

Welcome to The Mandela Bay Composites Cluster

22 September 2016

It gives us great pleasure to announce **the dti's** recent decision to fund the Mandela Bay Composites Cluster (MBCC) within their recently established Cluster Development Programme. We are open for business and welcome you as founding members.

We thank you for your support and commitment during the past ten months; industry income representing an important aspect of the government commitment to the cluster. A short summary and update follows:

High level introduction of the Mandela Bay Composites Cluster

- The Mandela Bay Composites Cluster (MBCC) is a Non Profit Company (NPC) with companies as its members. Through a process of voting, the members determine the direction and activities of the MBCC as approved by the board.
- The current directors of the MBCC are Andy Radford (Managing Director), Dr. Kjelt van Rijswijk (Technical Director) and Oliver Dawson (Training Director).
- The MBCC aims to establish a composites eco-system in which R&D, skills development and industrialisation efforts are coordinated to activate and strengthen value chains.
- The MBCC is an industry-led public-private partnership involving all levels of Government, Industry and Academia.
- Although physically based in Port Elizabeth, the MBCC is a strategic entity in the nationwide development of the composites industry.
- The MBCC will take office in the same building at the NMMU-Propella Advanced Manufacturing Incubator.
- The MBCC will support the development of the composites industry as a whole as well as support the needs of its individual member companies.
- Focusing essentially on the conversion of chemicals into manufactured goods the MBCC is of relevance to the broader polymeric chemical-manufacturing sector including companies that supply, convert or use composites, plastics, rubbers, adhesives, coatings, etc.
- Clusters are an internationally proven mechanism to support companies to enhance their competitiveness by providing space for 'coopetition' (collaboration between business competitors, in the hope of mutually beneficial results): *"Collaborate where you can, compete where you must"*.

Background to the Mandela Bay Composites Cluster (MBCC)

The cluster aims to coordinate R&D, skills development and industrialization efforts to activate value chains that make use of non-corrosive and lightweight composite technology, but covering all non-metallic polymeric technologies including composites, plastics, elastomers, specialty coatings, etc.

The cluster aims at establishing a dedicated non-metallic hand skill training capability, a collaborative R&D capability in which scientists and engineers (academia and industry) can work together on developing non-metallic solutions that can enhance the competitiveness of existing value chains and unlock new ones. The aim is to cross-pollinate technology and skills between boatbuilding, renewable energy, automotive and aerospace using shared infrastructure. The MBCC works together with the Propella incubator and The Business Place Entrepreneurship Centre to fill in gaps in value

chains with new SMMEs, which will enhance the cluster's impact from a transformation point of view.

The MBCC will activate a collaborative eco-system and a desperately needed manufacturing sector, starting in the Eastern Cape, resulting in job creation and exports in boat building, automotive, aerospace, renewable energy, transport infrastructure, etc. In addition, it will cause non-metallics to feature more prominently in the portfolio of the regional manufacturing industry.

The MBCC is a non-profit company organisation for persons/ companies involved in Composites based Advanced Manufacturing (and related polymeric materials), either directly or indirectly, or for persons/companies with an interest in composites, and our objectives are:

1. To promote through the cluster the exchange of ideas, information and experience amongst members.
2. To provide a mechanism for funding collaborative projects through a competitive application process.
3. To provide through the cluster access to technologies and markets locally and abroad.
4. To provide a collaborative environment for access to equipment, skills and testing
5. To identify and develop supply chains for supporting the composites based companies in the cluster.
6. To raise awareness for composites.

To kick-start the cluster both public and private funding has been secured.

Public funding

- Composite Innovation Centres (CICs): The **Department of Science and Technology (DST)** has committed R18.9M towards high-end infrastructure for composite design, manufacture and testing to be deployed by the Nelson Mandela Metropolitan University (NMMU) in Port Elizabeth, and the Tshwane University of Technology (TUT) in Pretoria. This infrastructure is to complement the existing capabilities of the engineering and material science entities in both regions to become a one-stop shop for collaborative R&D with Industry. This infrastructure is intended to be used by both the universities and industry for R&D, product development and skills development. Although the CIC funding will be paid out directly to the two Universities and not to the MBCC, an agreement will be put in place that will put the MBCC in a position to influence the equipment purchases and to support the mobilisation of both CICs via projects and expert-advise.
- Collaborative Fibre Composites Research, Development and Innovation Program (CFCP): The **DST** has committed R17.7M for R&D projects run by Universities and Science Councils, but in collaboration with Industry partners. These projects aim at developing composite solutions for real market opportunities, whilst simultaneously bringing the CIC infrastructure alive. CFCP funding will be paid out directly to any of the Universities or science councils around South Africa for projects involving industry following a transparent project selection process. In addition to supporting its members with the development of possible CFCP projects, an agreement will be put in place that will allow the MBCC to have participate in the project selection process.
- Cluster Development Program (CDP): The **Department of Trade and Industry (the dti)** is committing R8.7M/2yrs for the establishment of the MBCC's Cluster Management Organisation (CMO), and activities aimed at guiding the DST-funded CIC and CFCP efforts, feasibility studies on

how composites can improve value chains through light-weighting and corrosion-resistance, marketing of composites and the cluster, and skills development and training interventions.

- Spatial Intervention Fund (SIF): Following firm commitments from both DST and **the dti**, the MBCC can unlock an additional R2.09M of pre-allocated funding from the **Industrial Development Corporation (IDC)**. These funds are for interventions specifically aimed at developing black industrialists, bringing women, youth and disabled people into composites, small town rejuvenation through composites, SMME support and community engagement activities.

Private funding

- Membership fees: Members of the MBCC pay a monthly fee, the amount of which depends on the annual turnover of the member company: Small companies pay less, large companies pay more. At present, membership fees totalling R432k per annum have been committed for two years by the MBCC's founding members.

Rough timelines

Until the end of 2016

- Sign funding agreements with the dti and IDC
- Install Board structure
- Consolidate vision, mission and mandate
- Sign agreements with the incubator and the two CIC Universities
- Develop project submission and approval process to address urgent needs of members
- Take up office in Port Elizabeth
- MBCC website
- Industry roadshow

2017 onward

- Project definition, selection and roll-out
- Establishment and activation of Composite Innovation Centres
- Initiate market development through value chain analysis
- Establish composite training mechanism
- Enterprise development and SMME support
- Develop composite strategy for transformation
- (Inter) national exhibitions and trade shows
- Develop strategic partnerships with broader manufacturing industry (stakeholders, associations and initiatives)
- Continued funding acquisition
- Cluster branding
- Initiate composite interventions nationwide in support of regional manufacturing industry, strengthening of national value chains and the introduction of common standards and specifications.