



# INSIGHT

Australia's regional competitiveness index

## Snapshot of Major Findings for 2013

**[In]Sight is an online index and interactive map tracking the competitiveness of Australia's 560 Local Government Areas (LGA) and 55 Regional Development Australia (RDA) regions, unlocking thousands of insights into regional Australia.**



# Snapshot

[In]Sight is an online index and interactive map tracking the competitiveness of Australia's 560 Local Government Areas (LGA) and 55 Regional Development Australia (RDA) regions, unlocking thousands of insights into regional Australia.

[In]Sight consists of 59 measurable indicators of competitiveness within ten themes. The best available, nationally consistent information from the Australian Bureau of Statistics 2011 Census data, Social Health Atlas of Australia, My Schools, GIS Calculations and the Regional Australia Institute's Survey of Regional Business Conditions and Perspectives on Regional

Development has been used to develop the index.

The [In]Sight framework is based on international competitiveness indices developed by the World Economic Forum and European Union, but specifically tailored to reflect the issues that matter to regional Australia and the information we have available on a nationally consistent basis.

This snapshot report provides an overview of the first major findings from the Regional Australia Institute's (RAI) national analysis of the [In]Sight 2013 results.

## KEY POINTS

Size isn't everything. [In]Sight shows that all regions can be internationally competitive and contribute to Australia's future economic success.

International evidence shows that human capital, technological readiness and innovation are the themes that position any region (regardless of size and location) to respond to international markets and grow over time. [In]Sight results confirm that these themes are strongly correlated with being competitive across the index.

It is also within these three themes, that some of the biggest gaps (inequality) between regions in Australia can be found. As a result, Australia risks paying a productivity and fiscal penalty unless it can improve human capital (health and education), technological readiness and innovation across regional Australia.

The [In]Sight data also emphasises that competitiveness and growth is not about being the best at everything. Many of the strongest results for indicators of current performance (within the economic fundamentals, labour market efficiency and business sophistication themes) occur beyond the major cities.

This is because different parts of regional Australia have different strengths:

- Our largest regional centres can compete alongside Sydney, Melbourne and the other large cities based on their strong results for the technological readiness, business sophistication and infrastructure and essential services themes.
- Inner regional areas can leverage human capital, infrastructure and essential services and innovation themes to develop their economies.
- Outer regional, remote and very remote areas can build on their labour market efficiency, institutions and natural resources to take advantage of international market opportunities.

By understanding and responding to the differences across regional Australia, we can develop better targeted policy and position regions for future success – for the good of Australia.



## The Competitive Environment

Economic success in Australia's open economy is built on a combination of our inherent strengths and weaknesses, the opportunities and risks that international and domestic markets provide to the private sector and the success of governments in creating the foundations for successful communities.

In looking to the future Australia cannot control trends in global markets. Our challenge is to be diverse enough to provide for reasonable levels of economic success regardless of economic opportunity, while also being nimble enough to take full advantage of opportunities as they present themselves.

Understanding and securing our competitiveness provides the basis for assessing how successful we are going to be in this task. Australia lost four positions to faster improving economies in the latest World Economic Forum Global Competitiveness Report and now ranks at 20 overall. This is in contrast to our recent developed world leading economic performance and per capita prosperity.

The openness of our economy, deregulation of government economic controls, a fast moving global marketplace built on disruptive ICT innovations and changing demographics means that it is increasingly difficult for the blunt instruments of central

government to be successful across the broad spectrum of Australia's economy.

[In]Sight competitiveness profiles complement the extensive work undertaken at the national and State level and for specific industries. Through the [In]Sight profiles:

- The best available, nationally consistent information on the current performance of each LGA and RDA is now available within the economic fundamentals, labour market efficiency and business sophistication themes.
- The status of the drivers of future endogenous growth for regions are effectively captured by infrastructure and essential services, innovation, human capital, technological readiness and institutions themes.
- The relatively fixed attributes that underpin the potential of each region are captured by market size and natural resources themes.

The major findings from the first iteration of [In]Sight framework provide a platform for mapping pathways to better regional policy and empowering regions to be masters of their own destiny – for the good of Australia.

## WHAT IS NEXT FOR THE AUSTRALIAN ECONOMY?

Australia is grappling with the pathway to transition from iron ore, coal and gas as the overwhelming drivers of economic growth to a less certain but more diverse future. The Asian Century White Paper has suggested that increasing demand for higher value food by the Asian middle class may be the next major driver of economic success alongside longer term opportunities in services.

While the Australian Government does not provide measures of Gross Regional Product, the analysis of GRP provided in the recently released State of the Regions report<sup>1</sup> emphasises that the Pilbara and Central Queensland have been key sources of national growth in the last decade. This will shift as the international markets for the key commodities produced by these regions adjust and other opportunities emerge in services for inner regional areas and the major cities.

Links between regional and city growth are emphasised by research showing that eight out of ten jobs for resources projects have typically flowed to areas beyond the region where a project is located.

We must improve human capital, technological readiness and innovation to realise the potential of regional Australia

The Organisation for Economic Cooperation and Development (OECD) has clearly demonstrated that smaller, less populated and less historically successful regions have made larger than expected contributions to overall growth in developed economies in the past decades.

When the influence of being a large city is taken out of the picture, it is the relative status of the established drivers of endogenous growth (human capital, infrastructure, technological readiness, innovation and institutions) that explains much of the variation in growth between regions across the OECD.

These findings are reinforced by [In]Sight<sup>1</sup>. Figure 1 lists the correlations between each theme and the overall competitiveness of regions. Positive correlations indicate an association between competitiveness in the theme and overall competitiveness.

While the expected differences in the competitiveness of Australian regions are evident between our largest cities and less populated areas (market size correlation), differences in the status of technological readiness, human capital (health and education) and innovation also correlate closely with results for overall competitiveness.

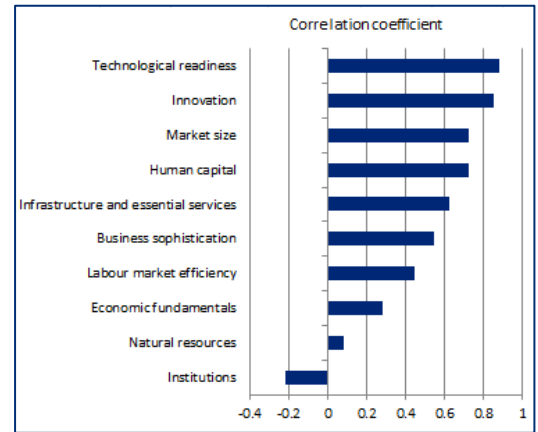


Figure 1: Correlations between overall competitiveness and [In]Sight themes

While the expected differences in the competitiveness of Australian regions are evident between our largest cities and less populated areas (market size correlation), differences in the status of technological readiness, human capital (health and education) and innovation also correlate closely with results for overall competitiveness.

Infrastructure, often the overwhelming focus of regional development, has a positive but less significant correlation with overall competitiveness. The low correlation between natural resources and institutions reflects the essential role these themes play in remote Australia, areas which in most cases are much less competitive across the breadth of the ten themes than more closely settled regions.

<sup>1</sup> OECD analysis to date has either not included Australia or only at the State level due to the data made available for international analysis.





If faster broadband is available and well used by regional Australia it should unleash latent competitiveness and the potential for catch-up growth.

Ensuring that innovation is a high priority activity, be it cutting edge science, the adoption of new technology or changes to improve productivity is essential to our future competitiveness

## Technological Readiness

Regions which [In]Sight identifies as highly competitive across the ten themes are generally highly competitive in terms of their technological readiness (and regions that are less competitive overall are usually less technologically ready).

Information technologies have always played a crucial role in creating more efficient communication and commercial practices and improving productivity. Electronic innovations are transforming the way industries operate and increasing the speed of commercial activity and propelling national economies into global markets. A region's ability to rapidly absorb and use new technologies is a vital determinant in attracting new businesses and new investment.

This theme is also one of the less equitable within [In]Sight. There have been serious structural impediments to improving technological readiness in regional Australia. These structural barriers are being reduced through the roll-out of the National Broadband Network.

The effectiveness of related policies and regional efforts to utilise this increased capacity will determine the extent to which catch-up growth occurs as existing and new technology is adopted by regional businesses.

## Innovation

In Australia's developed and open economy, businesses need to be at the forefront of cutting edge products and processes in order to retain their competitive advantage. Knowledge production is also highly geographically concentrated, heightening the importance of innovation as a regional competitiveness differential.

[In]Sight combines measures of human resources in science and technology, research and development managers, the presence of research organisations and business expenditure on research and development to estimate the relative innovation capacity in each LGA and RDA region.

As with technological readiness, innovation is also highly correlated to overall regional competitiveness and also includes some of the indicators with the greatest variation across regions.

The challenge is to take full advantage of the institutions we have in place.

[In]Sight results emphasise that maximising spill-over effects and coordination between local areas at a regional level is essential. For example, regionally led initiatives which look to take advantage of existing innovation zones in neighbouring LGAs could be successful in achieving gains at a regional level.

Substantial gains could also be made in those regions where innovative activities are not ranked as highly and where little publicly funded innovation takes place. Ensuring that innovation (be it cutting edge science, the adoption of new technology across different industries or changes to business processes to improve productivity) is a high priority activity within businesses and that these businesses have opportunities to connect to relevant centres of innovation is essential to our future competitiveness.

However, the development of [In]Sight has reinforced that consistent national evidence on innovation in

**Centres for Regional Innovation**

Some of the highly competitive regional LGA's within the innovation theme include:

- Armidale-Dumaresq (NSW)
- Ballarat (Vic)
- Denmark (WA)
- West Tamar (Tas)
- Lower Eyre Peninsula (SA)
- Townsville (QLD)
- Alice Springs (NT)



## TECHNOLOGICAL READINESS INDICATORS IN [IN]SIGHT\*:

- Internet connections - indicative of internet use by households;
- Broadband connections - faster internet connections improve ability to make the most of technological advancements;
- Businesses in technology related industries - potential spill-overs from technology industry to other business; and
- Workers in ICT and electronics - potential spill-overs from technology industry to other business.

*Source: ABS Census 2011 data, Social Health Atlas. \*Future iterations of [In]Sight will also consider the role of variations in mobile coverage to regional competitiveness (subject to resolution of copyright issues with the major telcos).*

business is very limited, particularly at a regional scale. To facilitate the targeted and effective policy described above, more needs to be done to understand the variation in innovation across regional business communities. RAI aims to make this a focus of an expanded business survey in future iterations of [In]Sight.

**Healthier and better educated regions will be more competitive and successful.**

## Human Capital

Human capital is a measure of the capabilities and skills of the workforce in a region. Both health and education are major contributors to the competitiveness of a region's human capital, as both of these factors increase labour market efficiency and economic fundamentals.

Human capital is also a robust determinant of growth for regions. Large numbers of unhealthy and or lower skilled people in a region inhibit the development of regional economies. Regions of non metropolitan Australia which have high levels of human capital –

that is, a well-educated, healthy workforce with a propensity towards lifelong learning – can expect to experience higher levels of economic growth, be more adaptive and innovative and more resilient to negative outside influences such as economic shocks in key regional industries.

Analysis of [In]Sight data shows substantial spatial inequity in the distribution of human capital outcomes across Australia.

For the parts of inner regional Australia that surround capital cities, human capital is a clear competitive strength that can be further leveraged to build successful knowledge economies in these regions.

In many outer regional and remote areas, human capital outcomes are likely to be creating bottlenecks to growth as well as compromising quality of life and the ability of residents to secure any new employment opportunities that emerge in these areas.

A key area of concern for regional Australia should be education indicators for young people and entrenched regional unemployment. Strong human capital outcomes counter these issues and prepare communities to be more resilient to changing regional employment circumstances.

Communities with a workforce which has higher than average levels of school leavers and a lower than



## VARIATIONS BETWEEN REGIONS

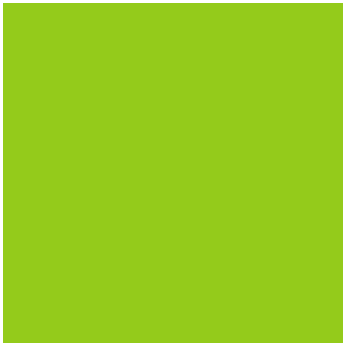
In]Sight indicators that show the greatest variations between regions are currently within the following indicators:

- Access to primary and secondary education services
- Access to hospital services
- Presence of research organisations
- Local government expenditure
- Building Approvals
- Access to Local Finance
- Road infrastructure
- Rail infrastructure
- Police services

average skilled workforce is also an area of concern. Generally these communities are only positioned for growth in low-skilled and low-paid jobs. The demand for low skilled work is continuing to decline in the Australian economy.

Existing human capital issues are likely to have undermined the local benefits of the mining boom in many regional areas. The same may occur in regions set to benefit from opportunities in high value food if we cannot achieve change in the next few years.

Improving regional human capital will be a win for Australia as a whole as well as the specific regions targeted. Initiatives that reduce the proportion of low-skilled workers can be as important for growth as policies aimed at expanding higher education . Success in these initiatives will also reduce the reliance on government transfer payments by communities in the medium and long term and the attendant health and social issues that are prevalent in government dependent communities.



## Fostering Difference

All regions are different and there is no 'one size fits all' approach to identifying the pathways for regional success. Rather than trying to emulate the formula for success in major cities, regions must leverage their comparative advantages to succeed.

The most effective avenue to strong sustainable economic growth is endogenous activity. Endogenous growth theory proposes economic growth primarily due to the result of growth from within rather than depending on external transfers.

Regions will be most effective in achieving sustainable economies when they look for sources of endogenous

growth to boost regional competitiveness (rather than developing a culture of dependency). The pictures below provide some examples of the diversity of competitive strengths available to different regions throughout Australia.

**Competitiveness is not about being the best at everything.**

## RELATED INDICATORS AND EXPLORING CONNECTION BETWEEN ISSUES

important relationships for people within regions and policy makers to consider include:

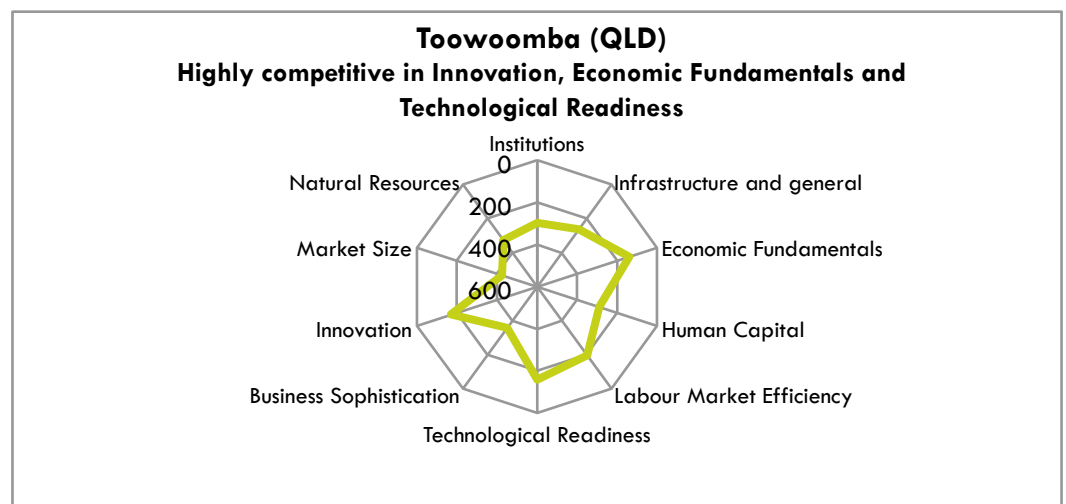
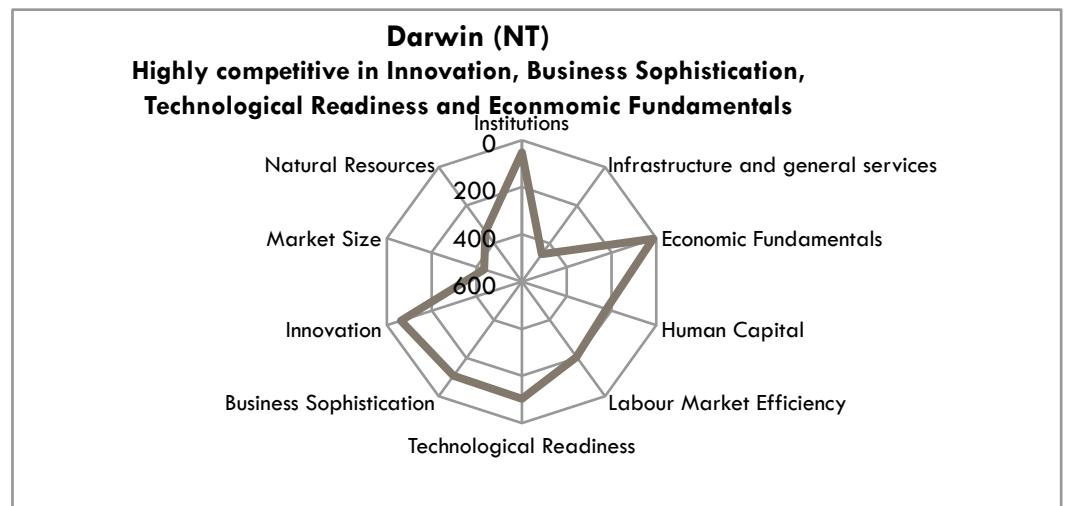
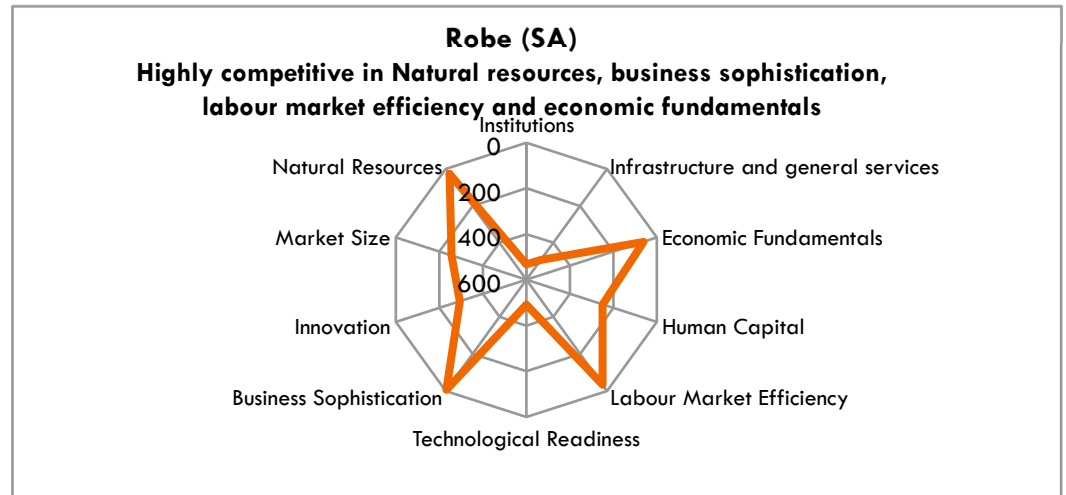
- Links between access to essential services and human capital outcomes (Is human capital stronger in areas with better access?).
- Ports, aviation and exports/exporters (are exporters clustered near infrastructure?).
- Broadband connections and workers in ICT and related industries (can tech industry thrive without good broadband access?).
- Education and unemployment (does better education coincide with lower unemployment?).
- Innovation and business sophistication (is the business community close to innovators more sophisticated?).

[In]Sight makes it is easy to begin exploring these relationships across regions to better understand both the trends and diversity in regional Australia.





Examples of highly competitive regions with diverse sources of competitive advantage





**Understanding and responding to variation between regions could offer ways to deliver better outcomes at a lower cost**

[In]Sight shows that information for broad areas conceals important underlying differences between regions that may confound efforts to achieve change.

National averages mask the very significant variation across RDA regions and LGAs. Within RDA regions there is significant variation across the constituent LGAs.

Regions with the same high ranked strength can have quite different competitiveness profiles. So while they may initially appear similar, the variation across competitiveness indicators can vary significantly.

Figure 2 below provides a snapshot of the

competitiveness of three NSW RDAs which all are relatively competitive compared to similar regions in Australia across the business sophistication theme.

The drivers for this sophistication (capturing indicators of diversity, role of exports and entrepreneurialism in a region) and related opportunities for growth will differ in each of these regions showing that there is no single path to achieving competitiveness.

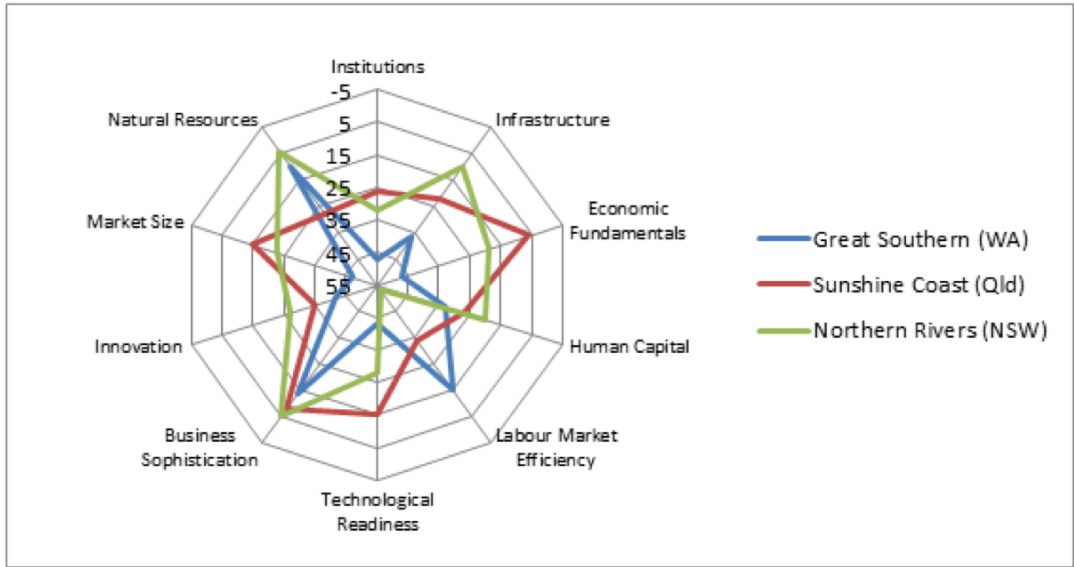


Figure 2: Competitiveness Profiles of three RDA's that are competitive in business sophistication



Figure 3 expands this analysis within one of these regions (Great Southern) and emphasises that competitiveness with a large region is often concentrated in particular local areas.

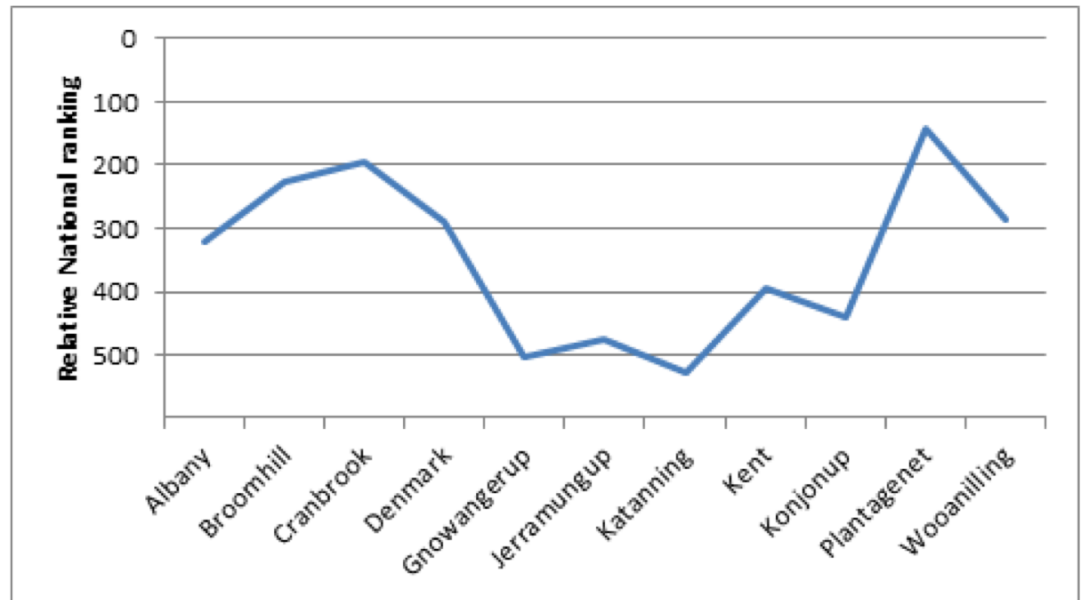


Figure 3: Business sophistication across Great Southern RDA

Given the variation evident in [In]Sight, policy based purely on national, state or regional averages may be too broad a brush to achieve effective results.

Together with local knowledge, this information can be used to develop finer grained approaches to policy issues. Delivery of policy can also be better targeted to areas where issues are concentrated and avoid wasting resources in areas where little gain can be made.

Such a targeted policy approach does not have to result in more expensive policy; in fact it may be able

to deliver financial savings, if targeting reduces the required policy effort.

Local acceptance of policy implementation may also improve as solutions better match local circumstances and resonate with communities to generate a more engaged and positive response on issues of national and state strategic significance.



# INSIGHT

[In]Sight – Australia’s Regional Competitiveness Index brings together nationally consistent information on every Local Government Area and Regional Development Australia region.

Information for each region and regional comparisons can be accessed via the online [In]Sight interactive map at [insight.regionalaustralia.org.au](http://insight.regionalaustralia.org.au).

This enables the easy comparison of each part of Australia and the relative abilities of places to compete in the global economy and support the success of the nation as a whole.

The approach builds on the work of the World Economic Forum and European Union, taking a broad view of the factors that underpin any regions inherent potential for future success. Themes and indicators are summarised below.



Theme	Strategic Significance	Indicators (examples)
<b>Institutions</b>	Local employment and business environment	Public service workforce, development approvals
<b>Infrastructure and Essential Services</b>	Ability for local economy to function efficiently and connect with outside markets	Road, rail, port, aviation, police, hospitals, education
<b>Economic Fundamentals</b>	Current indicators of economic activity	Building approvals, wages/labour costs
<b>Human Capital</b>	The capabilities and skills of a region’s workforce	Health, university qualifications, primary and secondary school performance
<b>Labour Market Efficiency</b>	Engagement of locals in the economy	Unemployment, participation, skilled labour
<b>Technological Readiness</b>	Use of technology improves efficiency and innovation	Broadband connections, workers in ICT and related industries
<b>Business Sophistication</b>	A sophisticated business community is more able to succeed and adapt to changing conditions	Economic diversification, exporters, income source – own business, dominance of large employers
<b>Innovation</b>	Capacity for region to find new ways of being productive	Presence of research organisations
<b>Market Size</b>	Larger regions benefit from a deeper and more diverse labour pool and larger internal economy	Two indicators – population and business turnover
<b>Natural Resources</b>	Underpins the economies of many regions	Employment in mining, forestry and fishing, net primary productivity



**Data sources** for the index include the Australian Bureau of Statistics 2011 Census data, Social Health Atlas of Australia, My Schools, GIS Calculations and the Regional Australia Institute's *Survey of Regional Business Conditions and Perspectives on Regional Development*.

A **Results Guide** providing full details on each indicator, data source and the methods used to derive rankings and theme results is available at [www.regionalaustralia.org.au/research-policy/insight/](http://www.regionalaustralia.org.au/research-policy/insight/).

Additional snapshots, overall index analysis and other information are available at [www.regionalaustralia.org.au](http://www.regionalaustralia.org.au).

#### References

<sup>i</sup>World Economic Forum (2012), Global Competitiveness Report 2011-2012 [http://www3.weforum.org/docs/WEF\\_GCR\\_Report\\_2011-12.pdf](http://www3.weforum.org/docs/WEF_GCR_Report_2011-12.pdf)

<sup>ii</sup>OECD (2012) Promoting Growth in All Regions, OECD Publishing <http://dx.doi.org/10.1787/9789264174634-en>; OECD (2009) How Regions Grow: Trends and Analysis

<sup>iii</sup>Dijkstra et al (2011) A New Regional Competitiveness Index: Theory, Methods and Findings, European Union Regional Policy

<sup>iv</sup>Interim results only

<sup>v</sup>OECD (2012) Promoting Growth in All Regions, OECD Publishing, <http://dx.doi.org/10.1787/9789264174634-en>; OECD (2009) How Regions Grow: Trends and Analysis

<sup>vi</sup>OECD (2012) Promoting Growth in All Regions, OECD Publishing, <http://dx.doi.org/10.1787/9789264174634-en>;

#### About the Regional Australia Institute

Independent and informed by both research and ongoing dialogue with the community, the Regional Australia Institute develops policy and advocates for change to build a stronger economy and better quality of life in regional Australia – for the benefit of all Australians. The Regional Australia Institute was established with support from the Australian Government.



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