

Taking our place in the blue economy space

Leadership talks to Professor Derrick Swartz, Vice-Chancellor of Nelson Mandela Metropolitan University (NMMU)



Professor Derrick Swartz, Vice-Chancellor

Growing Africa's ocean economy is a vital part of the overall economic growth of the African continent. With this in mind, Nelson Mandela Metropolitan University (NMMU) has adopted a strategy to develop a whole new range of maritime and marine education and training, research, innovation and engagement programmes to support Africa's blue economy.

NMMU's aim is to become the leading Maritime and Marine University on the African continent. NMMU is in a prime position to achieve this, based on its location in a city with two major ports (PE, Ngqura), vast knowledge and accumulated expertise in marine sciences for over 40 years, six modern campuses, a comprehensive academic profile, high quality academic staff, and strong industry linkages and capacity for innovation in the ocean space.

What, in essence, is the blue economy?

Simply put, it refers to economic activities harnessing multiple aspects of the world's ocean and coastal resources for sustainable development of societies. The use of our oceans as national economic and strategic assets goes back centuries. The traditional ocean economies were largely founded on fishing, shipbuilding, sea trade, and since the 1960's, oil and gas sectors. In the past two decades, however, a 'new' generation of ocean-based industries have begun to emerge in the ocean space such as sea-based renewable energy (current, wind, wave), marine mining, aquaculture, marine biotechnology, and cruise tourism. The term 'blue' economy refers to the sustainable development philosophy in using the sea as a source of economic activity – making issues such as the health of our oceans, marine biodiversity, biophysical changes (sea level and ocean temperature rises, acidification) central to development considerations. If 19th and 20th century sea-based economies were built on assumptions of near unlimited extraction of primary resources, the 21st century ocean economy must be premised on using the best advances in science and technology for stimulating growth in secondary industries, in marine food production, biotechnology, marine materials development, and renewable energy forms in ways that can balance human needs with the limits of natural systems.

How big, potentially, is Africa's blue economy?

More research is required on future growth potential, but we are starting from a low base. Africa's share in world trade sits at around 3%, with intra-African trade at 10% of Africa's total trade. Our share of exports to the world has actually declined in recent years, hovering around 2.5% currently, a net decline from 10% in the 1950s. In South Africa, Operation Phakisa planners have set an ambitious growth target of 4% per annum, growing GDP from R129b (2010)

to R177b, and 1 million jobs by 2033. I think this is rather optimistic given the current low-growth and structural challenges faced by the South African economy. However, the case for economic diversification is compelling. South Africa has highly developed scientific and industrial capabilities built over many decades in the mining and manufacturing sectors which, I think, provides a platform for ocean-based industrialisation.

You say your strategy is to develop a whole new range of maritime and marine education and training, research, innovation and engagement programmes to support Africa's blue economy. Can you elaborate on this, please?

We have most recently acquired a new Maritime and Marine Science and Technology campus, which is now being retooled for new laboratories, under- and postgraduate programmes, research and innovation entities, and incubation facilities supportive of the ocean economy. We are also fortunate in being designated by national government to be taking a leading role in providing scientific and technological leadership in addressing the education, skills, research and development goals of the country's blue economy strategy.

How can Africa take its rightful place in the blue economy?

Africa's Integrated Maritime (AIM) 2050 strategy, which was adopted by the African Union in 2012, provides a broad framework for country-level policy coordination. However, its strategic aim of growing Africa's market share in the global maritime space can only be realised if maritime cooperation is strengthened at a continental level—particularly linking industry players from various African countries to collaborate on large-scale challenges (e.g. piracy, sea-cabbling, shipping routes, off-shore energy), port-to-port linkages, rail and road network systems, and