

3rd African Regional Targeted Workshop for GEF IW Projects



**NELSON MANDELA BAY
MARITIME CLUSTER**

**“Industry and the Evolution of Maritime and
Freshwater Industry Clusters as Governance
Partners”**

Rhodes University, Grahamstown, South Africa

7th – 9th May 2014

The Ocean is Boss!



*“It doesn’t matter where on Earth you live, everyone is utterly dependent on the existence of that lovely, living saltwater soup. **There’s plenty of water in the universe without life, but nowhere is there life without water.** The living ocean drives planetary chemistry, governs climate and weather, and otherwise provides the cornerstone of the life-support system for all creatures on our planet, from deep sea starfish to desert sagebrush. That’s why the ocean matters. **If the sea is sick, we’ll feel it. If it dies, we die. Our future and the state of the oceans are one”.***

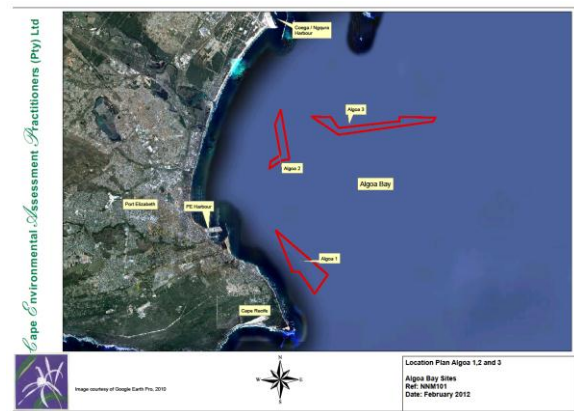
(Dr Sylvia Earle, 1995:30)

Challenge - 4 Vital Ecosystems Threatened



Challenge - Coastal Migration

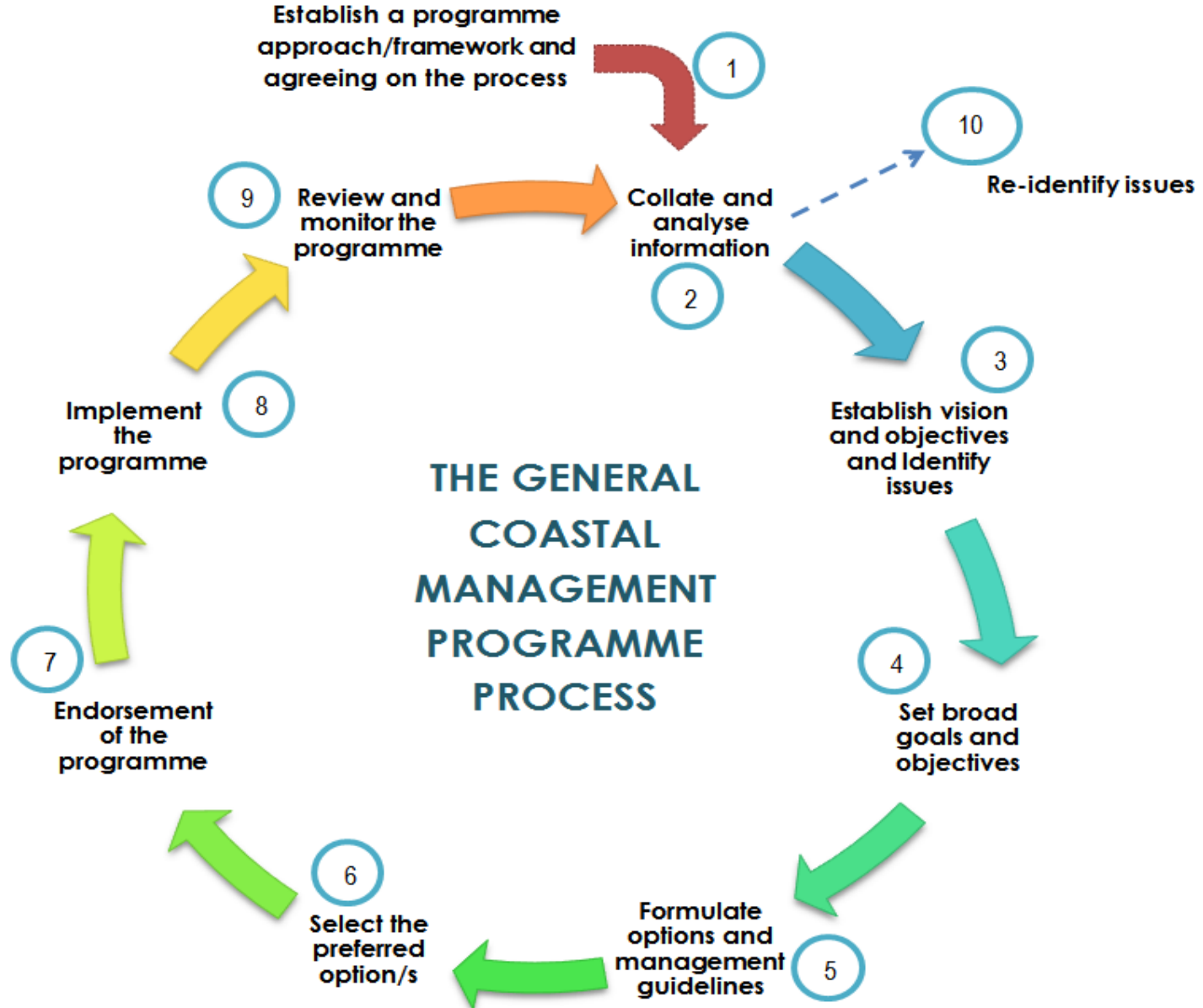
- According to the United Nations World Tourism Organization (UNWTO) it is currently estimated that 60% of the world's population lives within 60 km of a coastline.
- UNWTO predicts that this will grow to 80% by 2020.



Challenge – Lack of Maritime Cohesion



Challenge - Coastal Management



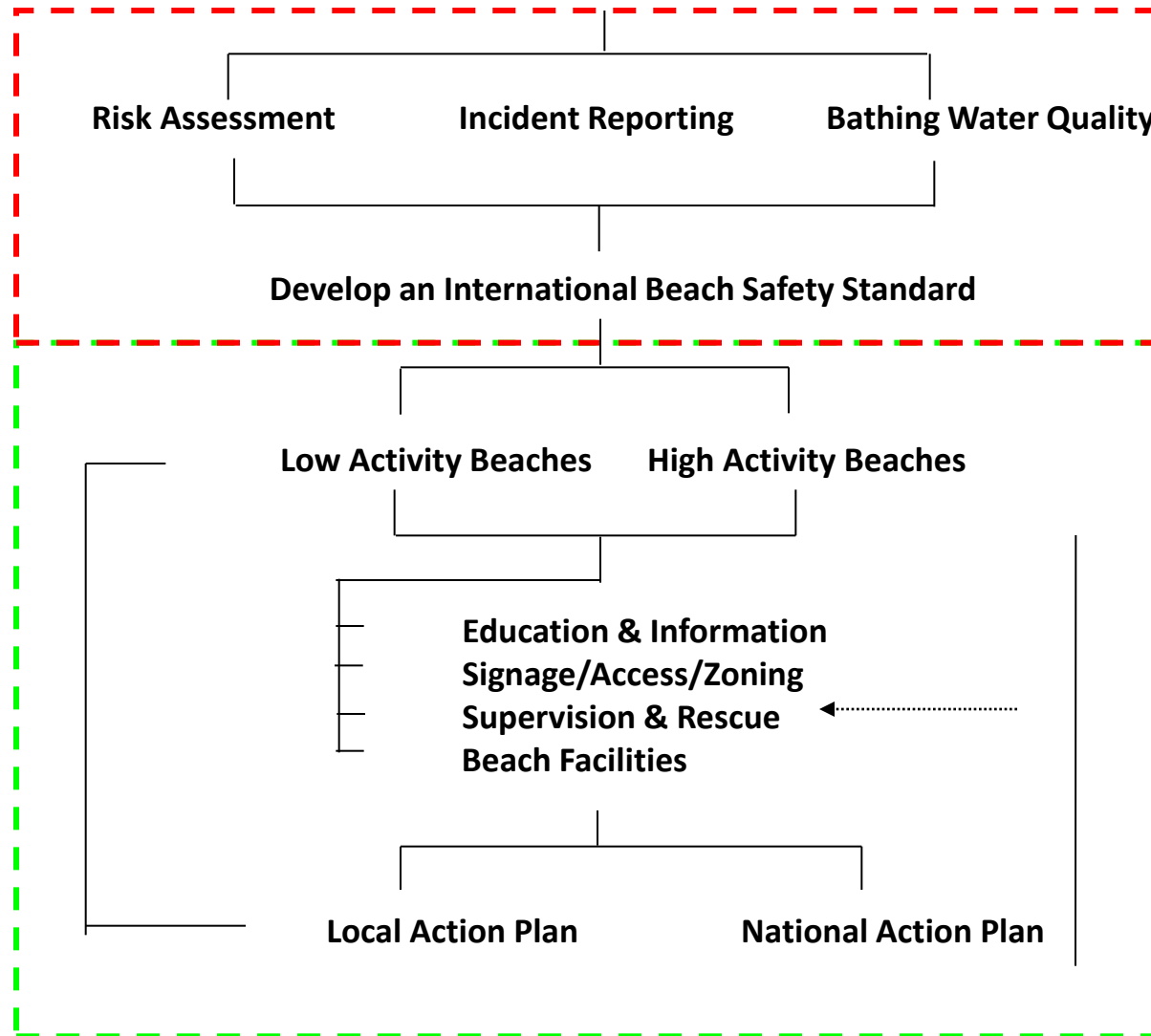
Challenge – Coastal Cities & Towns

- The Eastern Cape Coastline is dotted with remote rural communities, two metropolitan cities, and 40 coastal towns and villages.
- Each city, town and village is operating in isolation i.e. “doing its own thing”.
- There is no sharing of coastal management programs, pilot projects, experiences and solutions to problems.

Challenges – For Coastal Regions

- Lack of institutional capacity
- Lack of an effective Beach Management and Risk Assessment Program for each coastal city, town and village
- Lack of human resource skills and local implementation capacity
- The private sector needs to get more involved

“Clean Blue” Framework for Beach Management

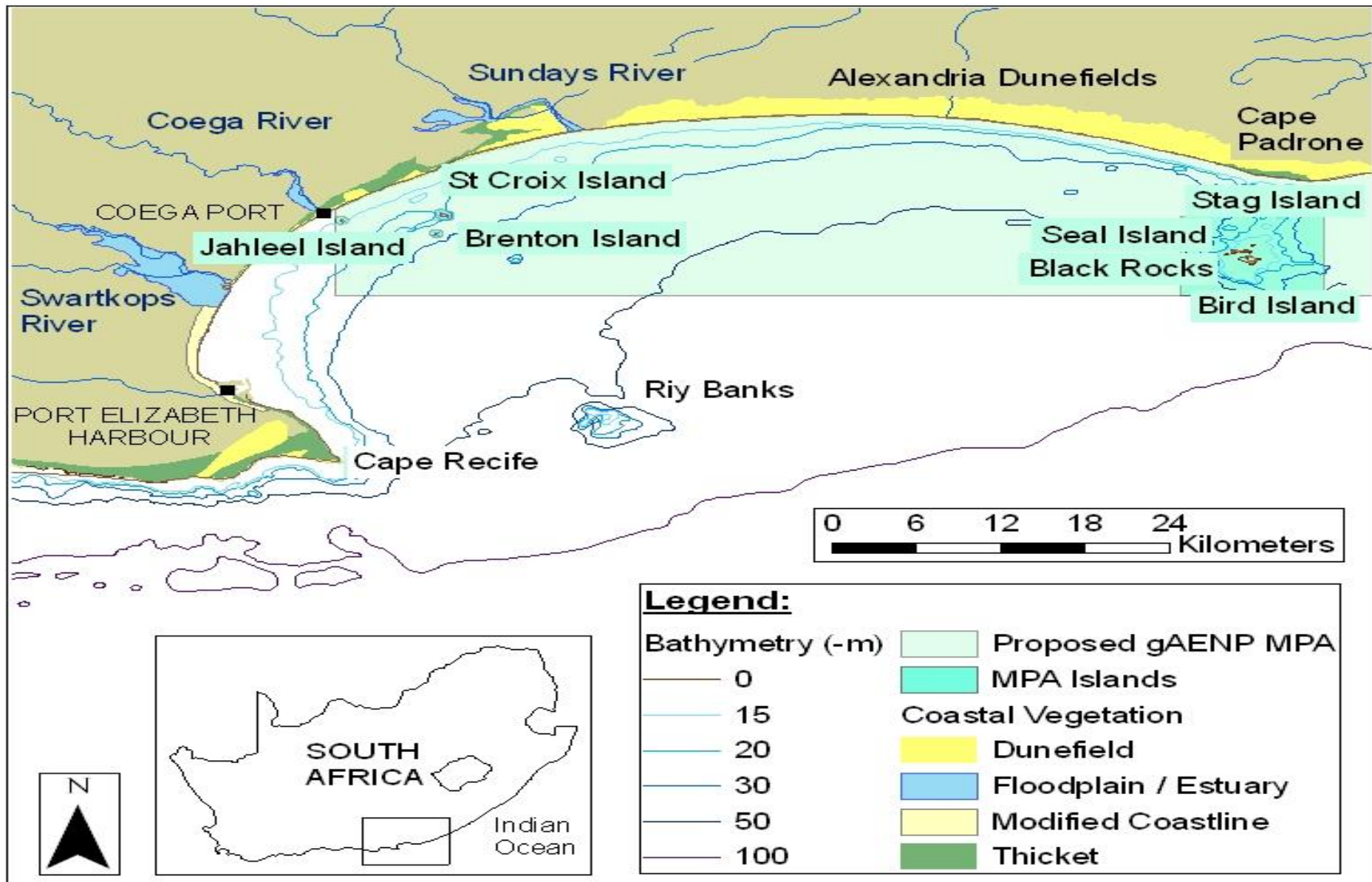


Local
Beach
Safety
Standard

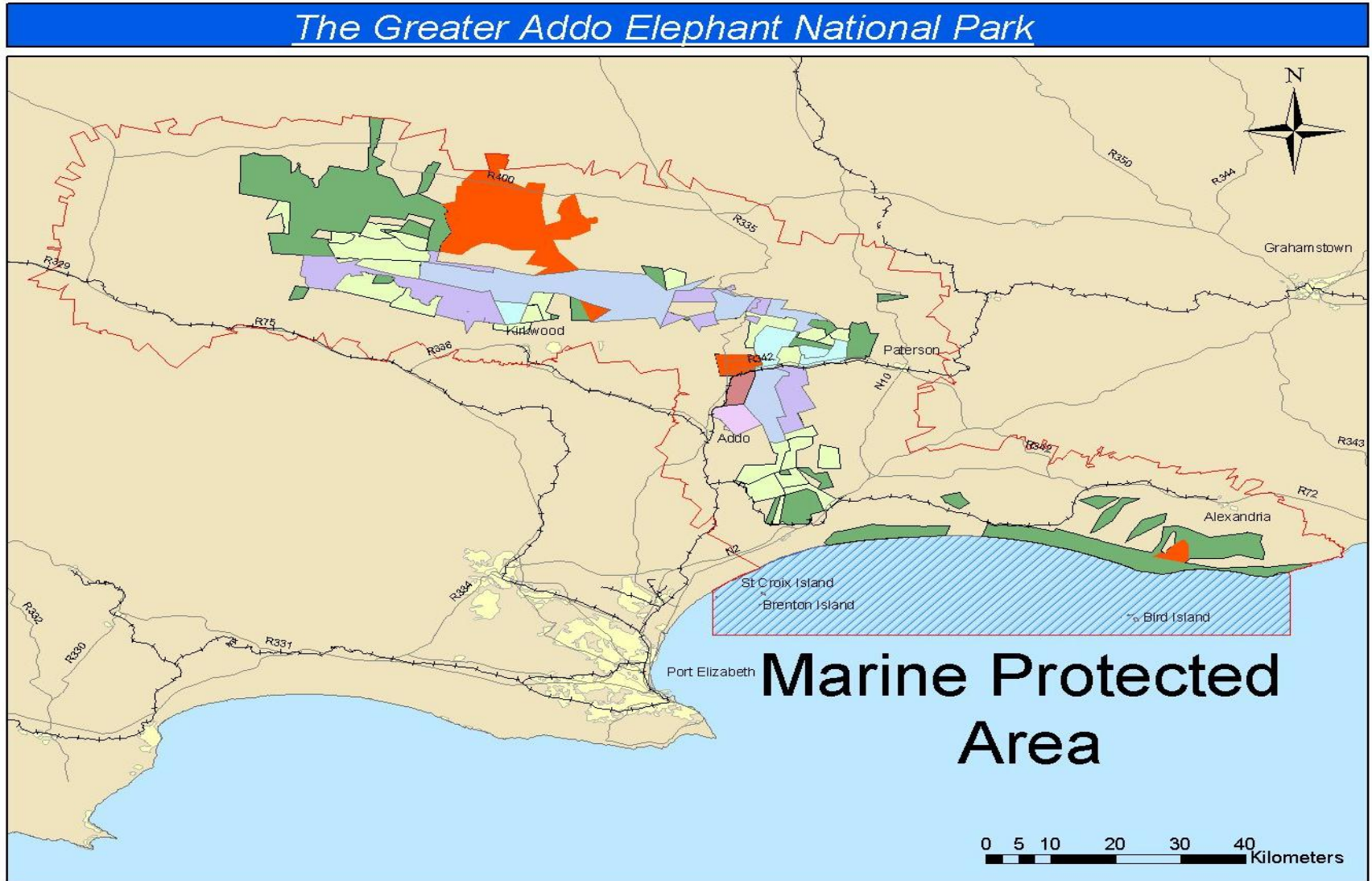
National
Beach
Safety
Standard



Challenge - Managing Conflicts of Interest



MPA Potential World Heritage Site



One of the best examples of coastal dune fields in the world



The Opportunities - Beach Tourism

- Beaches in the US Coastal States generate 85% of tourist related revenue (*James R. Houston, the economic value of beaches 2009*)
- It is not unreasonable to assume that beach tourism generates at least 70% of tourist related revenue for the Eastern Cape Province



Port of Port Elizabeth - Commercial



Port of Ngqura - Industrial



Transshipment Hub



Mega ports on course

PE, Coega set for R25.9bn investment

Sandile Mchunu

TRANSNET National Ports Authority chief executive officer Tau Morwe told Nelson Mandela Bay business leaders yesterday that the parastatal planned to spend R25.9-billion in capital investment over the next seven years to develop the Port Elizabeth and Ngqura harbours.

Morwe also said: "We want to shift from road to rail as a form of doing business. This will also help to reduce our carbon emissions."

"The goal to undertake this project is to expand rail, port and pipeline infrastructure."

Both harbours had benefited from several investments which had resulted in the creation of 12 800 direct and indirect jobs in the region since 2011, Morwe said. "A further 8 800 are expected to be created in 2014."

Transnet's strategic intent was to drive economic growth

and long-term sustainability of the ports through optimal use of strategic infrastructure.

In an update on projects, he said a R41-million Transnet road and railway upgrade project aimed at enhancing safety on the quay and boosting the export and import of commodities through the Port Elizabeth Harbour would be finished

A further 8 800 jobs are expected to be created in 2014

by late next year. It would see the two quays at the multipurpose terminal revamped and resurfaced.

Earlier this year Transnet also revealed that R184-million had been put aside for the upgrade and repair of two 73-year-old slipways in order to increase capacity and enable more vessels to be simultaneously repaired.

In April, the development of

a waterfront at the Port Elizabeth Harbour took a giant step forward, with Transnet officially allocating a section of the harbour for leisure and recreation.

The move came after two decades of public pressure and seven years of active lobbying by business and development bodies and paves the way for work on the city's waterfront to start by 2016.

At the beginning of 2012 Transnet also committed R9-billion to upgrade the two harbours as part of government's R300-billion investment over the next seven years.

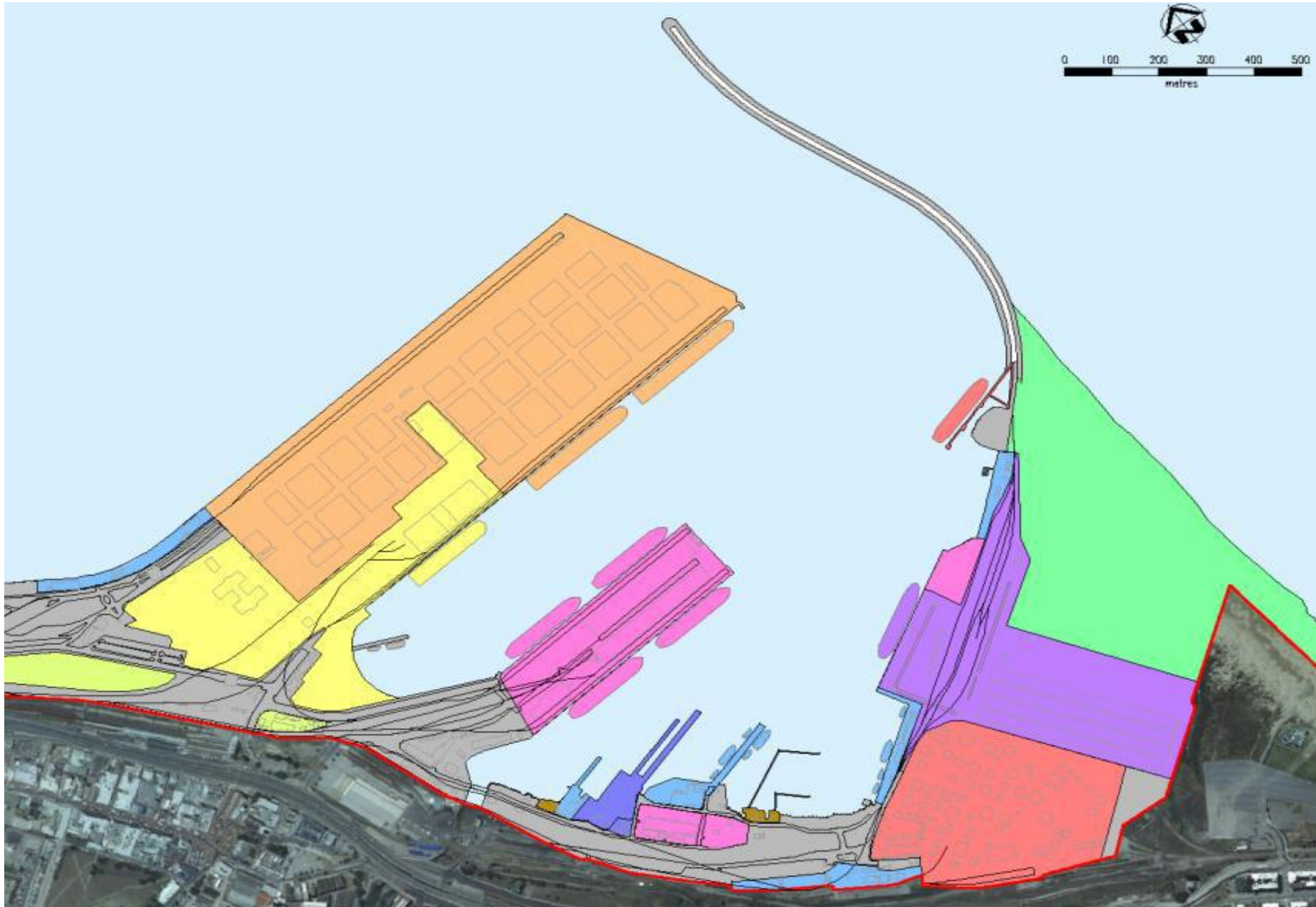
This money was earmarked for infrastructure developments. Of this, R7.1-billion was earmarked for relocation of the controversial fuel tank farm and manganese ore dumps to Coega from the Port Elizabeth Harbour.

The latest R1.9-billion upgrade of the Port Elizabeth harbour will mostly focus on growing its automotive export/import facility.

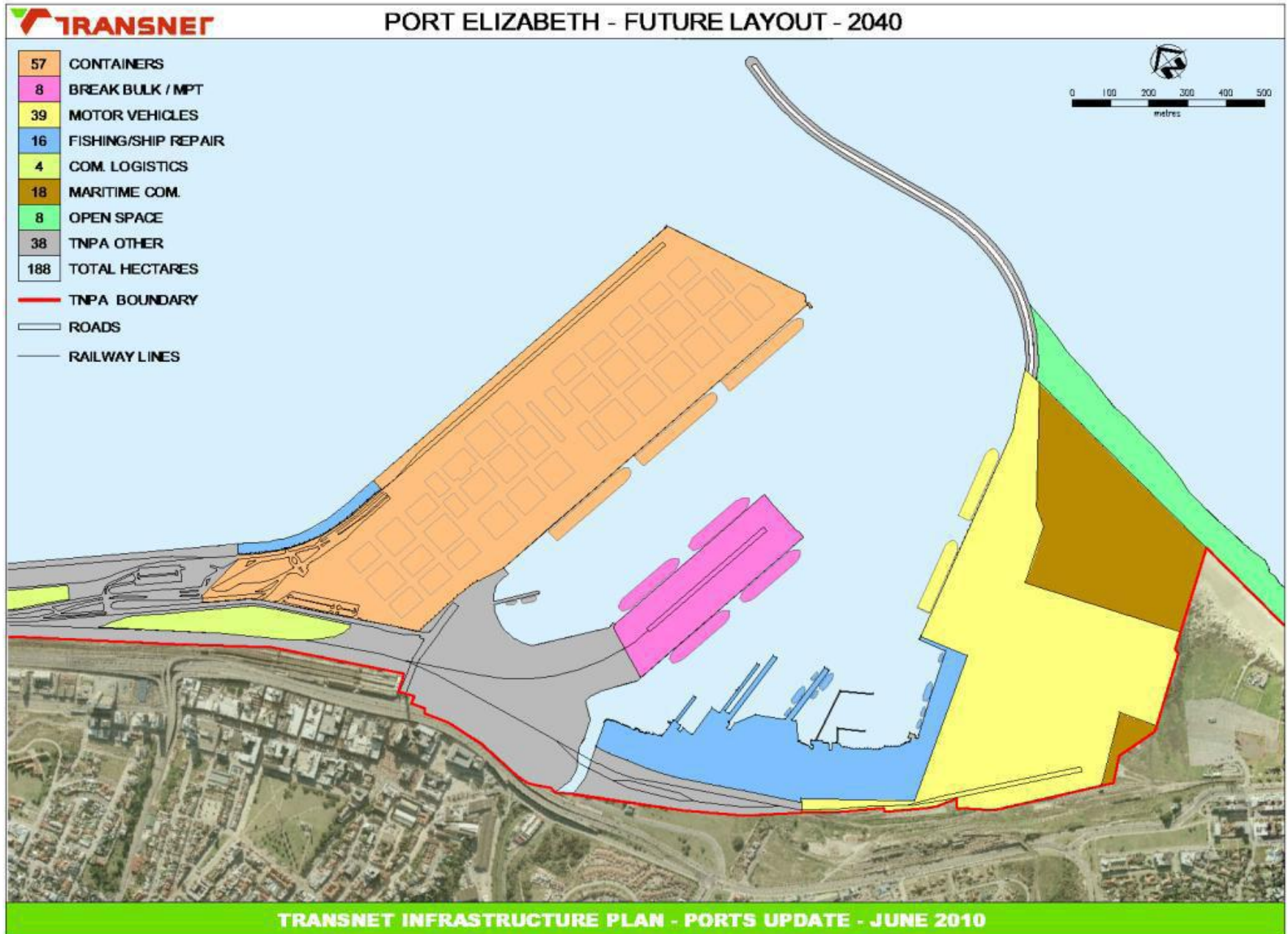


SMOOTH SAILING: Transnet National Ports Authority head Tau Morwe says upgrades are on schedule
Picture: BRIAN WITBOOI

Port of Port Elizabeth Current Layout Plan



Port of Port Elizabeth Future Layout Plans



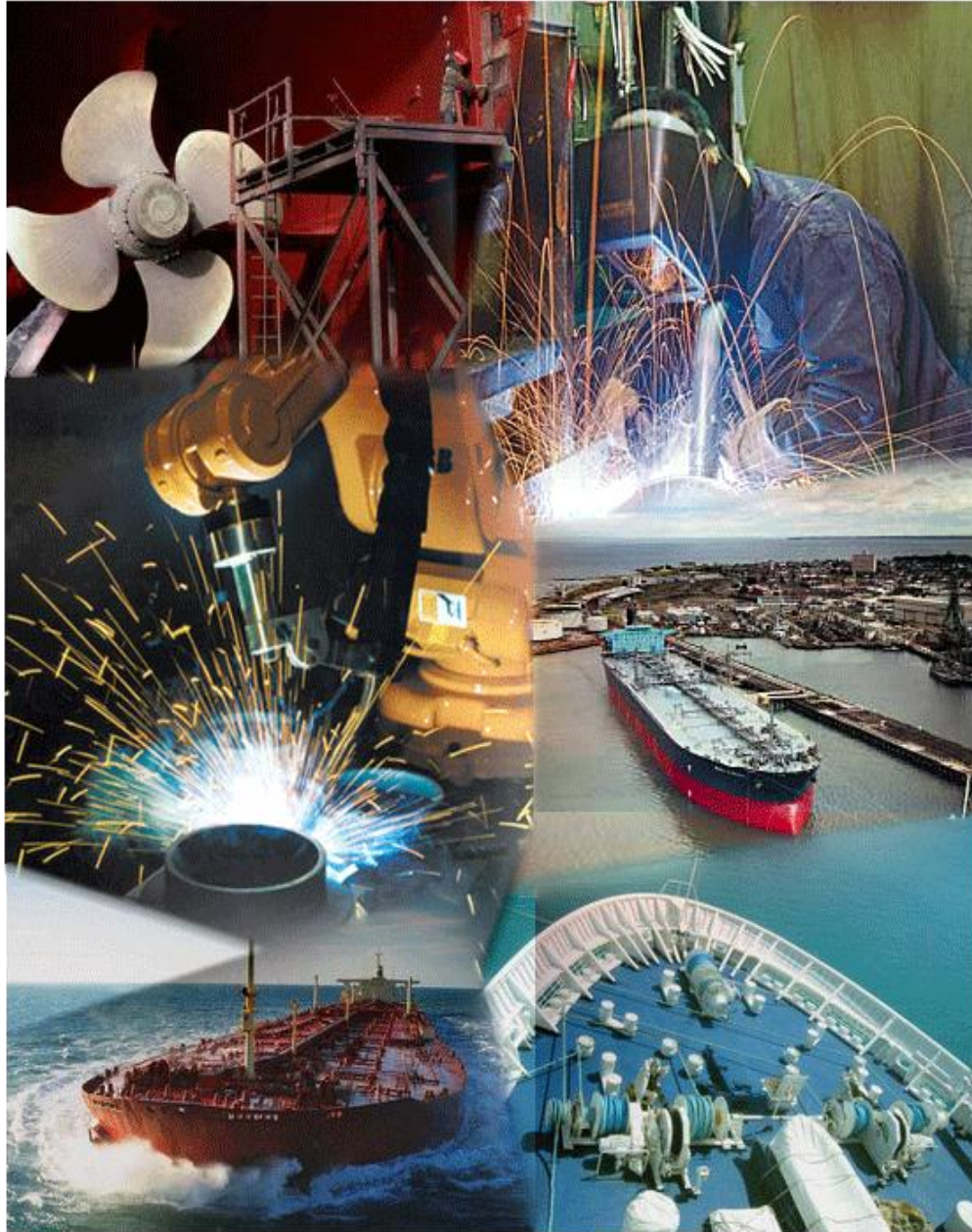
Port Elizabeth Waterfront Development



Port Elizabeth Cruise Liner Destination



Opportunity - Ship Building and Repairs



Building Catamarans & Super Yachts



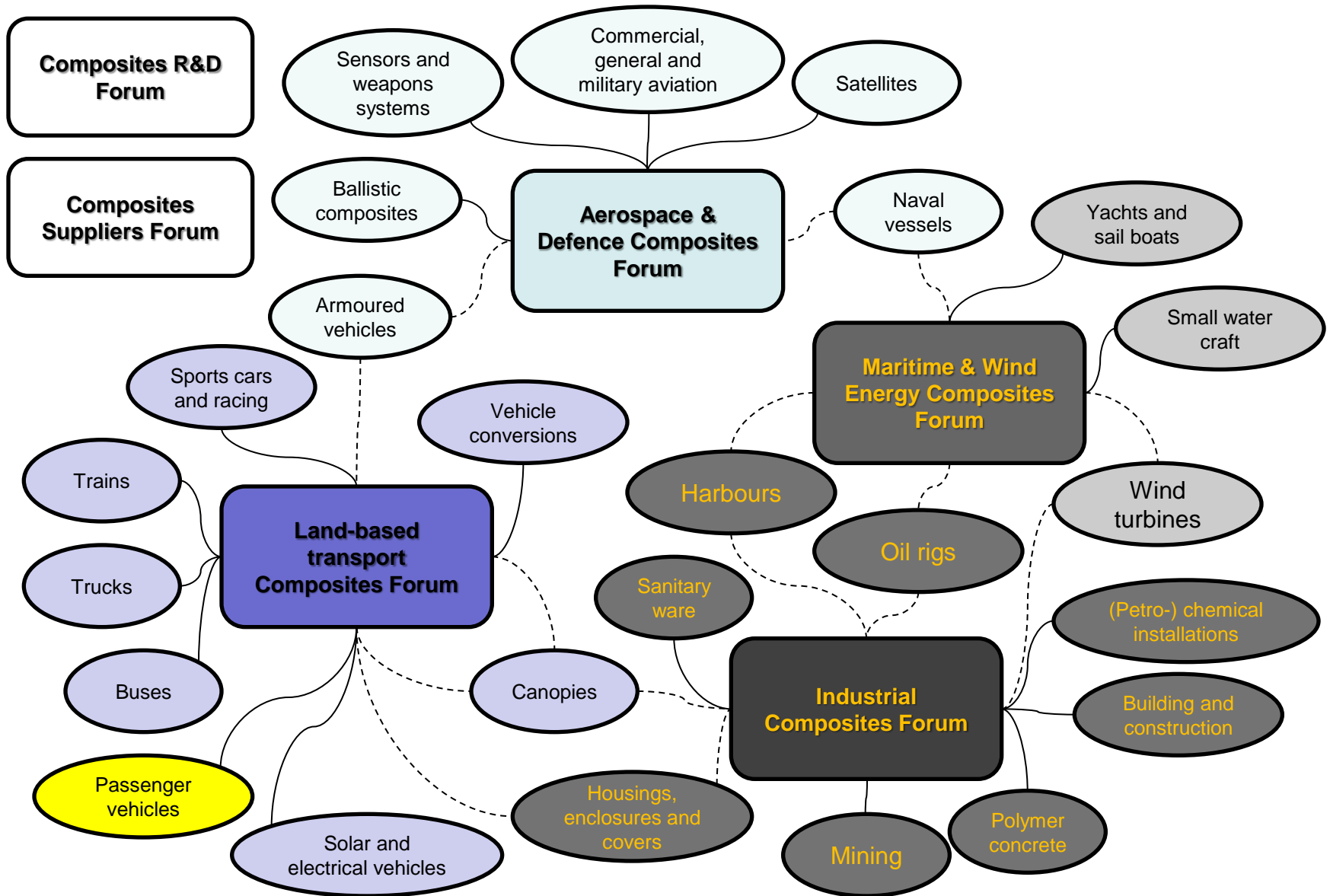
Super Yacht Interior



The Super-Yacht Industry

Yacht transport	Marinas
Deliveries	Project Managers
Agents and management services	Sailmakers
ITC and electronics specialists	Upholstery
Crew placement and HRM	Mechanical
Provisioning and bunkering	Uniforms and clothing
Customs, quarantine & immigration agents	Boat shows and special events
Brokers and sales agents	Lighting (including under-water)
Charters	Riggers
Painters, polishers and treatment specialists	Aircraft (including private jets)
Cleaning services	Submersibles
Art, interior design and decoration	Carpentry
Catering, hospitality and concierge services	Flags/banners
Insurance	Fuel
Safety and fire protection	Gold/silver plating
Legal	Medical supplies and services
Media, photography and video	Naval architecture and design
Model makers	Spas, saunas, steam-rooms and pools
Security services	Surveyors
Diving, fishing and guiding services	Limousines and chauffeurs

Organizing the Composites SA Cluster



The Eastern Cape has one of the most diverse coastlines in the world



Eastern Cape Coastal Route 900 km



The Greatest Migration on Earth

One of the world's greatest species migrations runs along the Wild Coast of South Africa.



The sardine run has been compared to the wildebeest migration in the Serengeti National Park.



Bay excites eminent scientist

CELEBRATED American ocean explorer Dr Sylvia Earle can't wait to be back in Port Elizabeth to go diving in Algoa Bay.

Her Deepness, as she is known, says she might even bring along one of the little submarines she has helped develop, which are now allowing aquanauts around the world to explore depths and places previously out of reach.

Speaking to me last week in an exclusive interview after receiving her honorary doctorate from NMMU, she said the amazing diversity of plant and animal life in our bay, which she has now learnt more about, is one of the things luring her.

This great complexity beneath our waves was fascinating to hear about but not a surprise, she says, because this region, from the Karoo through the ancient fynbos lineage to the sea is clearly one of "deep history".

"It takes my breath away."

Credited as a global leader in marine research and awareness work on the value of our oceans, she says she got her first "wake-up call" as a young scientist diving in a marine protected area (MPA) off Cape Town. She had never seen so

many lobsters, she recalls.

Their antennae were protruding from every hole. Just as suddenly, outside the protected area, they disappeared.

She had an epiphany then of the great value of these MPAs.

Earle's visit to Port Elizabeth was another coup for NMMU, for vice-chancellor Derrick Swartz and science dean Andrew Leitch, who brought her over. In recent years, the university has hosted naturalist Sir David Attenborough and fellow Briton, environmental strategist Sir David King, and, like them, Earle also took time to deliver a public lecture.

It shows great vision to get people of this calibre over here, I feel.

Now 77, Earle holds several world diving records including the deepest free dive by a woman, 1km down. In 1970, she led a team of female aquanauts on a US Navy project into the fearsome Marianas Trench, the deepest spot in the world, to live and work for two weeks in a special undersea laboratory, collecting data.

While there was the thrill of adventure, this was nothing compared to the importance of the research, the understanding that flowed from that and then passing on that understanding, she says.

"The simple underlying

questions are always: where have we come from, where are we going and how do we make peace with nature?"

In the past 50 years, she notes, we have not been doing well on this last question, having drawn down and squandered more of our natural assets than ever before. In the ocean we have decimated, for instance, 96% of the blue fin tuna.

Now we are busy with "extreme fishing", voyaging thousands of miles and spending even more dollars on fuel, carving a giant carbon footprint into the sea, in search of creatures like rare giant Chilean sea bass – and the money the rich will buy them for.

We have taken and taken, and have prospered. But now our exploding population and our detachment from the natural world have collided to inflict terrible wounds and we are beginning to feel the pain.

But we are beginning to understand that the economy is absolutely reliant on a sound

Elephant's
Ear



Guy
Rogers

environment.

Furthermore, we are realising that, without our cocoon on Earth of temperature and oxygen, generated by this environment, the universe is a hostile place.

Whales (and other Antarctic predators) eat krill, which eat phytoplankton, which is nourished by the nutrients discharged

by the whales and which generates half of Earth's oxygen, through photosynthesis. While we've mostly stopped whaling (except for countries like Japan, Denmark and Norway), we are still siphoning out great loads of krill, as much as 44 000 tons for one trawler in a season.

This is just one example, says Earle, of how we are continuing to break marine food chains. As the great American naturalist Aldo Leopold put it, we are losing the nuts and bolts which hold the world together; we are losing the integrity of the engine.

However, also in this past half century, argues Earle, we have grown more in our knowl-



EXPLORING OCEAN: Dr Sylvia Earle visited Pollok Beach while she was in Port Elizabeth
Picture: FREDLIN ADRIAAN

edge, our understanding of the engine, than ever before. Such that we stand right now at a "sweet spot" in history when we can for the first time turn the tide on the damage we have caused.

We just need to "follow the lines and join the dots". Working with the incredible science that is now emerging, we can fix things.

Helped by our technological

prowess and the passion of kids, NGOs and sometimes even corporate and government leaders, we have a chance.

For instance, she says, our African penguin population in Algoa Bay and through the species, its range is plummeting. But so long as there are some penguins left, and some people who care, they can be saved.

THE HERALD 25 04 2013

Algoa Bay Hope Spot



As part of her TED Award speech, Dr Sylvia Earle called upon the people of the world:

'I wish you would use all means at your disposal to create a campaign to ignite public support for a global network of marine protected areas, Hope Spots large enough to save and restore the blue heart of the planet.'



Dr. Earle named these areas Hope Spots because they represent a real hope to restore the health of our imperilled ocean.

Dr Sylvia Earle in Port Elizabeth



Constructing Maritime Clusters

Clusters do not happen naturally they have to be constructed. Over the last decade, the concept of clustering has become a central concept for analyzing the competitiveness of nations, industries and firms.

Maritime clusters can make a significant contribution to the goals and objectives of ocean governance.

Clusters – Innovation through Cooperation

‘Opportunities to increase competitiveness come not from a single asset or an investment, but from the combination of people, place, investment and attitude’

New Zealand

‘Participative strategic thinking in clusters mobilizes key stakeholders and allows consensus building and joint decision-making’

Germany

Cluster Definition

- **First**, a cluster is a *population*, not an entity. Consequently, the internal heterogeneity of clusters should be taken into account.
- **Secondly**, clusters are *geographically concentrated*. This dimension sets clusters apart from networks.
- **Thirdly**, the structure of maritime clusters consists mainly of *sub-sectors* and *leader firms*.

Benefits of Maritime Clusters

- Act as an Incubator of Business Opportunities
- Provide opportunities for Employment
- Enhance Competitiveness of the manufacturing sector
- Promote Innovation, Research and Technology
- Offer Education, Skills and Expertise in the Maritime fields
- Facilitate new Business Partnerships
- Ensure Economic Development of the area
- Facilitate joint efforts for the Protection of the vulnerable Marine Environment
- Promote Regional Cooperation and Integration

How should the Nelson Mandela Bay Maritime Cluster be structured?



Structure of Maritime Clusters

- Shipbuilding and Ship Repairs
- Maritime Safety & Security
- Marine Renewable Energy
- Ports & Infrastructure
- Maritime Logistics
- Coastal & Marine Tourism
- Scientific & Oceanographic Research
- Fish & Sea Products
- Marine & Maritime Services
- Shipping Finance
- Maritime Law
- Maritime Training & Employment
- Maritime Consulting

Leader Firms

Leader firms are important drivers of the development of clusters. Leader firms are firms with the *incentive* and *ability* to make investments with positive 'external' effects for other firms in the cluster.

Leader firms encourage innovation, enable internationalization of other firms in the cluster and invest in the quality of the labour pool. In these ways, leader firms contribute to the competitiveness of other firms in the cluster and, as a consequence, the cluster as a whole.

Suggested Structure for NMBMC

- Ports & Infrastructure Development
- Shipping, Logistics & Transport
- Research, Development & Innovation
- Maritime Incubation & Skills Development
- Marine & Maritime Services
- Coastal & Marine Tourism
- Fishing & Fish Processing

The following slides suggest how leader firms could logically fit into sub-sectors.

Ports & Infrastructure Development Sub-Sector

- Port of Port Elizabeth
- Port of Ngqura
- Coega Industrial Development Zone
- Transnet National Ports Authority
- South African Maritime Safety Authority
- Department of Transport

Shipping, Logistics & Transport Sub-Sector

- Coega Development Corporation
- Nelson Mandela Bay Business Chamber
- Nelson Mandela Bay Metropolitan Municipality
- Department of Transport

Research, Development & Innovation Sub-Sector

- South African Environmental Observation Network
- South African Institute of Aquatic Biodiversity
- NMMU Coastal & Marine Research Unit
- NMMU Chair in the Law of the Sea and Development in Africa
- Agulhas and Somali Current Large Marine Ecosystems Project

Maritime Incubation & Capacity Building Sub-Sector

- CSIR Composites Centre of Competence
- South African Boat Builders Export Council
- Port Elizabeth FET College
- NMMU Department of Development Studies
- Marine Industry Association of South Africa
- African Centre for Capacity Building in Ocean Governance

Marine & Maritime Services Sub-Sector

- South African Association of Freight Forwarders
- South African Association of Ship Operators and Agents
- Port Elizabeth Harbour Carriers
- National Sea Rescue Institute
- Maritime Consulting (security, law, insurance)

Coastal & Marine Tourism Sub-Sector

- Algoa Bay Yacht Club
- NMB Cruise Liner Committee
- NMB Water Sports Committee
- Eastern Cape Coastal Route Association

Fishing & Fish Processing Sub-Sector

At this stage of maritime cluster construction no leader firms in this sub-sector have been identified or invited to have a seat on the Nelson Mandela Bay Maritime Cluster.

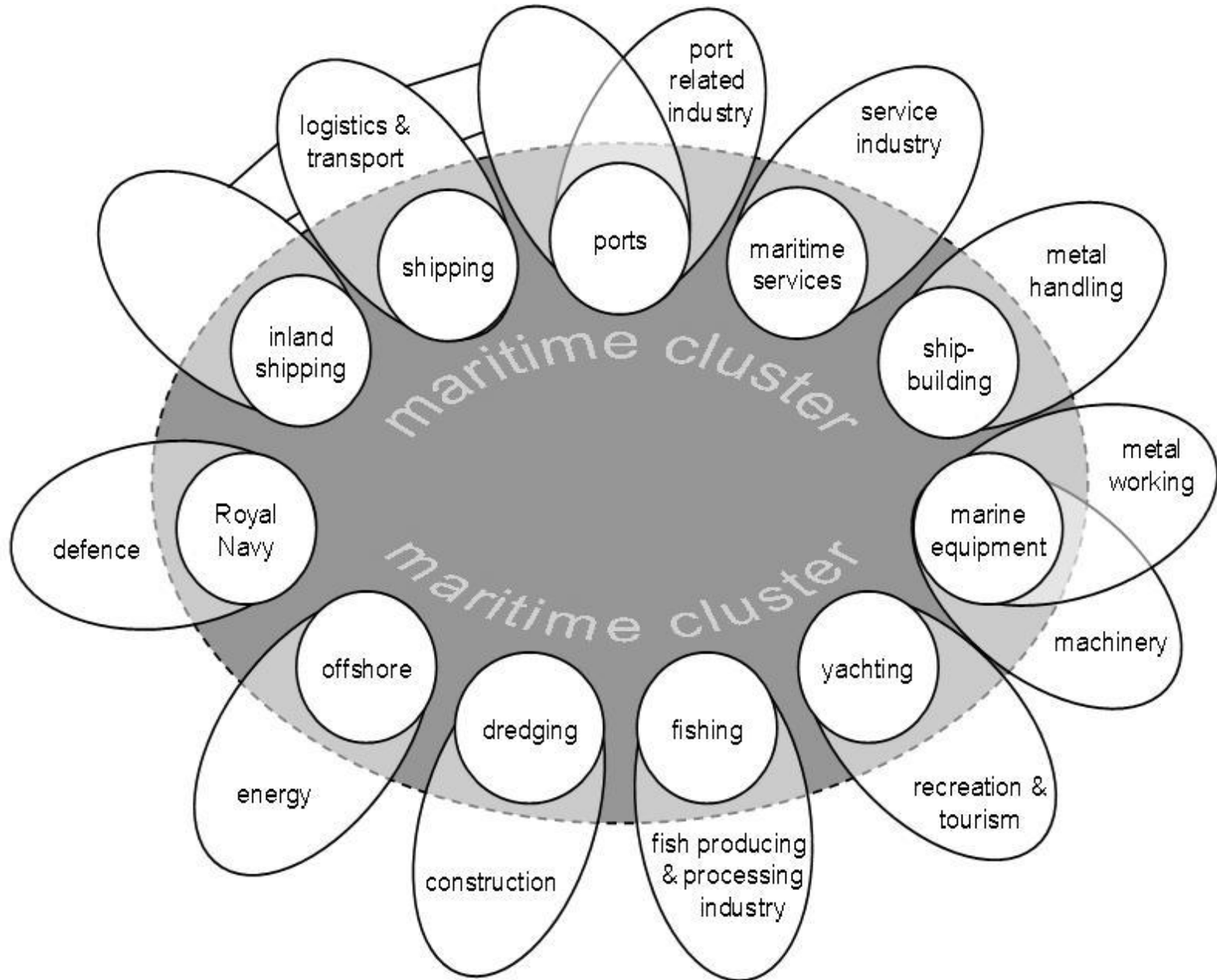
This situation must change.

Economic Specialization

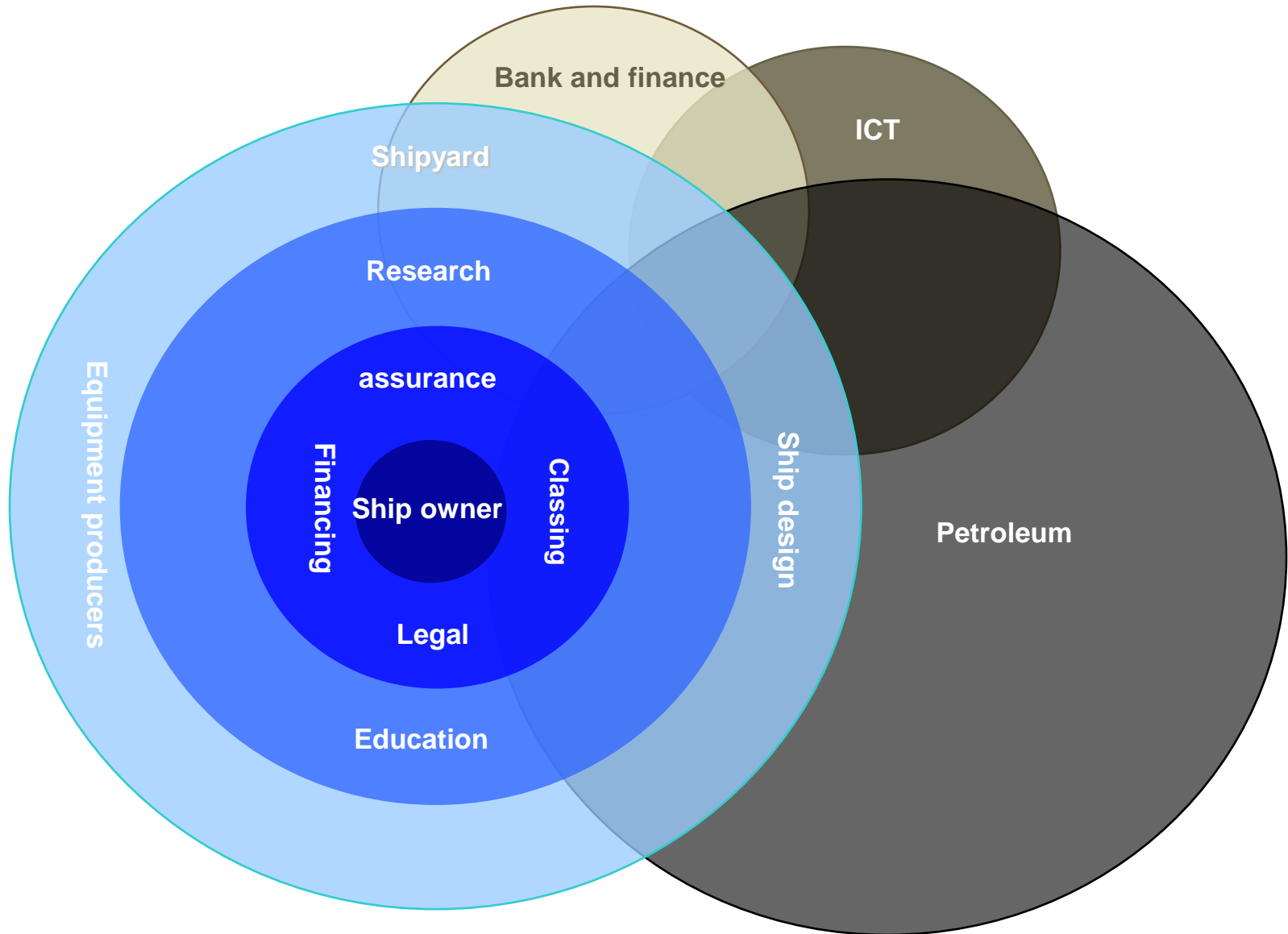
Maritime clusters are centred around a particular economic specialization 'the core of the cluster'.

What is the economic specialization of the Nelson Mandela Bay Maritime Cluster?

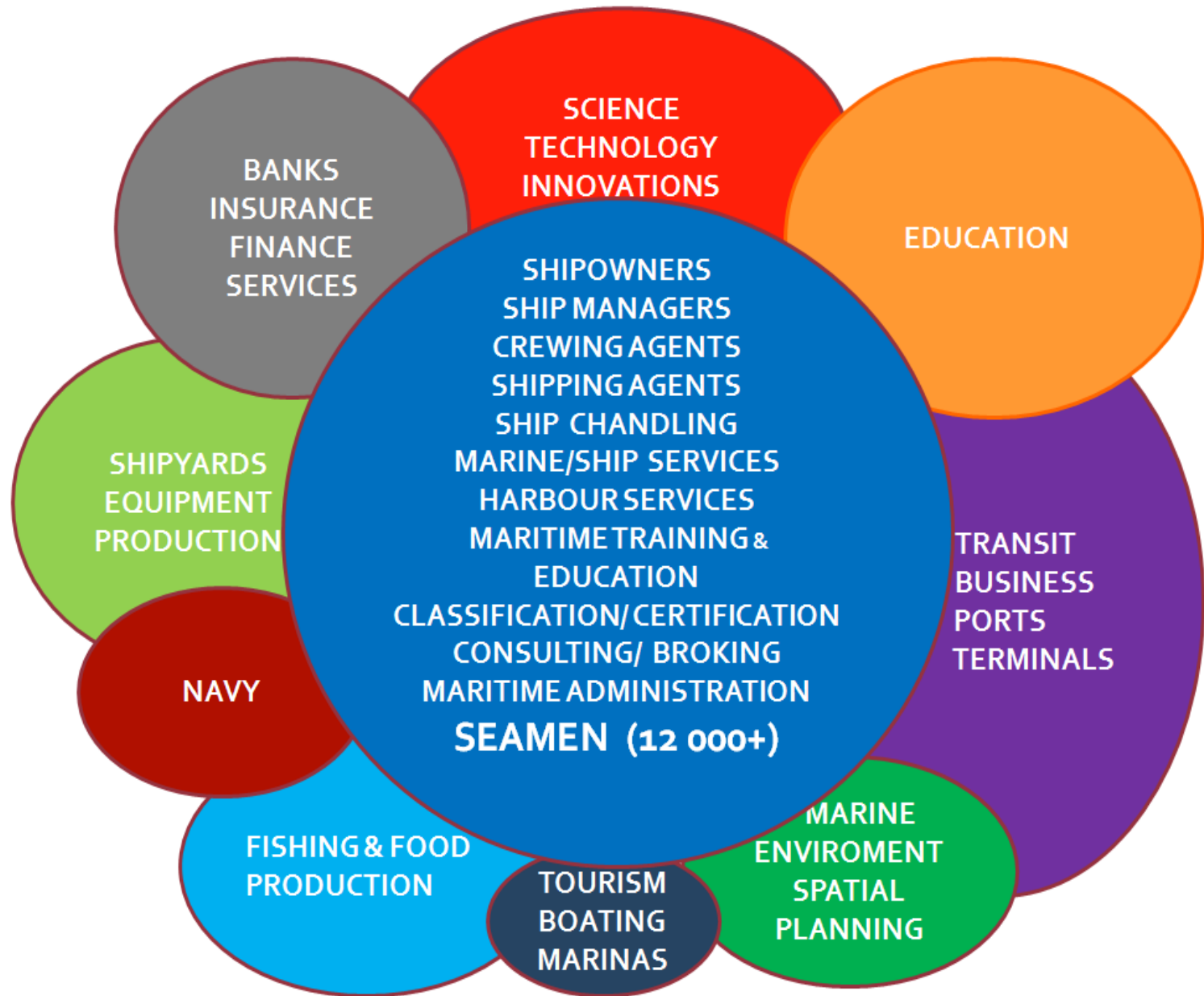
Structure of a Maritime Cluster



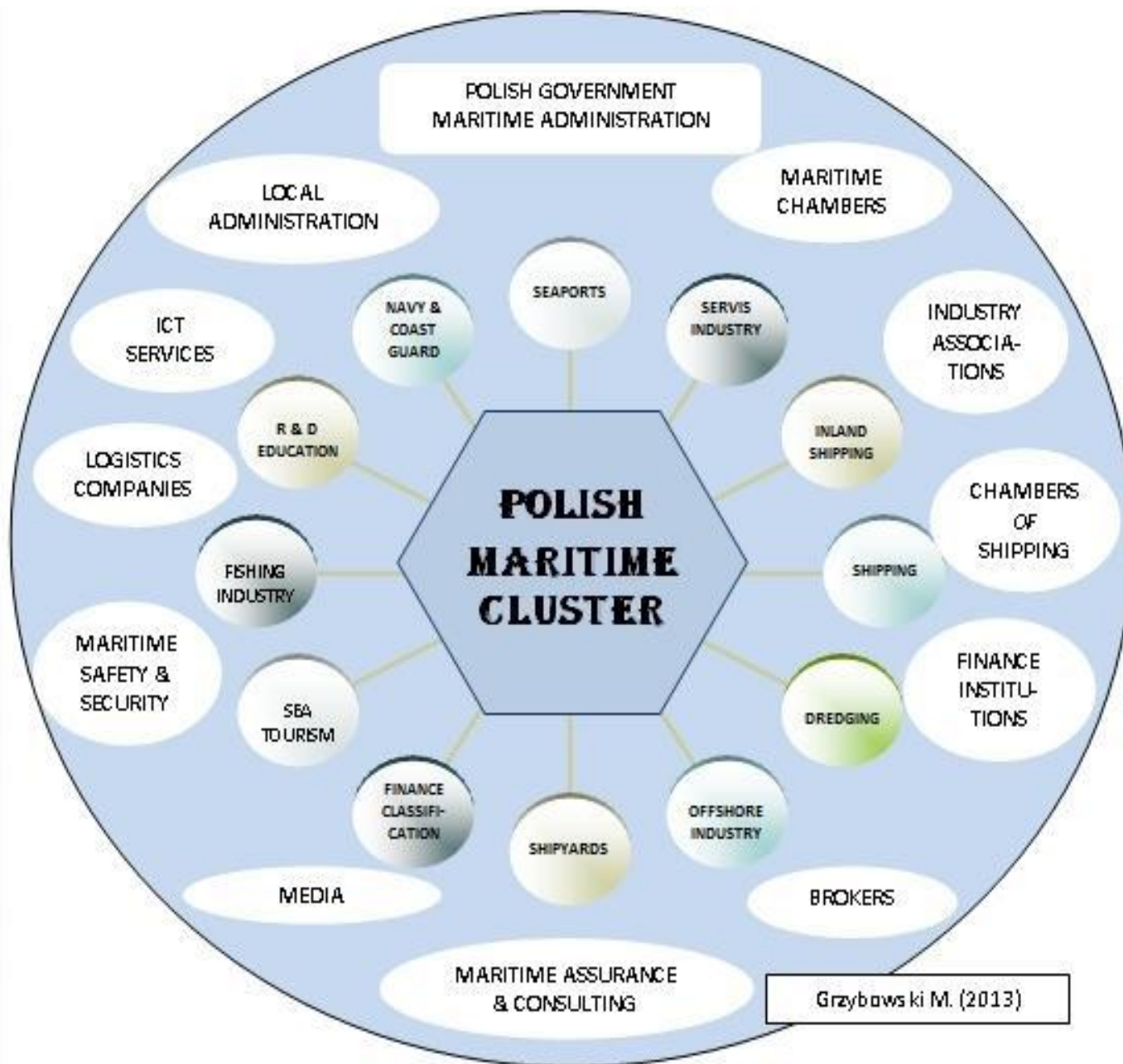
A Complete Maritime Cluster in Norway



Latvian Maritime Cluster



Polish Maritime Cluster



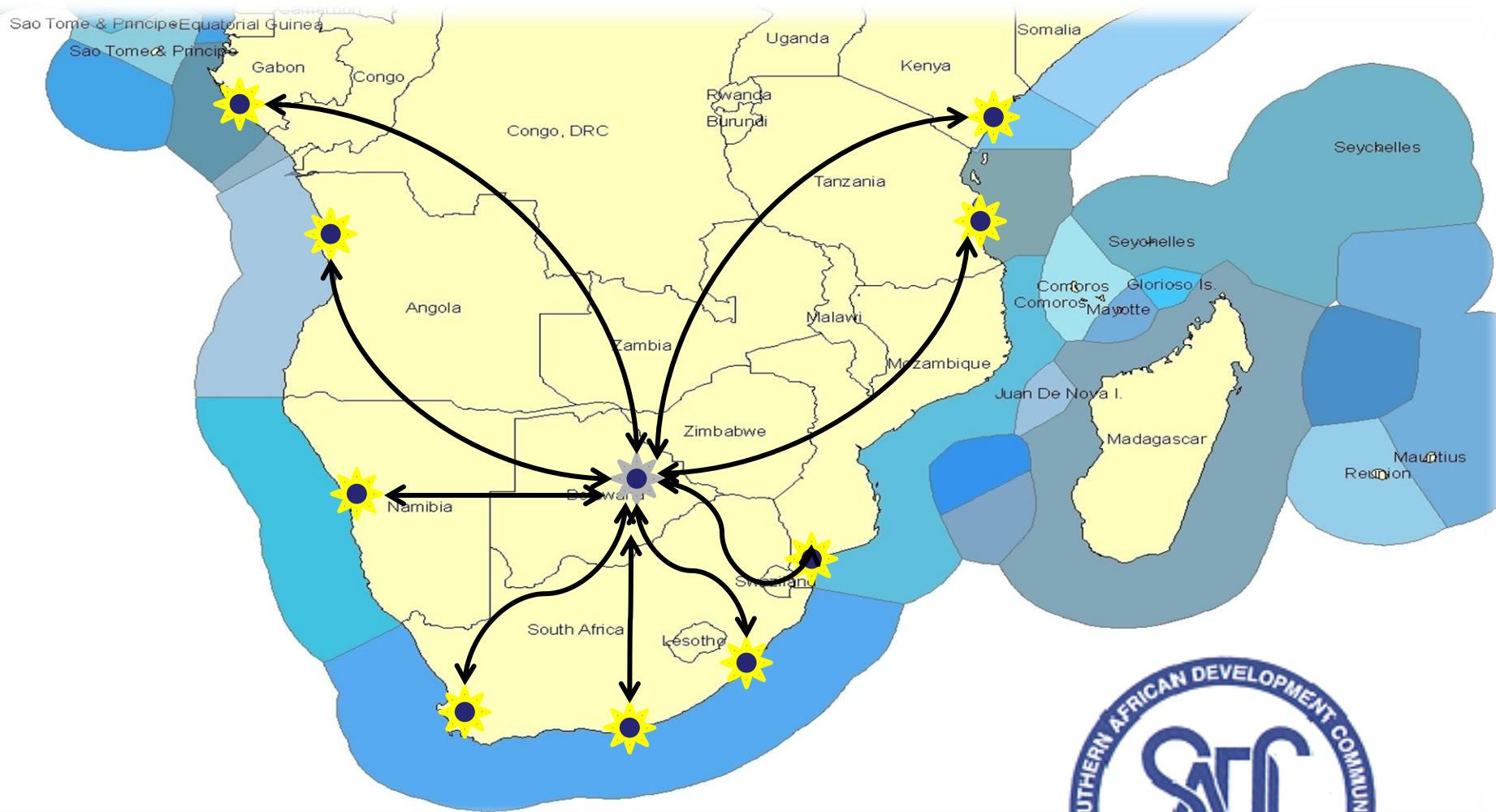
Legal Entity

- Register the cluster as an unincorporated voluntary association
- Open a bank account
- Schedule four steering committee meetings a year
- Sub-sectors should meet for round table conversations whenever there is a need to lobby on issues that require a solution
- Identify and implement five projects a year
- Arrange an annual summit/assembly of maritime stakeholders

Some NMBMC Achievements

- Facilitated the first dialogue meeting of maritime sector stakeholders in Nelson Mandela Bay
- Elevated the profile of the maritime sector
- Motivated the first Eastern Cape Ports and Maritime Conference (ECPMC 2013)
- Initiated the production of the first Nelson Mandela Bay Maritime Directory
- Centre for maritime enquiries - receiving invitations to speak at maritime conferences
- Inspired the vision for an African Network of Maritime Clusters (ANMC)

African Network of Maritime Clusters



Definition of Coastal & Marine Tourism

Coastal & Marine Tourism (CMT) includes those recreational activities that involve travel away from one's place of residence and which have as their host or focus the marine environment and/or coastal zones.

Although inland waters such as dams and lakes do offer marine related recreational activities, the coastal marine environment is defined as those waters which are saline and tide-affected.

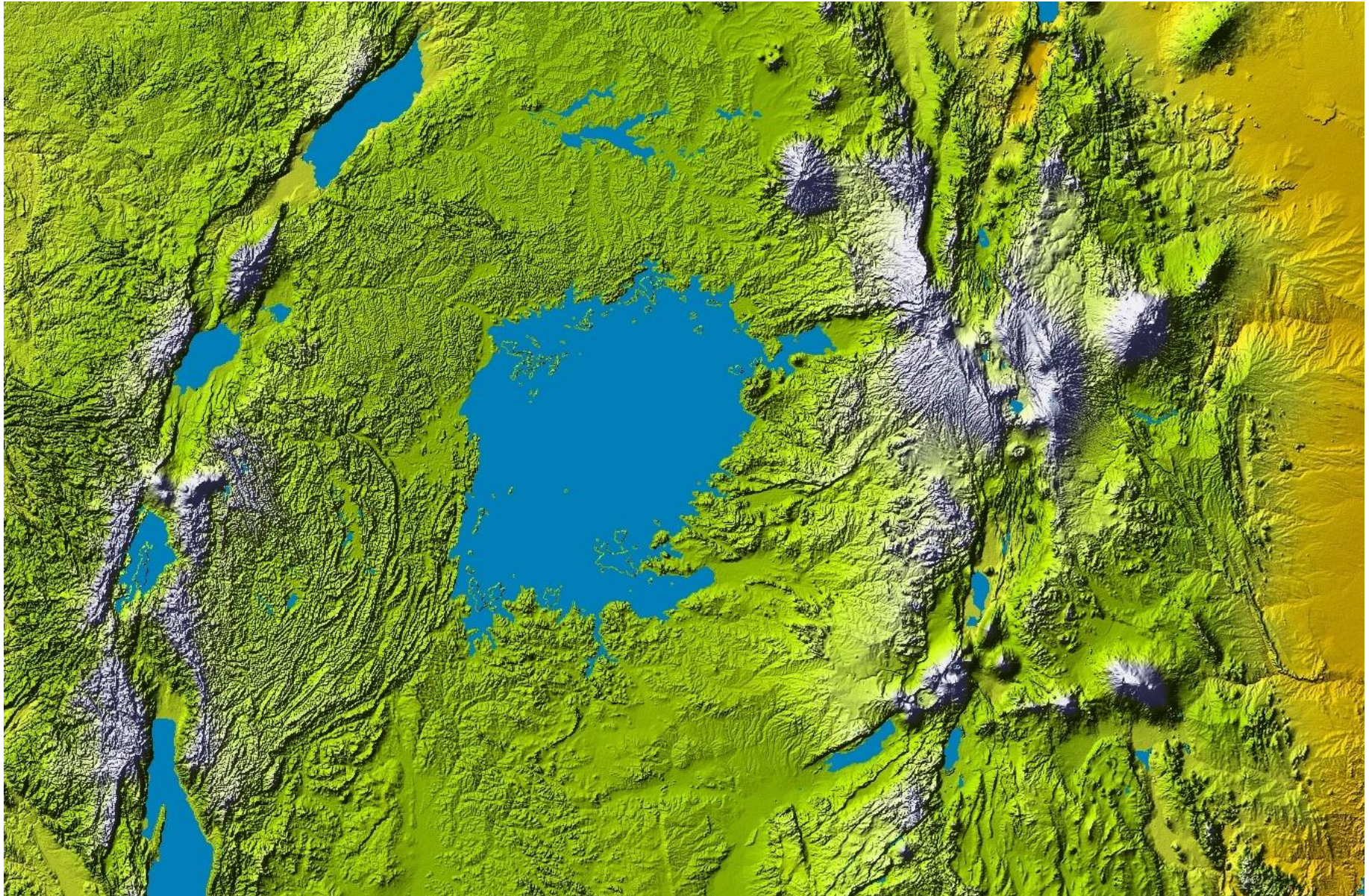
Fresh Water Marine Tourism

- Lake Victoria is the largest fresh water lake in Africa and the second largest in the world after Lake Superior.
- Surface area 68,000 sq km
- Maximum depth 84m, average depth 40m
- Maximum length 337 km
- Maximum width 250 km
- Divided among three countries i.e. Kenya, Uganda and Tanzania – no single owner and many users

Lake Victoria Source of the Nile



Lake Victoria Topography



Lake Victoria Uganda



Lake Victoria Inland Sea 68,000 sq km



Ssesse Island Lake Victoria



Lake Victoria Ferry Boat



Serena Resort Hotel Entebbe



Caribbea Bay Zimbabwe



Inland Water Marinas & River Recreation



What is the Key to Cluster Success?



‘Passion and teamwork – the twins for successful cluster management ’

Peter Myles Email: tournet@iafrica.com

Thank you!

