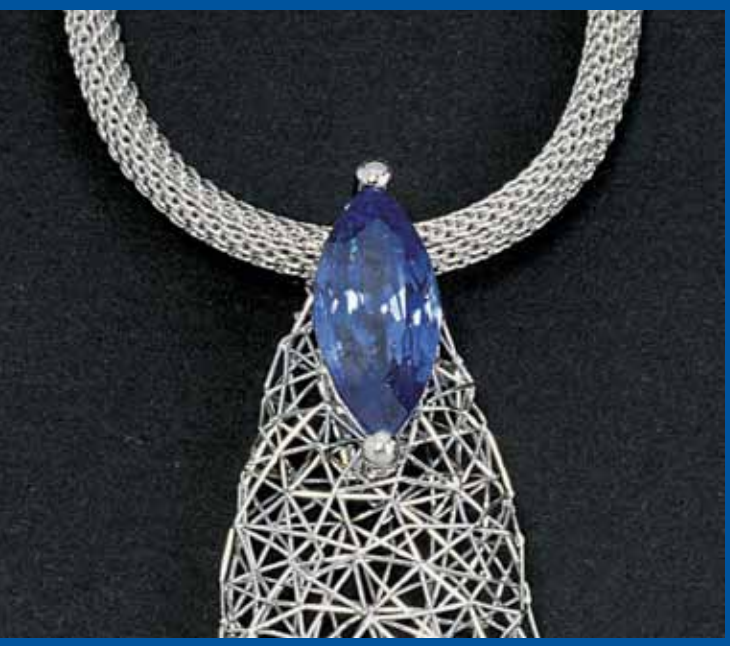
International Specialised Skills Institute Inc

Australian Government
Department of Education, Employment and Workplace Relations

New Welding Technologies and their Impact on the Australian Jewellery Manufacturing Industry



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International ISS Institute/DEEWR Trades Fellowship

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Executive Summary

The Australian jewellery industry has undergone dramatic changes over the last 20 years. In addition to the unprecedented increase in precious metal prices, the local manufacturing sector has been impacted since the early 1980s by the systematic reduction of tariffs and the implementation of various free trade agreements. This has resulted in an influx of cheap mass-produced jewellery—predominantly from Asia—and the growing movement to offshore manufacturing.

The dominance of imported jewellery in the Australian market means that most of the work being done by local jewellers is in repairs, remakes, and re-sizes, resulting in the loss of manufacturing skills. In response to these developments the Australian training sector needs to do more to support more competitive jewellery design standards. The national training package for jewellery apprentices (Certificate III in Jewellery Manufacture (Apprenticeship) MEM 30605) focuses on traditional skills needed frequently to fill gaps in on-the-job training. There is often little or no exposure to handcrafting of bespoke design jewellery. Drawing and design disciplines comprise a minimal component in apprentice training.

Other countries facing similar challenges have developed innovative and effective responses. One example is the Jewellery Industry Innovation Centre in Birmingham, UK. Recent case studies in Birmingham have demonstrated the direct benefits to jewellery manufacturing companies through collaborative projects involving knowledge transfer partnerships with higher education institutions. These studies have emphasised the development of a design strategy involving innovation in design and technology, analysis of market trends and fashions impacting on the company's product and liaison with customers and suppliers.

The Fellow visited a number of jewellery manufacturing businesses in London and Birmingham, as well as educational institutions and research facilities. The Fellow was also able to attend four significant International Jewellery Fairs in London and meet contemporary leading jewellery designer/makers.

The Fellow used her time in London and Birmingham to evaluate the technologies used in high-end manufacturing of jewellery for possible introduction to Australia. The technologies evaluated included laser welding, PUK pulse arc welding for joining traditional and non-traditional metals, such as titanium and stainless steel.

The introduction of the best of these technologies into the Australian jewellery industry through new training modules will help improve opportunities for Australian designers to develop innovative jewellery solutions using traditional and non-traditional materials.

By using distinctive Australian materials, local designers can differentiate their products from mass-produced imports and by using innovative marketing strategies and improved retailer education, they can introduce Australian consumers to new experiences of contemporary Australian jewellery.