years time the regional economy may well be unrecognisable from what it is today.

New industries, new markets and new processes that support and enhance our regional competitive strengths; be they natural, physical or human resources will shape the regions future economy, an economy that may well be vastly different to that which we have grown accustomed to. Reflecting on the past helps to identify Dorset's areas of strength and capability whilst looking to the future will help to identify opportunities and prospective challenges that will need to be addressed.

Equally these new industries, new markets and new processes will need new skills and new abilities to drive their competitive advantage and will the community's demographics and skills base be able to support the new economy?

So what are the high impact sectors within North East Tasmania and how do they achieve this level of notoriety?

High impact sectors are those that contribute a disproportionately high level of economic output, value added employment or trade in an identified sector when compared with the State or national average. Tasmania accounts for 2.3 percent of the Australian population and 2.0 per cent of the Australian economy whilst Dorset's population of 7,253 represents 1.48 per cent of Tasmania's population.

Whilst it is challenging to obtain detailed and accurate data when dealing with relatively small regions, due to sample sizes, privacy issues and the resulting commercial in confidence concerns the data sets available on employment and employment share provide a relatively good indication of the overall economic contribution by the individual sectors.

The industry sectors within the Dorset region that clearly contributes a disproportionate level of economic output, value added employment or trade is the Agricultural and Forestry sectors. It should be noted that more than a quarter (26%) of the regions employment is provided by the agricultural and forestry sectors. Manufacturing provides 16 per cent and retail trade 9 per cent. It is also interesting to note that the unemployment rate in Dorset is consistently lower than that of the States average.

The agricultural and forest industry sectors have traditionally been the mainstays of the Dorset economy and it is expected this dominance will continue well into the foreseeable future, albeit that both sectors will need to recognise that business as usual is not the way forward. To build on the region's existing competitive base these sectors must respond to and meet consumer demands for new products and innovative processes that are truly sustainable.

Agriculture

Agriculture is a major contributor to the region's economy, both through direct earnings and substantial flow-on effects in the service sectors.

The food sector is one of the stand-out growth sectors world-wide as more of the world's population, particularly China and India are now able to afford to supplement their traditionally high simple carbohydrate diet with a higher protein diet and higher value food items.

The main agricultural enterprises in the Dorset region are dairying, dry land grazing and horticulture, the main crops being; carrots, potatoes, onions, poppies and fodder crops. A small amount of specialist crops are also produced and these include; hops, wasabi, lavender and stone fruits.

Consumer demands must be catered for. As society becomes increasingly time poor the traditional 'meat and three veg' is no longer the norm. There is little time for preparation and the pre-prepared and pre-cooked meal options are rapidly becoming the mainstay of today's modern kitchen.

Strengths

A range of climates and soil types exist across the region which are suitable for a diverse range of agricultural and horticultural pursuits. The rich river flats and flood plains together with the highly fertile deep 'red' soils and temperate climate provide opportunities for the development of a unique blend of agricultural and horticultural activities.

There is no better example of this ‘exploitation’ of the natural growing advantages and capacity of the region than the establishment of a highly successful rhubarb growing enterprise.

The region’s large area of diverse forest is ideally suited to the expansion of the apicultural industry.

The region has been clearly identified as a key food production region within the State and the establishment of both water storage dams and the development of reticulated distribution networks will provide the region with a much anticipated boost. The production capacity of the Dorset region within the specialised agricultural and horticultural sectors will potentially be expanded by many fold. The phenomenal transformation of the Coal River Valley provides us with a local example of what a secure water supply can do for production values.

Constraints

The region experiences a significant and relatively reliable rainfall, albeit the rainfall totals and patterns have changed significantly over the past 25 years. However the growing season for both pastures and crops could typically be extended by up to several months if there was access to reliable sources of irrigation water. Dorset EDG and the TIDB have identified a number of irrigation development opportunities throughout the region and these are being progressed at the moment.

- The upfront infrastructure costs and ongoing water purchase costs and associated charges will be prohibitive for many primary producers unless they are able to enter into or expand existing high value primary production enterprises.

- Greater information, support and ongoing education and training is needed to ensure primary producers are entering into long term cost contracts that will ensure ongoing viability, sustainability and profitability.

- The dairy industry has the potential to significantly expand with the development of the proposed irrigation schemes; however farm development costs and the lack of a local or regional milk processing facility will hinder initial entry into or expansion into the dairying sector.

- The region’s road network infrastructure is in dire need of upgrades. Road quality and suitability for heavy haulage is limiting the delivery of inputs into the region, and the transport of produce out of the region to markets, key distribution points or ports.

Opportunities

- The establishment of new irrigation schemes will demand new product development. Farmers must be assisted and supported as they transition from lower value to higher value land use options. There needs to be a coordinated and collaborative approach to the identification of new market opportunities, new product development, product trials and the establishment of product and production proving mechanisms. This process must not only involve and engage with existing primary producers it must also identify and promote 'buy in' investment opportunities from external sources.

- The proposed 'Sassafras' agricultural and horticultural farm enterprise model being developed collaboratively between TIAR and UTAS should be viewed as an opportunity for cooperation, coordination and communication in the development of innovative and dynamic 'future farm' models. This model has the potential to engage the minds of researchers and primary producers across Northern Tasmania and deliver evidence based support and ground proven techniques.

- The establishment of new irrigation schemes will also provide the opportunity to explore new farm management concepts that would result in the establishment of collaborative farm management models that extend beyond the traditional farm boundaries.
  There is potential for farmers to pool resources to reduce costs and increase productivity by adopting 'future farming' models, including incorporating joint venture arrangements. This could result in opportunities to increase land capacity, reduce unit costs and boost sustainable production. Such models may well ensure farmers secure their future by uniting properties under one business structure, thereby enabling significant efficiencies in plant and equipment and infrastructure costs. The benefits extend to cost efficiencies and benefits associated with shared intellectual capital and resources, without compromising independence or affecting succession planning. 'Farming big without being big!'[1]

  Such models are already in place in North Central Victoria and are being driven from the top down by investment companies; including a major superannuation fund investing more than $40 million in a collaborative venture with farmers, which includes the opportunities for farmers to contract their own property and maintain hands-on involvement.

[1] *Collaborate to survive and thrive" – John Gladigau, farmer and Nuffield Scholar*

- Adding value to raw production outputs must be further researched as consumer demands change from purchasing the basic raw primary production outputs to meal ready pre-prepared and often pre cooked options, including such fare as fresh salad mix, ready to cook vegetable stir fry mix, marinated lamb roast portion for two or a pre-cooked sealed ready to heat and serve beef and vegetable curry.

- The Dorset region has a very positive reputation for its high quality onions and carrots. This reputation needs to be further capitalised upon through the development of a regional, recognised and marketed 'brand'. Such a brand will build consumer loyalty and needs to be extended to incorporate other premium regional produce.

- The demand for organic produce across Australia continues to grow at a rate of around 20 per cent per annum with world wide growth of between 15 and 30 per cent being recorded.[2] Given the higher cost of production and general supply shortages organic produce attracts a price premium that is generally in the order of 20 – 30 per cent, depending on locality, production techniques and economy of scale factors.

- There is a need for more rigorous control over the use of the term 'organic' which would provide greater certainty with regard to product quality, reliability and therefore further increase demand. The Dorset region has significant potential to supply product into this rapidly growing segment. The State and region's clean and green reputation would add significantly to demand.

- Consumers are becoming increasingly concerned about the 'commodity' driven view of vegetable production and are showing support for small scale, community minded farmers. This trend is also evident within the pork, chicken and egg sectors where consumers are increasingly demanding that their food is not sourced from 'factory farms'. Products that are produced with the primary motive being profit rarely stimulate and excite the senses.

- The state and region's fruit fly free status provides access to valuable export markets, where as mainland fruit must be cool stored for a month or fumigated before being exported. The 'island effect' has effectively quarantined the state from the pests and diseases that occur on the mainland and all efforts must be made to

[2] *The organic market in OECD countries: past growth, current status and future potential*

ensure our disease free status is maintained and our clean and green image is enhanced and not eroded by short term opportunistic gains.

- From the ‘paddock to the plate’ where product provenance is paramount in ensuring that the primary producer retains control as the product moves along the supply chain. This is becoming increasingly evident as more consumers are purchasing direct from the farm gate, farmer markets, regional providores and from dedicated primary producer owned and operated retail outlets. The establishment of primary product supply chains, where the producer of the raw material has an element of product and quality control needs to be encouraged and supported.

- The establishment of a dedicated food trail that promotes ‘home grown’ and ‘clean and green’ regional produce to both the local residents and importantly the touring public has the potential to add value to both the agricultural and tourism sector.

- The dairy industry has already been identified as a key possible area for significant expansion. Information on other areas of possible growth derived from existing or new sustainable capabilities must be undertaken to inform the development of possible futures for the Dorset region. This will require a serious and sustained commitment to investment in research and analysis at a local level.

- The establishment of a milk processing facility within the region will provide a vital impetus for the expansion of the dairying sector. Such a processing facility may target only the fresh milk supply market or it may well manufacture milk based products such as yogurt, butter and cheese.

- Primary producers will in the future be paid for the environmental services they provide. Consideration must be given to the new farm models that employ not only production values but equally the environmental service values such as water quality, biodiversity, ecological restoration, carbon sequestration in both soil and woodlots, renewable energy and salinity management - indeed a new form of farming!

- The notion of ‘carbon farming’ needs to be reviewed with the benefits and costs fully identified. Carbon farming may provide farmers with an alternative, viable and sustainable additional ‘crop’. The benefits of shelter belts are well known and documented with some farmers re-vegetating up to 30 per cent under landcare and farm forestry plantings without reducing farm returns. Plantings being targeted on the poorer less productive soils whilst concentrating efforts on improving production from the better quality soils. The opportunity for farmers to participate in carbon or greenhouse partnership projects can significantly reduce the initial establishment costs.

There are a multiplicity of innovative and new market products that have been or need to be reviewed to determine their present day potential for the Dorset region.

In 2004-5 the then Department of Primary Industries, Water and Environment – Tasmania, undertook a 'Preliminary feasibility of ethanol production from sugar beet in NE Tasmania'. The conclusions drawn from the economic assessment of gross margin analysis and the economic assessment of by-products together with the agronomic trials were considered by CSR but did not at the time warrant further investment on their behalf. In the report's recommendations it states:

"…*the results from this study are a valuable benchmark and update in agronomic recommendations. If an ethanol industry were to be developed, then results from this trial would be invaluable in increasing the potential success of the crop."*

Over the past six years the world has seen the volatile oil prices escalate from around $50 per barrel in early 2005 to more than $145 per barrel in 2008 and settle back to around $84 per barrel. The present price of crude oil is almost two thirds higher then at the time this feasibility was undertaken. In this same time frame there has been significant development and growth in the processing of bio-fuels including bio-diesel from canola and poppy seed in Tasmania.

What is the current potential for sugar beet, given there is now an established bio-fuels processing plant operating in Northern Tasmania, crude oil prices are increasing and there is potential for a secure water supply for crop irrigation? It is well worth revisiting the data and undertaking a renewed economic assessment incorporating these current factors.

The region should be following the lead of the wine industry sector from 30 or more years ago and set out to identify products and crops that match our climate, soils and environment. We should be looking globally for opportunities to provide niche markets with out of season produce, as is happening with the cherry industry. We need to identify opportunities to grow the region's fresh and value added export produce markets and equally identify opportunities to provide import replacement. However given our cost of production constraints, these sectors are generally going to be in high value niche markets, again providing opportunities to move the economy away from a heavy reliance on commodity based primary production.

The region has significant potential to markedly increase its agricultural outputs, particularly in the areas of emerging high value niche markets. There are numerous non-traditional opportunities for innovative product development within the agricultural sector, however it will take a considerable amount of research, education and training to ensure the right products are developed. Equally it will require a substantive leap of faith by the producers to trial and explore these opportunities. A significant advantage for the Dorset region is that the highly successful development of the Coal River Valley clearly demonstrates the opportunities that are available when irrigation water becomes a reliable input. Dorset farmers should not try to replicate the successes of their Coal River Valley counterparts but should embark on a journey of discovery to find and establish their own markets and points of difference. They should endeavour to seek out opportunities to supplement and further build on the existing established advantages created by their southern counterparts rather than merely duplicating the successful ventures and entering into direct competition against them.

Recommended Actions

Action	PRIVATE	STATE	LOCAL	OTHER	COMMUNITY	Comments
Establishment of a collaborative agricultural research centre to identify, trial and 'ground prove' innovative niche market opportunities in Agriculture and Horticulture.	*	*			*	UTAS and Industry sectors involvement required. (See Sassafras model) Need to work with and engage with the 'Innovative Industry champions' along all sections of the production value chain
On-going implementation of whole of catchment management model is vital for the maintenance and expansion of high value production systems	*			*	*	NRM North, caring for our country and landcare initiatives provide the primary platform for this response
Assess the potential for the establishment of collaborative farm enterprise models with both existing land holders and potential investors including Super fund investment managers	*			*		Such 'future farming' models need to be discussed within the farming community as means of raising awareness of what future collaborative farming models may look like
Undertake consumer demand research in both domestic and export market sectors	*			*		Consumer behaviour and trend analysis is vital in the identification of new and emerging market options for products, preparation and packaging opportunities

Identify the skill needs of potential innovative new technologies and existing skill gaps; develop and introduce the appropriate and relevant training programs that will bridge these gaps	*	*		*		Collaborate with Skills Tasmania, local schools, industry and private sectors
Identify, establish and market a regional brand. Create regional pride and awareness in what we do and what we produce	*	*	*	*	*	Must be adopted across all community sectors so as to achieve recognition through repetition. This is a difficult task and takes time to establish credibility and ongoing consumer loyalty. Tasmania is well regarded as a 'clean and green' State and there is a clear opportunity to build further on this reputation.
Identify and promote market opportunities for local and regional branded organic produce	*					Industry sector bodies to support existing producers in the marketing of organic branded produce
Establish a code of practice and certification program for organic producers	*				*	Industry sector bodies need to ensure that 'organic' claims are genuine, otherwise consumer confidence will be undermined.
Ensure that the current status of quarantine and pest and disease free levels are maintained or further enhanced	*				*	The clean and green reputation of Tasmanian produce is highly regarded and sought out by consumers. Regional branding needs to be able to further enhance the notion of 'clean and green'
Establish a genuine 'paddock to the plate' opportunity with self serve road side stalls, cooperative local produce outlets or the establishment of dedicated local produce sections within existing retail outlets. The focus of buying direct from the producer must not be lost and this link must be retained	*	*		*		Potential for 'collectives' of producers to band together
Establish a regular community based farmer market that celebrates and educates about produce seasonality	*			*	*	Local community or service groups could support the producers in establishing and running the market
Establish a dedicated food and beverage trail linking the regions diversity of produce	*			*		A key tourism opportunity that will lead visitors on a 'culinary' experience as they travel through or around the region
Identify, support and facilitate efforts to establish a milk processing plant that will service the needs of an expanded diary industry sector within the region	*	*		*		For long term viability and sustainability, the establishment of such a processing facility may not be within the Dorset region
Generate awareness of and promote the potential and opportunities of 'Future Farming' models that include both product payments and environmental services delivery payments for on-farm activities such as: water quality, biodiversity and carbon sequestration within woodlots and soil	*			*	*	The concept of farming will be greatly modified as communities expect, demand and pay for environmental stewardship.
Identify opportunities from a 'Mapping the Connections' exercise to introduce economies and efficiencies of scale for capital investments in plant, equipment and built infrastructure	*			*		Adopt the Enterprise Connect model for a targeted sector analysis. This could initially be within the agriculture, horticulture and vegetable sector.
Local and regional planning schemes will need to consider and reflect the economic, social and environmental values of providing 'environmental services' across all land use sectors	*			*	*	All land use approval processes will need to consider environmental and social values and not rely as heavily on an engineering standard approval process
Establish an impact model of the effects of climate change on existing production systems and identify future production opportunities that may be better aligned to the projected climate patterns of: rainfall, temperature, relative humidity and wind patterns		*		*		Climate change data will have the potential to identify production opportunities for previously marginal or non-considered ventures
The financial and environmental benefits of 'Carbon Farming' systems need to be reviewed, clearly detailed and communicated.	*	*		*		Detailed research, analysis, mapping and land manager information sessions need to be conducted as regional specific 'green carbon' and 'soil carbon' sequestration storage data is lacking.

Forestry and Forest Products

Forest products and forest management continuously evolves in response to a range of factors that include changes in demand and supply, wood product development technology and concerns over environmental performance of forest management and the effects of global warming.

Resource availability is also changing, most notably increasing supplies of hardwood pulpwood, declining availability of native forest resources and limited expansion of the softwood plantation resource.

Tasmania has a well established forest industry and is a net exporter of forest products, the only state in Australia to be in such a position.

Strengths

The key strength of the forest industry sector is its large and high value forest estate that is based on both native forests and plantations. Tasmania has the largest hardwood sawlog plantation resource of any state in Australia and the Dorset region has the second largest area of eucalypt plantations in Tasmania. (22,900ha or 12 percent of the States total) The Dorset region has the largest area of softwood plantation in Tasmania. (16,300ha or 34 percent of the States total).

The forest industry sector employs approximately 23 per cent of the Dorset regions workforce, the second highest percentage in the State.[3]

Whilst there are uncertainties and risks associated with the quality of the plantation hardwood resource, the increasing supplies of sawlogs and pulpwood from the hardwood plantation estates will create opportunities for both greenfield developments in new processing facilities as well as opportunities for re-tooling of existing facilities. Investment in new processing facilities will be required due to the difference in sawlog size and log quality that will be produced from the plantation stock compared to the native forest stock. Whilst the FEA sawmill at Bell Bay is geared to mill the smaller hardwood plantation stock and is configured to reduce stress disfigurement of the resultant sawn timbers, its future is currently uncertain.[4] Within the industry it is generally recognised that the FEA mill at Bell Bay is a viable and profitable entity for the downstream processing of hardwood plantation sawlogs, however it remains to be seen as to what form (if any) the mill will adopt under new ownership.

[3] *Forest industry survey 2005-06 – CRC for Forestry, technical report 184*
[4] *FEA is currently in the hands of the receiver*

A recent study into the Tasmanian woodcraft sector determined that more than 2,000 people are directly involved in the industry.[5] It was also noted the woodcraft sector is an integral part of the Tasmanian brand and visitor experience, with woodcraft and wood design being some of the state's most highly sought after tourist products. The Tasmanian woodcraft industry has the potential to increase in size, output and value and assistance to new entrants and the development of linkages between processors, makers and retailers will help this important industry to realise its potential.

Constraints

The time is right for the Tasmanian community to negotiate a more inclusive and resilient future for the state and the Dorset region's valuable forestry and forest products industry.

There is currently a world wide market and community rejection of commercial forest operations in native forests that is driven by concerns over whether the forest industry is unsustainably consuming natural resources. There is currently a significant downturn in demand, especially from Asian customers, for forestry products if they are not being sourced from Forest Stewardship Council (FSC) certified operations. The Tasmanian forest industry sector must move to gain FSC certification if it is going to win back demand.

There is ongoing uncertainty within the Tasmanian forest industry sector as the current Regional Forestry Agreement (RFA) nears its renewal date. The Tasmanian government must now revisit, revise and renew the RFA, a RFA that reflects the current market, industry and community demands. It must also balance the economic, social and environmental concerns of this and future generations. Whilst it must ensure investment into down stream processing are supported by long term supply contracts, thereby providing investment confidence, it must also provide flexibility so as to ensure new opportunities and new technologies that provide higher value outcomes are not relegated to the scrapheap due to long term inflexibility in timber supply agreements.

Opportunities

There is no clear single vision of what the forest industry will look like in the future. What is known is that for the industry to become more resilient and to remain important in the provision of long term sustainable jobs it must respond to the market signals and develop innovative opportunities to efficiently produce high value returns. There are opportunities for new

[5] *Forestry Tasmania, Woodcraft Guild of Tasmania Inc. – Creating Preferred Futures*

forest product processing facilities that range from the proposed kraft pulp mill, a renewed hardwood sawmilling sector producing high value appearance type products for domestic and export markets, engineered wood products through to renewable energy biofuels, charcoals, biochar and wood pellets.

It should be noted that in recent times the forest industry sectors have been 'hit hard' by significant external and internal events, resulting in significant impacts on the industry's capacity to retain and gainfully employ its current workforce. The State government is to convene an 'industry round table' that will aim to identify opportunities for industry renewal that will result in a sustainable, modern, socially acceptable industry for the future, able to meet its customer requirements and demands.

This process has arisen out of the dire circumstances the industry now finds itself in, however, the time is now right for the industry to renew, adapt and embrace new and developing timber product needs of tomorrow's society.

A broad range of issues and opportunities are currently facing the forest and forest products sectors, and include the following.

- The international community recognises the need for reducing emissions from deforestation and forest degradation as a vital component of a comprehensive solution to the climate change problem. There is substantial potential for carbon sequestration in forest areas that have previously been logged, if they are allowed to re-grow undisturbed. A comprehensive study into the capacity of the region's forests to sequester carbon is an important step in determining the best end value of the region's most expansive natural resource.

- To regain credibility and market share, especially within the Japanese markets, the Tasmania forest industry sector must adopt a radical shift in forest practices towards an industry model that more closely reflects what the 'new generation' forestry sector will look like. It is clear that without FSC certification and a paradigm shift in business practices and processes, the industry will continue to lose demand, market share and value for the Tasmanian economy and those who are employed within the sector.

- Potential for new hardwood sawmill development based on the extensive hardwood plantation resource. However such an investment would require access to ongoing resource to justify the establishment costs. The demand for sawn hardwood will increase as native hardwood production declines in other states. There is also significant potential to export sawn hardwood to China and other Asian countries as supplies from tropical forests decline and as markets demand sustainable plantation based timbers.

- The innovative radial sawmilling process can utilise much smaller sawlogs than traditional milling processes with radial backsawing, a technique that has been demonstrated to achieve up to a 20 per cent increase in volume and value of timber produced over the more conventional sawing methods. In addition, radial sawing can utilize much younger trees than can traditional milling as distortion and shrinkage is minimized. New and innovative technologies such as radial sawing would require the re-skilling and training of the workforce.

- Forestry Tasmania has had to engage foresters from overseas because of the shortage of locally trained foresters.

'Forestry Tasmania, as with many other organisations, faces an ageing workforce, innovative retention strategies are being implemented to retain critical skills, experience and corporate knowledge. On the other hand, recruitment strategies include providing work experience to secondary and tertiary students and going globally in search of suitable professionals.'

(Forestry Tasmania – Annual Report 2008)

- A comprehensive review of training needs within the forest industry sector needs to be undertaken so as to address the current shortfall of an appropriately trained and skilled workforce as well as the identified future needs of the emerging high priority industry sectors.

- The production of veneers and plywoods utilising both hardwoods and softwoods has been identified as a high ranking opportunity for future development within the forest industry sectors[6]. Whilst veneer plants have recently been developed in both the North West and Southern regions the opportunity to develop a veneer plant together with plywood production should be considered as a key value adding opportunity for the region. Some sections of the hardwood plantation stock have been managed with the view to providing high quality peeling logs for existing or future veneer plants.

- Forest industry by-products and waste can be utilised in the production of renewable energy. The requirements for all states to meet the renewable energy targets by 2020 will increase demand for sources of renewable energy. The production of wood pellets for bio-energy production both in the domestic and export markets will provide an alternative end use for forest and sawmill waste.

[6] *Forest and Forest Industry Council – Markets and Market Prospects for the Forest Products Sector in Tasmania – report prepared by URS Forestry - 2009*

- The forest industry sector will continue to need a vibrant research and development program that supports the new and innovative development and the application of new technologies in the management, harvesting and processing of the forest resource.

  Such a commitment to research and development is vital in establishing the right environment to drive industry change and to meet customer demands and community expectations.

Recommended Actions

Action	PRIVATE	STATE	LOCAL	OTHER	COMMUNITY	Comments
Ensure the forest and forest industry sector is adequately resourced to enable research and development into world's best practice in management, harvesting and processing of both hardwood and softwoods.		*		*		Research and development must reflect customer demands and community expectation as the industry transitions from native forest resource to a re-growth and plantation resource.
Identify best end value for native forest hardwood, plantation hardwood and softwood sawlogs and allocate resources to maximise the economic, social and environmental returns from the native forest and plantation stocks.	*	*		*		Need to ensure long term supply agreements reflect market values and are not restrictive on the entry of innovative new technologies.
Identify best end value opportunities for specialty timber species as a dedicated industry sector or by-product of native forest harvesting.	*	*		*		Specialty timbers must be adequately and appropriately utilised to maximise financial and job creation opportunities.
Forest industry sector must gain FSC certification.	*	*		*		All efforts should be directed towards gaining market acceptance and approval for 'new industry' standards. Current and prospective markets are increasingly demanding products are sourced from FSC certified production systems.
A comprehensive study into the capacity of the region's forest to sequester carbon is an important process in determining the best end value of the region's most expansive natural resource.	*	*		*		Industry sector bodies including FT, Private Forests Tas., CSIRO and environmental agencies need to collaborate on this project.
Identify the skill needs of potential innovative new technologies and existing skill gaps. Develop and introduce the appropriate and relevant training programs that will bridge these gaps.	*	*		*		Collaborate with Skills Tasmania, local schools, industry and private sectors.
Determine and quantify the potential and capacity for the region's forest industry sector to establish value added sectors that include veneer and plywood production systems and engineered structural building components.	*	*	*	*		Existing veneer mills may be better placed to enter plywood markets.
Determine the viability, value and capacity of converting forest industry waste and post harvest trash into bio fuels, including wood pellets for the production of 'bioenergy' both within the domestic and export markets.	*	*		*		Potential higher end value for waste products are often burnt as part of regeneration burns. Side benefit may well be the reduction in smoke generation. Resource supply would be significantly enhanced if the proposed pulp mill did not proceed.

Identify opportunities to train, assist and support new entrants into the wood craft and design sectors and develop the linkages between processors, makers and retailers.	*	*			*	The Tasmanian woodcraft industry has the potential to increase in size, output and value. Need to involve design, architecture and creative arts sectors from UTAS, Skills Tasmania, Tasmanian Skills Institute et al.

New Opportunities

The regional sectors that provide the greatest opportunities for growth and development are to be found in the tourism and renewable energy sectors. Additionally, the roll out of the National Broadband Network (NBN) within the Scottsdale township will also provide significant opportunities for a wide range of businesses.

Tourism

Tourism in the Dorset region is a largely undeveloped but emerging industry sector. Visitors are attracted to the Dorset region by its many natural attractions, particularly its diverse forest ecosystems, beaches and coastal sand dune systems. The development of the *Trail of the Tin Dragon*, a themed tourism initiative celebrating the Chinese and tin mining heritage of the region has been partially developed with the establishment of the Derby Tin Centre. There is considerable further development required in order to fully engage and immerse the visitor in this experience.

The *Barnbougle Dunes* golf links development is a private development that has drawn attention to the region from golf enthusiasts from around the world. The facility is recognised as being in the top rated golf links in the world and is drawing significant visitation on the back of this reputation. The region's reputation for outstanding world class golf will be further enhanced with the opening of the *Lost Farm* links course adjacent to Barnbougle Dunes later in 2010.

Tasmania's Bay of Fires was named as the world's "hottest" travel destination for 2009 by international guide book Lonely Planet, and the recent announcement by the State government to establish the 'Bay of Fires National Park' located on the east coast entry to the Dorset region will also greatly enhance the region's tourism profile.

Strengths

Within the region there is opportunity to experience a wide range of tourism experiences, most of which would be considered as passive experiences and are based on ocean beaches, sand, forests, mountains, history and geology. The region's key tourism strengths are clearly its diverse forest environments, beaches and associated sand dunes.

- The 145 km of coastline within the Dorset Municipality consists primarily of 120 km (82.8%) of sandy shoreline with the remaining 25 km (17.2%) being rocky headlands and shoreline. The majority of the coast line is facing north onto Bass Strait and the north east section fronting the Tasman sea. The northern coastal section through to Cape Portland primarily comprises the large crescent shaped Anderson's

Bay and Ringarooma Bay. This coastal region is bordered by extensive active and consolidated dune which results in a parallel coastal drainage pattern. This coastal sand dune physiography is largely responsible for the formation of the Ramsar listed coastal wetlands namely Little Waterhouse Lake and the Lower Ringarooma River Flood Plain.

- The *Barnbougle Dunes* golf links and the soon to be completed *Lost Farm* golf links together with the proposed Bay of Fires National Park will provide dedicated niche market 'book ends' for the regions ongoing tourism sector development.

- Bridport is a primary focal point for many Launceston based residents who holiday in a self contained manner with the areas outstanding beaches as the key attractor.

Constraints

- The north east region's road network is one that carries a high proportion of heavy transport and tourism traffic. This mix is not particularly well received by the touring public, especially on the winding, steep and often narrow roads.

- As noted in the initial development stages of the Trail of the Tin Dragon (TotTD):

> *'The tourism product is not strong and the Chinese and mining stories need to be linked. However a number of projects exist that can be developed incrementally over time with the assistance of partners using grants and operational funds when available'.*
>
> *(Dorset Chinese Heritage – Trail of the Tin Dragon – report prepared by Goupwork 2003)*

It was also noted there was a similar association between the early Chinese settlers and mining in Bendigo (Victoria). However, it must be understood that the development of the Golden Dragon Museum at Bendigo is within Victoria's fourth most populous city with more than 76,000 people, and Bendigo has a rich gold mining history. Bendigo, together with Ballarat, bookends Victoria's Central Goldfields touring route, less than 80 minutes from Melbourne. The allure of gold is unquestionable and that of tin is dulled in comparison.

- The real challenge for the TotTD is to establish the trail. For a visitor the self guiding experience, with the exception of the Derby Tin Centre, is a drive-by experience at best. There also needs to be a realistic measure of the potential of the fully established trail, comparisons with high population mainland centres that are focused on their gold heritage are unrealistic and we should not draw unrealistic expectations.

- TotTD is always going to struggle as a destination or stand alone attractor. At best it is a side-show to the real purpose of visiting the region. To this end the real purpose for more than 50 percent of those visiting the region is as a drive through destination and not as an end destination in its own right. Many visitors pass through the North East not initially by choice but by necessity as a means of accessing the east coast from Launceston or vice versa. This should not be viewed as a negative, but as an opportunity, and the TotTD is an attempt to build on the area's history, that of the Chinese and their association with tin mining.

- The region lacks coordinated tourism and visitor promotion. The state's tourism promotion continues to focus heavily on iconic destinational products, none of which are located in the north east, and as such this region is often one of the first to be dropped from the 'tour around Tassie' when time constraints dictate a rationalisation from the 'want to do' to the 'iconic must see' destinations only.The further development of the Barnbougle Dunes golf links precinct, together with the proposed establishment of the Bay of Fires National Park, will provide a much needed focus for the north east. Indeed both of these attractions have the potential to be added to the states icon list of Cradle Mountain, Strahan, Salamanca Market, Port Arthur and Wine Glass Bay.

- The majority of tourism expenditure (with the exception of transportation) occurs 'in the dark', with expenditure on the evening meal and accommodation accounting for up to 75% of daily tourist expenditure. Interstate visitors are choosing options that reduce their accommodation expenditure by opting for fly drive options incorporating cheap air fares and self contained campervans. For many who are visiting Tasmania for the first time it is generally to 'dip the toe in the water' via a short fly drive and check out the state, resulting usually in only the key promoted destinations of: Salamanca Market, Port Arthur, Freycinet, Cradle Mountain, and Strahan being considered.

- Tasmania's 'shack' culture is unique, certainly within Australia and this may well in part be a determining factor in local residents travel patterns, the 'we have a shack (or access to a friends) so we go there, to the same location every year and when we want a real holiday we go to the mainland or overseas' approach. There is a tendency for intrastate holidays to be to the same familiar and known destination year in year out.

- Marketing tends to demand a disproportionate amount of time and resources within the tourism sector and often it is the primary focus of local and regional tourism associations, when in fact it is product development and service delivery that should be their focus. No amount of marketing will sell an inappropriate or inferior product to an increasingly discerning touring public that is demanding quality, value and above all a high quality of service delivery. Special interests, word of mouth and the internet are rapidly replacing the traditional tourist brochures and publications as the primary motivational vehicle for visiting a region. The product needs to be right first, and then the focus should shift to marketing.

Opportunities

- The 'TotTD' project must be reviewed now that the central key element is in place and is fully operational. Having a central focal point by no means constitutes a 'trail' and it is vital that if this project is going to be promoted, it must live up to the expectations that are being promoted.

- The destinational and attractor strength of the beaches, sand dunes, coastal walking trail and the *Barnbougle Dunes* experience needs to be further added to by the development of additional passive and soft adventure activities and attractions.

- The Forest Eco-centre at Scottsdale also lends itself to being developed as a central focal point for launching into the region's diverse forest environments. The centre could become a rich interactive and engaging visitor experience that encourages visitors to explore more of the regions diverse eco-systems. The centre has the potential to become a memorable experience in its own right. Whilst the location of the Forest Eco-centre is appropriate as the Bass regional headquarters for Forestry Tasmania, it is isolated and not well positioned as a 'hub attractor' for visitor traffic. Indeed the disadvantages of its location may well outweigh the advantages of further development at this site.

- The TotTD has identified the need to link products in order to capture the attention of the visiting public. It is no accident that a carefully thought out grouping of like products will encourage visitors to move from one destination to the next, and this can have a number of benefits. It can encourage visitors through cooperative marketing and promotion to move from one product to the next, it can cause visitors to link products they may not have made the connection between and it can cause visitors to spend more time in an area and therefore need to seek out accommodation and food and beverage options resulting in a significant increase in visitor spending.

- One of the key attractors for visitors to Tasmania is the remarkable quality and diversity of its food, wine and beverages. The marketing potential of Tasmania's 'clean and green' gourmet delights has not yet been fully realised. Indeed, the opportunities to further promote local, regional and seasonal produce, be it on the restaurant plate or on the shelves of the local providore or at farmer's markets, are now springing up across the state. Around the world primary producers are developing new production models that are based on the concept of paddock to the plate, selling direct to the consumer, establishing a real sense of value, loyalty and connection with where and how the food is being produced. It is this direct engagement and interaction with the producer that consumers are valuing and the potential for consumers to try, buy, like and actively seek out these 'new and exciting products' when they return home from their holidays. The development of a food and or food and beverage trail needs to be investigated.

- A challenge for the producers of these 'new products' is how can they continue to supply their new found customers when they live all over the state or indeed the country or globe. The challenge of supply logistics for the small boutique producers, especially if refrigeration is required, is often a task that is too daunting.

Recommended Actions

Action	PRIVATE	STATE	LOCAL	OTHER	COMMUNITY	Comments
Review, prioritise and seek funding for the appropriate next stage development, interpretation and marketing of the TotTD.		*	*	*	*	The Tasmanian Chinese community including those from off shore with business interests in the state, businesses and students need to be actively engaged in this project.
Build on and expand the TotTD concept to incorporate additional complimentary elements along the trail.		*	*		*	Need to develop the trail beyond the current single entity.
Identify complimentary new activity opportunities (such as agri-tourism) that will further enhance and add to the visitor experience, extend their length of stay and increase daily expenditure within the region.	*	*	*	*		Engage with and survey existing visitors so as to ensure opportunity gaps are demand driven. The tourism association, Zone Marketing Group, regional and State tourism bodies need to be involved.
Identify opportunities to link the Forest Eco-centre, the regions diverse forest environments and the 'Bay of Fires National Park' thereby creating an additional diversity and depth of interest to the existing TotTD.	*	*	*	*		Thematic interpretation of the region's diverse forest ecosystems, coupled with short walks, picnic and toilet facilities will encourage visitors to stop, explore and ultimately spend more time in the region.
Identify opportunities to establish an agri-tourism regional food and beverage trail, and associated 'farmer market' concept.	*		*	*	*	Buying from the farm gate is becoming increasingly popular.
Identify opportunities to further develop the tourist potential of the region's unique coastal sand dune systems, beaches,	*	*	*	*	*	Anderson's Bay and Ringarooma Bay, the beaches and bordering sand dunes provide unique public and private tourism

walking trails and Ramsar listed sites.						development opportunities.
Identify the skill needs of potential innovative new technologies and existing skill gaps; develop and introduce the appropriate and relevant training programs that will bridge these gaps	*	*		*		Collaborate with Skills Tasmania, local schools, industry and private sectors

Renewable Energy

The renewable energy focus within the Dorset region has primarily been on the development of wind power, namely the Musselroe Wind Farm. The Musselroe project will proceed as a 56 turbine wind farm, with a generating capacity of 168 MW. The project also includes the construction of a transmission line to connect the wind farm site to the Tasmanian electricity grid at Derby. The Musselroe Wind Farm site has been monitored since the early 1980s and data gathered over this time suggests that the area's wind resource is world-class.

The project has met all of the necessary approvals from the Australian and Tasmanian government as well as the Dorset council with more than $20 million of preliminary site preparation already being completed. However, changes to the Australian government's Renewable Energy Certificate (REC's) scheme has resulted in the project's financial viability being brought into question and further works have been halted, albeit further proposed changes flagged by the Australian government for January 2011 will reaffirm the projects financial viability and see the project reactivated and completed.

The region lends itself to the further development of additional wind farms as well as other renewable energy sources. Worthy of further investigation are the opportunities to:

- establish and install additional on-stream mini hydro electricity plants;
- mapping of and potential for tapping into the region's geothermal energy resources, particularly those extraction systems incorporating low temperature exchange processes;
- wave and tidal energy systems; and
- enewable energy retrieved from the biochemical, thermal processing and mechanical conversion of biomass into energy forms.

Within dispersed communities such as exists within the Dorset region domestic and on-farm scale renewable energy opportunities may also present as viable opportunities. This would potentially reduce electricity costs and also feed surplus energy production back into the electricity grid.

Strengths

The Dorset region's natural advantages give it access to a wide range of renewable energy opportunities with the potential to further enhance and grow Tasmania's international reputation of being a clean and green renewable energy state. As an island with a history of renewable hydro and wind generated electricity Tasmania, in particular the North East and Northern regions, are well positioned to benefit from the global shift to renewable power sources. Indeed, Tasmania has the opportunity to build on its knowledge and skill sets within these sectors to create significant community and state wealth as well as 'new industry' employment.

Through the coordination and collaboration of renewable energy education and training courses and programs, research and innovation, design manufacturing and construction, the region has the potential to be nationally and internationally recognised as a renewable energy 'Centre of Excellence' that is genuinely world's best practice.

- A renewable energy focus will move our economy on from the reliance on commodity based primary resources to a high value economy that is innovative, knowledge and skills based and most importantly, economically, socially and environmentally sustainable.

- As we make the global transition from a high polluting, high energy consumption to a low polluting, low energy consumption economies there will be untold opportunities for those who recognize the problem and begin to find solutions to harnessing the full potential of low emission technologies.

- Many of the key elements for establishing a focus on renewable energy within the region are already in place. The opportunity lies in bringing together these elements to collaboratively and collectively work together to maximise the regions potential within the area of renewable energy education, research, innovation, development, trialing and demonstration, and the commissioning of renewable energy options.

- The Dorset region is already home to an extremely diverse range of renewable energy opportunities including:
    - Hydro (On-stream mini hydro)
    - Wind
    - Tide / Wave
    - Geothermal
    - Bio-thermal
    - Bio-char
    - Methane Capture
    - Bio-fuels

Constraints

This concept would need to be recognised as one that engages with the northern Tasmanian region and not as a stand alone Dorset based project. The renewable energy sector is rapidly growing as more efficient technologies are being commercialised and as government regulated targets are being introduced. It could be argued these imposed targets will further act to stimulate on-going research, development and commercialisation of new innovative processes that will provide the paradigm shift needed to break our nations, and indeed the world's, heavy dependence on fossil fuels.

Sectors within the renewable energy industries are rapidly approaching the cost of energy production derived from fossils fuels. Whilst price parity is still a way off, the environmental and social benefits are beginning to be recognised by governments all around the world. However at this point renewable energy industries are still very dependent on supportive government policy initiatives and subsidies.

Opportunities and Community Benefit

There are considerable economic, social and environment benefits in establishing a renewable energy 'Centre of Excellence' incorporating the North East and Northern Tasmanian regions and these include but are not limited to:

- A dedicated program aimed at maximising the potential of the region's natural and comparative renewable energy advantages.

- Development of new and enhanced renewable energy sources being researched and developed within the region.

- The establishment of a science and innovation driven education and research sector that is recognised world wide.

- Establishes the region and State as being globally competitive and ready to access funding initiatives centered on climate change mitigation.

- The region and State becomes a research and development and educational focal point – 'Centre of Excellence' – for renewable energy research and training and the development of practical real production models that have global application.

- A high level attractor for both public and private investment into the region.

- Almost 1,200 construction jobs will be created in Northern Tasmania if current proposed renewable energy projects proceed whilst ongoing operational and maintenance jobs would total more than 460.[7]

- An estimated $486 million of additional income would be generated throughout Northern Tasmania if current proposed renewable energy projects proceed.[8]

- A dedicated skill based training hub in renewable energies that both develops and delivers training programs. Training is a vital and key element, given that green and clean-tech skills shortages already exist'. The ACTU has called for 40,000 productivity places to be dedicated to training in these areas.[9]

- Domestic and International tourism opportunities from being recognised as the 'living laboratory' for renewable energies.

- Builds on and enhances the State's clean and green image.

- A reduction in greenhouse gas emissions locally, regionally, nationally and globally.

[7] Climate Institute May 2009
[8] Climate Institute May 2009
[9] Sharan Burrows – President ACTU

Recommended Actions

Action	PRIVATE	STATE	LOCAL	OTHER	COMMUNITY	Comments
Establish and fund a Northern Tasmania renewable energy task force that is responsible for the collective identification and promotion of renewable energy opportunities within the region. The task force must include the educational and training opportunities that may arise from Tasmania's significant global advantage in renewable energy R&D and production systems.	*	*	*	*		There is no one organisation / agency that is responsible for coordinating and promoting the region's renewable energy advantage. This needs to include the opportunities provided by: hydro, wind, tide, wave, geo-thermal, and the conversion of biomass to energy via thermal processing, bio-chemical and mechanical processes. There must be a collective voice to promote the region's renewable energy opportunities and advantages to the Australian government and to attract a share of current funding.
Establish a regional opportunity model for renewable energy research, development, innovation commercialisation, and production systems.	*	*	*	*		There is a need for a regional focus on renewable energy production as there is no current collaborative focus on renewable energy for the region.
Identify the skill needs of the renewable energy sector; develop and introduce the appropriate and relevant training programs that will bridge these gaps.	*	*		*		Collaborate with Skills Tasmania, local schools, industry and private sectors.
Undertake a regional biomass audit to determine the source, quantity and seasonality of supply for renewable energy production.	*	*		*		Biomass can be converted by thermal or biochemical processes to produce renewable energy, and by-products such as Biochar and chemical feedstocks.
Local and regional planning schemes will need to consider and reflect the economic, social and environmental requirements of incorporating the needs of the renewable energy sectors at both the domestic and commercial level	*			*	*	All approval processes will need to consider environmental and social values and not rely as heavily on an engineering standard approval process.

National Broadband Network Roll Out

On the 7th April 2009 the Australian Government announced the establishment of a new company to build the National Broadband Network project (NBN). The NBN will connect homes, schools and workplaces with optical fibre (fibre to the premises – 'FTTP'), providing broadband services with speeds of up to 100 megabits per second; 100 times faster than is currently being accessed by most users. This project has the potential to propel Australia ahead of world best practice in digital connectivity, with Tasmania playing a critical role in working through the pilot testing stage.

Access to high speed broadband will start a revolution in on-line services and participation. The benefits for Tasmania will come initially from the immediate job creation resulting from the installation of the network but more significantly from the longer term potential to attract businesses, entrepreneurs and skilled professionals to the State. Technology underpins all forms of production, transport and communication enables the delivery of a broad range of knowledge, information, products and services in education, health, financial and recreational activities.

Narrow bandwidth has been a major inhibitor to accessing timely and reliable e-commerce, the delivery of 'software as a service' for businesses and the adequate provision of government education and health services.

The town of Scottsdale has been chosen as one of three Tasmanian communities, along with Smithton and Midway Point to be the first towns connected Australia wide to the federal Government's $43 billion National Broadband Network (NBN) roll out.

Less than a third of Tasmanian small businesses understand the ramifications of this new technology. The Tasmanian Chamber of Commerce and Industry (TCCI) undertook research late in 2009 and found only 31% of small businesses felt they understood the threats and opportunities presented by the NBN roll out. However; 77% of businesses indicated they wanted to understand how the NBN may change consumer behaviour, and 80% wanted to understand how the NBN may allow them to reorganise their business processes. "With Tasmania first cab off the rank for the NBN, business will be occurring at the speed of light and those who can adapt to the technological opportunities can really thrive."[10]

Increased technological training will be essential if regional businesses and communities are to capitalise on the benefits and advantages of the NBN rollout.

[10] TCCI Chief Economist at the time, Richard Dowling

But what are these opportunities? Many of us can only imagine what these may be. Geoff Heydon, Alcatel-Lucent's Futurologist provides us with a glimpse of what is already available to-day.

"Ubiquitous adequate bandwidth will significantly underpin our future"

- E-Health
    - Tele-diagnosis
    - Monitoring of health indicators (At home 24/7)
    - Secure real time health records
    - Training of health professionals
- E-Business
    - E-commerce for extended network of customers and suppliers
    - E-transactions (efficiency) for supply chain and payment
- E-Employment
    - Development of ICT work force
    - Tele-working to connect remote areas to main office and reduce traffic congestion
- E-Environment
    - Public alert systems
    - Climate monitoring
    - Flood management
- E-Government
    - Enhanced public services delivery
    - Public administration efficiency
    - Transparency
- E-Education
    - Wider and better access to knowledge
    - ITC literacy development
    - Distance E-learning

A reliable NBN would allow non critical patients to be monitored from home with their vital-signs and responses to medication being monitored 24 hours per day by health care specialists located 10, 20 or indeed many hundreds of kilometres away. Doctors and specialists could be available to interact by video with patients requiring additional attention.

Google is current identifying sites for up to 23 new $1 billion 'server farms' around the globe and a key element for the sighting of these centres is the access to renewable energy. The region is soon to have some of the fastest broadband transmission speeds in the world and in recent years at least 68% of Tasmania's electricity power supply was generated from renewable hydro and wind farm sources.

However high speed broadband will eventually connect with users across most of Tasmania and then closely followed by the remainder of the mainland. The window of opportunity presented by being the ‘first cab off the rank’ will slowly close as high speed broadband connectivity becomes the norm and no longer the exception.

It must be remembered that whilst businesses will have the potential to gain access to global markets equally businesses from around the globe will equally have access into our current customer’s offices and lounge rooms. The economy will become more competitive and our regional products will be able to compete for market share in the global marketplace.

Equally, goods and services will be able to be sourced by locals from around the globe, with the delay in delivery time often being compensated for by significantly lower prices.

The world’s largest retailer; Wal-Mart whose online shopping cart caters for your every need from the ‘cradle to the grave’…including a range of coffins!... has the potential to promote, sell and to deliver products into every home with an internet connection at the click of a mouse!

The internet can and will meet your every need, and at increasingly faster speeds.

‘We have only just begun to see what the ICT revolution promises’

(Dr. Ken Henry – Secretary of the Department of Treasury – The Shape of Things to Come)

How to use the NBN to reorganise your business, to make your business processes more efficient and effective, may well provide the greatest opportunities for local businesses.

In a carbon and cost conscious society, business travel is becoming less common. The NBN will enable a much wider range of interaction between distributed work teams; members of which may be in adjoining offices, in the next town or indeed scattered around the globe. Web conferencing will allow for person to person interaction, the sharing of presentations and ideas from your desktop obtaining input and feedback via a medium that will offer security with the capacity to protect, store, and track electronic communications in a virtual meeting room.

A meeting room that can be securely ‘locked down’ so that every comment made through text, chat, video or Voice over Internet Protocol (VoIP) is recorded and securely archived. Web conferencing will bring the value of person to person interaction without the expense or environmental impact of business travel.

The coordination and delivery of targeted training for the region’s SMEs is a vital and urgently needed initiative if the businesses of the region are to maximise the potential from being the first in Australia to have access to high speed broadband. Who is coordinating and delivering the training that 80% of SME’s indicated they wanted (TCCI survey) in order to reorganize their business processes?

This ‘Australian first’ community will come under the spotlight as the benefits of high speed connectivity into regional and remote communities are carefully monitored and evaluated. A significant opportunity to deliver a ‘clever and connected’ outcome not only for the Dorset region but also for all of Tasmania is urgently required as the first connections to the NBN are scheduled to be made by July 2010.

Constraints

- There is a genuine lack of understanding and knowledge of the real potential of the NBN beyond recreational uses.
- There is limited information and certainty on the cost of customer buy in for the service.
- There is a lack of dedicated training specifically targeting the business community.
- There is a concern the NBN rollout across the nation may be significantly delayed, altered or scrapped and replaced with an alternative system should there be a change in the Australian government at the next federal election.

Opportunities

- To maximize the value of the NBN rollout to Scottsdale there must be additional and ongoing targeted support for the business community within this ‘Australian first’ NBN town.

- Training – Business use benefits and training requirements need to be assessed and delivered in a coordinated manner within the community.

- Training requirements in the second generation NBN roll out centres throughout Tasmania need to be determined, thereby allowing for economies of scale and efficiency of delivery to be incorporated into delivery modes and locations.

Recommended Actions

Action	PRIVATE	STATE	LOCAL	OTHER	COMMUNITY	Comments
The benefits of and opportunities provided by accessing high speed broadband must be communicated to all sectors of the community.	*	*				The 'initial perception' that high speed broadband will allow faster movie downloads must be broadened to include business, education, health, government services etc.
The barriers to business and consumers taking up broadband need to be clearly identified and practical initiatives implemented to address these and must be instigated before the NBN roll out is complete.	*	*	*	*	*	There is concern in relation to the cost of access and ongoing usage.
The training needs of SMEs within the Dorset region with regard to accessing and maximising their business potential must be determined.	*	*	*		*	It should not be assumed that a state wide 'one size fits all' training model will deliver the best outcomes.
SMEs must be provided with targeted and on-going training that will provide SMEs with the skills and capabilities to maximize the potential offered by accessing high speed broadband.	*	*	*			Without adequate training and ongoing support SMEs will not be able to maximize the potential offered by high speed broadband.
Identify the skill needs of potential innovative new technologies and existing skill gaps; develop and introduce the appropriate and relevant training programs that will bridge these gaps.	*	*		*		Collaborate with Skills Tasmania, local schools, industry and private sectors.

Infrastructure Needs

The Dorset regional economy cannot be expected to remain or indeed develop further if the required infrastructure that today's modern economies and societies expect is not being provided. No regional economy can, nor should, be required to provide or upgrade basic infrastructure that is for the use by the general populous.

However it is fair and reasonable where infrastructure is a direct benefit for a known few or for a specific sector, for the cost of provision to be in part the responsibility of the beneficiaries. Such is the case with the on-going development of the North East Irrigation schemes by the Tasmanian Irrigation Development Board.

Transport

The Dorset regional economy is wholly dependent upon road transport and the network of road infrastructure that carries residents, tourists and goods and services both into and out of the region.

In a region like Dorset, the broadening of the economic base is dependent upon the provision of appropriate infrastructure, particularly the road networks. Therefore to stimulate new economic development, including the realisation of innovative opportunities and the maintenance and enhancement of existing industries and businesses, a number of measures need to be adopted to upgrade the transport infrastructure throughout the region.

The Dorset Council, over a period of many years has identified and promoted the need to improve the region's road infrastructure as the region's single most important infrastructure need.

Improved road infrastructure is the number one priority for this region to progress Dorset's major industries of forestry, agriculture and tourism. Upgrades will transform and revive the social and economic future of North East Tasmania expansion and endorsement of large and small scale opportunities.

While considerable funds and commitment have been made in the past, on-going investment is still urgently required. Numerous studies over a number of years continue to highlight the need to improve the road infrastructure in the North East as the poor state of roads is seen to be limiting economic development, limiting the enjoyment and experience of tourists, and providing safety issues for all road users.

(Dorset Council – Projects of Importance – December 2009 p.7)

Whilst it is unreasonable to expect that governments will fund every request for road upgrades, it is equally unreasonable to expect communities in today's modern society to grow, prosper and develop when the lack of adequately maintained road infrastructure limits even the most basic requirements of social inclusion and access to services for what is largely a remote regional community.

A long term commitment to the staged upgrade of road infrastructure must be provided if the community is to move forward in an equitable manner that allows for social inclusion and provides for innovative economic and employment growth.

The key identified road infrastructure priorities for the Dorset region are provided in the following summary.

Roads	Requirements
Lilydale-Golconda Main Road	A firm commitment for future funding and programming of remaining works between Scottsdale and Lilydale, particularly the next section between Lietinna and Blumont, estimated at $15 million plus. The total cost of works, as outlined in NETAS, is expected to be $90 million plus. Council wishes to continue progress toward potential partnership funding and agreements to improve road transport outcomes in North East Tasmania. State Government ownership of this important regional road link to the North East is required.
North East Freight Roads $42.5M (Mathinna Plains Rd & Forestry Freight Routes)	State Government allocated Capital Funding upgrades to the Mathinna Plains Road of $4.5M. • Other Council comments/priorities (as outlined in correspondence reference 09/7141 of 17 August

	2009) in relation to this freight strategy are: i. Herrick to Tasman Highway Junction ii. Gladstone Road Tasman Highway junction to Derby iii. Passing lanes on hilly sections e.g. Billycock iv. Bridport Main Road v. Ben Ridges Road vi. Tresseck Hills/Roses Tier/Prossers Road • State Government to take over ownership, or at least contribute financially on an ongoing basis, to the maintenance of the Mathinna Plains Road. • Timber producers e.g. Forestry Tasmania to contribute annually towards road resheeting, reconstruction and resealing costs.
Bridport Main Road – Scottsdale to Bridport	Ongoing discussions with the State Government to progress upgrades of this road. Cost of road works projects are estimated at $10m plus.
Sealing of roads in the far North East	Funding commitments for: i. Waterhouse Road $3.5M (Winnaleah turn off to Gladstone). ii. Ansons bay Road $1.2M (Browns Bridge to Gladstone). iii. Musselroe Bay Road $4M (Ansons Bay Turn off to Musselroe). Total: $7.7M
Bridport Western Road Access Project	Feasibility study of the Bridport Western Road Access Project through DIER, estimated $100,000.
Tasman Highway – Launceston to Scottsdale	A firm commitment for funding of next phase of the Tasman Highway upgrade, estimated at $8M plus. Urgent maintenance works and line marking.
Roads	**Requirements**
Australian and State Road Funding and Constitutional Recognition	State Government and Local Government Association of Tasmania to progress discussions on potential partnerships and agreements to improve road transport outcomes. Dorset Council to pursue better road partnerships with the State Government through the Local Government Association of Tasmania and Northern Regional Councils. Federal political parties commit to sustaining and increasing the current levels of road funding to Australian Local Government to enable Councils to progress the backlog of required road improvements to benefit the social and economic outcomes for their communities.

The rationale behind the listing of these road infrastructure projects can be found on the *Dorset Council website:* www.dorset.tas.gov.au *– Projects of Importance – December 2009 p 7-12.*

Implementation

The implementation of the recommendations contained within this study should not be confined to a specific process, agency or organisation. The opportunities noted have relevance at many levels and it may be that individuals, community groups, industry sectors or any or all of the three tiers of government are actively engaged and involved in the transition of the regional economy.

The recommendations are only that, however they provide a basis from which the Dorset community can move forward and begin to regain a level of control over the future of their regional economy and that of the provision of sustainable employment opportunities.

The process of implementation will require collaboration, coordination and communication between Australian, State and local governments, industry and community sectors.

There are existing organisations and structures within the Dorset community that can facilitate the process of initiating, supporting and encouraging the adoption of innovative economic and employment opportunities within the region. These organisations include the Dorset Council, Dorset EDG, Scottsdale Chamber of Commerce, Bridport Innovations and North East Tourism Association. What is indeed required is collaboration and coordination between these existing groups so as to ensure the limited financial and human resources are utilised in the most efficient and effective manner and duplication of effort is minimised.

In addition; regional organisations such as Northern Tasmania Development (NTD); Natural Resource Management – North; Australian government agencies, including Enterprise Connect, Regional Development Australia (RDA) – Tasmania and the relevant State government departments and agencies need to be involved. The support and involvement of these organisations will give the recommended projects a real and perceived enhancement of both their profile and sense of priority within the region, which is vital when attempting to secure project funding, especially in the lead up to a Federal election.

The innovative capacity of the region will tend to be diluted due to the low critical mass of innovative champions and their dispersed nature throughout the region. Innovative individuals and businesses tend to cluster and ‘feed off’ one another in a parasitic and By-Product Synergy (BPS) manner. In regional centres the lack of peer support, collaboration and review often results in good ideas being confined to the scrapheap long before being considered by the boardroom.

The process of executing innovation is often more challenging and demanding than the initial concept development for new products, services or ways of doing business. Society is well skilled in setting up roadblocks to stall and de-rail the innovators and lead agents within their communities. These are the people who when they see light at the end of the tunnel, go out and buy more tunnel! With such resistance often resulting in the loss of momentum and practical and perceived challenges eating away the initial enthusiasm the proponents of innovation are often left frustrated and bewildered.

Community processes and mechanisms need to be established that support, nurture and encourage innovative, progressive and forward thinkers. Often it is by collaborating and communicating with other innovative thinkers, often from totally unrelated disciplines, that the greatest advances are made through ‘hybrid vigor’. So called round table discussions with like minded people from like businesses or industry sectors will often reveal synergistic opportunities, and processes and practices for incremental enhancement. However, it is often the unrelated disciplines that combine to provide the new way of thinking, the paradigm shifts in products, services and in doing business.

The region needs to support and encourage the process of innovation. In essence, establish an ‘innovation cluster’ with the region as its focal point rather than a defined industry sector. As ideas and concepts are developed and refined there is an already established support base to cultivate and champion the cause, build and expand the support network, communicate with stakeholders, manage resistance and to sustain enthusiasm. The form this support process takes will be best determined by the community, albeit it needs to be on-going, rather than a one off ‘think tank’ and be facilitated by an independent and motivated lead agent.

This is not to say those prepared and only willing to tread the cautious, tried and proven paths, with one or indeed both eyes firmly focused on the rear view mirror, do not also need support to maintain and enhance their businesses. However; this support provided by government departments, industry bodies and existing networks is already largely in place.

Industrial Ecology

Industrial Ecology is the shifting of industrial processes from a linear system in which resources and capital investments move through the system to become product and waste, to a closed loop system where waste becomes an input for a new process. A recent example of this is where forest harvesting waste is converted into wood pellets for use in wood fuelled electricity generators or is converted to energy and biochar.

One of the most outstanding examples of industrial ecology is to be found south of Perth (WA) at the Kwinana Industrial Centre. The Kwinana Industries Synergies Project (KISP) have identified and established 32 by-product and 15 shared utility synergies. This diverse and complex community of industries has developed based on By Product Synergies (BPS), waste utilisation, cascading energy utilisation and transportation logistics. Many of these businesses have been operating side by side for decades and yet synergistic connections have only recently been identified and established under the KISP.

A further 127 possible synergies have been identified by the KISP.

- Converting by-products currently going to waste into value added products
- Reducing the overall generation of wastes
- Reducing the greenhouse gases by improving energy efficiencies
- Reducing industry's use of scheme water
- Reducing waste water discharges
- Reducing transport traffic and heavy haulage

Mapping the Connections

There are many interconnections, causal links and impacts that tie the seemingly unrelated businesses and industry sectors of a regional economy to each other. This high level of interdependency is a key factor when determining a region's future economic development opportunities. No one sector should be considered in isolation, especially within smaller regional communities as this interdependency between businesses and sectors is often more highly pronounced than in larger regional or metropolitan centres.

Knowing and mapping these interconnections and links between businesses is an important process, and whilst many may consider they know what is 'going on' the process of mapping inputs, outputs and wastes may well reveal and identify real opportunities to reduce costs in areas such as:

- Transportation
- small lot aggregation
- storage

- water and heat transfer
- energy use: and
- shared use of capital equipment, buildings and skills.

Enterprise Connect has undertaken a major survey project titled ‘Mapping the Connections’ involving businesses within three northern Adelaide municipalities who were actively involved in the ICT, electronics or defence industries. The aim of this project was to identify advantageous connections between businesses and identify opportunities to increase productivity and efficiency of small and medium businesses by mapping and analysing supply chains within the region. Such a project, albeit on a much smaller scale, could well be undertaken within the Dorset region with for example a focus being the agricultural, horticultural and vegetable sectors.

Communities and governments have to be brave enough to let inefficient and obsolete businesses fail and to allow efficient and innovative enterprises to replace them. Subsidies and hand outs merely delay the demise of the inefficient and obsolete and delay the innovative processes. Businesses that rely on subsidies and handouts rarely become more competitive, rather more often than not they simply become increasingly more dependent on tax payer support.

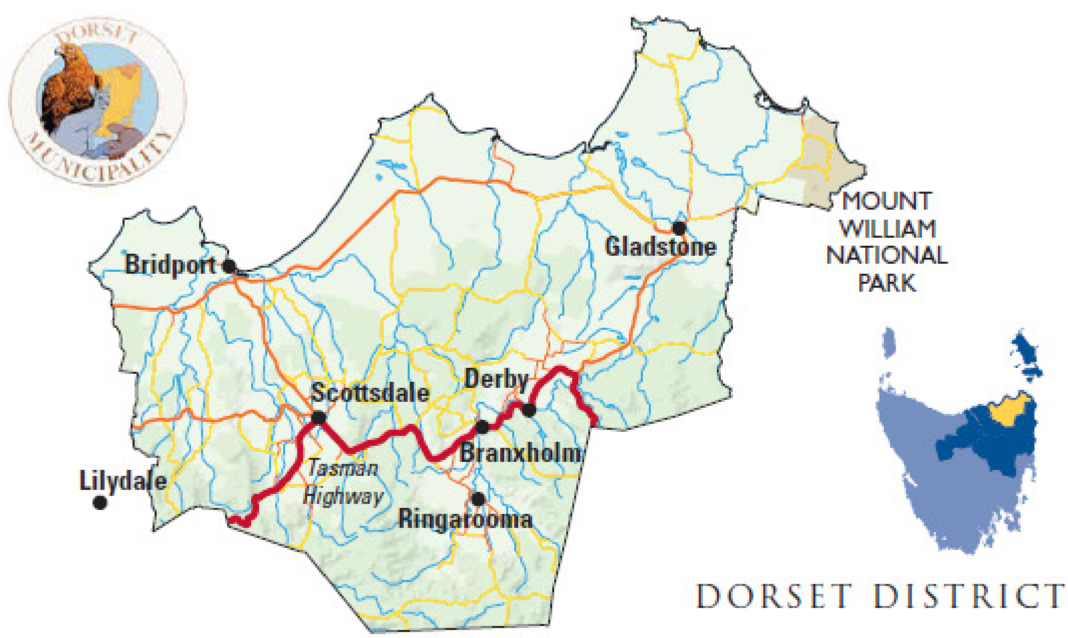
Appendix A

Australian Innovation Research Centre

Place-based innovation-driven development project
Dorset Pilot
First findings from a limited set of early data
Draft 2.1 April 2009

Background

This paper explores a place-based approach to innovation-driven economic development using Dorset as a case study. The early findings presented here illustrate how the patterns of economic/industry development, social assets, population settlement and skills might emerge in Dorset on a 'business as usual' basis. The examination of possible changes in these patterns if realistic and feasible (but uncertain) possibilities for economic and social development are realized will take place once information on possible economic futures and related projects becomes available.



Invest in Dorset, Northern Tasmania Development

We already have significant evidence that a place-based innovation-driven development strategy works and the Coal River Valley is one such case. The area of irrigated land in the Coal River Valley increased from an estimated 125 ha in 1983 to 2,644 ha in 2008. Industrial scale irrigation introduced through building the Craigborne dam - and subsequently augmented by the diversion of urban water in low demand periods to a 'winter storage' dam and through introducing re-use water from Clarence - permitted significantly more value per hectare to be extracted from what was previously predominantly a dryland farming area.

First, the productivity per hectare of existing agricultural products increased – but, more importantly, a 15 fold increase in gross margin from 1983 to 2008 (in real terms) was principally a result of introducing or dramatically expanding high gross margin irrigated agriculture such as cherries, apricots, wine grapes, turf and table ready salad greens to name a few. Importantly, the valley is currently being held back by a *lack* of water, as the current and anticipated growth in demand for water has outstripped sustainable supply.

Irrigation was a necessary pre-condition to transforming the Coal River Valley from predominantly low margin agriculture to much higher gross margin uses, but it was not sufficient. Land owners had to perceive new higher margin uses for newly irrigated land were possible, or allow new entrants to buy or lease land. Geographic risk (other than water eg soil type, frost), production risk, financing risk and market risk had to be identified, assessed, tested and managed prudently.

Irrigation *permitted* a new future for the valley to emerge, but the transformation to a more prosperous future did not happen until a range of other significant impediments were overcome and initiatives and actions took place, including local business *and* community leadership coordinated through the Coal River Products Association. The full detailed case study of the transformation of the Coal River Valley from a relatively low value dryland farming area to a growing, strong, prosperous and resilient farming district has been documented by the AIRC and will be available shortly.

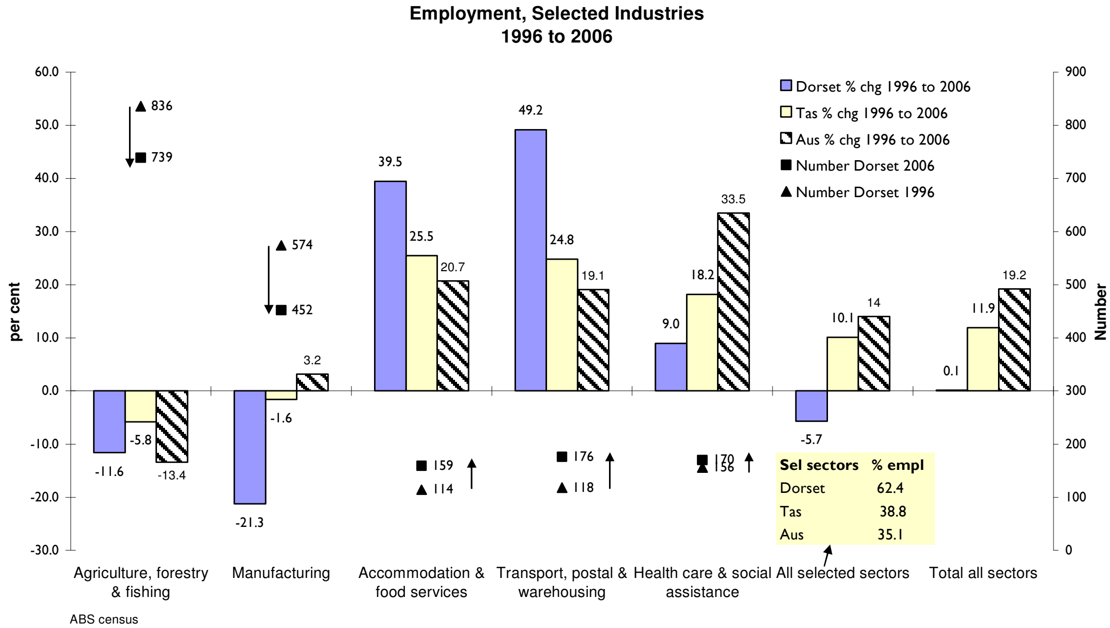
Dorset place-based development pilot

A separate short briefing paper describes the Dorset pilot project in overall terms including key milestones, issues and progress.

Here are early findings from partial data sets on patterns of economic/industry development, population settlement and skills in Dorset compared with Tasmania and Australia.

Economic and industry

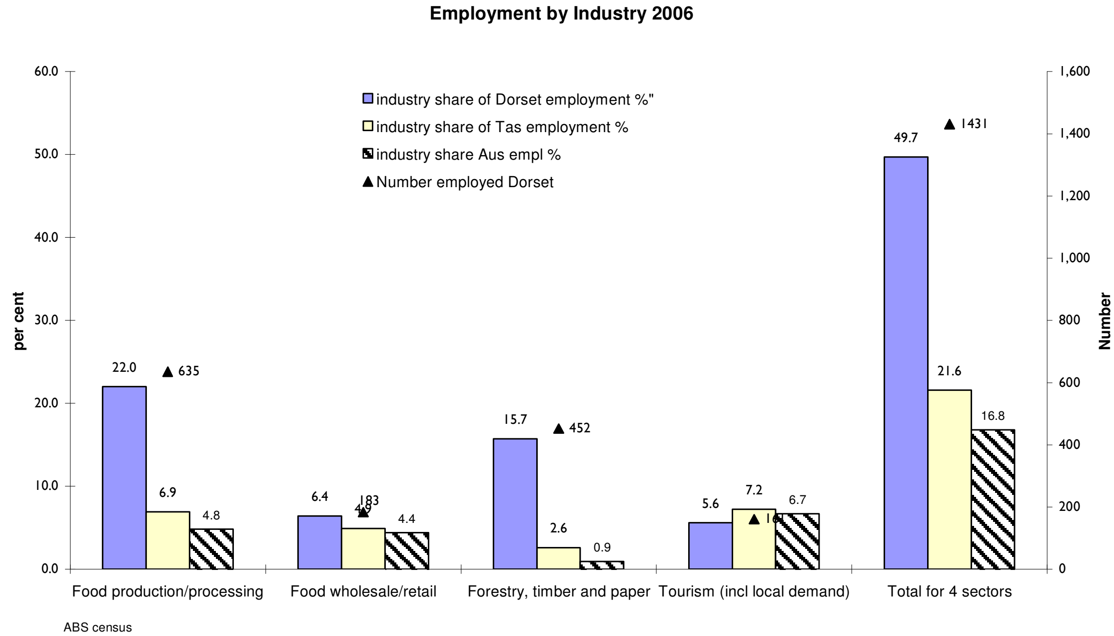
Employment in Dorset was flat in the period 1996 to 2006 (0.1 per cent growth, ABS Census). In stark contrast, Tasmania's employment increased 11.9 per cent, which in turn was less than growth for Australia (19.2 per cent).



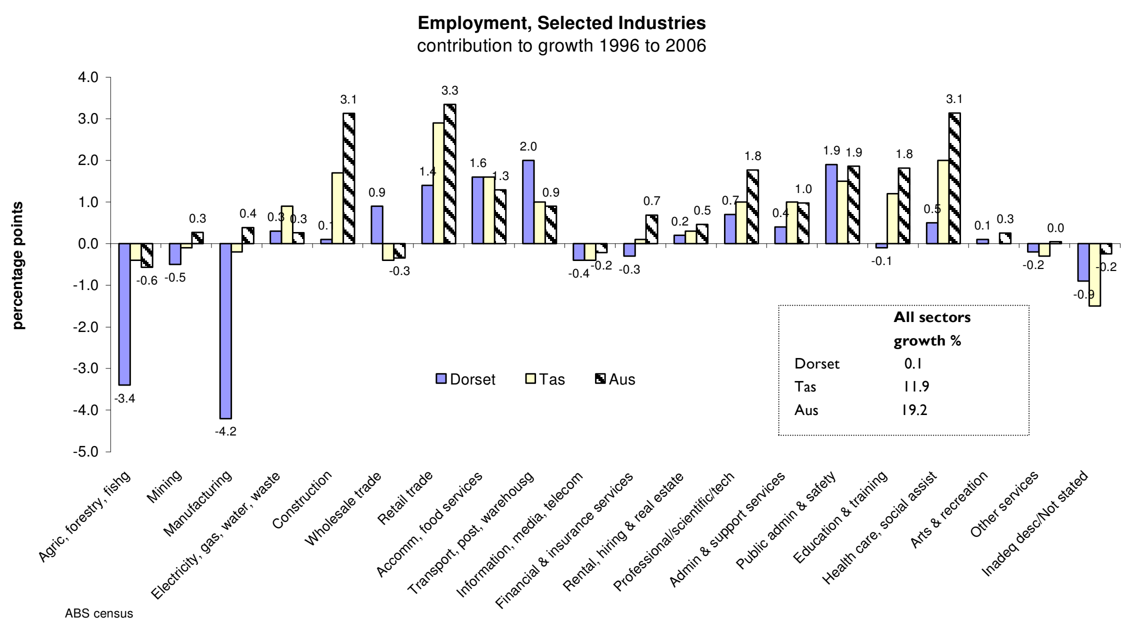
Dorset's poor overall employment performance relative to Tasmania is a result of higher negative rates of growth than Tasmania in the two sectors where Dorset has a disproportionately high share of economic activity. Manufacturing employment declined 21.3 per cent compared with -1.6 per cent for Tasmania (and a rise of 3.2 per cent for Australia) and agriculture, forestry and fishing declined 11.6 per cent compared with -5.8 per cent for Tasmania and -13.4 per cent for Australia.

The contrast between Dorset and Tasmania in manufacturing is particularly stark. The almost flat result for Tasmanian manufacturing employment between 1996 and 2006 implies that the loss of employment in some segments of manufacturing have been offset by positive gains in other areas of manufacturing. In Dorset, the relatively significant losses in food industry and forest based manufacturing employment have not been offset by growth in other segments of manufacturing

Food production/processing and the forestry timber and paper industries made up a massive 37.7 per cent of Dorset's economy by employment in 2006, compared with 9.5 per cent for Tasmania and 5.7 per cent (Australia). Dorset is therefore exposed to the ups and downs of these sectors to a much higher degree than Tasmania and the nation.



Taking both the relative size of industries and their rates of growth from 1996 to 2006 into account (ie contribution to growth) the combined contribution to employment growth in AFF and manufacturing of -7.6 percentage points was offset by net positive growth of 7.7 percentage points in all other sectors of Dorset's economy – resulting in overall growth in employment of 0.1 per cent. Interestingly construction, retail and health care/social assistance contributed significantly less to employment growth in Dorset than for Tasmania and Australia, while transport postal and warehousing contributed 2.0 percentage points (ppts) to growth, or double the contribution to growth for Tasmania (1.0ppt) and Australia (0.9ppt).



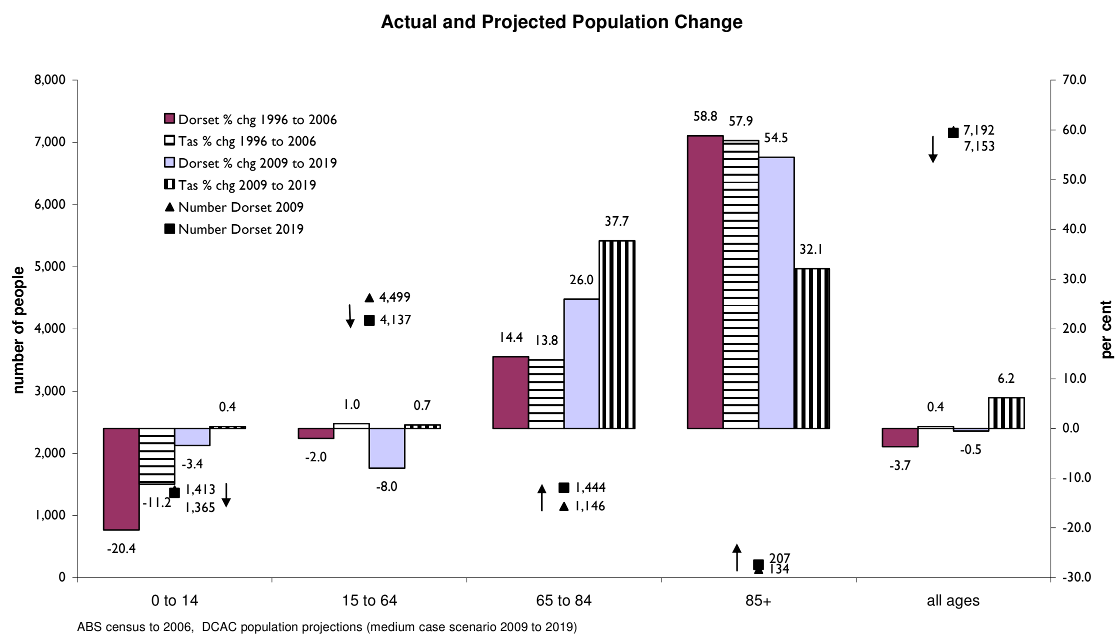
Possible economic futures

The dairy industry has already been identified as a possible area for significant expansion. Information on other areas of possible growth derived from existing or new (ie yet to be fully developed) sustainable capabilities must be undertaken to inform the development of possible futures for Dorset. This requires a serious and sustained commitment to investment in research and analysis at a local level.

Population settlement

The data for past population trends is sourced from ABS Census data. The estimates of future population are derived from demographic change advisory council's 'medium case' projections. The population estimates of DCAC and ABS reflect different estimation processes and ABS census data is not directly comparable with DCAC estimates. What can be undertaken is an examination of trends from 1996 to 2006 and projected trends from 2009 to later years (in this example 2019).

Dorset's population was estimated to be 7,001 in 2006 (ABS census). The census data indicate that Dorset's population declined by 3.7 per cent between 1996 and 2006, compared with a minimal increase of 0.4 per cent for Tasmania.



The 0 to14 age group in Dorset declined 20.4 per cent (Tas -11.2) and the 15 to 64 age group declined 2.0 percent (Tas increased 1.0 per cent). The population change in the older age groups was very close to the Tasmanian average. The 65 to 84 age group increased 14.4 per cent (Tas 13.8) and the 85+ year age group increased 58.8 per cent (Tas 57.9).

<u>One</u> population settlement future *– projection to 2019 (DCAC 'medium' case)*
The projected population changes in Dorset from 2009 and 2019 vary significantly from the projected result for Tasmania.

The total population of Dorset is projected (on the medium case assumptions) to decline marginally from 7,192 in 2009 to a projected 7,153 in 2019 (-0.5 per cent), compared with an expected increase of 6.2 per cent in Tasmania's population. The 0to14 age group in Dorset is anticipated to decline marginally from 1,413 to 1,365 (or -3.4 per cent) compared with almost flat growth of 0.4 per cent for Tasmania.

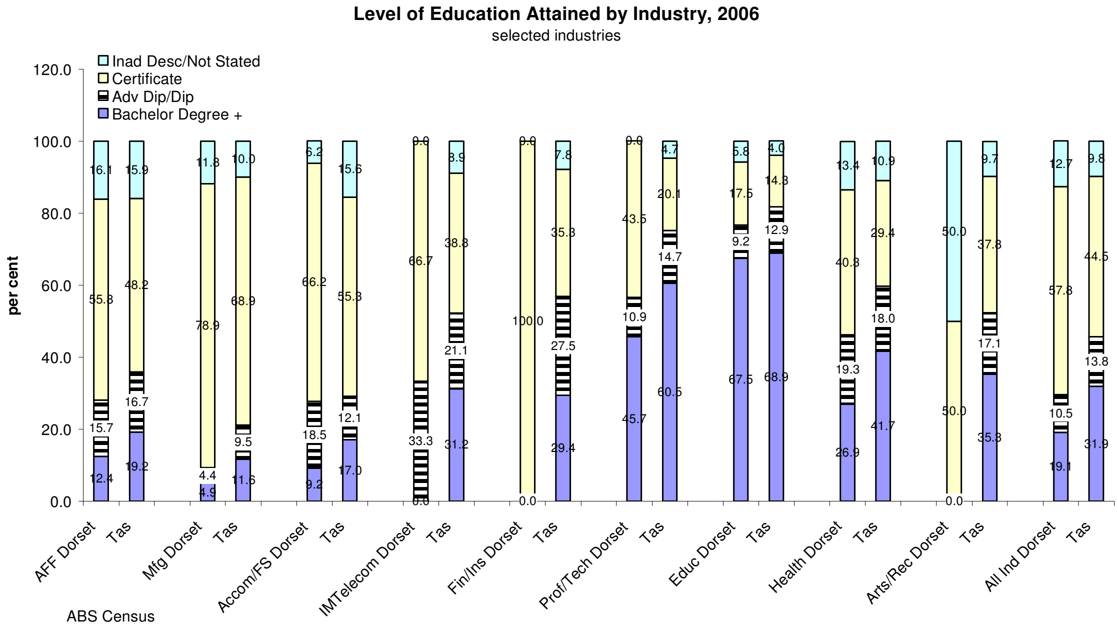
An area of possible concern is the anticipated decline in the number of people of working age (15 to 64) of around 300 people or -8.0 per cent (Tas +0.7 per cent). Of course this estimate is a *projection*, and is not a certainty – for example, population migration in and out of Dorset could vary significantly from the projected case (and affect the population size dramatically) and people might choose to work past 64 (or retire before 65) and so on. However it paints a base reference point for analysis and discussion.

The number of people entering the 65 to 84 age group is estimated to increase by around 300 or 26.0 per cent, somewhat lower than the percentage increase for Tasmania (of 37.7 per cent). The number of people anticipated to enter the higher care age group of 85+ years is projected to rise by around 60 people or 54.5 per cent, considerably higher than the rate of increase for Tasmania as a whole (32.1 per cent).

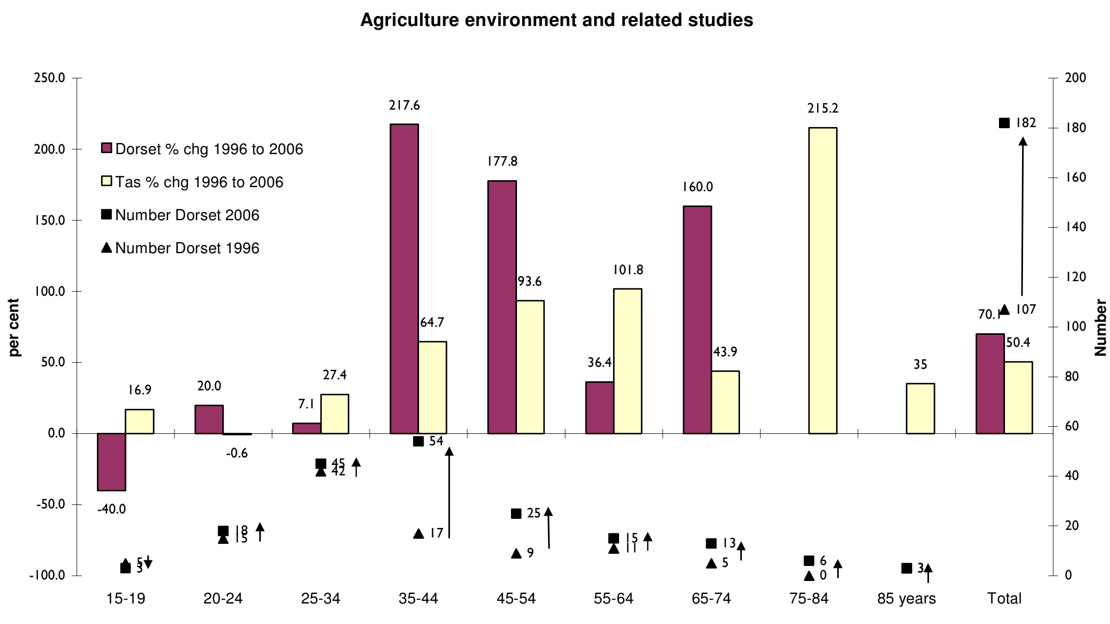
The expected change in the 65 and over age groups has both positive and *<u>potentially</u>* adverse implications for Dorset's economy, government institutions and community. For example more people are expected to have more time for voluntary work in and around the community and businesses (eg mentoring) and there may also be higher demand for health and associated care (in homes or dedicated facilities) and so on.

Skills

Dorset has a much lower share of bachelor or higher qualified people in AFF (12.4% vs 19.2% for Tasmania) and manufacturing (4.9% vs 11.6% for Tasmania) in 2006. This is significant considering these industries accounted for 38% of Dorset's employment in 2006 (9.5% for Tasmania).



The number of people with some form of recognized qualification in agriculture environment and related studies increased from 107 in 1996 to an estimated 182 people in 2006 or 70.1 per cent (Tas 50.4 per cent). This occurred against a background of falling employment in agriculture/forestry/fishing of around 100 people or -11.6 per cent.



The largest increase by number (from 17 to 54) and in percentage terms (217.6 per cent) occurred in the 35 to 44 year age group. Other data and analysis including by field of study, level of education attained and occupation are available both over time and by industry division should resources be available to extract and analyse them.

Developing possible future/s for Dorset

Importantly, in must be remembered that past performance does not determine future performance. Dorset's past is not its destiny. Reflecting on the past helps to identify Dorset's areas of strength and capability and looking to the future helps to identify opportunities, any emerging challenges that must be overcome or mitigated and what the community must or might do to realise a potentially more prosperous future and more resilient community.

The data and analysis presented here is simply an example of what is possible. A more comprehensive and detailed set of data and an examination of existing patterns of economic and social development and possible changes in patterns if realistic and feasible (but uncertain) possibilities for are realized will require further investment of resources beyond the financial and people resources of the AIRC.

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