

LEADING THE TRANSITION TO GREEN MANUFACTURING



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Imperative for Green Manufacturing Practices

The global manufacturing sector faces a multifaceted challenge: balancing economic growth with environmental responsibility. A paradigm shift is taking place in manufacturing, with sustainable manufacturing practices no longer being a peripheral concern but a central tenet for a responsible and prosperous future within the manufacturing sector. This article explores two trends shaping the landscape of green manufacturing and explores the benefits of undertaking executive education programmes in this field.

1. Green Energy Adoption within manufacturing

The global energy sector is undergoing a significant transformation, characterised by a shift from traditional, centralised, and carbon-intensive power sources towards cleaner, decentralised, and digital solutions. This transition presents challenges and opportunities for the manufacturing sector, particularly in regions like South Africa with energy insecurity and a high dependence on fossil fuels. Manufacturers who fail to adapt

to this evolving energy landscape risk several consequences:

- **Escalating Energy Costs:** Reliance on conventional energy sources is leading to rising costs, eroding profit margins.
- **Regulatory Pressures:** The prevalence of increasing international carbon taxes such as the Carbon Border Adjustment Mechanism (CBAM) has the potential for enacting high penalties for manufacturing firms that have an energy source that is highly carbon intensive, like Eskom grid-tied energy.

Forward-thinking manufacturers can leverage the energy transition as a strategic advantage by

prioritising the business case for adopting green energy solutions. Two of the key value propositions for this business case would be the following:

- A robust energy and net-zero strategy positions companies for success in a rapidly changing market with a growing emphasis on sustainability.
 - Sustainable practices can unlock access to green financing and investment opportunities, facilitating capital acquisition for future growth.
- 2. The Ascendancy of Circular Economy Principles:**
- The traditional linear economic model of 'take, make, dispose' is being challenged by the

burgeoning circular economy. This framework emphasises closed-loop systems through several key mechanisms:

- **Design for Disassembly and Reuse:** Products are designed with an emphasis on facilitating disassembly and component reusability, thereby extending their lifespan and minimising waste generation.
- **Integration of Recycled Content:** Manufacturers are increasingly incorporating higher percentages of recycled materials into their products, consequently diminishing reliance on virgin resources.

These trends reshaping green manufacturing require

a proactive approach to sustainability integration by executives leading their organisations. Sustainable practices necessitate a holistic approach, with collaborations between manufacturers, material suppliers, and research institutions accelerating the development and adoption of sustainable solutions.

At TWIMS we offer an executive education programme in green manufacturing that offers a valuable opportunity for leaders to gain critical knowledge and skills to navigate the evolving market landscape. Leaders will walk away from the programme having gained:

- A comprehensive understanding of green manufacturing principles, encompassing resource management, sustainable business models, energy efficiency, circular economy, and life-cycle assessment.
- Practical strategies for integrating sustainability into existing operations. This includes technology adoption choices and supply chain optimisation.
- A strategic vision for green manufacturing and the skills to champion its implementation within their organisations. ■



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FROM PITCH TO PROFIT

Three KZN SMEs triumph at the Durban Automotive Cluster Dragons' Den Event.

The Durban Automotive Cluster (DAC) Business Accelerator held its 'Dragons' Den' event at The Pearls in Umhlanga Rocks on 4 June 2024. Although this step of the Accelerator is based on the popular Dragons' Den television show, its intentions and outcomes are very different. The panel of 'Dragons', Kim Nisbet and Zimvo Mtolo from Toyota South Africa Motors, Thomo Molepo from Hesto Harnesses, and Tansel Ozimamoglu from Toyota-Boshoku South Africa, were all there to find ways to partner with and bolster shortlisted high-potential small and medium-

sized enterprises (SMEs) in the South African automotive sector.

In opening the event, Takalani Rathiyaya, Head of the Economic Development Unit at eThekweni Municipality said, "The meaningful transformation that is achieved by investing in these young, Black entrepreneurs in the automotive industry is priceless and we are so proud to be involved in this partnership that also drives localisation."

According to Kyle Ballard, Head of Accelerators at the DAC, the programme attracted over 100 applications this year. "This is a tribute to the success of the Accelerator over the past six years and the transformative outcomes for both big customers and SMEs alike."

He explains that after a rigorous screening process to assess the viability of each business, the top contenders underwent comprehensive capacity-building to understand what it is that big customers are looking for in local suppliers.

The SMEs were capacitated to develop a compelling business pitch to unlock significant sales opportunities with potential customers.

Consequently, selecting the top three from the twelve emerging, Black-owned SMEs was a challenging task for the Dragons. The panel settled on Enermous Investments for the Industry Game Changer award and Sizundawo Engineering for the Best Environmental

Sustainability Solution, with both receiving R15 000 in prize money. The Best Overall Business Case, and R25 000, went to Sirius Manufacturing.

However, for the passionate SME participants and esteemed industry leaders, the true prize extended far beyond the day's monetary awards – the real value lay in unlocking sales opportunities, investments, mentorship opportunities and expert coaching to scale their business through the Accelerator.

Tansel Ozimamoglu, Vice President of Business Management at Toyota-Boshoku South Africa, highlighted the shared advantages of the programme: "It has been beneficial and fruitful in finding new suppliers for our latest projects and localisation activities. It was

like visiting 12 suppliers in a single day. I will certainly be encouraging other Tier 1 companies to collaborate as it boosts the tenacity of the whole automotive industry."

Ballard expressed his delight concluding, "The Accelerator's ability to deliver meaningful results for SMEs and transform their businesses into sustainable enterprises is proven and we look forward to many more of these events." ■

There are also three other Accelerator programmes facilitated through the KZN Clothing & Textile Cluster, eThekweni Furniture Cluster and Durban Chemicals Cluster. So, if you are a large corporate wanting to leverage the Accelerator for your local supply chain, please contact accelerators@bmanalysts.com

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