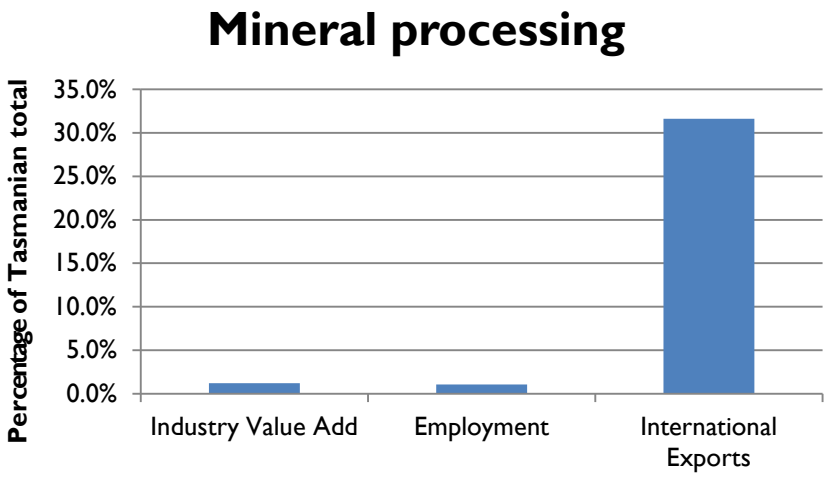
Mineral processing

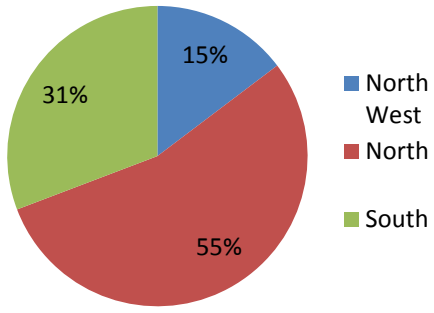
The trade and investment sectors contained in the sector summary series have been compiled from Australian and New Zealand Standard Industry Classification (ANZSIC) classes using a value chain approach. This means that industry classes from ANZSIC have been grouped together to provide estimates of the size of the particular trade and investment sectors.

Coverage: the refining and smelting of mineral products.

Key indicators



Regional employment



The above statistics have been represented to the nearest whole number.

Key statistics at a glance

Indicator	Units	Period	Data	Change From five years ago	Per cent of Tasmania	Per cent of Australia
Industry value add [a]	$M	2012-13	$297	NA	1.2%	0.7%
Employment [b]	No.	2011	2 228	1.5%	1.1%	0.6%
International exports [c]	$M	2012-13	$961	NA	31.6%	4.5%
Incomes (average weekly) [d]	$	2011	$1 302	20.2%	147.5%	148.0%
Education [e]	No.	2011	640	NA	28.7%	41.7%
Employment (proportion full/part) [f]	Type	2011	Full-time	NA	89.7%	90.8%

Sources: Australian Bureau of Statistics (ABS) (2012, 2013), Department of Economic Development, Tourism and the Arts (2013), Department of State Growth (2014), AEC Group

(a) Source AEC Group. Industry value add (IVA) is a component of the ABS estimate of Gross State Product and measures the total value of goods and services produced by the sector, less the value of inputs. Estimated change in IVA from five years ago for a sector is heavily influenced by change at the highest "ANZSIC Division 1" level of industry aggregation and is not reported.

(b) *2011 ABS Census*. AEC Group considers this the most accurate estimate of employment at the detailed four-digit ANZSIC level.

(c) Estimates of international exports using ABS data.

(d) *2011 ABS Census.* This includes employment and non-employment related income (e.g. rents, dividends, interest, child support and government pensions and allowances). A percentage above 100 per cent of average weekly income suggests workers in this industry earn higher than the average wage.

(e) *2011 ABS Census*. Education measured by the number of employees who have completed Year 12 (or equivalent studies). Per cent of Tasmania/Australia shows the proportion of workers in this sector who have attained this level of education.

(f) *2011 ABS Census*. Per cent of Tasmania/Australia shows the proportion of workers employed in this manner.

Tasmania has a well-established history in mineral processing. The state is home to several major mineral processing operations, originally drawn by the abundant, low-cost electricity generated from the island's hydro-electrical schemes, with the first large scale smelter established in 1916.

Facilities include a zinc smelter at Hobart, while at Bell Bay there is an aluminium smelter and an electro-metallurgical smelter to produce ferro-manganese, silicon-manganese and sinter. Magnetite is converted into iron ore pellets for export at Port Latta. Cement is manufactured at Railton.

The state processes a range of mineral products making up approximately 1.2 per cent of Tasmania's Gross State Product. A survey by the Tasmanian Minerals and Energy Council identified that the industry spent $429 million on goods and services in Tasmania over the 2010-11 period, as well as $50 million on capital projects. Over this period, the mineral processing sector used the services of 360 Tasmanian suppliers and businesses.

The major proportion of Tasmania's mineral processing output is exported overseas. Therefore, global economic conditions and developments in the world mineral-processing market are major factors influencing the industry's future. Increased investment in the state's mining sector is also being driven by global demand and stimulating mineral processing investment.

The health of the mineral processing sector in Tasmania has been dependent on improving competitiveness, seeking greater efficiencies and the reduction of direct costs. The upgrading of capital equipment has been a major factor in increasing competitiveness.

Mineral deposits not yet being exploited are being viewed with mineral processing opportunities in mind, including the state's magnesite deposits.

Energy prices - historically the chief appeal for locating mineral processing activities in Tasmania - have risen and Tasmania no longer has a low-cost energy advantage. However, energy prices are still competitive and the state's status as the nation's largest generator of renewable energy is attractive to many potential investors. The state also has other advantages for organisations wishing to invest in this sector, including well-developed infrastructure and a stable and skilled workforce. Additionally, the prior identification of sites suitable for industrial development further encourages potential investors.

Continuing to ensure that there is efficient infrastructure in place will be a key to encouraging growth in this sector. Energy, transport, and water infrastructure all contribute to the overall investment environment. The development of a controlled-waste disposal site is also a priority if the mineral processing sector is to grow into the future.

Constraints and opportunities

Constraints

- Rising energy costs are of continuing concern. Tasmanian energy prices, while still competitive, are no longer significantly lower than other jurisdictions.
- Economic uncertainty and exposure to changes in exchange rates and commodity prices.
- Continuing concern over sovereign-risk issues in relation to environmental issues and land use (for example, agriculture versus mining) within the mining sector may impact on the attractiveness of investment opportunities for mineral processors.
- Any reduction in port access and/or sea freight services to the mainland.

Opportunities

- Further downstream processing by existing and prospective mining operations.
- Developing the capacity of the state's infrastructure, in particular transport infrastructure on the West Coast, to increase the attractiveness of additional downstream processing.
- Examining synergies within the transport infrastructure to lower costs for mining and mineral processing operations.
- Making energy costs more competitive, through alternative energy sources and co-generation.
- Increased marketing of mineral processing opportunities internationally, particularly in China, through targeted promotional activities.
- Increased facilitation of investment through industrial site identification and planning.
- The development of a Class C land fill cell to address the current lack of a controlled-waste disposal site.
- Workforce development remains a key focus for the mineral processing sector to enable employers to attract, retain and develop their workforce and increase capacity and productivity.

Strategy summary

Products produced by Tasmania's mineral processing sector are sold into a global market. With the pressures of competition in the global commodity markets, the sector relies on efficient infrastructure, skilled workforces, and competitive energy supply. The Tasmanian Government can promote growth in this sector by working with industry in all of these areas, as well as encouraging the development of new investment in mineral processing projects.

Industry strategy

The Tasmanian Minerals and Energy Council is the representative body for the mining and mineral processing sectors in Tasmania and promotes the continued development of a safe, profitable and sustainable industry in Tasmania, through the following four areas.

- Supporting public policy settings that allow for environmentally sustainable economic growth, a competitive investment environment, and a skilled and productive workforce
- Ensuring that safety at work is the priority issue for Tasmania's mines and mineral processors
- Meeting community expectations that mineral processing activities are carried out in accordance with good environmental management principles
- Encouraging the development of an active and growing exploration and mining sector in Tasmania that will drive the development of the mineral processing sector in Tasmania.

Government strategy

Increasing growth in the mineral processing sector can be facilitated through the following measures:

- Supporting opportunities for more efficient use of energy, such as co-generation opportunities, recognising that energy costs are a key driver for the continued sustainability of the Tasmanian mineral processing sector.
- Promoting the development of a skilled, productive and flexible workforce.

- Ensuring that the high environmental standards required for mineral processing operations are well understood in the community.
- Supporting continual improvement of the state's energy and export infrastructure and regulation, along with further streamlining of regulatory processes.
- Encouraging the development of new investment in downstream processing industries that value-add to commodities extracted from Tasmanian mines.
- Ensuring that the investment community has correct perceptions about the Tasmanian investment environment.
- Identifying available land suitable for industrial development.
- Marketing Tasmania as an investment location (both overseas and interstate), and supporting further downstream processing and value-adding opportunities by existing mining operators as well as prospective inward investors.