

## Shaping The Future Development Trajectory of Manufacturing

TWIMS Campus | 5 - 7 April 2022

### Course overview:

Manufacturing is a key contributor to the world's environmental problems. The Green Manufacturing Executive Short Course considers the pertinent issues surrounding the green economy debate and why they are critical to the manufacturing sector. The technologies the sector has deployed, the materials it uses and the complex inbound and outbound value chains it has created all have significant global environmental impacts. This course focuses on the different green discourses potentially shaping the future development trajectory of manufacturing, while also providing an analysis of the key interventions and strategies that are relevant to green manufacturing.

Over the first two days of the course, we will critically reflect on what green manufacturing is and examine the extent to which it matters. We will also examine the role that competing economic ideologies have in respect of green manufacturing and evaluate the current status quo in relation to global resource use. The concepts of circular economy, green supply chains and measuring true value will be applied in the context of positioning green manufacturing as a business model to be followed to achieve competitive advantage. These core concepts will be reinforced by examining specific case studies. Emerging regulatory and legislative requirements are also focused on, as are new, evolving management philosophies relating to sustainable materials and energy use, product lifecycle management, and the ultimate green manufacturing objective: The establishment of carbon-neutral industrial activity. All these concepts will be synthesised into their implications for the South African manufacturing sector.

The first two days of the course lead to a reflection and consolidation day, where syndicate teams prepare simulated board presentations outlining a green innovation that can be implemented in a chosen value chain and its potential impact on an associated business model. The syndicate project, which builds over the first two days represents a core component of the course. The application of learning is focused on, using a set of concrete opportunities and challenges based on the firms represented within the course. The third day will be concluded with a consolidation session. Feedback on individual syndicate presentations will be provided and a discussion of the immediate and long-term relevance of green manufacturing completed.

### Learning outcomes:

Participants will secure a substantially deeper understanding of green manufacturing challenges and the use of a variety of strategic tools to proactively respond to emerging opportunities and challenges. Course participants who successfully complete the syndicate project will earn a TWIMS Green Manufacturing certificate.

### Who should attend?

Senior manufacturing managers and executives, and public-sector executives with manufacturing portfolios. The course will be taught at a post-graduate level and so executives should preferably have a graduate-level qualification.



## Course Framework:

Day	Key Focus Points
1	<ul style="list-style-type: none"><li>• Course introduction, setting of course context</li><li>• Status of current global resource use and global risks to manufacturing</li><li>• Considering the extent to which South African manufacturing is green</li><li>• Understanding circular economy principles</li><li>• Unpacking closed-loop production systems and industrial symbiosis</li></ul>
2	<ul style="list-style-type: none"><li>• Analysing some of the major green disruptions reframing global manufacturing</li><li>• Understanding shared value as a new business model approach</li><li>• Case study of clean energy supply as a competitive advantage</li><li>• Exploring the impact of global and local environmental legislation on manufacturing supply chain models</li><li>• Evaluating the strategic and operational merits of different green supply chain options</li></ul>
3	<ul style="list-style-type: none"><li>• Board presentations covering various green innovations</li><li>• Learning consolidation: Defining appropriate strategic responses</li></ul>

### Course facilitator:



The course is facilitated by Liesel Kassier, the Metair Head of Green Manufacturing at TWIMS.

Liesel has worked in the Green sector for the past 15 years. She has a Development Finance Masters (Summa Cum Laude) completed in 2019 from the Frankfurt School of Finance and Management and a BCom Honours (Economics) completed cum laude from UKZN. Liesel is currently undertaking her PhD in developing a resilience indicator for organisations by examining the resource use, value, and efficiency nexus. Prior to joining TWIMS, Liesel worked at the Council of Scientific & Industrial Research (CSIR) where she worked on a range of green projects. Liesel has also worked in provincial government as a Green Economy specialist.

### Course cost:

The course costs R12,000 ex VAT per participant. This is fully inclusive of all refreshments, teas and lunches over the course of the three days, as well as stationery. The cost excludes accommodation.

### Venue and accommodation:

The course is run at the TWIMS campus, 74 Everton Road, Kloof. Each day starts at 09:00 and concludes at 16:30. Accommodation is available on-site at an additional cost. Visit the TWIMS website ([www.twimsafrica.com](http://www.twimsafrica.com)) for further details.

### Applications:

Participation is limited to a maximum of 25 executives. Application for participation can be made online at [www.twimsafrica.com](http://www.twimsafrica.com). TWIMS reserves the right to accept only those applicants who are likely to benefit from the course and who can make a full contribution to group activities.

### Covid-19 mitigation steps:

TWIMS follows strict protocols to mitigate the threat of Covid-19. We require proof of Covid-19 vaccination to participate in the course; and use an 80-seater auditorium to ensure adequate social distancing is observed. In addition, everyone on campus is temperature checked on arrival, all venues are sanitised daily, food and beverages are prepared safely and the wearing of masks is strictly enforced while on campus.



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