



Nelson Mandela Bay Maritime Cluster: A Maritime Cluster Support Framework

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SAIMI

SOUTH AFRICAN INTERNATIONAL
MARITIME INSTITUTE

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1 EXECUTIVE SUMMARY

The Nelson Mandela Bay Maritime Cluster (NMBMC) has been in existence since 2012 and has 72 names and entities registered on its database as members. The NMBMC has had relative success in promoting awareness of the maritime realm and the 'Ocean Economy', and is now needing to formalise its status and become pro-active in an increasingly important economic sector which requires strong leadership and guidance.

International experience indicates that the level of business formation tends to be higher in clusters and that business start-ups are more successful in a well-functioning cluster environment. Clusters are also known to encourage knowledge-sharing and innovation.

This report constitutes an analysis of current world best practice and a review of the Southern African maritime cluster environment in order to determine the most appropriate operating structure and *modus operandi* for the NMBMC.

After traversing various international maritime clusters and engaging with current NMBMC members and stakeholders, a series of recommendations and proposals have been formulated as follows:

1. The maritime and ocean sector are synonymous and have been defined as: 'the ocean sector (economy) is one that includes all economic activities closely linked to the ocean resources and environment and / or dependent to some meaningful degree on the ocean' (Hosking, 2017)
2. International maritime cluster 'Best Practice' indicates that there are significant competitive advantages to be gained from formalising maritime clusters,
3. Maritime clusters operate at their best when the 'Quadruple Helix' model is used which includes stakeholders from the Public sector, Business sector, Academia and Civil Society, but these clusters need to be led by the Business sector, 'Bottom-up'.
4. An analysis of the current situation for NMBMC reveals that it is well positioned to participate in the South African Maritime Clusters alliance, with five maritime clusters participating and that an opportunity exists for an African Network of Maritime Clusters.
5. A revised member service offering has been formulated based upon the old programme and strategy, but including a raft of new programmes to be implemented that will address a range of strategic objectives of cluster members.
6. An investigation of the various legal frameworks that could be used in South Africa, and after engagement with the NMBMC Steering Committee, it has been proposed that a Non Profit Company in terms of the Companies Act be established as it has the most stringent oversight regulation, which leads to investor and donor confidence for sourcing funds.
7. A proposed operating structure has been formulated based upon the NMBMC objectives framed and the programmes proposed to implement these, with a three-year operating budget with provision for staffing, operating expenses including travel, capital expenditure, operating funds and cash flow analysis.
8. Potential funding sources for the NMBMC are indicated, based upon the operating budget and programme requirements.

These recommendations need to be considered by the SAIMI established Steering Committee in consultation with the NMBMC, and agreement reached on the *modus operandi* for accepting, or varying, and implementing the recommendations.

2 EXECUTIVE SUMMARY IMPLEMENTATION ACTIONS

Nelson Mandela Bay (NMB) has a unique maritime value offering of two world-class ports within twenty kilometres of one another, demonstrated automotive excellence and capability with the hosting and support of a range of international automotive brands, together with skilled people to support this and related sectors. From an environmental perspective, NMB has 117 kilometres of coastline surrounding one of the most environmentally diverse ocean eco-systems, and protecting some of the largest colonies of endangered species within the safety of a natural bay, with the warm Indian ocean current sweeping through it. Strong coastwise and hinterland logistics connections support the multitude of integrated value chains that exist within NMB, with first world tourism facilities, accommodation, education and transport infrastructure, provide the ideal living environment to make this a desired destination to live, work and play in.

The Nelson Mandela Bay Maritime Cluster (NMBMC) recognised these key dynamics and competitive drivers, and was established in 2012 to create a collaborative framework for the local maritime industry to be able to harness these cluster and locational advantages, to the greater benefit of all members and role-players, and to create a thriving and competitive maritime or ocean economy.

2.1 What is an ‘Ocean or Maritime Cluster’?

The maritime industry, in broad terms, includes all enterprises engaged in the business of designing, constructing, manufacturing, acquiring, operating, supplying, repairing and/or maintaining vessels, or component parts thereof: of managing and/or operating shipping lines, stevedoring and customs brokerage services, shipyards, dry docks, marine railways, marine repair shops, shipping and freight forwarding services, coastal and marine tourism, extraction of non-living resources or resource generation, the harvesting of living resources, ecosystem management and protection, and similar enterprises.

The world depends on the ocean for trade, transport, energy, food, tourism, recreation and many other goods and services. At the same time, the ocean faces multiple challenges due to increasing pressure from human impact and unsustainable practices.

Steven Hosking in a recent piece of work he undertook on the evaluation of the impact of Operation Phakisa within the context of the South African general economy, defined the Ocean Economy as follows:

‘the ocean sector (economy) is one that includes ***all economic*** activities ***closely linked*** to the ***ocean resources*** and ***environment*** and / or ***dependent*** to some ***meaningful degree*** on the ***ocean***’ (Hosking, 2017) [Our bold and italic highlights]

This definition has been accepted in the compilation of this report as the most appropriate for South Africa, and it is also deemed to be suitable for the NMBMC.

2.2 International ‘Best Practice’ for Maritime Clusters

An industry cluster is a group of companies in a particular industry, usually linked by a buyer-seller relationship or linked by common customers and technology relationships. The clustering of industries results in economies of scale and mutual reinforcement among industries. It also stimulates innovation, and information flow, which in turn enhances overall competitiveness and encourages greater investment, whilst attracting additional resources. Often clusters are linked together by strong bonds of both cooperation and competition, leading to ‘co-opetition’, which is a neologism coined to describe ***cooperative competition***.

Michael Porter uses the term 'clusters' to refer to a sectoral and geographical concentration of enterprises that can be defined as *"geographically close groups of interconnected companies and associated institutions in a particular field, linked by common technologies and skills. They normally exist within a geographical area where ease of communication, logistics and personal interaction is possible. Clusters are normally concentrated in regions and sometimes in a single town"*. (Porter M, 1990. The Competitive Advantage of Nations).

A number of clusters, case studies and authorities on clusters have been consulted and investigated in order to determine the key principles and strategies for the establishment of a successful maritime cluster, with the references at the end of this report and sections of the appendices containing certain of this information.

The following tables contains certain of the maritime cluster 'Best Practice' benchmarks together with the defining characteristics of these features.

Table 1: A Summary of Maritime Cluster 'Best Practice'

	'Best Practice' Benchmark	Defining Characteristics
1	Geographic concentration of similar or related maritime firms	<ul style="list-style-type: none"> Usually within a close & practical proximity, May be linked to other clusters, further away, Able to share skills and resources.
2	Share common markets, technologies, & worker skills.	<ul style="list-style-type: none"> Often have a comparative advantage, based on the location (Land, infrastructure, skills, R&D ..) Together they have greater competitive advantage, with shared technology and skills, Usually share market and 'buyers' as well.
3	Linked by 'buyer-supplier' relationships and a 'core' product.	<ul style="list-style-type: none"> Close associations with one-another and through 'multiple networks' of suppliers, Often the 'Core' product is the factor that binds the cluster industries and their value chains (Ships in Norway)
4	Networks are used to facilitate and improve efficiencies	<ul style="list-style-type: none"> Complex and diverse networks deliver specialised skills and products to the whole cluster, Economies of scale are achieved which lead to greater competitiveness for all cluster members.
5	They aim to enhance competitiveness & cooperation or collaboration, this can lead to 'co-opetition'	<ul style="list-style-type: none"> Cluster members actively engage to collaborate. Clear competitive advantages should emerge and be apparent. Often supported by education, research and financing services.
6	May be a clear linkage along the Value Chain (VC) (Norway & Ships)	<ul style="list-style-type: none"> A strong market driven value chain clearly defines the major components of the cluster, The VC members offer collaborative advantage due to the similarity in factor and demand conditions, skills and technology.
7	A 'Core' which produces key products and links the cluster members.	<ul style="list-style-type: none"> The key product / service may define the cluster, Competitive advantage should be apparent from the location, skills, support or market characteristics of the cluster.
8	Secondary or supporting industries engaged with the 'Core'	<ul style="list-style-type: none"> The 'Core' needs to be apparent & well defined, Clear linkages to supporting industries, The formation of strategic alliances, and Regional collaboration with other clusters.
9	Competitive advantages which produce favourable conditions, and mutually reinforce the cluster.	<ul style="list-style-type: none"> Connectivity through integrated 'hard' and 'soft' infrastructure, City trading partnerships and networks,

	'Best Practice' Benchmark	Defining Characteristics
		<ul style="list-style-type: none"> ▪ Collaborative regional industry clusters, and ▪ Value-adding to global supply chains.
10	Strong education, innovation and research & development support, usually within the 'Quadruple Helix' model.	<ul style="list-style-type: none"> ▪ Fostering research and innovation to support the competitiveness of the cluster, ▪ Building an educated and skilled workforce, ▪ Fostering enterprise formation and business growth, ▪ Becoming a leader in knowledge creation and innovation, and ▪ Promoting constant research to improve competitiveness.

Source: The authors interpretation of a range of industry research on clusters in general, and maritime clusters specifically.

2.3 Clusters and the 'Quadruple Helix' Model

Building on the triple helix model which saw the collaborative interaction between industry, government and academia, the quadruple helix model adds a fourth component to the framework of interactions, being civil society and the media. The aim is to bridge the gaps between innovation and civil society, the ultimate users or beneficiaries of a product or service.

The rationale for this framework is that under the triple helix model, the emerging technologies did not always match the demands and needs of society, thus limiting their potential impact. The quadruple helix model emphasises a societal responsibility of universities and academia, in addition to their role of educating and conducting research. The needs, aspirations and opinions of civil society are also important.

The quadruple helix model has been argued to include both the civil society and the users of innovation, and thus it traverses the full value chain of the cluster or industry.

The Nelson Mandela Bay Maritime Cluster is in close proximity to the Nelson Mandela University (NMU), the Ocean Sciences Campus and the Institute for Coastal and Marine Research (CMR), all of which are actively involved in the ocean or maritime realm and domain, and are world leaders in terms of academic research and output. The NMBMC has certain of these institutions as active members and is in constant engagement with these various academic institutions, as well as SAMSA, SAIMI and a range of international academic institutions which are all active in the ocean realm.

These interactions and collaborations provide the competitive and comparative advantage which is referred to repeatedly in the literature to foster innovation and enhance skills within the cluster.

2.4 The Current Situation at the Nelson Mandela Bay Maritime Cluster (NMBMC)

The NMB Maritime Cluster was established by the Nelson Mandela Bay Business Chamber (NMBBC) in 2012 and has been a voluntary association of like-minded people with a strong membership base and quarterly meetings up to the present.

With the prominence of the 'Ocean Economy' in recent economic development planning, the establishment of the Ocean Sciences Campus at NMU, the location of the South African International Maritime Institute (SAIMI) within the Nelson Mandela Bay municipality and the increase in the membership base of maritime orientated industry, it has become necessary to

reconsider the role and activities of the NMBMC within the maritime realm and domain, and to formalise its structures in order to become capacitated and more relevant in the fulfilment of its mission and mandate. It is also important to note that there are other maritime clusters within South Africa and that an African maritime cluster initiative is being considered.

Currently there are five Maritime Clusters established in South Africa, with these being the Western Cape Maritime Cluster, the eThekweni Maritime Cluster, the Gauteng Maritime Cluster, the most recent being the Buffalo City Maritime Cluster and the eThekweni Maarmitime Cluster as the first established. This creates a provincial network of maritime clusters that provides the platform for deeper engagement on a regional basis, which could commence with Sub-Saharan Africa or the South African Development Community (SADC), and then extend to the rest of Africa.

It has therefor become necessary to enhance the NMBMC's operating structure and it's legal entity to become funded and more efficient in the fulfilment of its objectives and to be able to meet the needs of its constituents, the stakeholders and members.

2.5 A Revised Service Offering and Benefits for NMBMC Members

The vision of the NMBMC has been stated to be as follows:

'The Vision of the local Nelson Mandela Bay Maritime Cluster is to be a pioneering maritime cluster model for Africa involving the participation of the ocean sciences, the ocean business community, government and its agencies, and civil society in responsible ocean governance by adopting the Quadruple Helix Innovation Model.' (Myles P, 2014)

The benefits to members of the maritime cluster are formulated as:

- 'Act as an incubator of business opportunities,
- Provide opportunities for employment,
- Enhance competitiveness in the manufacturing sector,
- Promote innovation, research and technology,
- Offer education, skills and expertise in the maritime fields,
- Ensure economic development of the area,
- Facilitate joint efforts for the protection of the vulnerable marine environment, and
- Promote regional cooperation and integration.' (Myles P, 2014)

An important function of the maritime cluster is seen to be the coordination of a number of **'Working Groups'** with the following specific functions:

- Working groups can meet as many times as they like during the year to discuss issues of mutual interest and concern,
- Working groups should seek to identify bankable projects for cluster-to-cluster and business-to-business matchmaking events, and
- Working groups should also identify research projects and capacity-building training needs to present at the quarterly NMBMC partnership meetings.

SAIMI is an important public sector member of the cluster who could be engaged with to assist in driving certain of the projects, particularly on a national level and in order to get synergy and collaboration between the five South African Maritime Clusters.

The SAIMI 'Vision' in 2016 in a presentation titled, 'Towards a National Maritime Cluster'.

'To be an apex maritime institute that will enable development as well as contribute to the maritime sector and the economy of South Africa and Africa through the effective coordination of quality education and research by partner institutions.' (SAIMI, 2016)

The table below highlights the six key strategic goals that could be followed by the NMMBC, as well as the relevant strategic objectives that will lead to achieving these goals.

Table 2: Strategic Goals and Objectives to Achieve them as Programs

Strategic Goal		Strategic Objective	
1	Connect the NMBMC with Africa, Europe and the rest of the world via an international network of maritime clusters	1.1	Engage with the European Network of Maritime Clusters (ENMC)
		1.2	Facilitate the development of an African Network of Maritime Clusters (ANMC)
		1.3	Presentation and adoption of the Port Elizabeth Declaration, which is to support AIM 2050.
		1.4	Support the African Union '2050 Africa's Integrated Maritime (AIM) strategy.
2	Promote Sectoral Development through Expansion of Marine Sub-Sectors	2.1	Development of the Marine Tourism and Leisure Sub-Sector
		2.2	Expansion of Marine Manufacturing & Boat Building
		2.3	Support Development of Marine Energy Supply and Production, particularly Offshore Oil & Gas
		2.4	Development of Commercial Fishing Activity
		2.5	Development of the Aquaculture Industry
3	Enhance Enterprise Development through the Promotion of Small Business, BBEEE and the Provision of Funding	3.1	Creating Meaningful Transformation within the Maritime Sector
		3.2	Enhancing the Contribution of Small Enterprises in the Maritime Sector
		3.3	Promote Funding and Incentive Support for Maritime Enterprise Development
4	Develop Human Resources through Education, Skills Development and Training, and Knowledge Development	4.1	Promotion and awareness of Maritime Education and Training
		4.2	Ensure Skills Development and Training is Aligned to Industry Needs
		4.3	Develop Maritime and Marine Research, Innovation and Development Expertise
		4.4	Liaise with NMU, CMR and SAIMI for constructive alignment with their programs and strategies
5	Align Government, Private Sector, Academia and Civil Society in the Quadruple Helix model.	5.1	Engage with public entities such as SAMSAs, SAIMI, DEA, DoT and Transnet
		5.2	Engage with Academic entities such as NMU, CMR and Rhodes University
		5.3	Broaden the private sector membership base to all maritime sectors
		5.4	Keep abreast of Operation Phakisa 'Ocean Economy' initiatives under the Department of Environmental Affairs (DEA)
6	Support the freight and logistics activities of the two national ports, Ngqura and Port Elizabeth.	6.1	Support and influence Port Development Projects
		6.2	Assist with improving efficiencies along port value chains and intermodal connections
		6.3	Engage with Transnet on all its logistical spheres in order to participate or facilitate projects or research
		6.4	Involve the private sector in all of these activities

Source: RIC formulation and cluster member engagement, 2019

The revised service offering for the NMBMC should become apparent once it has formally adopted the legal structure under which it will operate, and selected the programs and objectives which it seeks to pursue. These may be substantially similar to the current member benefits, but will in all likelihood become amplified and more significant.

2.6 A Proposed Legal Framework and Operating Structure for the NMBMC

A fundamental element for the effective functioning of the new NMBMC is for it to have a legal entity or persona and operating structure that is both operationally efficient and internationally recognised as a credible structure, that has sound governance principles and can be relied upon to implement its mandate in an accountable manner.

Currently the NMBMC is operating as a loose amalgamation of entities and members under the guidance of a credible management charter and a set of operating principle contained in documents and presentations. This arrangement has served it reasonably well until now, but will hamper its future growth and credibility.

The desktop research which was undertaken for the 'Best Practice' of maritime clusters in the foregoing sections highlighted the need for a credible operating entity. Legal opinion has been sought and a review of the various legal structures and entities available for 'Not For Profit' or public benefit entities was undertaken with a full overview provided in appendix 17.1 hereafter. A summary of the various features and advantages and disadvantages of the various structures evaluated is contained in section 14 of this report.

After discussions with various NMBMC members it has been proposed that a non-profit company be formed to house the interests and activities of the NMBMC. A non-profit company is a company incorporated for a public benefit object or an object relating to one or more cultural or social activities, or communal or group interests. The provisions concerning non-profit companies are set out in Schedule 1 of the Companies Act, No. 71 of 2008.

The legal practitioner who has extensive experience in the formation and administration of not for profit entities has formulated his concluding recommendation to support this as follows:

'Having regard to the foregoing, it is recommended that serious consideration be given to incorporating a non-profit company. In amplification of this recommendation, the following advantages are immediately identifiable:

- 1.1. The primary objective of a non-profit company is to benefit the public rather than make a profit;
- 1.2. The income and property may not be distributed to the incorporators, members, directors or officers of a non-profit company, except as reasonable compensation for services rendered by them;
- 1.3. All of a non-profit company's assets and income must be used to advance its stated objectives, as set out in its MOI;
- 1.4. Non-profit companies can apply for tax-exempt status;
- 1.5. Directors, officers, and members are protected to a large extent from possible personal liability;
- 1.6. A non-profit company may hold shares in a profit company but may not merge with or convert to a profit company;
- 1.7. A non-profit company may register with the Department of Social Welfare as a non-profit organisation (NPO) in terms of the NPOA in order to apply for government funding or to obtain a fund raising number;
- 1.8. A non-profit company is required to comply with various ongoing administrative requirements set out in the Act which provides external funders with confidence;

- 1.9. The accounting requirements relevant to companies contained in the Act are also attractive to external funders.’ (Howard. G., 2019. Kaplan Blumberg)

This recommendation includes a reference to the establishment of a Memorandum of Incorporation (MOI) which is the statutory document required by formal companies which regulates and governs the affairs and operations of the company.

2.7 A Proposed Operating Model and Budget for the NMBMC

The governance of a clustering initiative should ideally come through an independent organisation led by business or the private sector. The Board is often initially selected, a group of senior people who lend their names to the initiative. Ideally membership of the Board should cover the quadruple helix, with a fair representation. The cluster manager or Chairperson will have a central role in inviting the initial Board members to step forward.

The appointment of the initial Board or governing body is seen as one of the most critical aspects of cluster development and should not be hurried or forced in any one particular direction, based upon vested interests or alternative agenda's.

Cluster governance has been articulated by Cluster Navigators, 2014 and relying upon the UNIDO definition as follows:

“Governance can be understood as the capacity of the cluster to start and sustain joint actions in a systematic and strategic fashion. A sound governance system allows the cluster actors to identify shared objectives, agree on a common strategy for their achievement, articulate collective actions and solve related problems, monitor outcomes and ensure their sustainability over time.”

Based upon the legal nature of a proposed NMBMC as a non-profit company, with an appointed Board of Directors and set of programs to implement, for the common benefit of all cluster members, the following broad organisational structure has been recommended:

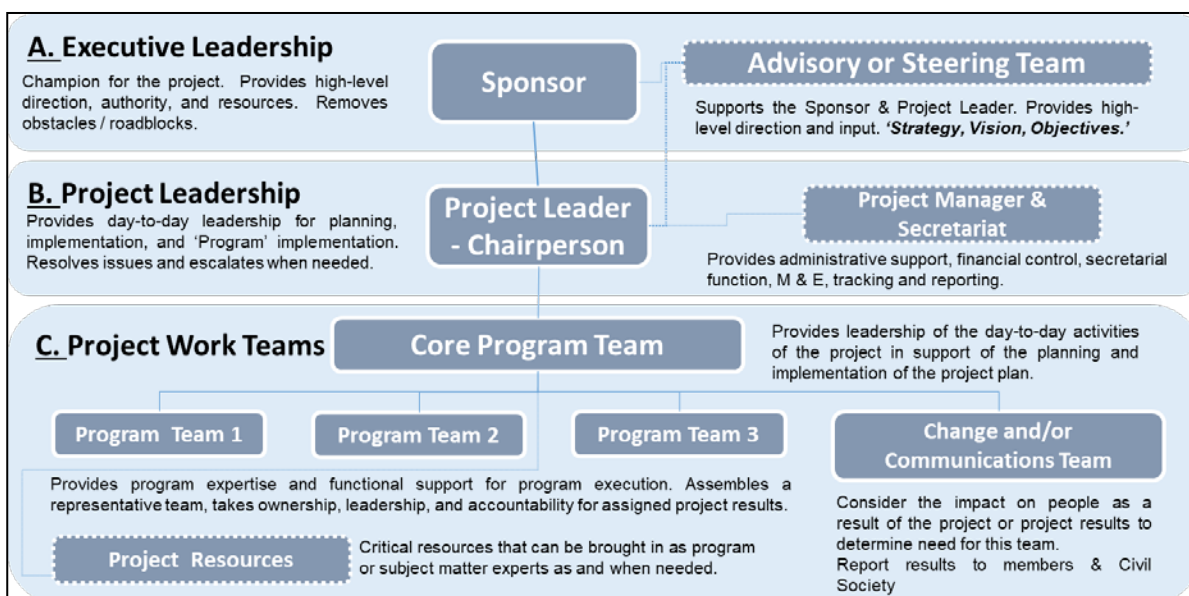


Figure 1: A Proposed Organisational Structure for the NMBMC

Source: Rand International Capital interpretation of Peter Myles Presentations, and matched to the 'Operating Budget' and 'Programmes' considered here.

This organisational structure reflects the current thinking of the Chairperson and management team, and takes cognisance of the proposed programmes, legal entity and budget to follow. Important elements to note are that provision is made for an 'Executive Leadership' which could include a project sponsor to provide funding for both the cluster and the implementation of its programs, and also provides for an advisory or steering committee which could provide administrative support or secretarial services.

The project leadership would be through a Board of Directors, duly constituted through the Memorandum of Incorporation (MOI) and under the leadership of a Chairperson, possibly supported by a Deputy-Chairperson.

The core program team will provide leadership for the day-to-day activities and the administration and implementation of the programmes selected, and would be accountable to the Board of Directors.

Project resources may be needed on a project-to-project or *ad hoc* basis and could be insourced as and when required, either seconded from members or other organisations or procured directly under contract in an open and transparent process.

In line with this proposed structure and the functioning and accountability of a non-profit company with a Board of Directors and a suite of programs as proposed earlier, a draft three year budget has been formulated as follows:

Table 3: Operating Budget and Funding Over Three Years for NMBMC

	Project		Dec-20	Dec-21	Dec-22	% Of
APPLICATION OF FUNDS	Totals		Year 1	Year 2	Year 3	Totals
Salaries & Retainers	4,851,491		1,210,000	1,780,680	1,860,811	14.0%
Operating Expenses	7,855,466		1,284,599	3,213,147	3,357,720	22.6%
Operating Costs - Totals	12,706,956		2,494,599	4,993,827	5,218,531	36.6%
Capital Expenditure / Other:	4,440,000		1,800,000	1,200,000	1,440,000	12.8%
Operating Costs & Capex: Totals	17,146,956		4,294,599	6,193,827	6,658,531	49.4%
Project Expenditure - Sub Total	17,575,000		3,700,000	5,550,000	8,325,000	50.6%
Total Costs Per Period	34,721,956		7,994,599	11,743,827	14,983,531	
Cumulative Costs - Project Life	34,721,956		7,994,599	19,738,426	34,721,956	100.0%
SOURCE OF FUNDS	Totals		Year 1	Year 2	Year 3	
Funds For Period	36,001,000		11,001,000	11,000,000	14,000,000	103.7%
Cumulative Funds Secured			11,001,000	22,001,000	36,001,000	
Cash as Bank - Surplus / (Deficit)	1,279,044		3,006,401	(743,827)	(983,531)	3.7%

Source: Rand International Capital 'Operating Budget' for NMBMC.

The budget has been prepared on a standard budgeting process whereby there is a source and application of funds, with funds being sourced from relevant entities or parties in order to meet the project objectives. The objectives are detailed in a series of operating budgets to indicate salaries and retainers of staff and human resources required, operating costs to house and enable the functions of the NMBMC, capital expenditure for NMBMC assets required to execute its mandate, and a series of projects or tasks to be undertaken in order for the cluster to be relevant and effective in delivering on its mission and mandate.

The indicative detail of this budget on a monthly basis for the first year and indicating all of the expenditure items and projects is contained in appendix 17.11 hereafter.

The fundamental operating budget principles are recommended to be substantially similar to the following:

1. Operational Structure and Entity:-

- The NMBMC will operate as a Non-Profit Organisation (NPO), and raise adequate project funding from a donor or sponsor organisations.
- The NPO will manage its affairs in a manner that it does not go into Overdraft or require emergency funding.

2. Operational Expenditure:-

- Operational expenditure shall be incurred in accordance with an agreed to staff organogram and salary scales, SLAs or external services will be sourced via the NPO 'Procurement Policy', and capital expenditure shall also be so procured.

3. Projects and Programs:-

- Programs and projects will be agreed by the Project Leader or Chairperson, in consultation with the Sponsor and Advisory or Steering Team.
- External experts or consultants will be engaged through the NPO procurement process.

4. Budget and Expenditure allocations:-

- Salaries & Retainers:- Max of 20% of budget,
- Operating Expenses:- Max of 25% of Budget, this includes all travel arrangements,
- Capital Expenditure:- Not to exceed 15% of budget,
- Project Expenditure:- Always to exceed 50% of the budget.
- Bank account:- To always hold R 1 million in cash, advance planning to ensure this.

These are indicative operating budget covenants and would need to be considered and ratified by the appointed Board of Directors.

2.8 Potential Funding Structure for the NMBMC

The potential sources of funding for the renewed NMBMC would be dependent upon a number of factors that would relate to the composition of the 'Executive Leadership' and the possibility of attracting a financial sponsor, the core programmes that were undertaken and the possibility of attracting grant or donor funding for these programmes, and the willingness or ability of members or related parties to provide donor funding. An indicative source of funds and funding mix has been prepared as follows:

Table 4: Source of Funds Over Three Years for NMBMC

SOURCE OF FUNDS	Totals		Year 1	Year 2	Year 3
Cash / Equity (Project Sponsor)	11,000,000		2,000,000	4,000,000	5,000,000
Cash / Equity (Partners)	13,000,000		2,000,000	5,000,000	6,000,000
Loans / Debt	1,000		1,000		
Subscription Revenue	6,000,000		-	2,000,000	4,000,000
Grants / Donations Received	5,000,000		5,000,000		
Promoters Sweat Equity	-		-		
Funds For Period	35,001,000		9,001,000	11,000,000	15,000,000
Cumulative Funds Secured			9,001,000	20,001,000	35,001,000
Cash as Bank - Surplus / (Deficit)	1,341,544		1,756,401	(618,827)	203,969

Source: Rand International Capital 'Operating Budget' for NMBMC.

2.9 Conclusions and Recommendations

The rest of this report provides further insight and detail on various of the issues traversed above and the recommendations made.

It is worthy of noting that extensive meeting have been held with Mr Peter Myles, the current Chairperson of the Nelson Mandela Bay Maritime Cluster, who has shared his insights on the cluster, both past and future, as well as making available a wealth of information in the form of presentations, articles, reports and opinions on clusters generally and maritime clusters specifically.

There have also been two interactions and presentations to the SAIMI established and coordinated Steering Committee, which has been overseeing the execution of this brief. At both of these meetings a detailed presentation was made of the research undertaken at that stage, and the direction that the study was taking. An interactive question and answer session was also facilitated in each instance and issues which were raised have been attended to.

This report is the culmination of these processes and has been undertaken in accordance with the methodology proposed at the end of the report as appendix 17.12.

The conclusions and recommendations have been summarised in the Executive Summary and it is proposed that these steps be undertaken in order to implement the Nelson Mandela Bay Maritime Cluster and allow it to take a leading role in the achieving of its members objectives within the maritime and ocean economy realm.

3 INTRODUCTION AND BACKGROUND

3.1 Context and Client Requirement

The National Development Plan (NDP) is the country's socio-economic development blueprint which enjoins us to create a better life for all citizens in an inclusive society. The NDP guides various sector plans and policies, including how budget and skills investment and other resources are allocated to move South Africa (SA) forward. It provides the framework in which government, organised business, labour and citizens can work together to accelerate economic growth and resolve the triple challenges of unemployment, poverty and inequality.

The SA Ocean Economy has become a prominent economic development initiative in SA and an overview of the myriad government departments, non-governmental organisations and private sector entities which are participating in the Operation Phakisa initiative bears testimony to this. The South African International Maritime Institute (SAIMI) has been established to facilitate and coordinate these various initiatives. SAIMI is a national, multi-faceted asset, with its headquarters in Port Elizabeth. It is engaging widely with maritime stakeholders across SA, and similar institutes in Africa and beyond. Through its coordination and advocacy role, SAIMI is the lead public sector institution facilitating the growth of the "blue economy" for both the country and the African continent, particularly in skills development.

The Nelson Mandela Bay Maritime Cluster (NMBMC) idea is a joint initiative of the Nelson Mandela University (NMU), Nelson Mandela Bay Municipality (NMBM) and the Nelson Mandela Bay Business Chamber (NMBBC) and was established in 2012. The South African International Maritime Institute (SAIMI), which is an entity of the Nelson Mandela University, is facilitating the establishment of the NMBMC in its more formal role.

More recently in January 2019 the NMU was selected to participate with an elite group of research institutions and world-leading research centres to participate in the 'One Ocean Hub' by the United Kingdom's Global Challenges Research Fund, together with eleven countries and 86 organisations, with a combined budget of R 358 million for the five year programme. The project is tasked to investigate the less tangible values of the oceans, and the hidden trade-offs in ocean decision making. "The One Ocean Hub will bridge the current disconnects across law, science and policy to empower local communities, women and youth – who are particularly impacted by decision-making – to co-develop research and solutions." (Eastern Province Herald, 24.01.19)

International experience indicates that the level of business formation tends to be higher in clusters and that business start-ups are more successful in a well-functioning cluster environment. Clusters are also known to encourage knowledge-sharing and innovation.

Nelson Mandela Bay is fast becoming a pocket of excellence within the Ocean Economy with the NMU having recently opened the Ocean Sciences Campus and the Institute for Coastal and Marine Research (CMR) in a recently renovated building, the City being host to twin ports with the Deepwater Port of Ngqura and the Port of Port Elizabeth, a well-established fishing industry, and an active maritime services and support industry.

This context and background all point to the formalisation and advancement of the NMBMC in order that it may take its rightful place in furthering the objectives of the maritime sector and the ocean economy.

3.2 The NMBMC Current Situation

The NMB Maritime Cluster was established by the NMBBC in 2012 and has been a voluntary association of like-minded people up until now. It has functioned on a voluntary basis with limited resources:

- no membership fees;
- no operational funding;
- no formal offices or staff; and
- just commitment and passion.

The functional requisites for a maritime cluster is based on competitiveness, with the fundamental basis being innovation. Cluster theory and the networks of production of inter-dependent firms must be linked in a value adding chain. Internationally maritime clusters have played a strong coordinating role as is adequately illustrated through the well-documented basic cluster theory structures.

Therefore, in reconfiguring the NMB maritime cluster it is necessary to investigate how we can be competitive and link the maritime cluster with other clusters, locally and worldwide.

The primary objectives of the NMBMC are currently framed as follows:

- Facilitate the development of an African Network of Maritime Clusters (ANMC).
- Presentation and Adoption of the Port Elizabeth Declaration.
- Establish a Maritime Institute at NMU.
- Engage with the European Network of Maritime Clusters (ENMC).
- Connect Africa with Europe and the rest of the world via an international network of maritime clusters.

Please refer to Appendix 17.8 for a more detailed overview of the NMBMC and its history.

3.3 Client Requirement and Scope of Work

The NMBMC ideals are ambitious and will require a recognised and reputable organisational structure and presence within both the national and international community in order to participate at the high level envisaged.

Therefore the NMB Maritime Cluster needs to be established and formalised according to international best practice.

The Scope Of Work (SOW) for the NMB Maritime Cluster and this brief has been defined as follows:

1. Development of a SAIMI maritime cluster support framework.
2. Nelson Mandela Bay Maritime Cluster:
 - 2.1 Provide advice on the best legal structure for the Nelson Mandela Bay Maritime Cluster by reviewing the legal structures of other clusters in South Africa.
 - 2.2 A review of the existing business case, which will be provided, to determine:
 - The necessary and appropriate amendments to the current business case;
 - Identify, recommend, and effect refinements and amendments to the current business case to enhance its functionality.

Therefore, in reconfiguring the NMB maritime cluster it is necessary to investigate how we can be competitive and link the maritime cluster with other clusters, locally and worldwide.

3.4 SAIMI and the Facilitative Role it can Provide

SAIMI is a national, multi-faceted asset, with its headquarters in Port Elizabeth, in the Nelson Mandela Bay (NMB) municipality. It is engaging widely with maritime stakeholders across SA, and similar institutes in Africa and beyond. Through its coordination and advocacy role, SAIMI is the lead academic institution facilitating the growth of the “blue economy” for both the country and the African continent.

SAIMI’s initial role is to coordinate the activities of the different institutions in the maritime realm, in order to optimise the available resources and to identify the gaps. Working with the DHET to convene Operation Phakisa Skills Initiative Working Groups, SAIMI is an essential tool in providing the skills needed to support Operation Phakisa and maritime skill development.

The vision for SAIMI is:

‘To be an apex maritime institute that will enable development and the contribution of the maritime sector to the economy of South Africa and Africa through the effective coordination of quality education and research by partner institutions.’

The focus areas of the Institute are proposed, in line with the SA Maritime Sector Skills Development Model, and include:

- Shipping and Transport
- Marine Resources
- Marine-Based Tourism
- Operational Support Services
- Manufacturing and Construction
- Business Services
- Public Interest

The SAIMI response to the need for skills to support growth of the maritime sector has been to develop a strategy for a Maritime Skills study & summit for Operation Phakisa. Elements of this strategy have been:-

- Education, training, skills development
- Identify & fill gaps
- Coordination, collaboration, linkages, partnerships
- Lobbying, advocacy, stakeholder engagement
- **Regional maritime clusters**
- Research & development
- Knowledge generation and information-sharing

SAIMI’s response to key needs in the maritime sector has been as follows:

- To grow SA’s participation in the global maritime economy, sustainably exploit resources of coastline & territorial waters, in order to create jobs & boost GDP.
- Skills development to support growth in the oceans economy:– identify & close skills gaps, grow local skills, improve coordination within & between maritime/marine industry and education & training sector.

- National skills development framework to grow local skills and support growth in the oceans economy, identify and close skills gaps, ensure availability of relevant education and training programmes, promote maritime careers.
- Improve coordination and collaboration, facilitate linkages and partnerships, industry, education and training, and
- Knowledge generation and information-sharing: for example, research on skills supply and demand; innovation and technology development; niche business opportunities; sector development policies, and so forth.

From the above it can be seen that SAIMI's role is:-

- **Advocacy & co-ordination:-** to promote the maritime sector and increase levels of training and placement of trainees and graduates,
- Facilitating industry collaboration and supporting the formation of regional maritime clusters,
- Supporting the development of **public-private partnerships** in growing the maritime sector,
- **Research & development:-** directly as well as through partner institutions and projects, policy formulation, sector economic growth & opportunities, curriculum development, technology and innovation,
- **Education, training, skills development:-** through partner institutions, although SAIMI will not aim to offer or award qualifications, and
- **Knowledge generation and information-sharing:-** seminars, conferences, discussion papers, thought leadership, media profiling, professional development.

From the above it is apparent that although SAIMI is a national development agent in the maritime economy skills development space, it could play an important role as a member of the NMBMC, both at the regional and national level.

Therefore SAIMI is well positioned to become a Maritime Cluster Sponsor, particularly if that cluster shares some of the ideals and objectives.

It would not be desirable for SAIMI to become the 'owner' or 'driver' of the NMBMC in the traditional sense of the 'Top Down' organisational structure, but rather to be one of a number of project sponsors and also a normal member with vested interests in the Maritime Sector within Nelson Mandela Bay, and the South African maritime realm.

It has however become apparent that with the emergence of new maritime clusters, and the strong base of existing maritime clusters, SAIMI needs to be active in this arena and has a role to play to the benefit of all stakeholders.

The way in which SAIMI supports and collaborates with these clusters needs to be carefully considered by the South African Maritime Cluster sector.

SAIMI has been the sponsor and co-ordinator of this study.

3.5 The Methodology Applied to Address the Brief

From the brief provided, it was apparent that the consulting services required had a number of dependant and sequential components, which would of necessity inform one another. A high level overview of the steps undertaken is as follows:

1. Review 'Maritime Cluster' best practice to understand what underpins the establishment and functioning of a world-class, effective and efficient marine cluster.
2. Investigate the Competitiveness of Clusters in Practice. This would include the Michael Porter theory of clusters and the various supporting and competitive factors required.
3. Distil a set of cogent guidelines for maritime cluster 'Best Practice'.
4. Establish the current status and situation within the NMBMC.
5. Undertake a review of the existing 'Business Case' of the NMBMC.
6. Undertake stakeholder engagement to establish the optimum purpose and objectives of the revised NMBMC.
7. Formulate recommendations for a new or 'revised' operating model for the NMBMC, to include potential revenue streams or sources of funding.
8. Formulate a comprehensive legal or institutional structure for the NMBMC, together with operating policies.
9. Conclude with cogent recommendations and the 'next steps' required to proceed towards implementation.

All of the above work streams have been undertaken in collaboration with the client and sponsor, SAIMI and an appointed steering committee and the other appointed professionals within the project team, to produce a comprehensive report which has provided for a full and proper understanding of the NMBMC Cluster and allow for meaningful decisions to be taken.

4 WHAT IS AN 'OCEAN OR MARITIME CLUSTER'?

It is important to clearly define the maritime or ocean space within which the NMB Maritime Cluster sees itself operating, in order to ensure that the correct focus is adopted for both the solicitation of partners and members, as well as the programs and initiatives which the cluster wishes to pursue.

The words 'Maritime' and 'Ocean' are often used interchangeably or synonymously, but there are subtle distinctions which are worthy of investigation.

4.1 Definition of the Maritime Industry

The maritime industry, in broad terms, includes all enterprises engaged in the business of designing, constructing, manufacturing, acquiring, operating, supplying, repairing and/or maintaining vessels, or component parts thereof: of managing and/or operating shipping lines, stevedoring and customs brokerage services, shipyards, dry docks, marine railways, marine repair shops, shipping and freight forwarding services, coastal and marine tourism, and similar enterprises.

The world depends on the ocean for trade, transport, energy, food, tourism, recreation and many other goods and services. At the same time, the ocean faces multiple challenges due to increasing pressure from human impact and unsustainable practices.

'The world's oceans are fundamental inputs to the global economy. With approximately 80 per cent of global trade by volume and more than 70 per cent by value carried by sea, oceans are the arteries of globalisation. As well as being essential to industries as diverse as tourism and the natural gas and petroleum sectors, the world's oceans are critical to food security, providing nearly 20 per cent of all protein consumed globally. Oceans are also cradles of innovation, spurring the development of new forms of renewable energy and experimental industries like deep-sea mining.' (Commonwealth of Australia, 2017)

The marine or maritime industry is often used synonymously with the ocean industry or the ocean economy, and there are subtle differences between the two. When the KwaZulu-Natal Department of Economic Development & Tourism (DEDT) formulated an integrated maritime development strategy in 2014 they defined the maritime industry as follows:

'The maritime industry is broadly defined as **all direct shipping-related operations** such as shipping lines, cargo owners, terminal operators, bunkering, stevedoring, ship chandlers, and shipbuilding and repair, etc; **all indirect shipping-related services** such as shipping agents, administration, legal and financial services, skills development and training, etc; **all direct port-related transport and logistics** such as clearing and forwarding, warehousing, security and customs, harbour carriers, etc; **marine related activities** such as boating, yachting, sailing, cruising, fishing, aquaculture & Mariculture, diving, swimming, etc; and **marine related operations** such as oil and gas exploration and extraction. As such, the industry contains a complex array of activities ranging from the flow of cargo through the ports to recreational activities such as sailing and diving.' (Urban Econ, 2014)

Inherent in this definition is a strong emphasis on freight, logistics and all port related and transport activities, with 'marine related activities' forming the balance and there being very little consideration for the 'Blue Economy', 'Ocean Stewardship' or the concept of 'Non-Market' and beneficial use definitions.

4.2 Definition of the Ocean Economy

Numerous ocean countries have attempted to delineate the size of the ocean economy. This has been particularly challenging because of variations in definitions, standardisation methods and scope boundaries (Park and Kildow, 2015). In addition to this, is the consistent need to preserve the ocean's resources, manage them for sustainable use and deciding which entity should be responsible for the regulation of these resources (Barbesgaard, 2018). In 2015, there was a large resurgence in the call for investment in the "blue economy" on a global scale, which brought with it the need for "triple-benefit" solutions, in which social, economic and environmental stakeholders were meant to benefit (Barbesgaard, 2018).

In addition to the issue of size, is the search for the actual definition of an ocean economy. This could be attributed to the fact that the activities in different regions differ and as such, the definition and delineation of the ocean economy will vary from one geographic location to the next. As such, it is of particular importance to understand what the South African and Eastern Cape ocean economy is comprised of, in order to develop a locally relevant definition for its context.

Numerous authors have attempted to define the ocean economy (Park and Kildow, 2015; Hosking, 2017; Findlay and Bohler-Muller, 2018). A comprehensive definition is that provided by Hosking (2017) which states that "the ocean sector (economy) is one that includes all economic activities closely linked to the ocean resources and environment and or dependent to some meaningful degree on the ocean". Findlay and Bohler-Muller (2018) add to this definition by stating that the ocean economy includes all goods and services, market and non-market which benefit the human population. This expansion by Findlay and Bohler-Muller (2018) clearly differentiates the difference between the "ocean" and "blue" economy, as the blue economy encapsulates not only the economic benefits, but also addresses the needs and effects on the environmental and social aspects of these transactions (Voyer et al., 2017).

More detail on this discussion and the 'Blue Economy' is provided in Appendix 17.6.

For the purposes of this study, the Steven Hosking definition of the Ocean Economy as follows is used:

'the ocean sector (economy) is one that includes *all economic* activities *closely linked* to the *ocean resources* and *environment* and / or *dependent* to some *meaningful degree* on the *ocean*' (Hosking, 2017) [Our bold and italic highlights]

This definition has been accepted in the compilation of this report as the most appropriate for South Africa, and it is also deemed to be suitable for the Nelson Mandela Bay Maritime Cluster.

5 MARITIME CLUSTER 'BEST PRACTICE'

An extensive review of international maritime clusters and best practice has been undertaken, with some of the work and findings reflected in the appendix hereafter. The two presentations which were part of the engagement with the steering committee form a part of this report and include highlights and case studies of European, Australian and American maritime clusters.

5.1 Cluster Development & Management Manual

Over the past decade cluster development has become a mainstream framework for innovation and regional development, especially in Europe. The animation of clusters provides a centre stage strategy that addresses innovation, productivity and competitiveness. The European Commission is now actively encouraging the development of world-class clusters. The underlying rationale is to support the internationalisation of small firms, industrial transformation and the development of regional specialisations.

Cluster Navigators Ltd have been established since 1997 as a niche economic development consultancy, taking a cluster approach to the nurturing and upgrading of competitiveness agendas. They support economic development agencies in developing the competitiveness of their regions, with their starting point being the cluster framework developed by Professor Michael E Porter. Their activities are global with support centres on introducing relevance:

- They introduce the relevance of clustering as a cornerstone for economic development.
- They lead Ministerial, Council and Board level presentations.

Participants from 50 countries have attended training workshops on the Twelve Step process they have developed. Clients include The World Bank, UNDP, European Union, international aid agencies and national/regional economic development agencies. Their approach in 'Five Phases, Twelve Steps' is encapsulated in the figure below:

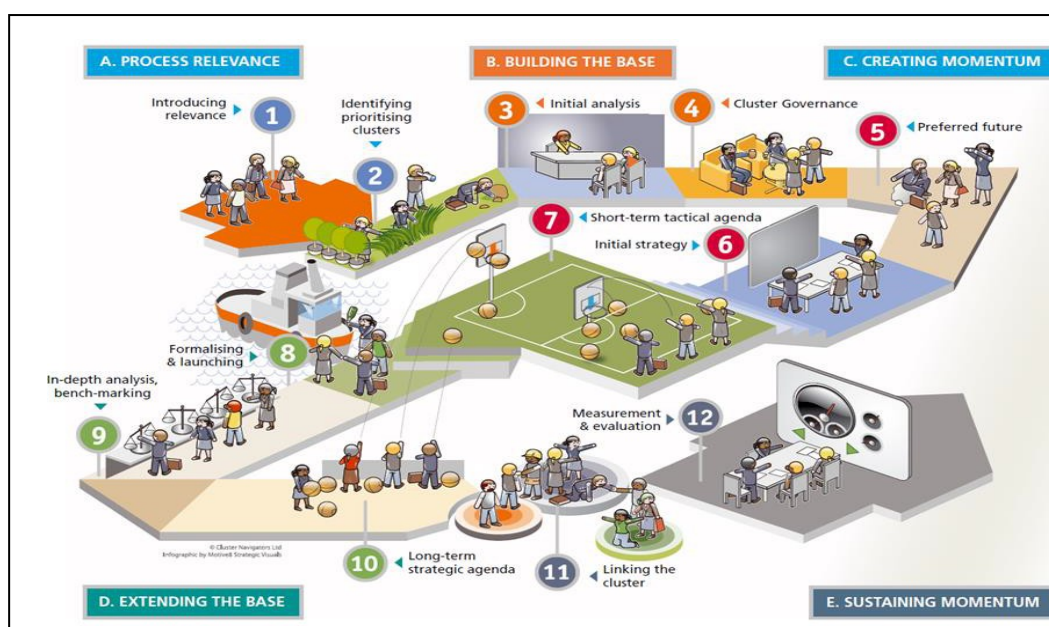


Figure 2: Cluster Development: 'Five Phases, Twelve Steps'

Source: Cluster Navigators Ltd., 2014. Regional Cluster Initiative in the Pacific. Cluster Development & Management Manual. [Mr. Ifor Frowcs-Williams]

Clusters often start by chance, with very few successful clusters having been 'invented' by public agencies is the experience of Cluster Navigators. The origins of clusters differ markedly, but some influencers are:

- Availability of a natural resource or raw material (Wine and Champagne);
- Proximity to strategic physical features (Gold Coast beach tourism);
- A specific local demand (Israel's irrigation cluster);
- Cultural traditions (Jazz in New Orleans); and
- Emerging from an existing cluster (Spain's tourism to ICT cluster).

International experience is unequivocal that firms that are based in clusters are more competitive than smaller scattered firms, and that strong clusters facilitate growth in employment, especially in high value jobs.

Clusters provide competitive advantage in the global economy, with this logic based upon:

- 'The positive links between clusters, productivity and competitiveness;
- The business efficiencies that come with co-location;
- Clear evidence that strong regional economies develop through their clusters;
- Clusters enable places, and small firms, to connect to the global economy;
- Clusters foster interaction and collaboration amongst firms;
- The opportunities for related (and sustainable) diversification, with new clusters emerging from existing ones.' (Cluster Navigators, 2014)

Professor Michael E. Porter defines clusters as: 'Geographic concentrations of interconnected companies, specialised suppliers, service providers, firms in related industries and associated institutions ... in particular fields that compete but also cooperate.' (Porter M.E., 1992)

Cluster Navigators recognise the importance of value chains in the formation and operation of clusters, but cautions not to confuse the two:

'Value chains' may be a component within a cluster. Clusters are broader than a value chain and include all organisations that impact on the cluster. Value chain development is more transaction orientated. Value chains may span multiple regions; clusters are geographically centred. A value chain approach is typically linear; a cluster approach more systemic. Value chain analysis is a tool that can be used in understanding a cluster's competitiveness. Developing value chain(s) can be a key strategy in upgrading a cluster's competitiveness.' (Cluster Navigators, 2014)

There is no single formula for a successful cluster, and each cluster evolves in its own way. There are however a number of common aspects to most clusters. Clusters are seen as dynamic systems with a dense network of connections in a similar and connected industry.

Cluster Navigators refer to a clusters culture as follows:

'Within a strong cluster there is rivalry and intense competition. This is central to fostering innovation. But the geographic and social proximity facilitates collaboration alongside competition ... a culture of co-opetition. Strong clusters do not have clumps of isolated firms but networks of interlinked firms with well-developed communications.'

Close interaction and exchanges amongst co-located firms underpins competition and also stimulates innovation. 'Knowledge crosses corridors and streets more easily than oceans and continents'. There is nothing static about a strong cluster.' (Cluster Navigators, 2014)

Strong clusters are seen as being segmented into four broad categories of firms, institutions and resources, with these being:

1. Core Firms,
2. Support Firms,
3. Soft Infrastructure, and
4. Physical Infrastructure.

5.2 Maritime Cluster “Best Practice” in Summary

The appendix hereafter contains certain of the articles, case studies and reviews of maritime cluster best practice which have been consulted.

The common structure of organisations identified throughout the best practice review were:

- All of the clusters have some kind of geographic or common market approach;
- Most form liaison basis between private sector and public sector interests;
- Usually independent joint ventures of companies powering the regional maritime cluster, working to generate social and economic value for clients;
- Members underlie the importance of continued focus on and support of innovation in maritime clusters;
- May exist as part of a larger organisation, responsible for wider marine or transport interests, and be government run and/or owned;
- In some cases, may largely be a non-profit promotional body for local companies which provide professional services to the international shipping industry (here the focus is likely on professions such as lawyers and financiers, rather than on engineering and shipbuilding)

The common roles and responsibilities of organizations identified during the best-practice review were:

- To learn from, network, promote and strengthen the maritime cluster;
- Scientific Cooperation, Innovation and Research and Development;
- Improving the competitiveness of member companies;
- Promote and encourage maritime entrepreneurship;
- Facilitate growth of ports, strengthening global competitiveness and assisting with export and internationalization;
- Coordinating maritime networks, by promoting innovation, cooperation, information and knowledge sharing;
- Promote shipping careers and the flow of skilled labour in the industry, along with the education to support it;

- Developing, consolidating and maintaining supply chain relationships to boost competitiveness and enable continuous improvement;
- Reducing red tape and bureaucracy;
- Integrate communication with local communities on key issues;
- Improve the business environment: Strengthening cooperation between different maritime sectors, and lobbying local and international authorities on behalf of the maritime industry, guidance on export rules, promoting fair regulations, support for studies and research, support and marketing for the sector;
- Create greater understanding and awareness of the maritime industry's impact on the economy and society.
- Help businesses in the maritime industry adapt to globalisation, withstand unfair competition and capitalise on opportunities.

The studies, case studies and authorities on clusters that have been consulted and investigated have allowed us to distill a set of 'Best Practice' benchmarks and defining characteristics from maritime clusters which are summarised as follows:

Table 5: Maritime Cluster 'Best Practice' and Defining Characteristics

	'Best Practice' Benchmark	Defining Characteristics
1	Geographic concentration of similar or related maritime firms	<ul style="list-style-type: none"> ▪ Usually within a close & practical proximity, ▪ May be linked to other clusters, further away, ▪ Able to share skills and resources.
2	Share common markets, technologies, & worker skills.	<ul style="list-style-type: none"> ▪ Often have a comparative advantage, based on the location (Land, infrastructure, skills, R&D ..) ▪ Together they have greater competitive advantage, with shared technology and skills, ▪ Usually share market and 'buyers' as well.
3	Linked by 'buyer-supplier' relationships and a 'core' product.	<ul style="list-style-type: none"> ▪ Close associations with one-another and through 'multiple networks' of suppliers, ▪ Often the 'Core' product is the factor that binds the cluster industries and their value chains (Ships in Norway)
4	Networks are used to facilitate and improve efficiencies	<ul style="list-style-type: none"> ▪ Complex and diverse network deliver specialised skills and products to the whole cluster, ▪ Economies of scale are achieved which lead to greater competitiveness for all cluster members.
5	They aim to enhance competitiveness & cooperation or collaboration, this can lead to 'co-opetition'	<ul style="list-style-type: none"> ▪ Cluster members actively engage to collaborate. ▪ Clear competitive advantages should emerge and be apparent. ▪ Often supported by education, research and financing services.
6	May be a clear linkage along the Value Chain (VC) (Norway & Ships)	<ul style="list-style-type: none"> ▪ A strong market driven value chain clearly defines the major components of the cluster, ▪ The VC members offer collaborative advantage due to the similarity in factor and demand conditions, skills and technology.
7	A 'Core' which produces key products and links the cluster members.	<ul style="list-style-type: none"> ▪ The key product / service may define the cluster, ▪ Competitive advantage should be apparent from the location, skills, support or market characteristics of the cluster.
8	Secondary or supporting industries engaged with the 'Core'	<ul style="list-style-type: none"> ▪ The 'Core' needs to be apparent & well defined, ▪ Clear linkages to supporting industries,

	'Best Practice' Benchmark	Defining Characteristics
		<ul style="list-style-type: none"> ▪ The formation of strategic alliances, and ▪ Regional collaboration with other clusters.
9	Competitive advantages which produce favourable conditions, and mutually reinforce the cluster.	<ul style="list-style-type: none"> ▪ Connectivity through integrated 'hard' and 'soft' infrastructure, ▪ City trading partnerships and networks, ▪ Collaborative regional industry clusters, and ▪ Value-adding to global supply chains.
10	Strong education, innovation and research & development support, usually within the 'Quadruple Helix' model.	<ul style="list-style-type: none"> ▪ Fostering research and innovation to support the competitiveness of the cluster, ▪ Building an educated and skilled workforce, ▪ Fostering enterprise formation and business growth, ▪ Becoming a leader in knowledge creation and innovation, and ▪ Promoting constant research to improve competitiveness.

Source: The authors interpretation of a range of industry research on clusters in general, and maritime clusters specifically.

6 INTERNATIONAL MARITIME CLUSTERS

The NMBMC is a member of two international maritime cluster organisations which makes it part of the global maritime cluster community, and gives it access to the latest thinking and trends within the maritime world.

A brief overview of these is provided hereafter.

6.1 The European Network of Maritime Clusters (ENMC)

The European Network of Maritime Clusters (ENMC) is a confederation of maritime clusters and equivalent organisations of various European Union (EU) member states that represents and promotes the European maritime sector, the development of the European Blue Economy, and a European maritime narrative.



The ENMC was founded in 2005 as a platform for the maritime cluster organisations of EU member states and equivalent organisations. Since then, the ENMC has developed beyond a network for the exchange of information, and best practices into the linking pin between EU member states, interest groups in EU maritime affairs, and the European Commission.

The ENMCs main goal is to promote collaboration, and to express an European maritime narrative.

The ENMC has nineteen European maritime clusters as members, with the member countries being: Belgium, Bulgaria, Denmark, France, Italy, Luxembourg, Malta, Poland, Spain, the Netherlands, Norway, Finland, Sweden, the United Kingdom, Ireland, Greece, Portugal and the European Union Commission as an observer.

The ENMC keeps its members informed of all maritime and ocean economy related news and developments and arranges regular conferences and conventions on topical items, together with meetings and match-making events. A regular newsletter is published on the latest maritime news and regular reports, reviews and investigations are undertaken within the maritime industry and made available to all members.

The ENMC is seen as a representative body for the entire European maritime cluster community.

6.2 The Maritime Alliance (TMA) based in San Diego

The Maritime Alliance (TMA) is a 'non-profit' maritime cluster organiser for the San Diego maritime technology community. TMA fosters maritime business and technology innovation and has a growing number of members nationally and internationally. It is also co-founder of the BlueTech Cluster Alliance (Ten leading BlueTech clusters in ten countries; Canada, France, Ireland, Norway, Portugal, Spain, United Kingdom and the United States).



'The Maritime Alliance (TMA) is the non-profit industry association and cluster organizer for the San Diego maritime technology community. Its tag line is Promoting BlueTech and Blue Jobs®. We believe in creating BlueTech and Blue Jobs by promoting sustainable, science-based ocean and water industries. We bring

education, policy and technology resources together to promote innovation and economic development in the Blue Economy. We create a strong Blue Voice via unique events, information sharing, national and international outreach, networking, research, and workforce development.

Our sister non-profit, The Maritime Alliance Foundation focuses on workforce development (including our signature OceanSTEM program), research and community outreach. Its tag line is Fostering Innovation through Collaboration®.

The joint Mission of TMA and TMA Foundation is to promote sustainable, science-based ocean and water industries.' (The Maritime Alliance website, accessed on 5 June 2019.

<https://maritimealliance.maps.arcgis.com/apps/Cascade/index.html?appid=8a667ebbcab442b5a986cb2cb7b5304f>)

TMA believe that they represent the largest maritime (ocean and water) technology community in the United States, and one of the largest BlueTech clusters in the world.

The Mission of TMA is to promote sustainable, science-based ocean and water industries, and they strive to do this by bringing together academia, policy makers, and industry into a supportive ecosystem as they promote BlueTech and Blue Jobs.

7 MARITIME CLUSTERS IN SOUTH AFRICA

There are currently five maritime clusters in South Africa which are defined by their geographical regions and are the Western Cape Maritime Cluster, the eThekweni Maritime Cluster in KwaZulu Natal (KZN), the Gauteng Maritime Cluster, the most recent being the Buffalo City Maritime Cluster and the NMBMC as the second established. The Eastern Cape is the only province to have two maritime clusters.

7.1 Buffalo City Maritime Cluster

The Chairperson of the Buffalo City Maritime Cluster (BCMC) is Pitlo Mzamo-Mdlalo and the cluster was established in 2018 when certain of the members of the Nelson Mandela Bay Maritime Cluster realised that East London and Nelson Mandela Bay were sufficiently diverse and geographically distinct from one another, that a separate cluster would be warranted to cater for the specialised interests of the East London regional hinterland and maritime community.

The BCMC is in the process of registering a Non-Profit Organisation (NPO) and drafting an opening constitution and Memorandum of Incorporation.

The BCMC has had extensive interactions with the eThekweni Maritime Cluster and it is expected that they will adopt a similar vision and mission, adapted to the particular conditions of the Buffalo City Municipality.

7.2 eThekweni Maritime Cluster

The Acting Managing Director of the eThekweni Maritime Cluster (EMC) is Mrs. Noma Sokhela.

EMC is a non-profit company with the mandate to support and promote the maritime industry within Durban and it has a reach to other areas of Kwa-Zulu Natal (KZN). EMC strives to be a champion and advocate for the maritime industry through bridging the gap between industrial policy from government and the private sector, thereby seeking to unleash economic growth in the maritime industry.

Since its inception, EMC has responded to international best practice within clustering models for the maritime industry, and has created sub-clusters along the value chain.

The EMC Vision is stated as follows:

‘To be the knowledge and innovation hub for the South African Maritime sector, globally.’ (Website, accessed on 26.04.19. <http://www.maritimecluster.co.za>)

The EMC Mission is stated as follows:

‘To be the centre of knowledge and innovation that fosters collaborative economic growth through world class programmes for the Maritime sector.’ (Website, accessed on 26.04.19. <http://www.maritimecluster.co.za>)

The objectives of EMC are stated to be:

- ‘To spearhead economic transformation through maritime enterprise development initiatives.
 - To promote the maritime industry locally, nationally and globally.
 - To contribute to an inclusive maritime training and skills development that will afford equal opportunity to all.
-

- To facilitate marine manufacturing by promoting local shipbuilding, ship repair and boat building to increase employment and economic growth.
- To contribute towards the promotion of marine and coastal tourism.
- To promote research capacity in the above programmes for the maritime sector.'

(Website, accessed on 26.04.19. <http://www.maritimecluster.co.za>)

The stated economic rationale for the EMC is to enable an environment that fosters the growth of the maritime sector in South Africa by:

- 'Creating a platform for role players to network with each other and to engage with government and Transnet to overcome infrastructural and institutional constraints
- Bench-marking the value chains of cargoes moving through the ports in order to improve efficiency and competitiveness
- Improving education and training for the maritime industry and to attract talented people into the industry
- Fostering the growth of small and medium sized businesses in the industry as well as the transformation of the industry generally
- Improving maritime safety, health and environmental management
- Developing the ship repair and boat and ship building sectors which offer good opportunities for employment creation
- Promoting integrity and high standards of business conduct among our members in the interests of consumers and each other
- Being a major source of knowledge, maritime intelligence and professional industry development
- Providing opportunities for members to meet, network, exchange information and do business together
- Promoting the eThekweni Maritime industry locally, nationally and globally
- Promoting eThekweni as the centre for maritime excellence.' (Website, accessed on 26.04.19. <http://www.maritimecluster.co.za>)

The EMC endeavours to be aligned to a number of frameworks, such as Operation Phakisa and currently has four **programmes** which are designed to attract quality talent into the industry. These programmes are:

Enterprise Development: To facilitate the development and support of targeted emerging enterprises, enabling them to operate within the maritime industry.

Training and skills Development: To improve education and training for the maritime industry in order to enable talented individuals to enter the industry.

An industry promotion programme: To provide access to information for the industry, which is seen as being crucial for development.

Marine manufacturing: The objective of this programme is to factor the development and growth of the boat and ship building and ship repair sectors

The table below highlights the four key strategic goals that have been developed by the KZN DEDT for their Integrated Maritime Industry Development Strategy in 2014, as well as the relevant strategic objectives that will lead to achieving these goals.

Table 6: Strategic Goals and Objectives to Achieve them as Programs

Strategic Goal		Strategic Objective	
1	Increase Competitiveness through Infrastructure Development, and Integrated Spatial Planning and Cost Reduction	1.1	Support and influence Port Development Projects
		1.2	Ensure Efficient Implementation of Port Hinterland Development Projects
		1.3	Intermodal-Freight Corridors
		1.4	Cargo Demand Management
2	Promote Sectoral Development through Expansion of Marine Sub- Sectors	2.1	Development of the Marine Tourism and Leisure Sub-Sector
		2.2	Expansion of Marine Manufacturing
		2.3	Support Development of Marine Energy Supply and Production
		2.4	Development Commercial Fishing Activity
3	Enhance Enterprise Development through the Promotion of Small Business, BBEEE and Provision of Funding	3.1	Creating Meaningful Transformation within the Maritime Sector
		3.2	Enhancing the Contribution of Small Enterprises in the Maritime Sector
		3.3	Promote Funding and Incentive Support for Enterprise Development
4	Develop Human Resources through Education, Skills Development and Training, and Knowledge Development	4.1	Promotion and awareness of Maritime Education and Training
		4.2	Ensure Skills Development and Training is Aligned to Industry Needs
		4.3	Develop Maritime and Marine Research and Development Expertise

Source: Urban Econ, 2014.

7.3 Gauteng Maritime Cluster

The Acting Chairperson of the Gauteng Maritime Cluster (GMC) is Ms. Sibulele Ndikinda.

This maritime cluster is in its formative phase and its vision and mission have been formulated as follows:

“VISION:

In cooperation with the maritime industry and educational partners, Gauteng Maritime Cluster endeavors to enable the maritime industry and sub-sectors to have a conducive environment to flourish and grow the South African GDP through transformation.

MISSION:

Gauteng Maritime Cluster provides a nurturing environment that develops a strong sense of maritime community and recognition of strength of its different members and their competitive advantage globally.”

7.4 Western Cape Maritime Cluster

The Chairperson of the Western Cape Maritime Cluster (WCMC) is Mr Benny Bhali.

The Netherlands Consulate General in collaboration with the Western Cape Department of Economic Development and Tourism announced the incorporation of a Maritime Cluster for the Western Cape region in August 2018. The Cluster aims to strengthen and develop the maritime industrial sector, and operates as a non-profit, voluntary organization which is committed to providing support to the building of a sustainable Western Cape Maritime Industry. DAMEN Shipyards is a founding member.



The WCMC aim is to establish a strong network of lobbyists and mentors who can facilitate networking opportunities and strategic alliances that will pair entrepreneurs and innovators with leading organisations and institutions to provide skills development and answer existing supply chain requirements.

The vision of the WCMC is contained in their constitution and reads as follows:

'The vision of the Western Cape Maritime Cluster is to create a platform on which stakeholders and role players can work towards the common goal of improving the competitiveness of the maritime industry thereby contributing to economic growth of the province and the country.' (WCMC Constitution, 2018)

(Website, accessed on 4.05.2019. <http://cocreatesa.nl/maritime-cluster-constitution/>)

The mission of the WCMC is contained in their constitution and reads as follows:

'Our mission at WCMC is to achieve continuous economic growth within the maritime sector ensuring global competitiveness by providing platforms for collective working of government, private companies, maritime industry associations and state-owned enterprises and also support enterprises through incubation, development programs, access to markets, and Research & Development.' (WCMC Constitution, 2018)

The goals and objectives of the WCMC is contained in their constitution and reads as follows:

'In support of this vision the WCMC has identified the following specific objectives:

- 5.1 To provide a networking platform for all stakeholders and to engage with government and private sector to create a sustainable industry.
- 5.2 To support the growth of SMMEs in the industry and support the economic participation of previously disadvantaged enterprises.
- 5.3 To benchmark the value chains with other globally successful maritime clusters, to improve our efficiencies and competitiveness.
- 5.4 To continuously improve maritime training and create an enabling environment to attract talented people to enter the industry through Research & Development.
- 5.5 To improve Maritime Safety, Health and Environmental Management.

- 5.6 To support the development of the Ship Repair, Manufacturing, Oil & Gas, Fisheries & Aquaculture and Marine Transport industries or sector which offer good opportunities for employment creation.
- 5.7 To promote the Western Cape maritime industry locally, nationally and globally
- 5.8 To host the annual Business Conferences & Seminars;
- 5.9 To promote and develop the Black Industrialists in the Maritime industry;
- 5.10 To promote the development and support of SMMEs in the maritime sector;
- 5.11 To develop additional programmes towards achieving the vision and mission as and when they are required of the WCMC.' (WCMC Constitution, 2018)

With regard to membership, the constitution provides that members shall be the corporate partners represented by a person recorded as such in the membership register in one of the classes specified in this Constitution, and that there shall be three (3) categories of membership, namely, 'Full', 'Associate' and 'Corporate Sponsor'.

The Executive Committee (EC) shall decide what entrance fees, annual subscriptions and other levies shall be paid by any class, group or sub-group of members determined by the EC from time to time.

The member benefits associated with the two tiers of membership are as follows:

15. BENEFITS OF FULL MEMBERSHIP

- 15.1 Access to industry reports
- 15.2 Access to business opportunities
- 15.3 Receive discounts for industry related seminars and training
- 15.4 Be part of the Industry Enterprise and Supplier Development (ESD) Program.
- 15.5 Access to mentorship
- 15.6 Be part of the Industry Supplier Database

16. BENEFITS TO CORPORATE MEMBERSHIP

- 16.1 Access to industry reports
- 16.2 Receive discounted rate for Industry related seminars and training.
- 16.3 Access to reliable suppliers that will add value to you supply chain BEE requirements.
- 16.4 Receive full ESD compliance and points when your ESD program is managed by the Cluster.
- 16.5 Receive full skills development compliance and points when your skills development is managed by the cluster.
- 16.6 Receive full Corporate Social Investment (CSI) compliance when your CSI is managed by the cluster.' (WCMC Constitution, 2018)

The Western Cape Maritime Cluster hopes to support a sustainable and growing maritime industry by focussing on promoting opportunities to support, connect and grow previously disadvantaged enterprises in the maritime sector, through lobbying, mentoring, networking, strategic alliances, and developing and recognizing excellence in entrepreneurs and

innovators. These strategic alliances with corporate partners, other state owned organizations, leading companies and training institutions, aims to provide on-going events and opportunities to advance the interests and needs of SMMEs in business and skills development, whilst at the same time supporting corporate members with tailor-made development of its supply chain requirements.

For information regarding the Maritime Cluster: Nichola Walker-Woodard nichi.walker@minbuza.nl and Benni Bhali benny.bhali@damen.co.za

8 SOUTH AFRICAN MARITIME CLUSTERS ALLIANCE (SAMCA)

The NMBMC together with the four regional maritime clusters discussed above are considering forming a South Africa based maritime clusters alliance which could be called the South African Maritime Clusters Alliance (SAMCA), with an alliance being distinguished from a cluster by the fact that it is a union or association formed for mutual benefit, especially between countries or organizations.

A draft Memorandum of Understanding (MoU) has been compiled and circulated to the five South African maritime clusters, with its preamble stating the following:

‘WHEREAS:

1. SAMCA share common goals with regard to ocean economy participation for the benefit of the industry, government, academia and communities towards the alleviation of poverty in South Africa.
2. SAMCA have agreed to formulate a strategic partnership aimed at providing collaborations amongst South African clusters.
3. The parties hereby agree to enter into a Memorandum of Understanding for the mutual benefit of the participating parties and for the purposes of greater collaboration between maritime clusters in South Africa particularly set forth herein.’ (SAMCA, 2019)

The objectives of the agreement are seen as being to pursue a common realisation of areas of cooperation and the parties to the MoU commit to develop an ‘Action Plan’ that embodies a partnership and linkages strategy that maximises the exposure of each party in South Africa and internationally; the plan is to contain project details of why, how and where this is to be achieved, together with budgets; and that these projects and programs will be managed and co-ordinated to present a combined face to the potential partners community. The parties objectives in the agreement have been framed as follows:

- 7.1 To collaborate on maritime skills development initiatives,
- 7.2 To collaborate on Enterprise Development initiatives which include maritime incubation of SMEs and emerging entrepreneurs.
- 7.3 To collaborate on Marine Manufacturing initiatives.
- 7.4 To collaborate on community development initiatives.
- 7.5 To collaborate on maritime logistics initiatives.
- 7.6 To collaborate on Coastal & Marine Tourism initiatives.
- 7.7 To collaborate on national and international maritime cluster matchmaking events.
- 7.8 To create platforms and initiatives for developing maritime business opportunities.
- 7.9 To collaborate on industry promotion initiatives and activities.
- 7.10 To collaborate on Advocacy and lobbying of all government spheres and the private sector on sector and industry niche issues affecting SAMCA.’ (SAMCA, 2019)

The status and relationship between the parties is to be interpreted as the execution of an indicative ‘collaboration partnership’, but the parties agree that the agreement does not

create agency or partnership relationships, that no party may represent the other, and that each party is free and stand alone and be governed by the legislation applicable to it.

This draft MoU has been circulated to all five of the South African Maritime Clusters, all of which have indicated their willingness to sign same.

A graphic illustration of how a network of clusters is able to collaborate over diverse regions is provided hereafter:

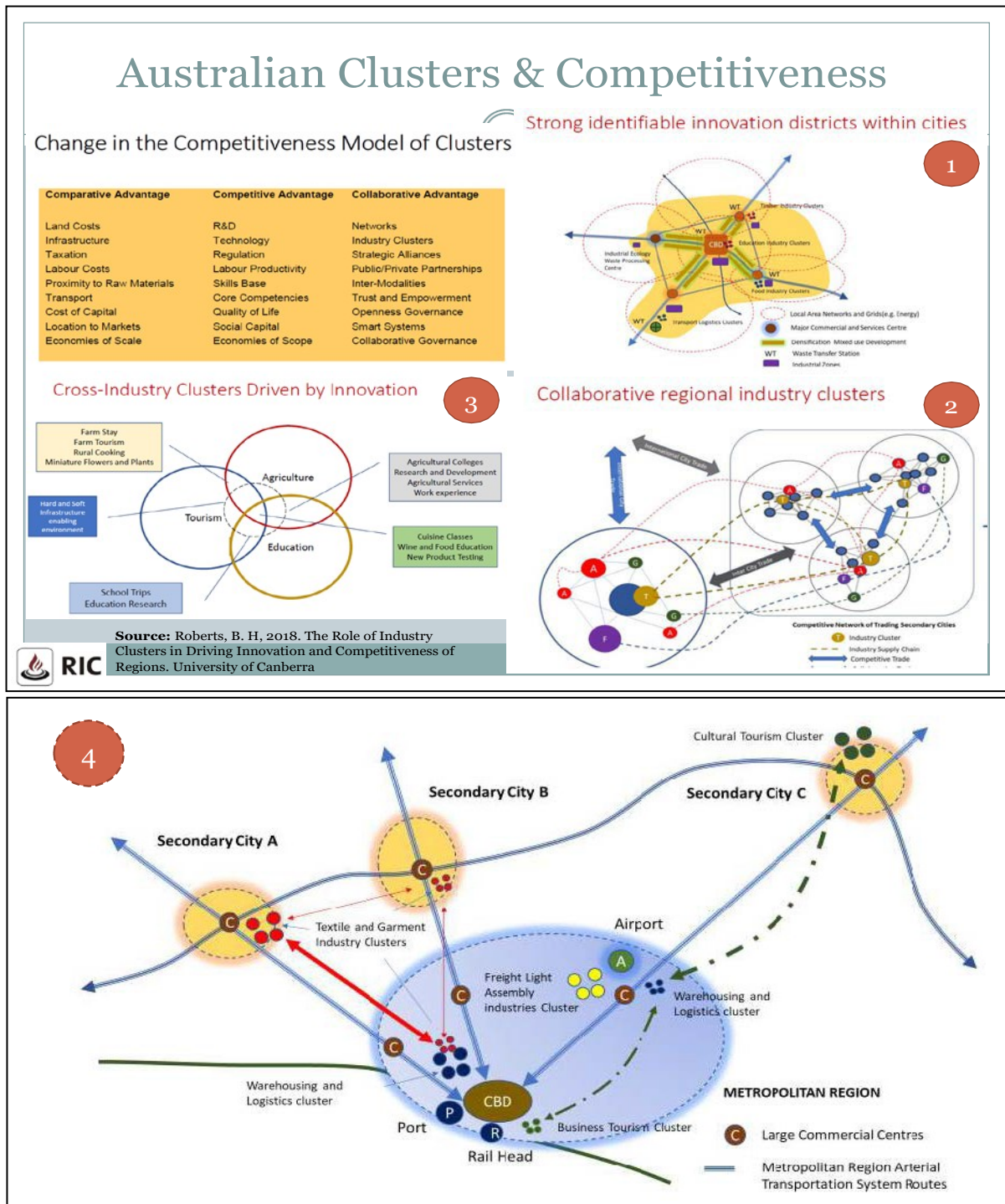


Figure 3: The Potential for National Cluster Development

Source: Roberts, B. H., 2018. The Role of Industry Clusters in Driving Innovation and Competitiveness of Regions. University of Canberra

9 2050 AFRICAN INTEGRATED MARITIME STRATEGY (AIM)

The 2050 AIM Strategy provides a broad framework for the protection and sustainable exploitation of the African Maritime Domain for wealth creation. The strategy is the product of cross-cutting inputs from African experts, and is structured to address current, emerging and future maritime challenges and opportunities in Africa, taking into account the interest of land-locked countries, with a clear focus on enhanced wealth creation from sustainable governance of Africa's oceans and seas.

The vision of the 2050 AIM Strategy is:

"To foster increased wealth creation from Africa's oceans and seas by developing a sustainable thriving blue economy in a secure and environmentally sustainable manner". (AIM, 2013)

The 2050 AIM Strategy aims to achieve the following:

- i. A comprehensive understanding of existing and potential challenges, including allocation of resources to identified priorities over a pre-determined time-frame;
- ii. A comprehensive, concerted, coherent and coordinated approach that improves maritime conditions with respect to environmental and socio-economic development as well as the capacity to generate wealth from sustainable governance of Africa's seas and oceans;
- iii. A common template for the AU, the RECs/RMs, and relevant Organizations; and Member States, to guide maritime review, budgetary planning and effective allocation of resources, in order to enhance maritime viability for an integrated and prosperous Africa;
- iv. A business plan that specifies milestones, capacity building targets and implementation requirements, including technical and financial support from within and also from development partners.' (AIM, 2013)

In addition, the following objectives will guide the 2050 AIM Strategy's actions:

- i. Establish a Combined Exclusive Maritime Zone of Africa (CEMZA);
- ii. Engage civil society and all other stakeholders to improve public awareness;
- iii. Enhance political will at community, national, regional and continental levels;
- iv. Enhance wealth creation, and regional and international trade performance through maritime-centric capacity and capability building;
- v. Ensure security and safety of maritime transportation systems;
- vi. Minimize environmental damage and expedite recovery from catastrophic events;
- vii. Prevent hostile and criminal acts at sea, and Coordinate/harmonize the prosecution of the offenders;
- viii. Protect populations, including AMD heritage, assets and critical infrastructure from maritime pollution and dumping of toxic and nuclear waste;
- ix. Improve Integrated Coastal Zone Management in Africa;
- x. Promote the ratification, domestication and implementation of international legal instruments;

- xi. Ensure synergies and coherence between sectoral policies within and between the RECs/RMs. (AIM, 2013)

In developing this 2050 Africa's Integrated Maritime (AIM) Strategy, it is recognized that the African Maritime Domain (AMD) has vast potential for wealth creation. So also is the realization that African Union (AU) Member States have common maritime challenges and opportunities as well as significant responsibilities for generating the desirable political will for implementing the strategy.

Relevance to the NMB Maritime Strategy:

- Improving maritime conditions with respect to environmental and socio-economic development;
- Ensure wealth creation through sustainable governance of Africa's oceans and seas;
- Develop a common template to enhance maritime viability in Africa;
- Improve public awareness around maritime issues;
- Ensure enhanced political will to support the maritime industry;
- Ensure maritime-centric capacity and capability building;
- Ensure maritime safety and security, and protection of environmental assets;
- Prevent criminal acts at sea and harmonise prosecution of offenders;
- Improve integrated coastal zone management; and
- Ensure synergies between sectoral policies.

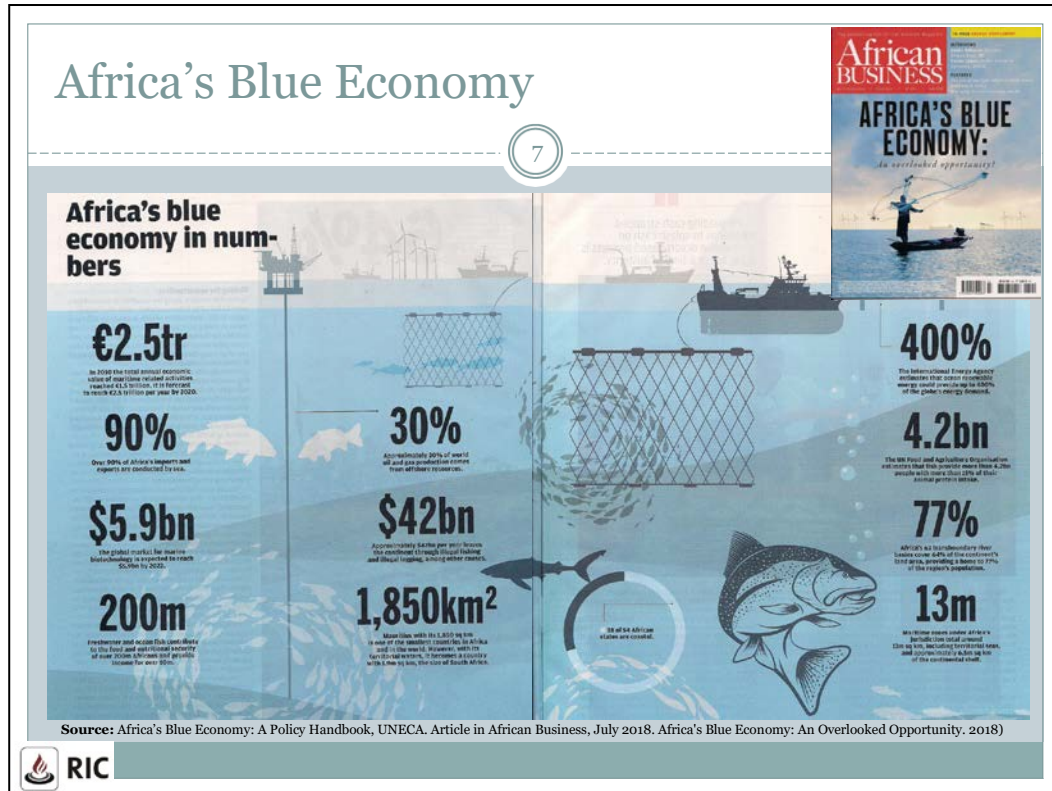


Figure 4: The Potential of Africa's Blue Economy
Source: African Business, 2018

10 AN AFRICAN NETWORK OF MARITIME CLUSTERS (ANMC)

The African port situation is characterised by a large number of small ports, each with a capacity of less than one million TEUs (twenty-foot equivalent unit, a shipping terminal's container cargo handling capacity). A review of ports by sub-region indicates that capacity shortages are widespread, particularly in West and Central Africa. It is important to note that countries with higher port capacity have higher trade capacity.

'The African Union incorporates 54 member states of which 37 states are coastal countries. There are virtually no maritime clusters in Africa and hence most inter-governmental collaboration is based on political decisions and not sound business decisions.

There is a huge window of opportunity to develop maritime clusters in Africa. An African Network of Maritime Clusters (ANMC) could be the vehicle for connecting maritime clusters in Africa with maritime clusters in Europe via the existing European Network of Maritime Clusters (ENMC). Such collaboration is private sector driven and free of politics.

To develop maritime clusters in Africa requires capacity-building training programs incorporating cluster facilitation and business skills development in the port cities and small island developing states (SIDS) of Africa. The only barrier to the implementation of maritime cluster development is support funding for the implementation of capacity-building training programs. Training material has already been developed and these programs can easily be customized for each and every port city and SIDS in Africa.' (Myles, 2015.)

The African network of Maritime Clusters could have the following global, African and national members and stakeholders:

Table 7: An African Network of Maritime Clusters Figuratively

International Maritime Stakeholders		
World	Africa	SAMCA
<ul style="list-style-type: none"> ▪ The Maritime Alliance (TMA) ▪ European Network of Maritime Clusters (ENMC) ▪ Australia...? ▪ Indian Ocean Rim Association (IORA) 	<ul style="list-style-type: none"> ▪ African Union (AU) ▪ African Integrated Maritime (AIM) ▪ Namibia ▪ Angola ▪ Mozambique ▪ Tanzania ▪ Kenya ▪ Malawi (Great Lakes) 	<ul style="list-style-type: none"> ▪ Nelson Mandela Bay Maritime Cluster (NMBMC) ▪ Buffalo City Maritime Cluster (BCMC) ▪ eThekweni Maritime Cluster (EMC) ▪ Western Cape Maritime Cluster (WCMC) ▪ Gauteng Maritime Cluster

11 MARITIME STAKEHOLDERS TO ENGAGE WITH

In order for the Nelson Mandela Bay Maritime Cluster (NMBMC) to remain relevant and attract the membership of the majority of the maritime industry within its sphere of influence, being Nelson Mandela Bay in the narrow sense, and the entire global maritime industry in the broad sense, it needs to both engage with, and have the correct representation in its membership base.

11.1 Public, Private and Fishing Industry Maritime Stakeholders

It is not necessary, nor practical to list and describe all of the relevant maritime industry stakeholders, suffice to say that the private sector members are typically the backbone of any truly representative maritime cluster, with strong representation from the relevant public sector entities and academic institutions.

A list of the relevant Public and Private sector stakeholders is provided in the following table, with the private sector entities described in more detail in the following sections.

Table 8: Maritime Stakeholders for the NMBMC to Engage With

Maritime Stakeholders – South Africa		
Public	Private	Fishing Industry
<ul style="list-style-type: none"> ▪ SAIMI ▪ DHET ▪ SAMSAs ▪ DEA ▪ DoT ▪ Transnet ▪ NMB ▪ MBDA 	<ul style="list-style-type: none"> ▪ MASA ▪ SABBEX ▪ SAASR ▪ SAASOA ▪ Freight forwarders & Logistics ▪ Oil & Gas Industry, and ▪ Entire maritime Value Chain 	<ul style="list-style-type: none"> ▪ SADSTIA ▪ SASMIA ▪ SASLIA ▪ SAPFIA ▪ SCRLA ▪ WCRLA ▪ FishSA

11.2 Private Sector Maritime Stakeholders

11.2.1 Fishing Industry in South Africa and NMB

In SA the commercial fishing industry is diverse and complex. It consists of 22 different sectors with more than 2 900 right-holders that harvest everything from white mussels to deep-sea species like sardines and hake. Annual production is in the region of 600,000 tonnes and generates sales in excess of R10 billion according to the government regulator, the Department of Agriculture, Forestry and Fisheries (DAFF).

A handful of high-value fisheries, including the west coast and south coast rock lobster fisheries and the deep-sea trawl fishery for hake, contribute disproportionately to these numbers. Also sharing in South Africa's fisheries resources are small-scale fishers, a newly recognised group of fishers who fish for a living using unsophisticated gear, and a large contingent of recreational fishers, who fish for fun rather than profit.

Fishing Industry Associations:

- SADSTIA (SA Deep Sea Trawling Association)
- SASMIA (SA Squid Management Industrial Association)
- SASLIA (SA Linefish Industrial Association)
- SAPFIA (SA Pelagic Fishing Industrial Association)
- SCRLA (South Coast Rock Lobster Association)

- WCRLA (West Coast Rock Lobster Association)
- FishSA

11.2.2 SA Boat Builders Export Council (SABBEX)

The South African Boat Builders Export Council (SABBEX) is focused on the support of boat exports. The council is a major contributor to establishing South Africa as a globally competitive boatbuilding export country, with sustainable export growth within the Department of Trade and Industry's framework.

'Backed by an extensive supply chain of high quality equipment suppliers, retailers and business services, South African boat production has become synonymous with high-quality finishes, timeless style and durability at prices that compare favourably internationally. From custom and semi-custom built monohulls to catamarans, power boats, commercial vessels, sport fishing boats and award-winning inflatables, the boat of your dreams is a possibility in South Africa.'(Website, accessed on 9.05.19. <http://www.boatingsouthafrica.co.za/about/>)

The South African marine manufacturing industry comprises not only of the manufacturing of ships and boats but also the repairing of vessels and oil rigs. The manufacturing of these products and services are aimed to serve both the commercial and leisure market segments.

Over the past couple of decades, the South African boat building industry has gained international credibility, regularly winning international awards and building a strong reputation among international boat designers and consumers. A notable success is that South Africa has grown to become the world's second largest producer of recreational catamarans, after France. This international acclaim is not only for the final produced watercraft (including other vessels) but additionally for components such as sails and masts. South African companies have also developed capacity in niche segments in commercial and public sector markets, for example, fire-fighting boats and crew transport boats for the oil and gas industry.

In 2013 the Department of Trade and Industry (the dti) undertook research on the feasibility of designating working vessels for local procurement. This process culminated in the designation of working vessels with a 60% local content. To this effect, an instruction note was issued by the National Treasury on 21 August 2014. The rationale behind designating working vessels for local procurement lies with the fact that large amounts of vessels are being procured by government and State-Owned Companies (SOCs). Considering the challenges of unemployment in South Africa and the opportunity offered by public procurement of working vessels, designation of the sector can resuscitate the local ship and boat building industry and thus boost job creation across numerous sub-sectors and value chains.

Clustering can encourage collaborative approaches within the industry, with related sectors sharing relevant services between them. Through the Industrial Policy Action Plan, it has been recognized that all the sub-sectors in the marine industry all experience similar constraints - e.g. infrastructure, skills development, transformation, etc. The initiative to develop a ship/boat building/repair cluster is thus aimed at assisting the industry to be more productive, internationally competitive and better positioned to gain access to financial resources to invest in tooling and upgrading of facilities.

Overall, the industry is primarily dominated by boat builders that manufacture commercial and recreational craft from composites and aluminium. Recreational multihulls dominate

(both sail and power) with other companies producing semi-rigid inflatables, mono-hulls, and small power boats. Notably, most of the companies in the industry are vertically integrated, whereby the company is directly involved in the design, the manufacturing, sales and marketing of its products, the export process, and after sales service for its clients.

SABBEX plays a central role in facilitating this clustering and promoting the South African ship and boat building industry.

The Marine Industry Association of South Africa (MIASA) has been amalgamated and integrated into SABBEX. MIASA has had an ongoing engagement with a number of government departments and certain initiatives have resulted in MIASA being able to deliver increased business opportunities and to minimize their regulatory costs. Some of their successes to date include the rescinding of a luxury tax on boats, rebates on certain imported components and materials and assisting with customs and immigration issues for visiting yachts. Members benefit from a direct line of contact with SAMSA, the International Council of Marine Industry Associations (ICOMIA) and the International Marine Certification Institute (IMCI).

MIASA strove to provide a valuable network of connections both within industry and government. Their members saw this as being useful in addressing blockages and problems with regulatory and policy issues. Members were able to attend regular events, functions and seminars and use the opportunity to network with other MIASA members. These functions have now been incorporated into SABEX.

Contact Details:

SA Boat Builders' Export Council (SABBEX)
Contact: Vanessa Davidson
PO Box 51468, V & A Waterfront, Cape town, 8002
Tel: (072) 826 2998 Fax: (021) 447 6456
E-mail: vanessa@sabbex.co.za

11.2.3 South African Association of Shipbuilders and Repairers (SAASR)

The South African Association of Shipbuilders and Repairers (SAASR) is a non-profit organisation within the South African ship building and repair industry whose vision is to help members capitalise on local and global opportunities so as to grow their business both nationally and internationally, and improve the industry they work in as a whole.

SAASR strives to set out procedures and regulations within the ship building and repair industry that foster good safety attitudes and practices and a healthy working environment.

All activities performed on, or in, a ship – either afloat, in floating dock, graving dock, or slipway – are subject to the South African Merchant Shipping Act 57 of 1951 and the Maritime Occupational Safety Regulations of 1994. Members of the SAASR get the benefits of a support team and knowledge base which assist to ensure compliance within their business and improve their competitiveness.

Protection of the health and safety of all staff and the preservation of the environment is paramount in SAASR approach.

Below are some of the Challenges the ship building and repair industry face in South Africa and some of the Key Objectives laid out by SAASR:-

'Firstly, the ship-repairer has no control over working conditions or equipment provided by the Ship-owner on-board – he must rely on the statutory authorities control to ensure that internationally acceptable standards are maintained.

Secondly, it is assumed that there will be a competent Master, Chief Engineer Officer and Crew on-board. The ship may occasionally be unmanned and the repairer must take all necessary precautions to ensure the health and safety of his staff.

Thirdly, few ship repairers have repair berths close to their administration offices and the chain of responsibility for safety becomes extended. So Supervisors must be correctly trained and given the authority to ensure regulations are observed.

And last but not least, repair teams vary in number from 50 staff working on major steelwork renewal in dry-dock, to a mechanical job afloat involving one artisan and a helper. This diversity places heavy reliance on the ship-owner for assistance and requires a sensible and flexible attitude from the repairer.' (Source: SAASR website, accessed on 9.05.19. www.saasr.co.za)

The SAASR objectives are framed as follows:

1. 'Regulate relations between members, employees or trade unions
 2. Promote, encourage and protect the best interests of its members
 3. Plan and organise administration relating to lawful activities
 4. Promote, encourage, support, or oppose any legislation that might affect members
 5. Collect and disseminate any information deemed valuable to members
 6. Issue regulations that ensure equal conditions for all contractors within the industry
 7. Encourage, promote, aid and effect the settlement of disputes between members
 8. Participate with federated bodies sharing similar objectives
 9. Provide legal assistance on matters affecting members, employers or trade unions
 10. Establish and administer funds for the benefit of members and their dependants.'
- (Source: SAASR website, accessed on 9.05.19. www.saasr.co.za)

SAASR list the following features as being benefits for members:

- 'Get connected with key players in the industry,
 - Be the first to hear industry related news and updates,
 - Improve your own business offering and have your say in the industry,
 - Gain insight into best practice for health, safety and environmental responsibilities, and
 - Meet the industry's evolving technological requirements through innovation.'
- (Source: SAASR website, accessed on 9.05.19. www.saasr.co.za)

Contact Details:

Postal Address: P.O. Box 29052, Maydon Wharf, Durban, 4057

E-Mail: info@saasr.co.za

11.2.4 South African Association of Ship Operators and Agents(SAASOA)

The South African Association of Ship Operators and Agents ("SAASOA") is a section 21 company which represents Ship Operators and Vessel Agents. Its members are typically also members of various international shipping and ship's agency organizations.

Objectives as stated on the SAASOA website

- 'To promote and protect the interest of our members
- To be an active participant in the development and maintenance of a world class Shipping industry in South Africa
- To collaborate in efforts towards the continuous improvement of shipping standards for mutual benefit of all stakeholders
- To ensure that the Maritime & Shipping Industry is recognised by Government as a very important & integral part of the South African economy
- To ensure that vessel and cargo interests enjoy maximum throughput productivity at all Terminals in South African Ports.' (Source: SAASOA website, accessed on 9.05.19. www.saasoa.co.za)

The South African Association of Ship Operators and Agents (SAASOA) was formed in 2007 as a merger between the Association of Ships Agents and brokers of Southern Africa (ASABOSA), the Association of Shipping Lines (ASL) and the Container Liner Operators Forum (CLOF).

It had become increasingly apparent that these three organizations had been interacting with the same parties with common goals. The opportunity existed therefore to become one voice for the Maritime and Shipping Industry and to concentrate their efforts in order to become more effective.

SAASOA is a full member of the Federation of National Associations of Ship Brokers and Agents (FONASBA). FONASBA is the only organisation representing the global ship agency and ship broking professions, with their mission stated as:

"to "promote and protect the professions of ship agency and ship broking worldwide",

This is a task which it undertakes through dialogue with its member associations and its consultative status with International Maritime Organisation (IMO), the United Nations Conference on Trade and Development (UNCTAD), the United Nations Commission on International Trade Law (UNCITRAL) and the World Customs Organisation (WCO).

11.1 Academic Institution Maritime Stakeholders

The academic institutions which need to be engaged with are listed in the following table:

Table 9: Academic Maritime Stakeholders to Engage With

Academic Maritime Stakeholders		
Within NMB	SA Higher Education	International
<ul style="list-style-type: none"> ▪ NMU ▪ Ocean Sciences Campus ▪ CMR, ▪ Other entities. 	<ul style="list-style-type: none"> ▪ Rhodes University ▪ CPUT ▪ Fort Hare ▪ WSU 	<ul style="list-style-type: none"> ▪ Global Challenges Research Fund (UK) ▪ Any other relevant maritime institution globally

12 THE CURRENT STATUS OF THE NMB MARITIME CLUSTER

The current status of the NMBMC has been traversed in the Executive Summary for Implementation, as well as being in appendix 17.8, and will not be repeated here.

A high level SWOT (Strengths, Weaknesses, Opportunities and Threats) has been undertaken as an indicative exercise, which the newly appointed Board of Directors of the NMBMC may wish to undertake as part of the determination of their new strategic intent.

12.1 SWOT Analysis and Strategic Intent

A high level overview of the internal strengths and weaknesses of the NMBMC is contained in bullet form in the following table:

Table 10: SWOT Analysis for NMBMC – Strengths & Weaknesses

Internal Factors (Have Control Over These)	
Strengths	Weaknesses
<ul style="list-style-type: none"> ▪ EC has three world class ports, ▪ NMB has two ports with complementary activities, ▪ Ngqura is a deep-water post Panamax port which can handle large volumes of transshipment TEUs, ▪ World class Coega Special Economic Zone (SEZ) abutting onto Port of Ngqura, ▪ EC is strategically positioned on the east-west trade routes, ▪ N2 road linkages coastwise and N10 connection to hinterland N1, ▪ Largest manganese export terminal in Africa ▪ Port of Port Elizabeth (PoPE) configured for vehicle exports, ▪ Highest biodiversity of any marine bay globally, most studied in the world, ▪ Highest proportion of protected endangered marine life, ▪ Nelson Mandela University, ▪ Ocean Sciences Campus and Institute for Coastal and marine Research (CMR), ▪ South African International Maritime Institute (SAIMI), ▪ Well-developed squid, pelagic, demersal and long-line fishing industry, ▪ Mature and innovative aquaculture industry, ▪ Close to developing oil and gas fields, ▪ Ship fuel bunkering operation in Algoa Bay, 	<ul style="list-style-type: none"> ▪ Lack of co-operation between the various maritime industry stakeholders ▪ Competition between the Eastern Cape's two SEZs and three ports ▪ Efficiencies at the two EC Ports, not using existing infrastructure appropriately or optimally. ▪ The manganese ore facility within the PoPE ▪ Un-coordinated skills development and training offerings with linkages to the private sector ▪ Coordination between industry and Transnet ▪ No single EC Provincial driver of the maritime industry ▪ Lack of economic data on the maritime industry or ocean economy ▪ Too few SMMEs within the industry ▪ Meaningful transformation has not occurred

A high level overview of the external opportunities and threats of the NMBMC is contained in bullet form in the following table:

Table 11: SWOT Analysis for NMBMC – Opportunities and Threats

External Factors (Have Little or No Control Over These)	
Opportunities	Threats
<ul style="list-style-type: none"> ▪ Opening up of land and facilities within PoPE with the relocation of the manganese terminal and the liquid tank farm ▪ The growth on automotive exports through PoPE ▪ Port of Ngqura expansion ▪ Operation and the Oceans Economy sectors and programs, particularly: ▪ Marine manufacturing, ▪ Maritime transport, ▪ The Oil & Gas industry, particularly the servicing, maintenance and repair of oil rigs, ▪ Offshore oil bunkering, ▪ The oil bunkering value chain, including ship chandelling, on-water maintenance and repairs, crew transport and accommodation ▪ Marine and Ocean tourism, ▪ Aquaculture opportunities, ▪ Marine Protection and ocean governance, ▪ Skills and training, ▪ Ocean based research & development, innovation. ▪ Regional linkages with other South African maritime clusters, ▪ Continental linkages with other African maritime clusters, and ▪ Fostering closer ties with the international maritime cluster organisations of the ENMC and TMA. 	<ul style="list-style-type: none"> ▪ Rising international competition ▪ Productivity and quality of labour ▪ Degradation and capacity of the rail network ▪ Degradation and capacity of the road network ▪ Rapid depletion of fishing stocks ▪ Red tides and pollution ▪ Raw sewerage being pumped into the ocean ▪ A lack of control of fishing in SA international waters ▪ Ocean governance ▪ Ocean security such as piracy ▪ A lack of interest from current members ▪ The inability to secure a project sponsor ▪ The inability to secure grant or donor funding to capitalise the NMBMC and be able to implement the plans as contained in this document.

12.2 Membership and Benefits

The vision of the NMBMC has been stated to be as follows:

‘The Vision of the local Nelson Mandela Bay Maritime Cluster is to be a pioneering maritime cluster model for Africa involving the participation of the ocean sciences, the ocean business community, government and its agencies, and civil society in responsible ocean governance by adopting the Quadruple Helix Innovation Model.’ (Myles P, 2014)

The benefits to members of the maritime cluster are formulated as:

- ‘Act as an incubator of business opportunities,
- Provide opportunities for employment,
- Enhance competitiveness in the manufacturing sector,
- Promote innovation, research and technology,
- Offer education, skills and expertise in the maritime fields,
- Ensure economic development of the area,
- Facilitate joint efforts for the protection of the vulnerable marine environment, and
- Promote regional cooperation and integration.’ (Myles P, 2014)

An important function of the maritime cluster is seen to be the coordination of a number of **‘Working Groups’** with the following specific functions:

- Working groups can meet as many times as the like during the year to discuss issues of mutual interest and concern,
- Working groups should seek to identify bankable projects for cluster-to-cluster and business-to-business matchmaking events, and
- Working groups should also identify research projects and capacity-building training needs to present at the quarterly NMBMC partnership meetings.

A note in the NMBMC membership database states the following:

‘NMBMC welcomes established conglomerates of like-minded associates with a direct or indirect interest in the ocean economy. Partners can be either a formal, semi-formal or informal entity. NMBMC is not a membership-based structure whereby members pay an annual subscription. NMBMC is a partnership-based structure but has created a friends-of-the-cluster category. However, friends of the cluster are welcome to apply to become a partner. The benefits of partnerships are derived from participating in NMBMC activities such as cluster-to-cluster trade missions, business-to-business matchmaking events, maritime conferences, exhibitions and events. These opportunities will only be offered to partners.

The invitation to friends is based on improving communications, cooperation and collaboration. NMBMC does not wish to duplicate or replace any established group of associates but rather would hope to strengthen each partnership by providing assistance, advice, advocacy, lobbying, strategic intervention or sourcing of funds for coastal and marine research and also maritime related projects. The identified friends will receive invitations to attend NMBMC partnership meetings for the sharing of knowledge, information and experiences. It is hoped that each cluster partner or friend will nominate and send one or more representatives to the quarterly partnership

meetings and will also participate in the annual NMB Maritime Summit.’ (Peter Myles, 2019. NMBMC Membership database end note)

SAIMI is an important public sector member of the cluster who could be engaged with to assist in driving certain of the projects, particularly on a national level and in order to get synergy and collaboration between the five South African Maritime Clusters.

The SAIMI ‘Vision’ in 2016 in a presentation titled, ‘Towards a National Maritime Cluster’.

‘To be an apex maritime institute that will enable development as well as contribute to the maritime sector and the economy of South Africa and Africa through the effective coordination of quality education and research by partner institutions.’ (SAIMI, 2016)

The revised service offering for the NMBMC should become apparent once it has formally adopted the legal structure under which it will operate and selected the programs and objectives which it seeks to pursue. These may be substantially similar to the current member benefits, but will in all likelihood become amplified and more significant.

13 A REVISED BUSINESS MODEL FOR THE NMB MARITIME CLUSTER

Based upon all of the foregoing, a functional model for the establishment and management of the revised NMBMC is proposed hereafter.

13.1 The Current Business Model for the NMBMC

As has been mentioned earlier in this report, the NMB Maritime Cluster was established by the NMBMC in 2012 and has been a voluntary association of like-minded people up until now. It has functioned on a voluntary basis with limited resources:

- no membership fees;
- no operational funding;
- no formal offices or staff; and
- just commitment and passion.

The analysis of national and international best practice for the establishment and management of a successful maritime cluster is based upon a few sound principles, which we shall summarise hereafter in a functional manner.

13.2 The Nature and Form of the Sponsors and Members

World best practice for the management of maritime clusters indicates that a 'Bottom-Up' or private sector and business-led organisational structure is preferable to a 'Top-Down' structure which is typically when a government or quasi-government entity forms and capacitates a non-profit organisation for public benefit functionality.

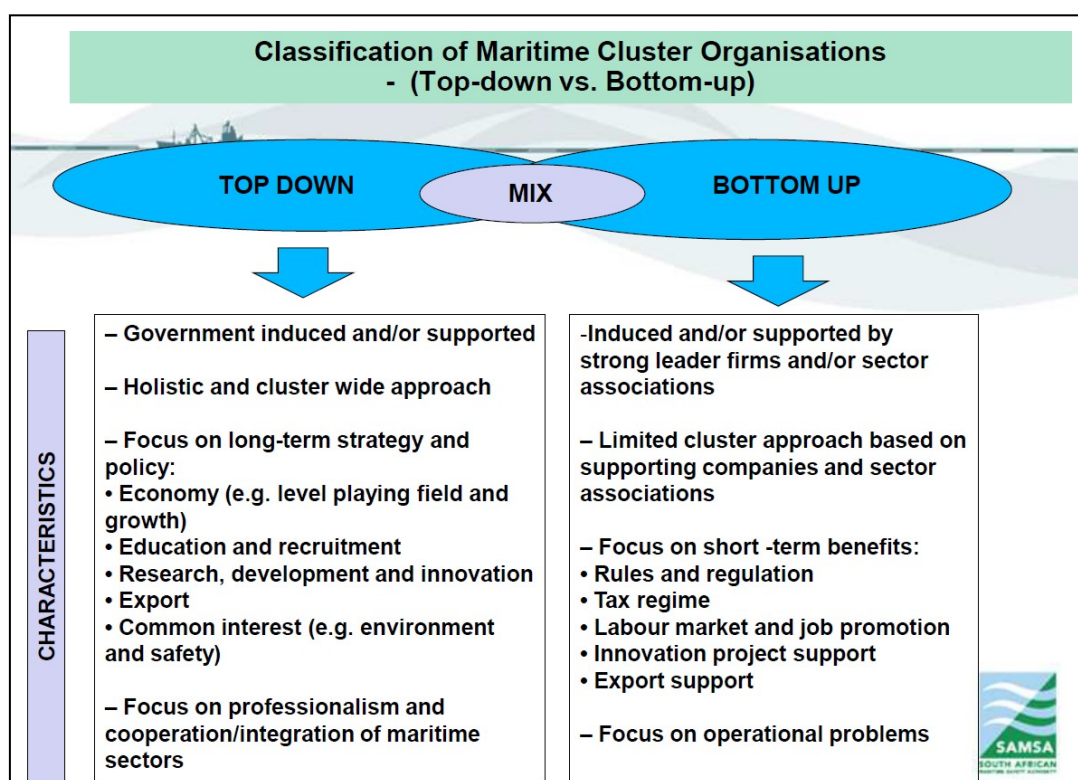


Figure 5: Operating Models - Maritime Cluster Organisation

Source: Policy Research Corporation, as quoted in a SAMSA presentation: Mokhele T, 2013.

Towards an integrated maritime development framework and industrialisation programme for South Africa. Ports and Maritime Conference, Port Elizabeth. May 2013. (SAMSA)

The figure above clearly illustrates the major differences between the government led and the private sector led organisational structure for a maritime cluster, with the private sector focusing on operational issues and generating short-term benefits for its members, as opposed to long-term strategies which often do not yield any benefits to the mainly private sector members.

It needs however to be clearly stated that the maritime cluster is not a closed forum, with only or mainly private sector members, but that in the spirit of the Quadruple Helix model discussed earlier, members from the public sector, academia and civil society are not just welcome to join, but are required to be present in order to create a meaningful and representative platform that can engage in the full dialogue desired.

The public sector will bring institutional relevance and insight into government policy and planning to the table, as well as providing access to platforms and institutions that the private sector may have difficulty accessing.

The public sector is also most likely to be able to provide the seed capital funding required to initiate the maritime cluster formulation process.

13.3 The Strategic Goals and Objectives to Achieve Cluster Programs

An important element of the newly established NMBMC will be its suite of strategic goals and programmes which it intends to engage in and with, as these will define the clusters strategic intent and map out the potential areas of engagement and benefits for members.

Following on from the SWOT analysis as described above, and once the interim or founding Board of Directors has been appointed, a strategic planning session should be embarked upon in order to define the NMBMC in terms of its Vision, Mission and Strategy. This process will lead to the formulation of a suite of programmes and strategic objectives.

The table below highlights the six key strategic goals that could be followed by the NMMBC, as well as the relevant strategic objectives that could lead to achieving these goals.

Table 12: Strategic Goals and Objectives to Achieve them as Programs

Strategic Goal		Strategic Objective	
1	Connect the NMBMC with Africa, Europe and the rest of the world via an international network of maritime clusters	1.1	Engage with the European Network of Maritime Clusters (ENMC)
		1.2	Facilitate the development of an African Network of Maritime Clusters (ANMC)
		1.3	Presentation and adoption of the Port Elizabeth Declaration, which is to support AIM 2050.
		1.4	Support the African Union '2050 Africa's Integrated Maritime (AIM) strategy.
2	Promote Sectoral Development through Expansion of Marine Sub- Sectors	2.1	Development of the Marine Tourism and Leisure Sub-Sector
		2.2	Expansion of Marine Manufacturing & Boat Building
		2.3	Support Development of Marine Energy Supply and Production, particularly Oil & Gas
		2.4	Development of Commercial Fishing Activity
		2.5	Development of the Aquaculture Industry
3	Enhance Enterprise Development through the Promotion of Small Business, BBEEE and the Provision of Funding	3.1	Creating Meaningful Transformation within the Maritime Sector
		3.2	Enhancing the Contribution of Small Enterprises in the Maritime Sector
		3.3	Promote Funding and Incentive Support for Maritime Enterprise Development

Strategic Goal		Strategic Objective	
4	Develop Human Resources through Education, Skills Development and Training, and Knowledge Development	4.1	Promotion and awareness of Maritime Education and Training
		4.2	Ensure Skills Development and Training is Aligned to Industry Needs
		4.3	Develop Maritime and Marine Research and Development Expertise
		4.4	Liaise with NMU, CMR and SAIMI for constructive alignment with their programs and strategies
5	Align Government, Private Sector, Academia and Civil Society in the Quadruple Helix model.	5.1	Engage with public entities such as SAMSA, SAIMI and Transnet
		5.2	Engage with Academic entities such as NMU& CMR
		5.3	Broaden the private sector membership base to all maritime sectors
		5.4	Keep abreast of Operation Phakisa 'Ocean Economy' initiatives under the Department of Environmental Affairs (DEA)
6	Support the freight and logistics activities of the two national ports, Ngqura and Port Elizabeth.	6.1	Support and influence Port Development Projects
		6.2	Assist with improving efficiencies along port value chains and intermodal connections
		6.3	Engage with Transnet on all its logistical spheres in order to participate or facilitate projects or research
		6.4	Involve the private sector in all of these activities

Source: RIC formulation and cluster member engagement, 2019

This will lead to specific actions and tasks being defined which can be allocated to a project team with the proposed organogram as follows:

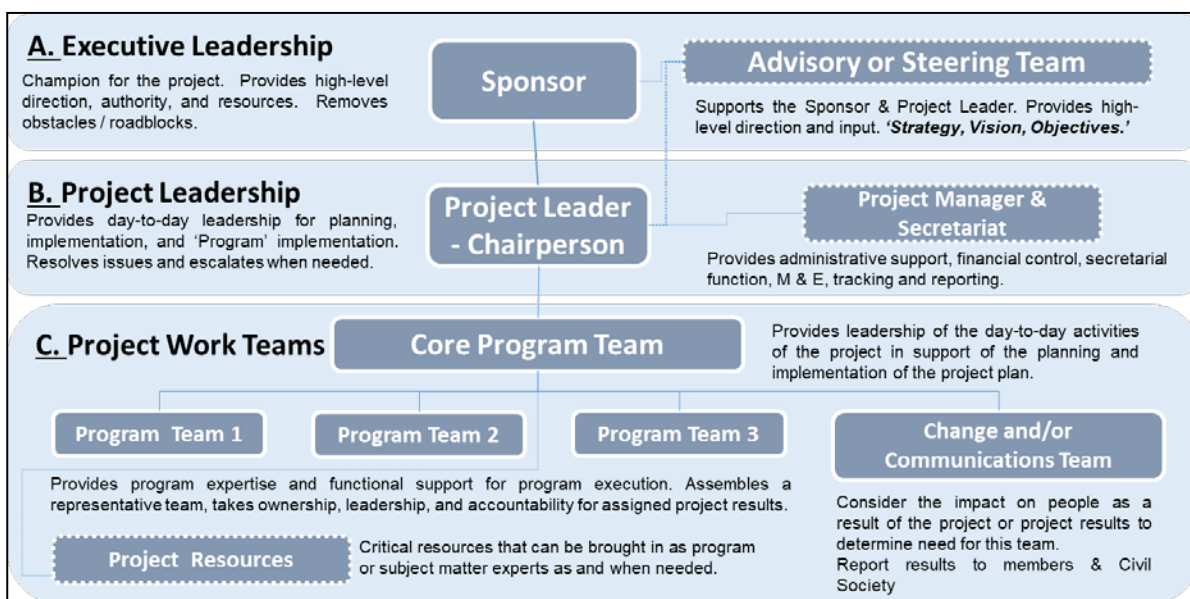


Figure 6: An Indicative Organisational Structure for the NMBMC

Source: Rand International Capital interpretation of Peter Myles Presentations, and matched to the 'Operating Budget' and 'Programmes' considered here.

This organisational structure takes cognisance of the proposed programmes, legal entity and budget to follow. Important elements to note are that provision is made for an 'Executive Leadership' which could include a project sponsor to provide funding for both the cluster and the implementation of its programs, and also provides for an advisory or steering committee which could provide administrative support or secretarial services.

The project leadership would be through a Board of Directors duly constituted through the Memorandum of Incorporation and under the leadership of a Chairperson, possibly supported by a Deputy-Chairperson.

The core program team will provide leadership for the day-to-day activities and the administration and implementation of the programmes selected, and would be accountable to the Board of Directors.

Project resources may be needed on a project-to-project or *ad hoc* basis and could be insourced as and when required, either seconded from members or other organisations or procured directly under contract.

Once the strategic goals and objectives have been clearly defined and accepted by the majority of the cluster members, a process of identifying the 'Key Intervention Areas' for each programme needs to be undertaken.

This process is outlined in the following sections:-

13.4 Strategic Programs and Key Intervention Areas

Table 13: Strategic Programs & Key Intervention Areas – Marine Sub-Sectors

Strategic Objective		Strategic Programs		Key Interventions Areas
2.1	Development of the Marine Tourism and Leisure Sub-Sector	2.1.1	Development of a Cruise Liner Terminal for Tourism and ensure linkages to the local economy.	With local authorities, develop a package of tourism product offerings and ensure linkages are developed and promoted through marketing media of cruise operators
				Facilitate operationalisation of the Port Elizabeth Port Passenger Terminal by allocating a key provincial driver to coordinate activities between the Metro, Transnet and Province
		2.1.2	Develop Marine Sports & Recreation Hub (Yachting, sailing, diving, sport fishing) and Marine Leisure Activities (eco-marine tourism, real estate, adventure & viewing)	Assist in securing tenure for recreational users within the Port of Port Elizabeth and Bay
				With local authorities, identify economic opportunities and necessary infrastructure required (particularly within marginalised communities) & ensure these are incorporated into Municipal IDPs
		2.1.3	Investigate the Potential for the establishment of Small-Craft Harbours along the NMB Coast	Undertake feasibility studies for development of small-craft harbours in Swartkops River and other identified areas
2.2	Expansion of Marine Manufacturing	2.2.1	Continued facilitation support for Boat Building (Boats, Yachts, Tugs, specialist vessels)	Develop and market the package of incentives available to encourage the expansion of boat and yacht manufacturing for export, including the Composites Cluster.
				Identify opportunities for small boat manufacturing & repair within communities within the Metro
				Seek new export markets (Specifically Africa) for tugs and specialised vessels built in NMB
		2.2.2	Expansion of Ship Repair within the Ngqura and PoPE Ports	Promote utilisation of the PoPE 100 ton slipway and Hoist
				Promote the ship repair industry to ensure that ship repair remains a priority within the PoPE
				Support Transnet plans for the deepening of quayside repair facilities.
2.3	Support Development of Marine Energy supply and Production	2.3.1	Support for expansion of bunkering capacity within the EC Port System	Lobby with Oil Majors to ensure that the future demand for fuel will be matched by supply (higher grade bunker fuel)
				Facilitate Research into New Cleaner Vessel Fuel Options
		2.3.2	Leveraging off Marine Energy Production along the EC Coastline (Gas-To-Oil)	Ensure that future production facilitates optimise job creation in the sector in EC (Including Gas to Oil energy generation)
				Identify opportunities to deepen the value-chain supporting the oil & gas industry (vessel supplies, technical expertise, rig and vessel repairs)
2.4	Development Commercial Fishing Activity	2.4.1	Promotion of Aquaculture and Mariculture Opportunities within the Province	Create an enabling environment to encourage Aquaculture projects and downstream processing
				Create an enabling environment to encourage Mariculture projects and downstream processing
		2.4.2	Promotion and support for expansion of ocean-based commercial fishing and regulation of the industry	Create an enabling environment to encourage investment into ocean-based fishing and downstream processing
				Engage with key role-players to ensure that fishing is occurring within the regulatory framework

13.5 Implementation Plan

This section presents a possible implementation plan for the NMBMC Maritime Industry Development Strategy. The approach proposed is to cluster interventions as identified in the strategic framework into separate project groupings. These are interventions that fall into different strategic goals and objectives, but have a similar focus (For example: Sourcing funding for maritime industry development is identified as an intervention in both goal 1 and goal 3). Each project is then assigned a description, a possible budget estimate is allocated, key partners are identified, and key performance indicators are assigned. Thereafter, the relevant strategic objectives that relate to the identified interventions within the project are aligned, budgets are assigned where possible, and the key and supporting stakeholders are identified for each intervention. The expected timeframe for each intervention with each project is then presented.

The tables below represent the key projects that form the implementation plan for the Strategy.

Table 14: Strategic Programs, Key Partners & Budgets

Project Name	Maritime and Marine Tourism and Leisure								
Project Description	The existence of two major ports and various in-land waterways presents various opportunities for the Province within Maritime and Marine tourism and Leisure activities. This is particularly so for rural communities located on dams/lakes and along the coastline of KZN, with potential to position communities to take advantage of tourism and leisure activities within the industry, Maritime and Marine Tourism and Leisure activities are varied, and include Cruise Liner Tourism (both domestic and international liners), marine sports and recreation (yachting, sailing, diving, sport fishing), and marine leisure activities (eco-marine tourism, real estate, adventure and viewing). The Province has a well-established tourism and leisure industry, but potential exists to enhance the contribution of these activities to job creation and transformation.								
Key policy, Strategic and Plan Alignment	Transnet MDF; PGDP; NDP; South African Cruise Tourism: Prospects, Benefits and Strategies; NGP; IPAP								
Estimated Project Budget	R2,000,000								
Key Implementation Partners	TNPA; NMBT; EC Tourism; DTI;								
Key Performance Indicators (KPIs)	1. Increase in the number of passengers into EC through Cruise Tourism								
	2. Increase in the number of recreational port users								
	3. Establishment of Small-Craft Harbours								
Relevant Strategic Programme	Intervention Actions Required	Budget	Key Partner	Supporting Partners	Year				
					2019	2020	2021	2022	2023
2.1.1) Development of Cruise Liner Tourism and ensure linkages to the local economy	With local authorities, develop a package of tourism product offerings and ensure linkages are developed and promoted through marketing media of cruise operators	R500,000	DEDEAT	TNPA; MSC					
	Facilitate operationalisation of the PoPE	Within Existing	DEDEAT	TNPA; MSC					

Project Name	Maritime and Marine Tourism and Leisure								
	Passenger Terminal by allocating a key provincial driver to coordinate activities between the City, Transnet and Province	Departmental Budgets							
2.1.2) Develop Marine Sports and Recreation (yachting, sailing, diving, sport fishing) and Marine Leisure Activities (eco-marine tourism, real estate, adventure and viewing)	Assist in securing tenure for recreational users within the Ports	-	TNPA						
	With local authorities, identify economic opportunities and necessary Infrastructure required (particularly within marginalised communities) and ensure these are incorporated into Municipal IDPs	Within Existing Departmental Budgets	DEDEAT & DSR						
2.1.3) Investigate the Potential for Establishment of Small-Craft Harbours along the EC Coast	Undertake feasibility studies for development of small-craft harbours in ____ and other identified areas	R1 500 000	DEDT	NMB; DTI					

Once the strategic programs, key partners and provisional budgets have been established as per the indicative table above, the time frames and Key Performance Indicators (KPIs) can be formulated in order to allow for monitoring and evaluation of the programmes.

An indicative overview of this process is provided in the following table.

Table 15: Strategic Programs, Partners Stakeholders & KPI's

Strategic Goal		Strategic Objective		Programmes		Key Interventions Areas	Key Partner	Supporting Stakeholders	Time Frame	Key Performance Indicators
2	Promote Sectoral Development through Expansion of Marine Sub-Sectors	2.1	Developme nt of the Marine Tourism and Leisure Sub- Sector	2.1.1	Promote linkages between planned passenger terminal interventions and the existing city tourism offerings	With local authorities, develop a package of tourism product offerings and ensure that these are promoted through marketing media of cruise operators	DEDT	TNPA;	Short-term	Minutes of Engagements between Stakeholders; Marketing Material Distributed through Cruise Operators, increase in Visitors
					Facilitate operationalisation of the Port Elizabeth Passenger Terminal by allocating a key provincial driver to coordinate activities between the City, Transnet and Province	TNPA	DEDT; NMB Tourism	Medium-Term	Provincial driver allocated; Number of Minutes of Engagement Between Key Stakeholders	
				2.1.2	Develop Marine sports and Recreation (yachting, sailing, diving, sport fishing) & Marine Leisure Activities (eco-marine tourism, real estate, adventure and viewing)	Assist in securing tenure for recreational users within the Ports	TNPA		Short-term	Tenure for Recreational Users Secured in New Contracts
					With local authorities, identify economic opportunities and necessary infrastructure required (particularly within marginalised communities) and ensure these are incorporated into Municipal IDPs	DEDEAT & DSR		Short-term	Opportunities identified and incorporated into Relevant Municipal IDPs	
				2.1.3	Investigate the Potential for Establishment of Small- Craft Harbours along the Coast	Undertake feasibility studies of small-craft harbours in EC	DEDEAT	DTI	Medium-Term	Feasibility study undertaken
		2.2	Expansion of Marine Manufacturi ng	2.2.1	Continued facilitation support for Boat Building (Boats, Yachts, Tugs, specialist vessels)	Develop and market the package of incentives available to encourage the expansion of boat and yacht manufacturing for export	ECDC	DTI; DEDEAT;	Short-term	Package of incentives Developed; Contribution of Boat and Yacht Manufacturers to the Provincial Economy
						Identify opportunities for small boat manufacturing and repair within communities located on major inland waterways and coastlines.	DEDEAT	DTI;	Short-term	Number of New Community Boat Repair Operations Established
						Seek new export markets (specifically Africa) for tugs and specialised vessels built in EC	ECDC	DTI; DEDEAT;	Medium-Term	Increase in the value of Production of New Tugs and Specialised vessels for New Markets
				2.2.2	Expansion of Ship Repair within the	Promote utilization of the Durban Dry-Dock	TNPA		Short-term	Full Utilisation of the Dry-Dock

Strategic Goal		Strategic Objective		Programmes		Key Interventions Areas	Key Partner	Supporting Stakeholders	Time Frame	Key Performance Indicators
					Durban and Richards Bay Ports	Promote the ship repair industry to ensure that ship repair remains a priority within the Durban port	TNPA	SAASR; EMC;PCC; merSETA	Short-term	Increase in the value of the Ship Repair Industry
						Support Transnet plans for the deepening of quayside repair facilities and commissioning of a dry-dock at the Richards Bay Port	TNPA	SAASR; merSETA;	Medium-Term	Deepening of Quayside Facilities Completed, New Dry-Dock Commissioned
		2.3	Support Developme nt of Marine Energy Supply and Production	2.3.1	Support for retention of bunkering capacity within the EC Port System	Lobby with Oil majors to ensure that the future demand for fuel will be matched by supply (higher grade bunker fuel)		PetroSA	Medium-Term	Resolution on future Bunker Fuel Supply
						Facilitate Research into New Cleaner Vessel Fuel Options		PetroSA; DST; DEDEAT	Medium-Term	Research Study Undertaken
				2.3.2	Leveraging off Marine Energy Production along the EC Coastline	Ensure that future production facilities optimise job creation in the sector in KZN (incl hydro-electric energy generation)	Department of Energy	DTI; DEDEAT;	Long-term	Number of New Jobs Created from Marine Energy Production
						Identify opportunities to deepen the value-chain supporting the oil & gas industry (vessel supplies, technical expertise, rig and vessel repairs)	DEDEAT	DTI; Department of Energy; PetroSA;	Medium-Term	Number of Opportunities Identified, Contribution of New Activities to the Provincial Economy
		2.4	Developme nt Commercial Fishing Activity	2.4.1	Promotion of Aquaculture and Mariculture Opportunities within the Province	Create and enabling environment to encourage Aquaculture projects and downstream processing	DEDEAT	DTI; DAFF; DEA; ECDC	Medium-Term	Value of New Aquaculture Operations
						Create and enabling environment to encourage Mariculture projects and downstream processing	DEA	DTI; DAFF; DEA; ECDC	Medium-Term	Value of New Mariculture Operations
				2.4.2	Promotion and support for expansion of ocean-based commercial fishing and regulation of the industry	Create and enabling environment to encourage investment into ocean-based fishing and downstream processing	DAFF	DTI; DAFF; DEA; ECDC	Medium-Term	Value of New Fishing Operations
						Engage with key role-players to ensure that fishing is occurring within the regulatory framework.		DAFF; DEA;	Short-term	Increase in the Number of Compliant commercial Fishing Operations

13.6 Cluster Program, Timelines and Funding

Following on from the above it will be possible to provide an annual calendar with a programme of meetings for members, the Board, project meetings and the like.

An indicative calendar based on next year is provided below:

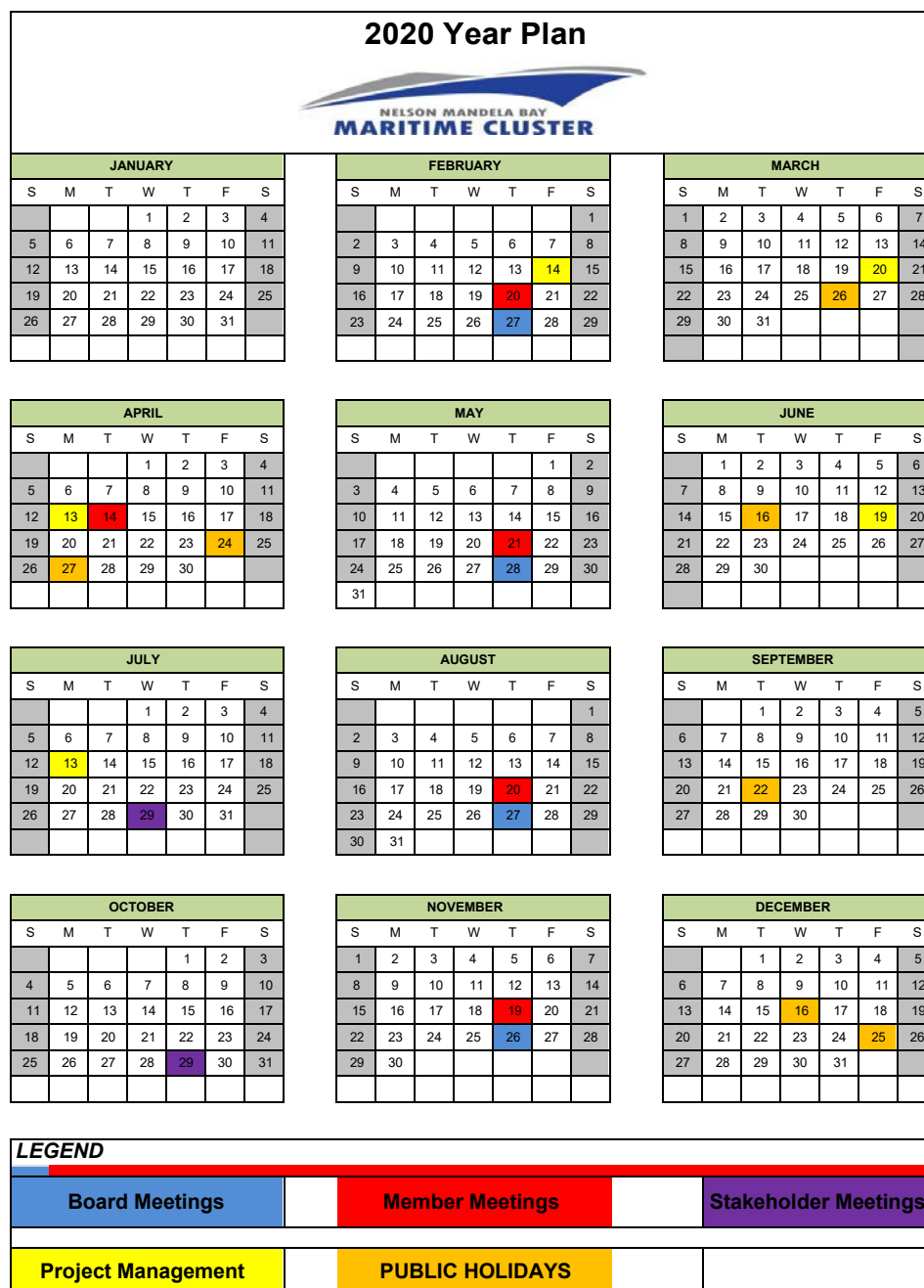


Figure 7: An Indicative Calendar and Annual Year Plan

Source: Rand International Capital interpretation of the proposed NMBMC programs and meetings schedule.

The proposed operation structure, programme of activities, and annual calendar allow a more meaningful budget to be prepared with staff resources, operating costs, capital expenditure and project or programme costs over three years, as per the following table:

Table 16: NMBMC Budget and Source & Application of Funds

Client Name:	SAIMI					
Project Name:	NMBMC					
Capital & Operating Costs Budget						
5/22/2019 16:37	Project		Dec-20	Dec-21	Dec-22	% Of
APPLICATION OF FUNDS	Totals		Year 1	Year 2	Year 3	Totals
Salaries & Retainers						
- Project Director / Chairperson	1,505,772		480,000	501,600	524,172	
- Financial Director	859,329		90,000	376,200	393,129	
- Marketing Manager	791,108		150,000	313,500	327,608	
- Bookkeeping - Mgmt Accounts	427,732		120,000	150,480	157,252	
- Directors Cost Recovery	376,443		120,000	125,400	131,043	
- Secreterial Fees (SLA's)	891,108		250,000	313,500	327,608	
Salaries & Retainers	4,851,491		1,210,000	1,780,680	1,860,811	14.4%
Operating Expenses	7,855,466		1,284,599	3,213,147	3,357,720	23.3%
Operating Costs - Totals	12,706,956		2,494,599	4,993,827	5,218,531	37.8%
Capital Expenditure / Other:	4,440,000		1,800,000	1,200,000	1,440,000	13.2%
Operating Costs & Capex: Totals	17,146,956		4,294,599	6,193,827	6,658,531	50.9%
Project Costs:						
Maritime Collaboration / Matchmaking	712,500		150,000	225,000	337,500	
Information Portal: Reports, Data etc.	1,662,500		350,000	525,000	787,500	
Value Chain Analysis	1,900,000		400,000	600,000	900,000	
Investigate Coast & Marine Tourism	-		-	-	-	
National Collaboration (SAMSA etc.)	1,900,000		400,000	600,000	900,000	
Ocean Governance Support	-		-	-	-	
Ocean Energy Potential - Oil & Gas	1,187,500		250,000	375,000	562,500	
Enterprise Development - SMME	2,500,000		-	1,000,000	1,500,000	
Training & Skills Development	2,375,000		500,000	750,000	1,125,000	
Maritime Industry Promotion	2,375,000		500,000	750,000	1,125,000	
Maritime Manufacturing	1,900,000		400,000	600,000	900,000	
Other & Ancillary	-		-	-	-	
Other & Ancillary	-		-	-	-	
Project Expenditure - Sub Total	16,512,500		2,950,000	5,425,000	8,137,500	49.1%
Total Costs Per Period	33,659,456		7,244,599	11,618,827	14,796,031	
Cumulative Costs - Project Life	33,659,456		7,244,599	18,863,426	33,659,456	100%
SOURCE OF FUNDS	Totals		Year 1	Year 2	Year 3	
Cash / Equity (Project Sponsor)	11,000,000		2,000,000	4,000,000	5,000,000	
Cash / Equity (Partners)	13,000,000		2,000,000	5,000,000	6,000,000	
Loans / Debt	1,000		1,000			
Subscription Revenue	6,000,000		-	2,000,000	4,000,000	
Grants / Donations Received	5,000,000		5,000,000			
Promoters Sweat Equity	-		-			
Funds For Period	35,001,000		9,001,000	11,000,000	15,000,000	104%
Cumulative Funds Secured			9,001,000	20,001,000	35,001,000	
Cash as Bank - Surplus / (Deficit)	1,341,544		1,756,401	(618,827)	203,969	4.0%

The budget has been prepared on a standard budgeting process whereby there is a source and application of funds, with funds being sourced from relevant entities or parties in order to meet the project objectives. The objectives are detailed in a series of operating budgets to indicate salaries and retainers of staff and human resources required, operating costs to house and enable the functions of the NMBMC, capital expenditure for NMBMC assets required to execute its mandate, and a series of projects or tasks to be undertaken in order for the cluster to be effective in delivering on its mission and mandate.

The indicative detail of this budget on a monthly basis for the first year and indicating all of the expenditure items and projects is contained in appendix 17.11 hereafter.

The fundamental operating budget principles are recommended to be substantially similar to the following:

1. Operational Structure and Entity:-

- The NMBMC will operate as a Non-Profit Organisation (NPO), and raise adequate project funding from a donor or sponsor organisation.
- The NPO will manage its affairs in a manner that it does not go into Overdraft or require emergency funding.

2. Operational Expenditure:-

- Operational expenditure shall be incurred in accordance with an agreed to staff organogram and salary scales, SLAs or external services will be sourced via the NPO 'Procurement Policy', and capital expenditure shall also be so procured.

3. Projects and Programs:-

- Programs and projects will be agreed by the Project Leader or Chairperson, in consultation with the Sponsor and Advisory or Steering Team.
- External experts or consultants will be engaged through the NPO procurement process.

4. Budget and Expenditure allocations:-

- Salaries & Retainers:- Max of 20% of budget,
- Operating Expenses:- Max of 25% of Budget, this includes all travel arrangements,
- Capital Expenditure:- Not to exceed 15% of budget,
- Project Expenditure:- Always to exceed 50% of the budget.
- Bank account:- To always hold R 1 million in cash, advance planning to ensure this.

These are indicative operating budget covenants and would need to be considered and ratified by the appointed Board of Directors.

13.7 Potential Funding Structure for the NMBMC

The potential sources of funding for the renewed NMBMC would be dependent upon a number of factors that would relate to the composition of the 'Executive Leadership' and the possibility of attracting a financial sponsor, the core programmes that were undertaken and the possibility of attracting grant or donor funding for these programmes, and the willingness or ability of members or related parties to provide donor funding. An indicative source of funds and funding mix has been prepared as follows:

Table 17: Source of Funds Over Three Years for NMBMC

SOURCE OF FUNDS	Totals	Year 1	Year 2	Year 3
Cash / Equity (Project Sponsor)	11,000,000	2,000,000	4,000,000	5,000,000
Cash / Equity (Partners)	13,000,000	2,000,000	5,000,000	6,000,000
Loans / Debt	1,000	1,000		
Subscription Revenue	6,000,000	-	2,000,000	4,000,000
Grants / Donations Received	5,000,000	5,000,000		
Promoters Sweat Equity	-	-		
Funds For Period	35,001,000	9,001,000	11,000,000	15,000,000
Cumulative Funds Secured		9,001,000	20,001,000	35,001,000
Cash as Bank - Surplus / (Deficit)	1,341,544	1,756,401	(618,827)	203,969

Source: Rand International Capital 'Operating Budget' for NMBMC.

14 THE LEGAL STRUCTURE OF THE MARITIME CLUSTER

A fundamental element for the effective functioning of the new NMBMC is for it to have a legal entity and operating structure that is both operationally efficient and internationally recognised as a credible structure that has sound governance principles and can be relied upon to implement its mandate in an accountable manner.

14.1 The Current Legal Structure and Best Practice

Currently the NMBMC is operating as a loose amalgamation of entities and members under the guidance of a credible management charter and a set of operating principle contained in documents and presentations. This arrangement has served it reasonably well until now, but will hamper its future growth and credibility.

The desktop research which was undertaken for the 'Best Practice' of maritime clusters in the foregoing sections highlighted the need for a credible operating entity. Legal opinion has been sought and a review of the various legal structures and entities available for 'Not For Profit' or public benefit entities was undertaken with a full overview provided in appendix 17.1 hereafter.

A summary of the various features and advantages and disadvantages of the various structures evaluated is contained in the table hereafter.

14.2 A Proposed Legal Structure for the NMBMC

The various feature and characteristics of the potential legal structures that could be used by the NMBMC are as follows:

Table 18: Features of the Potential Legal Structures for the NMBMC

Features & Characteristics	Non-Profit Organisation (NPO)	Charitable Trust	Non-Profit Company	Joint Venture
The structure is governed by:	<ul style="list-style-type: none"> Non-Profit Organisations Act, No. 71 of 1997 	<ul style="list-style-type: none"> Non-Profit Organisations Act, No. 71 of 1997 Income Tax Act, No. 58 of 1962 	<ul style="list-style-type: none"> Companies Act No. 71 of 2008. 	<ul style="list-style-type: none"> A Joint Venture agreement, Law of Partnership, Companies Act if it is an 'Incorporated JV'
It is most usually used for:	<ul style="list-style-type: none"> Public purposes, Non-distributable income or property applications. 	<ul style="list-style-type: none"> 'Public Benefit Activity' 	<ul style="list-style-type: none"> Non Profit activities 	<ul style="list-style-type: none"> For a 'Profitable' purpose, Speculatively intertwined relationship, Consortium bids, R & D projects.
Who or What has jurisdiction over the functioning of the entity?	<ul style="list-style-type: none"> The Minister of Social Development, Government through the Act 	<ul style="list-style-type: none"> The Minister of Social Development, Government via the Act SARS 	<ul style="list-style-type: none"> Registrar of Companies SARS 	<ul style="list-style-type: none"> Common law for JVs, and Company lay for Incorporated JVs.
The Benefits are :	<ul style="list-style-type: none"> Donors prefer an organisation administered by the state 	<ul style="list-style-type: none"> Strict compliance requirements appeal to donors, Enjoys Income Tax exemption, and 	<ul style="list-style-type: none"> May acquire or hold assets, Very flexible, Companies Act rules apply, Perpetual succession, Business rescue provisions 	<ul style="list-style-type: none"> For 'Once-Off' projects, Limited duration Very flexible.
The Shortcomings are:	<ul style="list-style-type: none"> Seen as a 'Soft' benefit organisation, A high administrative burden. 	<ul style="list-style-type: none"> Additional legislative & compliance requirements 	<ul style="list-style-type: none"> High reporting and administrative burden 	<ul style="list-style-type: none"> Partners may be liable, Usually for a single undertaking.
Formed by:	<ul style="list-style-type: none"> Trust company or another association of persons 	<ul style="list-style-type: none"> A Trust Deed creating a charitable trust 	<ul style="list-style-type: none"> Memorandum Of Incorporation (MOI) Registered with Companies intellectual Protection Commission (CIPC) 3 or more directors 	<ul style="list-style-type: none"> Rules of partnership Commercial associations, May be an 'Incorporated JV' through a company.

After discussions with various NMBMC members it has been proposed that a non-profit company be formed to house the interests and activities of the NMBMC. A non-profit company is a company incorporated for a public benefit object or an object relating to one or more cultural or social activities, or communal or group interests. The provisions concerning non-profit companies are set out in Schedule 1 of the Companies Act, No. 71 of 2008.

The legal practitioner who has extensive experience in the formation and administration of not for profit entities has formulated his concluding recommendation to support this as follows:

‘Having regard to the foregoing, it is recommended that serious consideration be given to incorporating a non-profit company. In amplification of this recommendation, the following advantages are immediately identifiable:

- 1.10. The primary objective of a non-profit company is to benefit the public rather than make a profit;
- 1.11. The income and property may not be distributed to the incorporators, members, directors or officers of a non-profit company, except as reasonable compensation for services rendered by them;
- 1.12. All of a non-profit company’s assets and income must be used to advance its stated objectives, as set out in its MOI;
- 1.13. Non-profit companies can apply for tax-exempt status;
- 1.14. Directors, officers, and members are protected to a large extent from possible personal liability;
- 1.15. A non-profit company may hold shares in a profit company but may not merge with or convert to a profit company;
- 1.16. A non-profit company may register with the Department of Social Welfare as a non-profit organisation (NPO) in terms of the NPOA in order to apply for government funding or to obtain a fund raising number;
- 1.17. A non-profit company is required to comply with various ongoing administrative requirements set out in the Act which provides external funders with confidence;
- 1.18. The accounting requirements relevant to companies contained in the Act are also attractive to external funders.’ (Howard. G., 2019)

This recommendation includes a reference to the establishment of a Memorandum of Incorporation (MOI) which is the statutory document required by formal companies which regulates and governs the affairs and operations of the company.

14.3 The Founding Documents for the NMBMC

From our understanding of the operation of a range of Non Profit Organisations and Non-Government Organisations in South Africa, a body of practice has arisen which is intended to demonstrate good corporate governance to the public at large, and provide comfort to both public and private sector members, donors and grantors who are engaged with these entities.

Certain of the documents, policies and procedures which could be considered by the newly constituted NMBMC are as follows:

1. Constitution
2. Memorandum Of Incorporation (MOI)
3. Procurement Policy
4. Audit Committee Establishment and Procedures
5. Funding Strategy and Principles
6. Board of Directors policy, and
7. Cluster Vision, Mission and Strategy statement.

15 CONCLUSIONS AND RECOMMENDATIONS

This report constitutes an analysis of current world best practice and a review of the Southern African maritime cluster environment in order to determine the most appropriate operating structure and *modus operandi* for the NMBMC.

After traversing various international maritime clusters and engaging with current NMBMC members and stakeholders, a series of recommendations and proposals have been formulated as follows:

1. The maritime and ocean sector are synonymous and have been defined as: 'the ocean sector (economy) is one that includes all economic activities closely linked to the ocean resources and environment and / or dependent to some meaningful degree on the ocean' (Hosking, 2017)
2. International maritime cluster 'Best Practice' indicates that there are significant competitive advantages to be gained from formalising maritime clusters,
3. Maritime clusters operate at their best when the 'Quadruple Helix' model is used which includes stakeholders from the Public sector, Business sector, Academia and Civil Society, but these clusters need to be led by the Business sector, 'Bottom-up'.
4. An analysis of the current situation for NMBMC reveals that it is well positioned to participate in the South African Maritime Clusters alliance, with five maritime clusters participating and that an opportunity exists for an African Network of Maritime Clusters.
5. A revised member service offering has been formulated based upon the old programme and strategy, but including a raft of new programmes to be implemented that will address a range of strategic objectives of cluster members.
6. An investigation of the various legal frameworks that could be used in South Africa, and after engagement with the NMBMC Steering Committee, it has been proposed that a Non Profit Company in terms of the Companies Act be established as it has the most stringent oversight regulation, which leads to investor and donor confidence for sourcing funds.
7. A proposed operating structure has been formulated based upon the NMBMC objectives framed and the programmes proposed to implement these, with a three-year operating budget with provision for staffing, operating expenses including travel, capital expenditure, operating funds and cash flow analysis.
8. Potential funding sources for the NMBMC are indicated, based upon the operating budget and programme requirements.

These recommendations need to be considered by the SAIMI established Steering Committee in consultation with the NMBMC, and agreement reached on the *modus operandi* for accepting, or varying, and implementing the recommendations.

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17 APPENDIX

17.1 Legal Opinion on Legal Structure – Kaplan Blumberg

A legal opinion has been sought from an experienced attorney in Nelson Mandela Bay, Me Grant Howard who has had extensive dealings with a range of Non Profit Organisations and with whom the author of this report has also had extensive dealings in the NPO arena.

The opinion is quoted verbatim in its entirety hereafter:

2. “Background”

- 2.1. Paragraph 2.8 of the Proposal is headed, *“Formulate a Comprehensive Legal or Institutional Structure for the NMBMC”*. Reference is made to possible structures *“which can be used to house or operationalise the legal entity which will manage the cluster”*.
- 2.2. It appears that the primary objective of establishing the Maritime Cluster in relation to the *“SA Ocean Economy”* would be *“to create a better life for all citizens in an inclusive society”* by *“accelerating economic growth”* and resolving the *“challenges of unemployment, poverty and inequality”*. Essentially, the objectives of the Maritime Cluster are non-profit in nature.
- 2.3. The establishment of a non-profit organisation is accordingly envisaged. Based on what follows, it is suggested that the non-profit organisation be constituted by either a company or trust.

3. Non-profit Organisations

- 3.1. A trust or company may be registered by the Directorate for Non-profit Organisations as a non-profit organisation if it is established for a public purpose and if its income and property are not distributable to its members or office bearers except as reasonable compensation for services rendered.
- 3.2. Section 1 of the Non-profit Organisations Act, No. 71 of 1997 (“the NPOA”) defined a non-profit organisation thus:

“Non-profit organisation means a trust, company or other association of persons:

- (a) established for a public purpose; and*
- (b) the income and property of which are not distributable to its members or office-bearers except as reasonable compensation for services rendered.”*

- 3.3. There is no direct financial benefit to a trust when registering as a non-profit organisation. In fact, it is often the case that charitable organisations elect not

to register as non-profit organisations because the disadvantage of the administrative effort involved outweighs any potential benefits of registration.

- 3.4. In terms of section 11 of the NPOA, the Minister of Social Development may prescribe benefits or allowances for registered non-profit organisations.
- 3.5. The present benefit of registration as a non-profit organisation is perhaps a “soft” benefit. Potential donors may prefer to deal with a charitable organisation which is regulated by the Directorate for Non-profit Organisations (which forms part of the Department of Social Development) than one which is not. It may provide them with comfort that the organisation will be held to account by the State.

4. Charitable Trust

- 4.1. Charitable trusts are distinct from other trusts in that there are additional legislative requirements for the trust deed of a charitable trust, if the trust is to enjoy the benefits conferred by the relevant legislation.
- 4.2. In particular, both the Income Tax Act, No. 58 of 1962 (“the ITA”) and the NPOA stipulate specific requirements for a trust deed if the trust is to qualify for registration as a public benefit organisation or a non-profit organisation, respectively.
- 4.3. A trust deed creating a charitable trust needs to comply with various requirements to qualify for registration as a public benefit organisation and, consequently, enjoy income tax exemption:
 - there must be at least 3 trustees who are not connected persons in relation to one another such as relatives;
 - no single person may directly or indirectly control the decision making powers of the trustees;
 - the trustees must use the trust funds solely for the object for which the trust has been established;
 - on dissolution of the trust, the trustees must transfer the net assets of the trust to any public benefit organisation approved in terms of section 30 of the ITA or any institution, board or body which is exempt from tax under the provisions of section 10(1)(cA)(i) of the ITA (which provides for tax exemption of certain bodies created by statute for research or public service) and which has as its sole or principal object the carrying on of any public benefit activity;
 - the trust must be prohibited from accepting any donation which can be revoked at the whim of the donor (although if a donation can be

revoked because of a material failure to use it for the designated purposes and conditions of the donation this right of revocation can be allowed by the trust);

- the trust must be required to submit to SARS a copy of any amendment to the trust deed.
- the trustees may not directly or indirectly distribute any trust funds to any person otherwise than in the course of undertaking any public benefit activity.

4.4. As to what constitutes a “*public benefit activity*”, the ITA provides [at section 30(1)] as follows:

“Public benefit activity means:

- (a) *any activity listed in Part I of the Ninth Schedule; and*
- (b) *any other activity determined by the Minister from time to time by notice in the Gazette to be of a benevolent nature, having regard to the needs, interests and well-being of the general public.”*

4.5. The NPOA sets out two lists of items for a charitable trust’s trust deed: one mandatory list of matters to be covered in the trust deed and one discretionary list of matters that may be covered in the trust deed.

4.6. In order to maximise the funds available to the trust to fulfil its charitable objective, a charitable trust should obtain exemption from paying income tax. In terms of section 10(1)(cN) of the ITA the “*receipts and accruals of any public benefit organisation*” approved by the SARS in terms of section 30 of the ITA, are exempt from income tax, subject to certain exceptions.

4.7. In order to obtain a tax exemption, a charitable trust must be a “*public benefit organisation*”. A public benefit organisation includes a trust:

- of which the sole or principal object is carrying on one or more public benefit activities;
- whose activities are carried on in a non-profit manner and with an altruistic or philanthropic intent;
- where no such activity is intended to promote the economic self-interest of any trustee, otherwise than by way of reasonable remuneration payable to that trustee, and

- where each public benefit activity carried on by the trust is for the benefit of, or is widely accessible to the general public at large, or a sector of it (not for small and exclusive groups).

4.8. Apart from the requirements in relation to the trust deed contents, a charitable trust which will seek approval as a public benefit organisation must:

- comply with such conditions as the Minister of Finance may prescribe by way of regulation to ensure that the activities and resources of the trust are directed in the furtherance of its object;
- not be party to a tax avoidance scheme;
- not pay any remuneration to any employee, office bearer, trustee or other person which is excessive, having regard to what is generally considered reasonable in that sector and in relation to the service rendered and has not and will not economically benefit any person in a manner which is not consistent with its objects;
- comply with any reporting requirements determined by SARS; and
- not use its resources to support, advance or oppose any political party.

4.9. There are a number of items which need to be included in a trust's trust deed in order for it to qualify for registration as a non-profit organisation. It is perhaps not necessary for the sake of this memorandum to list these.

4.10. It is important to bear in mind that if a trust is registered as a non-profit organisation, the trustees will have ongoing reporting obligations to the Directorate for Non-profit Organisations if they wish to maintain the registration.

5. Non-Profit Companies

5.1. A non-profit company is a company incorporated for a public benefit object or an object relating to one or more cultural or social activities, or communal or group interests. The provisions concerning non-profit companies are set out in Schedule 1 of the Companies Act, No. 71 of 2008 ("the Act").

5.2. Every non-profit company has a board of directors, which is its central governing body. Directors of a non-profit company have the power to manage the business and affairs of the company, just as they would with a profit company.

5.3. Since a non-profit company is not an enterprise designed to generate profits for a group of owners, it is not possible to own any shares in a non-profit company and therefore, a non-profit company does not have shareholders.

- 5.4. It is possible however for a non-profit company to have members. A non-profit company does not have to have members, but if it does, the members serve as custodians of the company, having powers to appoint and remove directors and to make other fundamental decisions. These powers would include:
- 5.4.1. amending the company's Memorandum of Incorporation ("MOI");
 - 5.4.2. approving or declining the amalgamation or merger of the company with another non-profit company;
 - 5.4.3. approving or declining the disposal of all or a greater part of the assets of the company in the ordinary course of its activities; and
 - 5.4.4. choosing the directors of the company.
- 5.5. The MOI of a non-profit company may also confer additional powers on the members. For example, certain key decisions which would ordinarily be the prerogative of a board of directors can be reserved in the MOI for decision by the members. A provision of this nature in the MOI would entrench the members' position as custodians of the non-profit company.
- 5.6. The key features of a non-profit company are the following:
- As indicated above, a non-profit company is not required to have members, but its MOI may provide for it to do so;
 - The board of the company must comprise of at least 3 directors, or any higher minimum number as stipulated in its MOI;
 - All of its assets and income, however derived, must be applied to advance its stated objects, as set out in its MOI;
 - It may acquire and hold securities issued by a profit company;
 - The enhanced accountability provisions in Chapter 3 of the Act do not apply unless required by the Act and regulations, or if its MOI states otherwise;
 - Registration does not automatically qualify the non-profit company for any particular status, category, classification or treatment in terms of the ITA, or any other legislation, except to the extent that any such legislation provides otherwise;
 - It must not, directly or indirectly, pay any portion of its income or transfer any of its assets, regardless how the income or asset was derived, to any person who is or was an incorporator of the company, or who is a member or director, or person appointing a director, of the company. There are certain exceptions to this set out in item 1(3)(a) – 1(3)(d) of Schedule 1 of the Act, such as the reimbursement for expenses incurred to advance a stated object of the company;

- Upon the winding-up or dissolution of the company, no past or present member or director of the company, or person appointing a director of that company, is entitled to any part of the net value of the company, after its obligations and liabilities have been satisfied. Further, the entire net value of the company must be distributed to one or more non-profit entities carrying on activities within the Republic which have objects similar to its own main object.
- 5.7. Three or more persons may incorporate a non-profit company by lodging with the CIPC a notice of incorporation together with a memorandum of incorporation (MOI).
- 5.8. The MOI is the most important governing document for a company. The standard MOI forms that can be used are Forms CoR 15.1 A – E. In this instance however, it is likely that the MOI will be customised to suit the nature of the Maritime Cluster. A customised MOI could include, *inter alia*:
- 5.8.1. a record of the restrictions derived from the Act relevant to non-profit companies (see Schedule 1 of the Act);
 - 5.8.2. a clear statement of the objects of the company;
 - 5.8.3. how the company's net value would be distributed if it were to be wound up;
 - 5.8.4. the provisions in terms of Section 30 of the ITA (in the event that the company intends applying for tax exemption status);
 - 5.8.5. how decisions are to be made (by directors and/or members);
 - 5.8.6. if the company is to have members, the qualifications for membership, how applications for membership are to be made, the rights and obligations of members etc;
 - 5.8.7. how directors are to be elected and their terms of office;
- 5.9. A company's MOI must however always be consistent with the Act. A MOI can include any provision dealing with a matter that the Act does not address. The Act provides for certain provisions which can be altered and others which are unalterable. A MOI may include any provision imposing on the company a higher standard, greater restriction, longer period of time or any similarly more onerous requirement, than would otherwise apply to the company, in terms of an unalterable provision of the Act.
- 5.10. The MOI typically sets out the rights, duties and responsibilities of directors, shareholders and others. However, there are no dedicated provisions in the Act which set out the minimum content which must be included in a MOI.
-

What may and may not be included in a MOI is set out in section 15(2) and (3) of the Act, but the minimum content must be acquired by reference to various provisions, within the Act and will depend on the type of company involved.

- 5.11. There is considerable flexibility given by the Act with regard to the content of a MOI. A company's MOI can deal with any number of different issues which can include:
- the objects and powers of the company;
 - any restrictions or limitations on the powers of the company;
 - the ability of the board of directors to make rules relating to governance;
 - issuing, registering and transferring securities of the company;
 - shareholders' rights;
 - shareholders' meetings and the procedures involved;
 - shareholders' resolutions;
 - powers of directors and shareholders;
 - the composition of the board of directors;
 - alternate directors;
 - board meetings and the procedures involved;
 - board committees;
 - liability and the indemnification of directors;
 - amendments to the MOI;
 - optional provisions such as appointing an auditor and company secretary;
 - what happens to the assets if the company is dissolved.
- 5.12. Except to the extent that a company's MOI provides otherwise, the board of the company may make, amend or repeal any necessary or incidental rules relating to the governance of the company in respect of matters that are not addressed in the Act or the MOI.
- 5.13. Company rules must be consistent with the Act and the company's MOI, and any rule that is inconsistent is void to the extent of the inconsistency. A copy of the rules should be published in the manner required or permitted by the MOI, or the rules of the company, and filed with the Commission.
- 5.14. A company has perpetual succession and is a separate legal person from its shareholders. One of the most fundamental consequences of incorporating a company is that it is a legal entity separate from its shareholders, and
-

therefore, shareholders will generally not be liable for the debts of the company.

- 5.15. Companies which are financially distressed, and have a reasonable prospect of being rescued, can be placed under the supervision of a business rescue practitioner who is tasked with developing a plan for its financial recovery. During business rescue proceedings creditors are prohibited from taking legal action against the company. Other entities are not afforded the opportunity of business rescue, and if financially distressed, may be wound-up or sequestrated.
- 5.16. Companies are probably the most regulated business entity in terms of supervisory control. There are a number of organisations which oversee companies such as the Companies Intellectual Property Commission, the Companies Tribunal, and the Takeover Regulation Panel.

6. Joint Ventures

- 6.1. Joint ventures are ordinarily established for a profitable purpose and it is accordingly unlikely that this would be an appropriate structure for the Maritime Cluster. The concept of a joint venture involves a speculative and intertwined relationship, formed for the purpose of achieving shared objectives.
- 6.2. There is no comprehensive or adequate definition for a joint venture in our law, but they can be described as either partnerships or commercial associations. Joint ventures are most frequently used by businesses seeking to undertake new enterprises or projects together.
- 6.3. Two examples of joint ventures involve agreeing to collaborate through:
 - a partnership, known as an unincorporated joint venture; or
 - incorporating a company, known as an incorporated joint venture.
- 6.4. Partnership or unincorporated joint venture

The rights and obligations of partners to an unincorporated joint venture are contained in a joint venture agreement.

It is important to note that the effect of a contract in South African law does not depend on the name given to the contract. Accordingly, depending on the manner in which a contract is drawn and the actual nature of the relationship between the parties to the contract, a so-called joint venture may in fact be an ordinary partnership with all the consequences attaching to an agreement of an ordinary partnership.

A consequence of an ordinary partnership is that partners may be liable for each other's actions. In the case of an unincorporated joint venture this risk may also exist, but it is generally not as open ended because the purpose and duration of a joint venture is more limited than in the case of an ordinary general partnership. This is one of the reasons why many joint venture agreements contain clauses which specify the purpose and duration of a joint venture and which state that the agreement between the parties is not an ordinary or general partnership.

Although an unincorporated joint venture may more often than not be formed for one particular undertaking, this does not mean that the purpose of a joint venture in the form of a partnership has to be limited to a single undertaking.

6.5. Incorporated joint venture

An incorporated joint venture is usually done through the medium of a company which is formed, specifically for regulating the relationship between the participating parties for a specific project or business. If it is a long-term project a company will be a more suitable vehicle to a partnership or co-operation agreement.

Each participating party in the joint venture becomes a shareholder in the joint venture company. It is a flexible medium for conducting a joint venture as it, amongst other things, allows the company to raise capital through a share issue to the participants. It also has other advantages such as limited liability and perpetual succession. The relationship between the parties to the joint venture will be regulated by the company's MOI and a shareholders agreement. Furthermore, the rights and obligations of the participant shareholders to the joint venture will be governed by the Act.

Generally, in a corporate joint venture, the participating shareholders will each appoint or elect directors in accordance with their respective shareholdings. The rights of the participants, who are more correctly referred to as shareholders, rather than partners, are generally set out in a shareholder's agreement, but they can also be provided for in a joint venture agreement. The rights and obligations of the shareholders and the company will be subject to an MOI and the Act.

A company is able to enter into a partnership with other companies or natural persons.

6.6. Joint ventures are often formed for a once-off project or a project of a limited duration which is relatively simple in scope. Some examples are where:

- a consortium is putting in a bid for a specific contract with a view to forming a more permanent joint venture if the bid is successful;

- the participants are co-operating on a defined project for a defined period of time; and
- the participants wish to co-operate on a specific research and development project.

6.7. Partners in an unincorporated joint venture and the directors of an incorporated joint venture are automatically required to comply with certain fiduciary duties. These duties include the duty to avoid conflicts of interest, to act within the scope of their authority and to act with good faith. In the case of directors, section 76 of the Act has codified these duties.

7. Recommendation

Having regard to the foregoing, it is recommended that serious consideration be given to incorporating a non-profit company. In amplification of this recommendation, the following advantages are immediately identifiable:

- 7.1. The primary objective of a non-profit company is to benefit the public rather than make a profit;
- 7.2. The income and property may not be distributed to the incorporators, members, directors or officers of a non-profit company, except as reasonable compensation for services rendered by them;
- 7.3. All of a non-profit company's assets and income must be used to advance its stated objectives, as set out in its MOI;
- 7.4. Non-profit companies can apply for tax-exempt status;
- 7.5. Directors, officers, and members are protected to a large extent from possible personal liability;
- 7.6. A non-profit company may hold shares in a profit company but may not merge with or convert to a profit company;
- 7.7. A non-profit company may register with the Department of Social Welfare as a non-profit organisation (NPO) in terms of the NPOA in order to apply for government funding or to obtain a fund raising number;
- 7.8. A non-profit company is required to comply with various ongoing administrative requirements set out in the Act which provides external funders with confidence;
- 7.9. The accounting requirements relevant to companies contained in the Act are also attractive to external funders.

17.2 The Competitiveness of Cluster's Theory – An Overview

17.2.1 A General Definition and Key Characteristics

An industry cluster is a group of companies in a particular industry, usually linked by a buyer-seller relationship or linked by common customers and technology relationships. The clustering of industries results in economies of scale and mutual reinforcement among industries. It also stimulates innovation, and information flow, which in turn enhances overall competitiveness and encourages greater investment whilst attracting additional resources. Often clusters are linked together by strong bonds of both cooperation and competition, leading to 'co-opetition', which is a neologism coined to describe cooperative competition.

Two aspects of clustering may be further differentiated. Locational or spatial proximity of clusters imply physical grouping of manufacturing facilities for reasons of cost, time and convenience. In turn, spatial clusters allow the cluster to be segregated in technological terms as in vertical integration.

Cluster development involves the following stages: Firstly, an analysis of industry cluster structures is undertaken by studying in detail the relationships, inter-dependence, mutual reinforcement, and linkages between each industry sub-sector. This is followed by the identification of core capabilities, critical gaps, resource needs and industry infrastructure requirements. The next stage is the promotion of the cluster of companies from the complete perspective of the cluster needs.

Developing the economy of an area means that the firms in the area must become more competitive and grow their economic base. Firms are connected to suppliers, service providers and markets through networks and market systems forming small economic sub-systems. With the onset of globalisation these regional or local economic sub-systems compete with sub-systems in other parts of the country and world. Thus, the economic well-being of an area often depends on the collective performance of groups of firms in its locality.

By understanding these sub-systems, a more leveraged approach to local economic development can be reached. Rather than trying to grow the local economy one firm at a time, the needs, issues and opportunities of a selection or group of firms can be dealt with at the same time. This allows for specific gaps to be addressed and for improved networking and co-operation between the various actors involved in the local economy. Opportunities for the development of new firms, for new investment or for the creation of specialized factors of productions can be identified when working with groups of firms that are interrelated.

The three terms that are often used interchangeably to describe the analysis of these economic sub-systems are value chains, clusters and sub-sectors. While the focus of the three approaches is different, many of the tools and instruments are common.

Value chains: A value chain describes the full range of activities required to bring a product from its conception to its end use. This includes activities such as design, production, marketing, distribution and support to the final consumer. The activities that comprise a value chain can be contained within a single firm or divided among different firms. Value chain activities can be contained within a single geographical location or spread over wider areas. Value chain analysis (VCA), therefore, is the methodology by which the structure and processes of a value chain are understood.

Sub-sectors: In most cases, a sub-sector is delineated by a particular final product and includes all firms engaged in raw material supply, production and distribution of that product. Very often the defining characteristic is a key raw material, for example forestry or gold. The

term sub-sector is used to describe all the activities involved in the transformation of the raw material into various forms; the distribution and marketing of these products. Sub-sector analysis, therefore, is the methodology by which the structure and processes of a sub-sector are understood.

Clusters: The term clusters refers to a sectoral and geographical concentration of enterprises and can be defined as *"geographically close groups of interconnected companies and associated institutions in a particular field, linked by common technologies and skills. They normally exist within a geographical area where ease of communication, logistics and personal interaction is possible. Clusters are normally concentrated in regions and sometimes in a single town"*. (Porter, 1990. The Competitive Advantage of Nations.)

In an evaluation of the South African economy by the German developmental economists, GTZ a number of factors were identified as key strategies and processes to implement and strengthen cluster formation. A set of implementation options have been formulated which can assist in the cluster formation process as indicated in the following table.

Table 19: Promoting Clusters, Sub-sectors and Value Chains

INTERVENTION AREA	KEY STRATEGIES & PROCESSES	OPTIONS / WAYS TO IMPLEMENT
Clusters.	Improve the competitiveness and performance of a given cluster in an area.	Conduct a cluster assessment that investigates the information flows, relationships, technology usage, etc.
Value-Chain.	Improve the performance of a group of firms within a value chain through the improvement of the value chain	Conduct a value chain assessment that indicates product flow, information and relationships and supporting actors. Analyse for opportunities and obstacles that can be addressed.
Sub-sector.	Improve the performance of a sub-sector with a specific emphasis on small firms.	Conduct a sub-sector analysis to identify constraints and obstacles in order to stimulate growth. Identify business services used in the sub-sector that could improve the performance further.
Improve public sector support to specific sub-sectors or clusters.	Identify the resource and infrastructure needs of the target sectors and mobilize the public sector to support them.	Develop special hard and soft infrastructure. Promote special interests to other government actors (e.g. Universities) Create incentives for investment.
Improve the generic and industry specific business services.	Identify the shortcomings of the current service offerings and improve the reach and richness of services to the sector.	Identify, strengthen or build up business services that could support the cluster.
Creating networks or sector facilitators or marketing bodies.	Connect businesses in order to create economies of scale, or to optimize resource usage. Identify potential markets and promote products to them while at the same time communicating market opportunities back to the sector.	Identify a host organization that can act as a relationship broker and facilitator between businesses. Develop a marketing body that promotes and markets the products of the sub-sector, cluster or value chain component.
Strengthen the support to a sector or cluster in order to improve the institutional layer.	Align supporting institutions and business services to support growth and competitiveness.	Involve and focus supporting institutions on growth opportunities. Mobilize business service sector around new opportunities and specific requirements of the selected sector.
Improve the visibility and branding of the sectors (Investment, Promotion and Marketing)	Raise awareness of the sector to potential investors and to end markets. Attract more supporting businesses and institutions to locality.	Formulate an 'Investment Promotion and Marketing Programme'.

Source: GTZ, Local and Regional Economic Development – Towards a common framework for GTZ's LRED interventions in South Africa, 2007

A business cluster is a geographic concentration of interconnected businesses, suppliers, and associated institutions in a particular field. Clusters are considered to increase the productivity with which companies can compete, nationally and globally.

The term industry cluster, also known as a business cluster, competitive cluster, or Porterian cluster, was introduced and the term cluster popularised by Michael Porter in *The Competitive Advantage of Nations* (1990).

The importance of economic geography, or more correctly geographical economics, was also brought to attention by Paul Krugman in *Geography and Trade* (1991). Cluster development has since become a focus for many government programs.

Following the development of the concept of inter-organizational networks in Germany and practical development of clusters in the United Kingdom; many perceive there to be four methods by which a cluster can be identified:

- The geographical cluster – typically with resources as the unifying factor,
- Sectoral clusters (a cluster of businesses operating together from within the same commercial sector e.g. marine),
- Horizontal cluster (interconnections between businesses at a sharing of resources level e.g. knowledge management), and
- Vertical cluster (i.e. a supply chain cluster).

It is also expected, particularly in the German model of organizational networks, that interconnected businesses must interact and have firm actions within at least two separate levels of the organizations concerned.

Michael Porter claims that clusters have the potential to affect competition in three ways:

1. by increasing the productivity of the companies in the cluster,
2. by driving innovation in the field, and
3. by stimulating new businesses in the field.

Generally two types of business clusters, based on different **kinds of knowledge**, are recognized, with a third based on 'factor endowment':

- **Techno clusters** - These clusters are high technology-oriented, well adapted to the knowledge economy, and typically have as a **core** renowned universities and research centers like Silicon Valley.
- **Historic knowhow-based clusters** - These are based on more traditional activities that maintain their advantage in know-how over the years, and for some of them, over the centuries. They are often industry specific. For example; London as a financial centre.
- **Factor Endowment clusters** - They are created because a comparative advantage they might have linked to a geographical position. For example, wine production clusters because of sunny regions surrounded by mountains, where good grapes can grow. This is like certain areas in France, Spain, Chile or California.

A business cluster is a geographical location where:

- enough resources and competences amass and reach a critical threshold,
- giving it a key position in a given economic branch of activity,
- with a decisive sustainable competitive advantage over other places, or even a world supremacy in that field.

The process of identifying, defining, and describing a cluster is not standardised. Individual economic consultants and researchers develop their own methodologies. All cluster analysis relies on evaluation of local and regional employment patterns.

17.2.2 Porter's Sectoral Diamond Theory

Michael Porter identifies clusters as geographic concentrations of interconnected companies and institutions in a particular field. Clusters encompass an array of linked industries and other entities important to competition.

Clusters often extend downstream to channels and customers and laterally to manufacturers of complementary products and to companies in industries related by skills, technologies or common inputs.

Clusters rarely conform to standard industrial classification systems, which fail to capture many important actors and relationships in competition. A cluster of independent and informally linked companies and institutions represents robust organisational form that offers advantages in efficiency, effectiveness and flexibility. Being part of a cluster allows companies to operate more productively in sourcing inputs, accessing information, technology, the needed institutions, co-ordination with related companies, and measuring and motivating improvements.

A cluster allows each member to benefit **as if** it had greater scale or **as if** it had joined with others, without sacrificing its flexibility.

Once a cluster begins to form, a self-reinforcing cycle promotes its growth, especially when local institutions are supportive and local competition is vigorous. As the cluster expands, so does its influence with government and with public and private institutions.

Michael Porter has developed a model that analyses four determinants of competitive advantage in a linked diamond formation with the attributes being:-

a) Factor Conditions (Supply)

Factor conditions refer to factors of production such as labour, land, natural resources, capital and infrastructure. The 'Key' factors of production for a cluster are **created**, not inherited and include skilled labour, specialised capital and purpose built infrastructure.

Porter argues that a lack of resources can stimulate a location to become competitive in other areas or types of economic activity. Human resources, labour policies together with incentives and support can also provide positive factor conditions.

b) Demand Conditions (Market)

Demand conditions are stimulated by sophisticated customers, which have the effect of enhancing competition in the market. Firms that face a sophisticated domestic market are likely to produce and sell superior products because the home market demands this.

The size and structure of the local and neighbouring markets are also important, together with political relationships and channels of distribution.

c) Related and Supporting Industries (Cluster Conditions)

The phenomenon of competition (and upstream and/or downstream industries) locating within the same area is known as clustering or agglomeration. Some of the advantages of being close to your rivals may be:

- Potential technology or knowledge spillovers,

- An association of a region on the part of consumers with a product of high quality and therefore of some market power, or
- An association of a region on the part of the applicable labour force.

The disadvantages of being close to your rivals are the potential poaching of your employees and possible decreases in mark-ups due to increased competition.

d) Firm Strategy, Structure and Rivalry

These are conditions for the organisation of companies and the nature of domestic rivalry.

Strategy: Domestic capital markets can affect the strategy of firms. Capital markets with a long-term outlook will tend to encourage capital intensive or infrastructure based industry, whilst short-term capital policies tend to stimulate service industries where investment is of a short-term nature.

Structure: Porter argues that the best management styles vary amongst industries, with some countries being orientated towards a particular style of management. For example, Germany tends to have hierarchical management structures composed of managers with strong technical backgrounds and Italy has smaller, family-run firms.

Rivalry: It is argued that intense competition spurs innovation and that collusion and anti-competitive behavior stifles innovation.

Government, macro-factors and chance are also seen to play a role in Porters Sectoral Diamond and the inter-relationship of these factors is depicted in the graphic below:

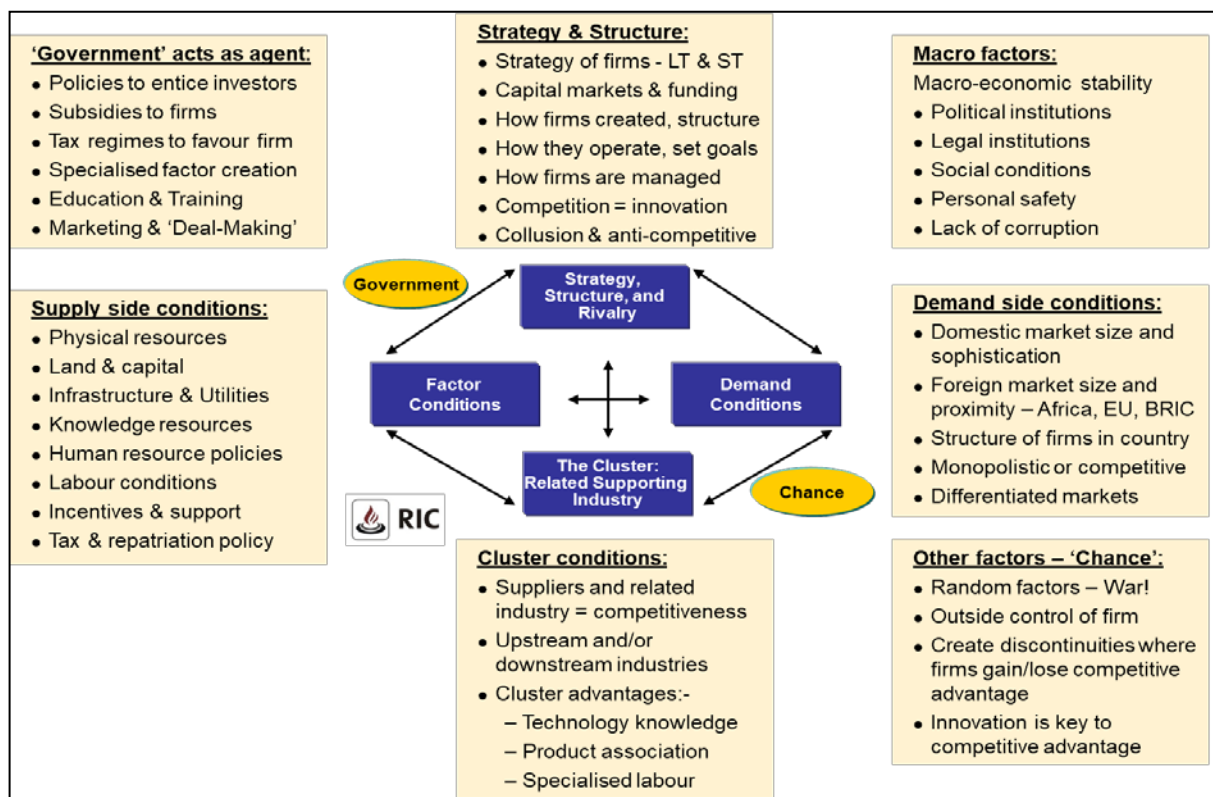


Figure 8: Porters Sectoral Diamond for Cluster Theory

Source: Rand International Capital interpretation of Michael Porter, 1990. The Competitive Advantage of Nations.

17.2.3 Maritime Clusters

Over the past few decades clusters have been recognised as being economic drivers of competitiveness and the slogan **“Cooperating to Compete”** has become popular and encompasses the principle that a grouping of similar and mutually related business units which are centred around a specific specialisation and are geographically concentrated, will build industry advantage and competitiveness.

Michael Porter use the term ‘clusters’ to refer to a sectoral and geographical concentration of enterprises that can be defined as *“geographically close groups of interconnected companies and associated institutions in a particular field, linked by common technologies and skills. They normally exist within a geographical area where ease of communication, logistics and personal interaction is possible. Clusters are normally concentrated in regions and sometimes in a single town”*. (Porter M, 1990. The Competitive Advantage of Nations).

A comprehensive definition of a ocean or maritime cluster and its multitude of interplays, stakeholders and benefits is contained in the more recent definition by the World Oceans Council (WOC) as follows:

‘Ocean/Maritime Clusters are geographic concentrations of similar or related maritime firms - such as shipping, seafood, marine technology, and/or port operations - that share common markets, technologies, worker skill needs, and are often linked by buyer-supplier relationships and operate in close interactions with another directly and through multiple networks¹. Larger companies use these networks to improve their efficiency and engage a networked economy. In some cases, Ocean/Maritime Clusters have emerged as organizational entities that aim to enhance the competitiveness and collaboration among their ocean/maritime company participants, related institutions, and other stakeholders. In addition to providing a platform for the companies in maritime sectors that are related to each other, Ocean/Maritime Clusters may link all companies and/or organizations within a specific sector.

At the core of the cluster are companies producing key products, such as vessels built by the shipbuilding industry, or shipping companies providing maritime transport, or seafood processors and their products. Shipping companies, ports, and offshore industries form a complex and diverse network together with their contractors, subcontractors and co-operators. Linked to this are the technology providers who develop the tools and equipment for the companies in the network. The cluster also includes a multitude of companies, starting from supporting industries and producers of different special services such as education, research, classification, and financing services.

Competitive advantages are generated in the interplay between companies, further increasing the quality of related and supporting sectors - creating favorable conditions to mutually reinforce the Ocean/Maritime Cluster ecosystem. Promoting Ocean/Maritime Clusters can deliver added value including higher income and employment level, sustainable consumption and production, and the effective functioning of many industries in support of overall sustainable development.’ (ETG & WOC, 2018, February)

¹ Viederyte, Rasa., Maritime Cluster Organizations: Enhancing Role of Maritime Industry Development, Procedia, social and behavioral sciences, 81, 01 Jun 2013:, 624-631., Elsevier B.V., 23 Jul 2017.

This same study emphasises the 'Blue Economy' and has highlighted the major role that maritime clusters can play in sustainable economic development as follows:

'Ocean/Maritime Clusters can and must play a major role in advancing ocean sustainable development. Research and analysis of eleven Ocean/Maritime Clusters by ETG indicates that the way forward is a focus on business growth and investment opportunities for responsible, sustainable ocean use (sometimes referred to as the "Blue Economy" and "Blue Growth"), which considers the intersection of ocean economic benefits, environmental health and societal value in policies and best practices. By combining purpose in innovation, competitiveness-productivity-profit and environmental impact, Ocean/Maritime Clusters can lead ocean sustainable development and realize economic benefits.' (ETG & WOC, 2018, February)

Sustainable economic growth is seen as a fundamental principle which needs to underpin all modern maritime clusters.

17.3 A Differentiation Framework for Maritime Clusters – Based Upon Porter

In a 2013 study on European maritime clusters a benchmarking process was undertaken to formulate comparisons and ascertain what factors drove successful clusters. The purpose of this paper is to point out some of the main characteristics and critical factors for success that can substantiate the proposal of a differentiation framework for maritime clusters.

The authors have conducted a benchmarking analysis in order to distinguish the most relevant aspects which can or should be observed in maritime clusters, applied to the following countries: Spain (Basque Country), Germany (Lander of Schleswig-Holstein), the Netherlands and Norway.

A thorough analysis of these maritime clusters is undertaken in their current context, as well as a detailed analysis of the theory of clusters, a literature review and a benchmarking exercise for the key dimensions of a well-functioning cluster. The main cross sector trends identified by this analysis where:

- Increase in Research, Development and Innovation (RDI-activities);
- Difficulties with regard to recruitment;
- Limited public awareness of the importance of maritime sectors;
- Sustainable development. (Monteiro et al, 2013)

With regard to the different approaches in terms of what is regarded as ‘good practice’, three cluster benefits are listed 1, the **promotion** of the maritime cluster, 2, the focus in the maritime cluster organisation on **education, training and the labour market**, and 3, a focus in maritime clusters on **Research, Development and Innovation (RDI)**. The approach adopted to address these was in each instance mainly project based with the main initiatives and sector involvement indicated in the following figure.

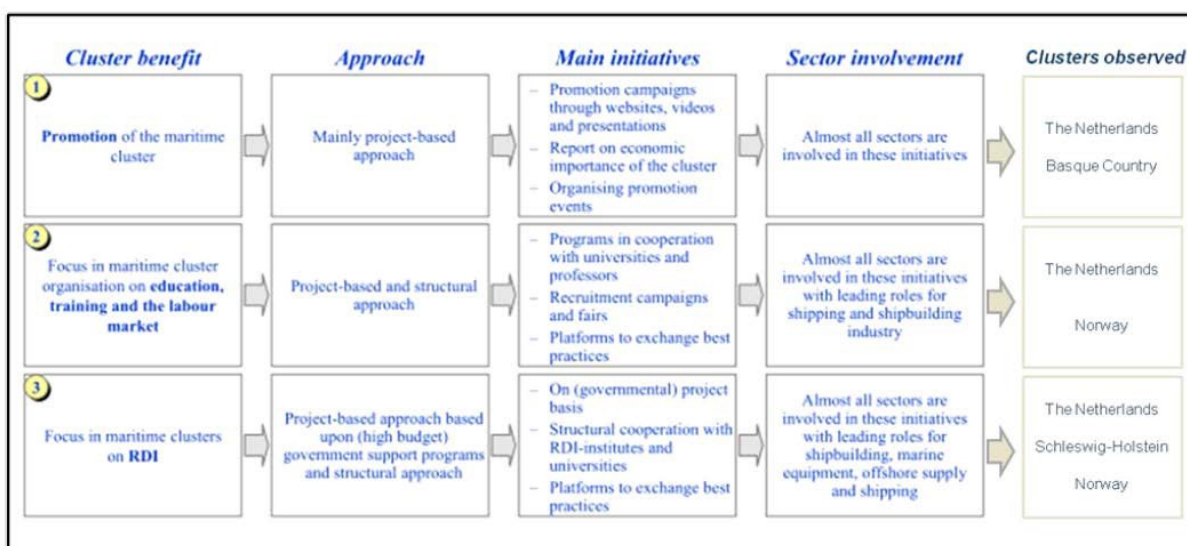


Figure 9: Good Practice for European Maritime Cluster Organisations

Source: Monteiro et al, 2013

The differentiation factors highlighted involve agglomeration economies and endogenous conditions derived from geographic proximity, seen as being essential for the lowering of transaction costs, strengthening the leverage of public/private cooperation through centres of

maritime excellence, and at the same time providing an adequate local environment that favours positive interactions between the different maritime industries and actors.

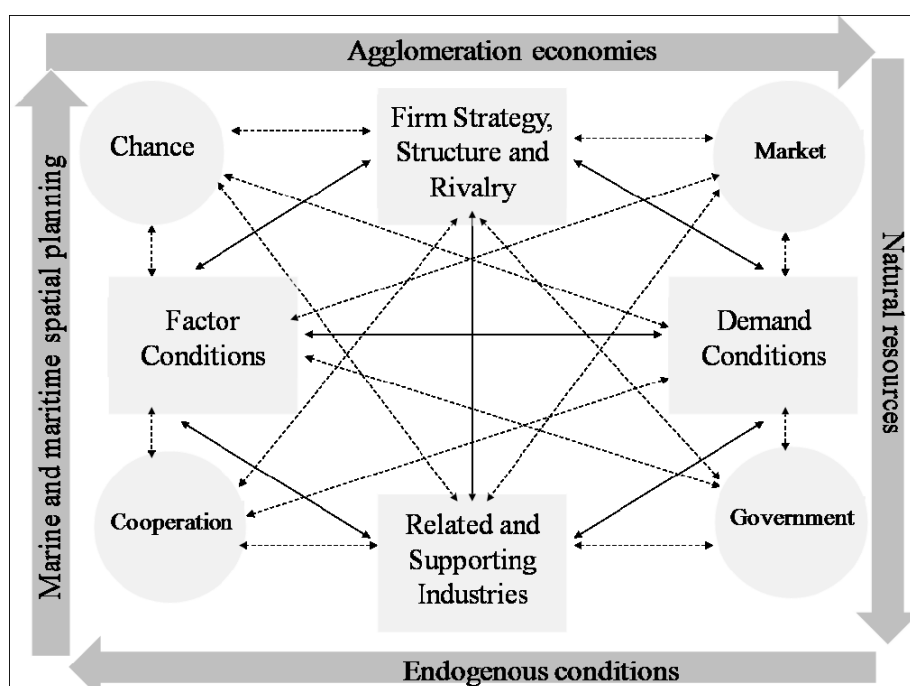
The main results arising from this article have been presented through a reconceptualisation of Porter's Diamond framework for diagnosing the competitiveness of maritime clusters.

The four European country maritime clusters are analysed in some depth in the context of Porter's Sectoral Diamond and the four broad drivers that shape the environment in which firms and regions compete for business:- Factor conditions, Demand conditions, Related and supporting industries, and Firm strategy, structure and rivalry.

The evolutionary concept of clusters is traversed and it is comprehensively indicated that clusters have a positive impact on innovation, due amongst other factors to knowledge spillovers, labour market pooling and competitive pressure. These principles are captured in the following quotation:

'It is thus clear if some differentiation exists between terrestrial and maritime clusters, that it is related to the absolute critical role that innovation and knowledge networking hold in the latter. The increasingly demanding international contexts where maritime clusters evolve and the permanent source of use conflicts for space allocation and resource depletion, induce a competitive pressure to innovate, because maritime firms are highly dependent upon the introduction of new products, new production processes and new organizational practices, as a way to sustain competitive advantage. Therefore, the consolidation of a critical mass of private and public actors, the existence of adequate conditions for the emergence and sustenance of labour market pooling, based on an appropriate system of education and training, the presence of solid interdependence relations between these multiple and sophisticated actors, are decisive for the genesis and success of those inner dynamics.

From the findings presented so far, a reconceptualised model for the case of maritime clusters, inspired by the Porter Diamond, is shown in the figure below.'



'Within this framework, the geographic concentration of activities, the intersectoral and intrasectoral linkages and the assembling of local innovation networks, based upon strong cooperation ties between public and private actors, function as strong cluster enablers, allowing maritime firms to benefit from the technological externalities of agglomeration (e.g. better access to strategic information via knowledge sharing, risk sharing, lower transaction costs, scale economies, etc.) and proximity effects (pre-emptive access to knowledge, specialised technical, legal and organizational skills, human and financial resources and strategic technologies; knowledge spillovers and localized collective learning effects; physical infrastructures, access to new markets, etc.). Due to the increasingly demanding international contexts where European maritime clusters evolve and their high exposure to tradable sectors, we also emphasise the important role played by the market (access, strategic positioning, etc.).' (Monteiro *et al*, 2013)

This analysis is important seen in the theoretical context of Porters 'Sectoral Diamond' and the major drivers of clusters, particularly in the maritime context. It seems that skills development, innovation together with research and development, and generally the importance of sciences based education seem to come to the fore rather convincingly.

"Functioning at the centre of the model above are maritime clusters, understood as integrated ecosystems where innovation-dependent highly specialized producers and capable locally-based specialized suppliers of goods and services, educational and research institutions, financial institutions and other private and government bodies, related through solid forward and backward linkages, evolve in competitive and demanding contexts, which increase the importance of science-based clustering and favours the creation of a fertile environment much suitable for the promotion of excellence RDI networks, as well as strong interdependence relations not only with other sectors of economic activity, but also with other international maritime clusters, thereby improving the structural conditions and the competitiveness factors either of the sea related sectors and of the nations/regions involved.'" (Monteiro *et al*, 2013)

To conclude, this analysis has presented a set of critical factors and determinants which may embody the proposal of a differentiation framework for the case of European maritime clusters: not all of them must be present at the same time in a particular cluster, but they all are positive structural dimensions towards the creation, resilience and sustainable competitiveness of successful maritime clusters. It is not certain that these will apply to African Maritime Clusters, but we believe that the theory is relevant.

17.4 Maritime Clusters: An Integrated Approach to Managing Ocean Space (Myles)

A more recent study on clusters specifically analyses a broad range of maritime clusters in an international context and highlights various characteristics, trends and success factors that can be discerned. At the outset the author, Peter Myles clearly states that there is 'no one size fits all' model, and that each cluster is defined by its own set of characteristics, often related to its geographical position and relationship with its suppliers, competitors and clients.

The Tournet Africa website describes the book and its content as follows:

'Over the last decade the concept of *clustering* has become a central idea for analyzing the competitiveness of nations, industries and firms. This book shows how the cluster concept can be usefully applied to the study of maritime activities.

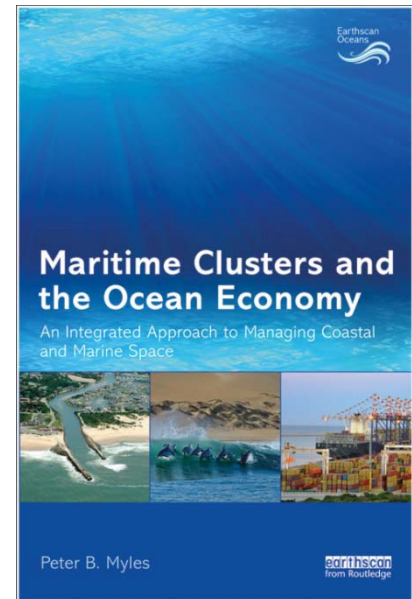
Such activities, including shipping, shipbuilding and port and maritime services, are clearly geographically concentrated in a number of maritime clusters. However, as the author shows, these are having to compete with other uses of the coasts and oceans including capture fisheries, marine aquaculture, offshore energy and tourism.

Sound governance and planning is therefore required to manage the competing claims for ocean space. The book shows how competing industries and other stakeholders can cooperate and benefit from an integrated approach to the development of maritime clusters.

The contribution of approaches such as integrated coastal zone management and innovations such as ocean business councils, as well as coordinated networks of maritime clusters are reviewed. Case studies are included from around the world, including detailed examples of the development of the Nelson Mandela Bay Maritime Cluster in South Africa and from Poland in the Baltic Sea.' (Website: <https://www.tournetafrica.com/> Accessed on 29.01.19)

An underlying theme of the book is that competitiveness between collaborating industries is enhanced, even if they are competing with one another, as this collaboration stimulates innovation, skill development and transfer, and the development of integrated value chains through the maritime sector. The formation and management of maritime clusters is also analysed with the two main operating regimes being either a 'Top Down' management structure which is typically created and managed by government structures, or a 'Bottom Up' management structure which is private sector orientated and typically driven by leader firms or sector organisations. The merits and distinction between each operating approach is analysed and recommendations formulated. This approach has been summarized in the following paragraph in the preface to the book:

'A cluster is defined as a geographic concentration of inter-connected companies and institutions working in a common industry. The maritime industry is ideally suited to the development of maritime clusters. Maritime cluster organizations represent almost every traditional maritime sector although in practice this does not always seem the



case. Some maritime sector organizations answer to a broader definition of maritime sectors, such as Navy and coastguard, inland navigation and maritime works. The fisheries sector, marine tourism and coastal recreation sectors, are sometimes represented by the national cluster organizations although less frequent than the traditional maritime sectors. There are different approaches to developing maritime clusters. This initiative can be taken top-down resulting in government induced organizations or induced by leader firms and/or sector associations (bottom-up). The common objective with both approaches should include a strong focus on competitiveness. Opportunities to increase competitiveness come not from a single asset or an investment, but from the combination of people, place, investment, and attitude. In the final analysis clusters are not constrained by rigid structures, rules and regulations. Successful clusters are driven by passion and commitment.’ (Myles P, 2017. Preface)

A cluster is defined as ‘a population of geographically concentrated and mutually related business units, associations and public (private) organizations centred around a distinctive economic specialization’ (Myles P, 2017). The concept of the ‘Blue Economy’ is explored in some detail and the concept of ‘Cluster Collaboration’ is investigated to see how transnational and international cooperation between countries and marine clusters can be used to achieve sustainable marine solutions as required with the ‘Blue Economy’ concept.

The European Network of Maritime Clusters (ENMC) is analysed in some detail and it is seen as a dynamic platform for the interaction of peers in communities for accessing structured maritime cluster information and using this to become more efficient. A web platform has been established which ‘provides online quality information and networking support for clusters (organizations and members) aiming to improve their performance and increase their competitiveness through the stimulation of trans-national and international cooperation.’ (Myles, 2017). Specific functions of the ENMC are depicted hereafter:

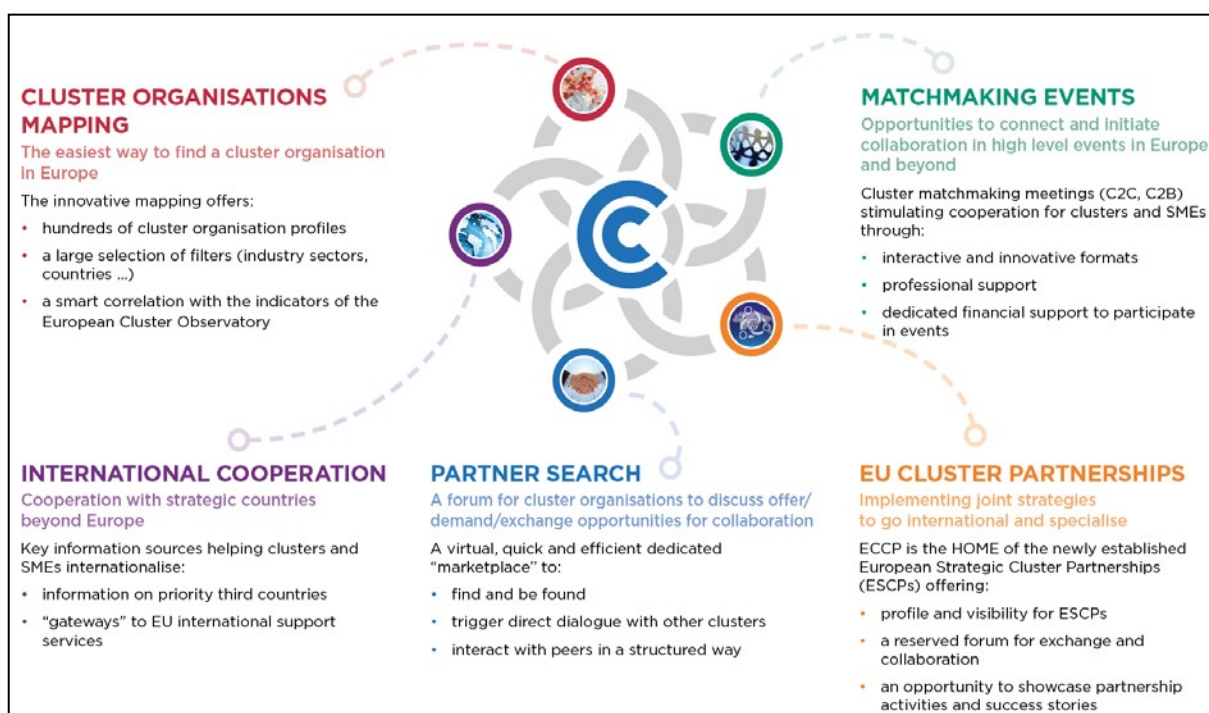


Figure 10: The European Cluster Collaboration Platform

Source: ENMC website, accessed on 5 May 2019. www.clustercollaboration.eu

Maritime cluster organisations are analysed in the ENMC framework and their primary goal is seen as enhancing the strength of their individual or member maritime clusters, with the provision of clear solutions for cluster-issues such as labour market and innovation being central to increasing overall competitiveness of the total cluster.

In the chapter on 'Constructing a Local Maritime Cluster' the author states that building a cluster generally starts by selecting a cluster core, 'A cluster core should be relatively primary, in the sense that its location does not depend strongly on the presence of other economic activities. Furthermore, a core should consist of a spatial concentration of similar activities. Many firms in the same industry, a relatively large share of an industry in the regional product and a relatively high level of exports are indicators of spatial concentration.' (Myles, 2017)

The major points which are highlighted are:

- The cluster core should be a primary activity,
- There should be strong linkages between related organisations,
- The cluster region should be delimited, or reasonably concentrated, even if they have regional or international linkages,
- The cluster population is relatively well defined,

International experience show that with the clusters the following benefits accrue:-

- Levels of business formation are higher, with suppliers in close proximity,
- The likelihood and cost of failure is therefore reduced,
- Companies and research institutions can achieve higher levels of innovation, and
- Knowledge transfer and interaction with customers creates pressure to innovate which creates an environment which encourages experimentation.

Reference is made to a New Zealand based consulting company called Cluster Navigators Ltd. which has an eight step process for building a cluster as follows:

Step 1: Analyse Local Economy

Identify the embryonic and the more developed local clusters and prioritise which ones to initially concentrate on.

Step 2: Initial Cluster Stock-take

Gather information about the cluster in the local economy.

Step 3: Establish the Leadership Team

Carefully choose the appropriate people to participate in the leadership group.

Step 4: Develop Cluster Vision

Establish the preferred future for the cluster.

Step 5: Identify Stepping Stones

Identify the key steps to the preferred future.

Step 6: Immediate Action Agenda

Highlight the short-term projects.

Step 7: Institutionalise the Cluster

Set up an institution/organisation which will sustain the clustering process into the future.

Step 8: Upgrading the Strategic Agenda' (Myles, 2017)

While clusters arise through natural market forces, clustering is a deliberate process to accelerate development. Cluster Navigators Ltd have developed a cluster model and toolkit whereby the cluster development process is broken down into five broad phases, containing Twelve Steps.

This first step introduces cluster development to potential sponsors as a centre stage strategy for economic development under a 'Process Relevance' phase, as depicted in the following figure.

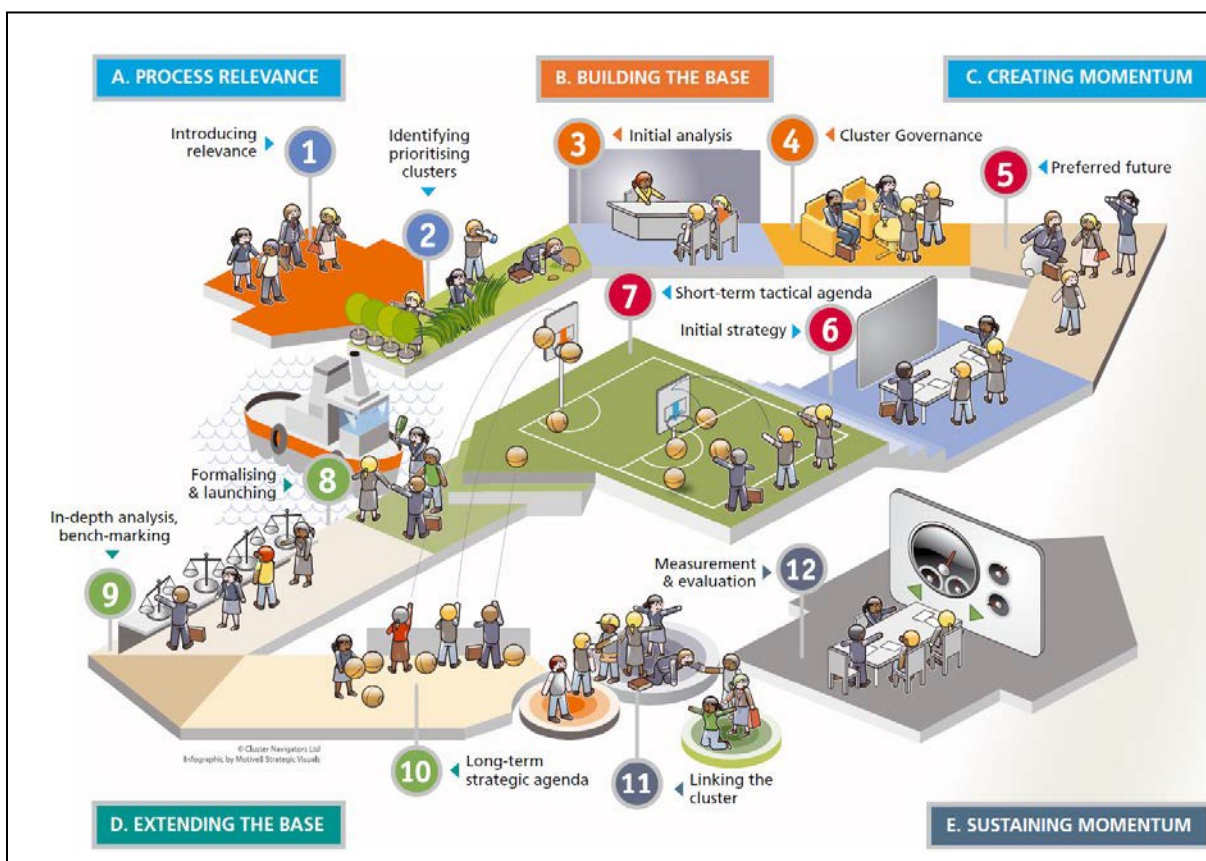


Figure 11: The Cluster Development Process: The How

Source: Cluster Navigators Ltd website, accessed on 5 May 2019. www.clusternavigators.com

The toolkit is implemented over a number of months, with each step carried out in detail and sequential, with checks and balances and stakeholder engagement throughout.

Items which are of particular relevance to the current study and will be canvassed in more detail in order to gain focus and relevance for the NMBMC are:

- Initial analysis (3),
- Cluster governance (4),
- Preferred future (5),
- Initial strategy (6),
- Short-term tactical agenda (7), and
- Formalising and launching.

A chapter is dedicated to Clusters and Stewardship, with the context being that more than half of the world's population lives within sixty kilometres of a coastline, and the increasing economic relevance and importance of tourism, and particularly coastal tourism. With a growing awareness of climate change, global warming, plastic pollution in the oceans and a decline in global wildfish stocks the issues of a global ocean stewardship approach becomes apparent. There is often also a close linkage between nature and culture, with two interacting and that healthy seascapes are often shaped by human culture.

The need to engage and support people and clusters in support of their natural and cultural heritage has been framed as follows:

'Stewardship means, simply, people taking care of the Earth. In its broadest sense, it refers to the essential role individuals and communities play in the careful management of our common natural and cultural wealth, both now and for future generations. More specifically, it can be defined as efforts to create, nurture, and enable responsibility in stakeholders and resource users to manage and protect the oceans and its natural and cultural heritage.' (Myles, 2017)

These founding principles for ocean stewardship are traversed in some detail with a number of case studies, including the annual South Africa Sardine Run and the prominent place that it has taken for tourism, ocean governance and stewardship. It is recognized that this phenomena needs to be managed and developed correctly to ensure that ecological as well as economic benefits are realized in a sustainable manner. This principle is in accordance with the emerging 'Blue Economy' and sustainable ocean usage.



17.5 ENMC and the WOC on Ocean Clusters: Leadership and Collaboration

The world depends on the ocean for trade, transport, energy, food, tourism, recreation and many other goods and services. At the same time, the ocean faces multiple challenges due to increasing pressure from human impact, e.g. plastic pollution, overfishing, ocean acidification, etc. Through the United Nations Sustainable Development Goals (SDGs) the world pledged, in SDG 14, to “Conserve and sustainably use the oceans, seas and marine resources for sustainable development”.

In a paper written by the Economic Transformation Group (ETG) on behalf of the WOC in 2018, the four concepts that are seen to underpin success for sustainable ocean and maritime clusters are seen to be:

- Leadership,
- Action,
- Cluster Environment, and
- Value Proposition.

Key recommendations for organizations working to advance the role of the business leadership and collaboration in ocean sustainable development are:

- enhance and expand the role of ocean/maritime clusters in implementing **sustainable development**
- accelerate the networking of ocean/maritime clusters for **collaborative learning** and action in support of sustainable development
- support the development of ocean/maritime clusters for **developing countries** and small island developing states. (Our italics)

Ocean and Maritime Clusters are seen as geographic concentrations of similar or related maritime firms - such as shipping, seafood, marine technology, and/or port operations - that share common markets, technologies, worker skill needs, and are often linked by buyer-supplier relationships, and operate in close interactions with one another directly, and through multiple networks. Larger companies use these networks to improve their efficiency and engage a networked economy. In some cases, Ocean and Maritime Clusters have emerged as organizational entities that aim to enhance the competitiveness and collaboration among their ocean/maritime company participants, related institutions, and other stakeholders. In addition to providing a platform for the companies in maritime sectors that are related to each other, Ocean and Maritime Clusters may link all companies and/or organizations within a specific sector.

The NMBMC is analysed as one of eleven case studies under the following framework:

Cluster	<ul style="list-style-type: none"> • Who are you? • Where are you located? • What are the origins of your cluster?
Business model	<ul style="list-style-type: none"> • How are you funded? • What is your role in the industry? • Who are your cluster members and partners?
Niche	<ul style="list-style-type: none"> • What is your main focus? • What sector do you belong to? • How do you tackle sustainability and what is your value

	proposition for sustainability?
Keys to success	<ul style="list-style-type: none"> Which factors are unique to the success of your cluster? What are your biggest accomplishments and how are they achieved?
Success indicators	<ul style="list-style-type: none"> What does success look like to you? How has progress been made over time?

Answers to these questions provided an assessment of the orientation of these eleven Ocean or Marine Cluster cases within an ocean sustainable development framework which has the following three underpinning elements:

- Innovation,
- Competitiveness-productivity-profit, and
- Environmental impact.

The Nelson Mandela Bay Maritime Cluster case study summation indicated the following:

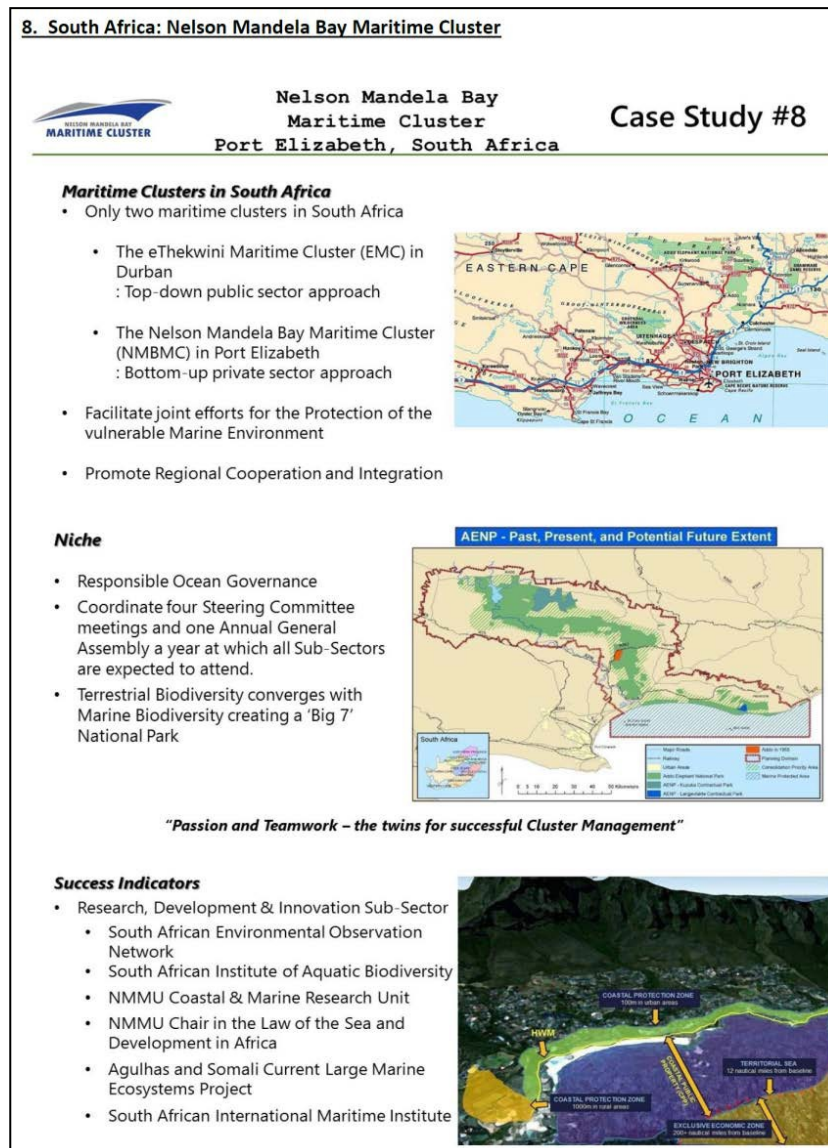


Figure 12: ENMC Case Study Summary: NMB Maritime Cluster

17.6 Social License to Operate and the Blue Economy - Australia

There is an increasing trend in business and economics to consider the long-term impacts of human activities on the environment and natural assets. Generally the 'Blue Economy' has been found to be well equipped to deal with the technical and technological challenges of managing tangible impacts of commercial activity, particularly environmental risks through research, innovation and appropriate mitigation practices.

A more challenging dimension is the less tangible social and cultural element of ocean resources exploitation which relates to values, beliefs, customs and ideologies of societies and communities. These issues often take on political dimensions as different societies may have conflicting views on marine based commercial activity and their long-term impacts.

'The Blue Economy is an ocean based economic growth model designed to ensure sustainable use of the marine environment. It includes 'traditional' offshore activities (e.g. oil and gas development, shipping, fisheries) and emerging industries such as deep sea mining and renewable energy. The social acceptability of ocean based industries, sometimes known as 'social license to operate' (SLO), will be important to securing the future potential of a Blue Economy. Whilst maintaining a SLO is a challenge that is experienced differentially across various sectors, the loss of SLO in one sector may impact the level of societal trust in the broader concept of a Blue Economy.' (Voyer *et al*, 2018)

Central to the debate is the definition of the Ocean Economy from the broad to the narrow sense, and what constitutes the 'Blue Economy' in this context. The World Ocean Council has adapted an Ocean Economy definition used by The Economist in 2015 as follows:

'While a universal definition of the Blue Economy is yet to be agreed, it is based upon the core principles of Sustainable Development. It recognises the multiple benefits of marine and coastal ecosystems for current and future generations and the need for sustainable use and development of these resources. This focus on sustainability and ocean health distinguishes the Blue Economy from the broader 'ocean economy'. The ocean economy (also sometimes called the marine economy) refers to *'that portion of the economy which relies on the ocean as an input to the production process or which, by virtue of geographic location, takes place on or under the ocean'* (Kildow and McIlgorm, 2010 p368). The ocean economy therefore includes a wide variety of sectors as outlined in Table 1 (Kildow and McIlgorm, 2010, McIlgorm, 2005, The Economist, 2015).' (Voyer *et al*, 2018)

Table 20: Sectors That Contribute to the Ocean Economy (Adapted: Economist, 2015)

Extraction of non-living resources, or resource generation	Harvesting of living resources	Commerce and trade in and around the ocean	Ecosystem protection and management
Seabed / Deep seabed mining	Fisheries	Shipping (marine transportation)	Blue Carbon
Oil and Gas	Aquaculture	Shipbuilding and repair	Surveillance and maritime security
Water (desalinization)	Marine bio-technology	Marine construction (e.g. jetties etc.)	Habitat protection/ restoration
Dredging	Recreational fishing and boating		Hazard protection
Energy/renewables (tidal/ wave energy; coastal/	Seafood processing	Port infrastructure and services	Ecological/ ecosystem research

Extraction of non-living resources, or resource generation	Harvesting of living resources	Commerce and trade in and around the ocean	Ecosystem protection and management
offshore wind)			
		Marine services (e.g. mapping, monitoring, consulting, maritime insurance, etc.)	Waste treatment and disposal
		Marine education and R&D	
		Coastal Development	
		Marine & coastal tourism	
		Defence	

Source: Voyer, M. & van Leeuwen J. (2018). Social License to Operate and the Blue Economy. Report to World Ocean Council. Australian National Centre for Ocean Resources and Security, Wollongong, Australia. Adapted from The Economist, 2015.

The Blue Economy is often seen as a subset of this broader ocean economy, which incorporates ideas that are designed to 'green' existing marine industries such as fisheries, aquaculture, shipping, ports and marine tourism. It also embraces new and emerging sustainable industries such as wind and wave power, and payment for ecosystems services like Blue Carbon.

17.6.1 The Blue Economy in Australia - 2017

This report deals with the distinction between the Blue Economy and the Ocean Economy and as a first stage divides the Blue Economy up into the following dominant themes or components for the purpose of evaluating the sub-themes and activities that reside within each component. Five overarching themes or components were identified as follows:

	Components of the Blue Economy				
	Economic growth and development	Environmental sustainability	Social considerations	Governance and institutional mechanisms	Technical capacity
Sub-themes	Blue Growth	Impact management	Food security	Coordination/integration	Innovation
	Resource utilisation/sectors/growth strategies	Climate change mitigation	Equity	Links with Sustainable Development Goals (SDGs) and other conventions	Maritime security Investment and financing
	Employment	Ecosystem protection	Inclusiveness	Marine Spatial Planning	Research and Development
	Livelihoods	Ecosystem restoration	Poverty alleviation Wellbeing	Ecosystem Based Management	Private sector engagement
	Maritime clusters	Ecosystem services	Community engagement	MPAs	
	Income diversification		Capacity development		

Figure 13: Key Themes and Sub-themes within Australian Blue Economy Literature

Source: Voyer M. et al, 2017. (Commonwealth of Australia) *The Blue Economy in Australia*.

The second phase employed an ocean economy cluster analysis in order to identify how a theme was employed in relation to other concepts or ideas, which then went on to identify

four main clusters of economic activity within the 'Blue Economy'. These are seen as being:

1. Oceans as natural capital, [Environmental protection and restoration]
2. Oceans as livelihoods, [Food security and poverty alleviation]
3. Oceans as good business, [Strategies for growth in sustainable resources] and
4. Oceans as drivers of innovation. [R & D, Investment and innovative financing]

The figure below contains a matrix that highlights how the four identified clusters interact with one another, and can be viewed in the context of the sub-themes identified in the previous table.

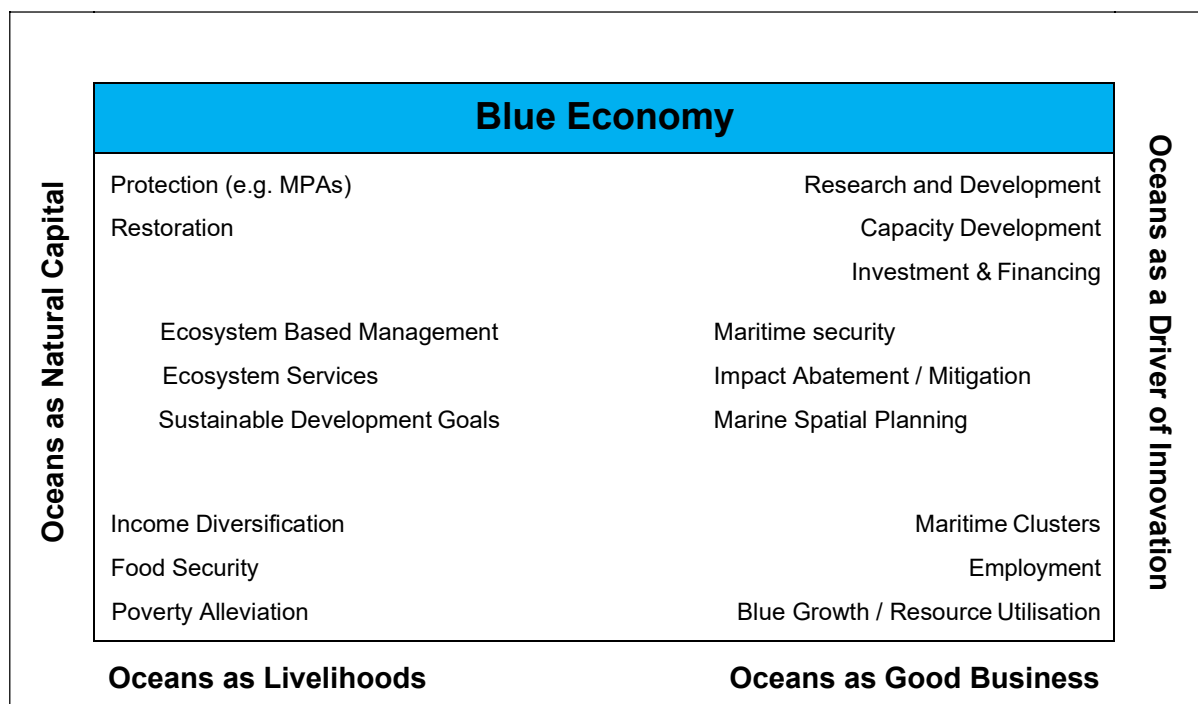


Figure 14: A Blue Economy Matrix Illustrating Related Terms and Concepts

Source: Voyer M. et al, 2017. (Commonwealth of Australia) *The Blue Economy in Australia*.

17.6.2 Practical Manifestations of the Blue Economy for Sustainability

The four main clusters in relation to the underlying Blue Economy themes provides the context in which the sustainability concept needs to be emphasised in order to preserve the ocean and its resources for future generations and specifically in terms of the Sustainable Development Goals (SDGs) as determined by the United Nations.

After the analysis was conducted of existing Blue Economy activities, a range of programs and tools were identified together with the actors and programs required in order to implement meaningful and sustainable use of ocean resources. The findings of these practical manifestations of the Blue Economy for sustainability are summarised in the following table:

Table 21: Practical Manifestations of the Blue Economy for Sustainability

	Oceans as natural capital	Oceans as livelihoods	Oceans as good business	Oceans as a driver of innovation
Primary objectives	Ecosystem protection and/ or restoration	Poverty alleviation and food security	Economic growth and employment	Technological or technical advances
Actors	Conservation agencies / NGOs	Development agencies, SIDS, Small Scale Fisheries	Industry, larger global economies (EU, OECD, China, etc.)	Academic Institutes, Industry, and Government
Sectors	Carbon intensive industries (e.g. oil and gas) excluded. Focus on economic benefits from conservation (e.g. eco-tourism and MPAs, Payment for Ecosystem Services. Blue Carbon, etc)	Primary focus on SSF/ eco-tourism with aspirations for diversification, especially aquaculture	All sectors included but primary focus on large multi-national corporations and sectors (e.g. shipping, oil and gas, renewables, etc.)	All sectors but particularly emerging industries like renewables , biotechnology, and deep sea mining
Scale	Small scale, locally based	Small scale, locally based	Global/ regional and national	Sub-national districts or provinces
Tools	MPAs, Ecosystem Based Management	Community managed fisheries/ MPAs, Marine Spatial Planning, Ecosystem Based Management	Marine Spatial Planning, economic valuation studies, targeted investment and growth strategies	Innovation hubs/ research institutes, innovation 'challenges' or competitions, investment/ financing strategies

Figure 15: Summary of the Key Findings of the Conceptual Analysis of the Blue Economy

Source: Voyer M. *et al*, 2017. (Commonwealth of Australia) *The Blue Economy in Australia*.

17.7 Maritime Sector Skills Development Study - SAMSA (2011)

The South African Maritime Safety Authority (SAMSA), is an agency of government which is pursuing a growth strategy that prioritises the development and retention of quality critical and scarce skills within the maritime sector. An evaluation and definition of the maritime sector was required in order to address skills shortages.

Deloitte was appointed by SAMSA to conduct a Maritime Industry Skills Study, which would contribute to SAMSA's informed efforts to strategically position the maritime industry as a key economic sector. The study was to conduct a review of the maritime sector in South Africa, to explore trends in supply and demand in the maritime industry, to explore policies and funding mechanisms that relate to skills development, to determine the number and types of skills available in South Africa and to determine the skills offerings and development gaps in South Africa. The study noted that the industry generally does not have current data and numbers on skills supply and demand, and that where data is available it is fragmented. (This observation applies to the current study as well.)

Based on the data emerging from their research study, the maritime sector was divided into seven clusters, representing sub-sectors of the maritime sector. The maritime sector model distinguishes between three primary and four secondary industry clusters. The three primary industry clusters include all those maritime industries that represent the economic foundation of the sector: (1) shipping and transport, which is broken down into maritime logistics infrastructure, shipping transport and ports, marine services and coastal administration; (2) marine resources, which is broken down into fisheries, pharmaceuticals and aquaculture; as well as off-shore energy and mining; and (3) marine tourism, which is broken down into boating and cruising, sports and recreation and leisure.

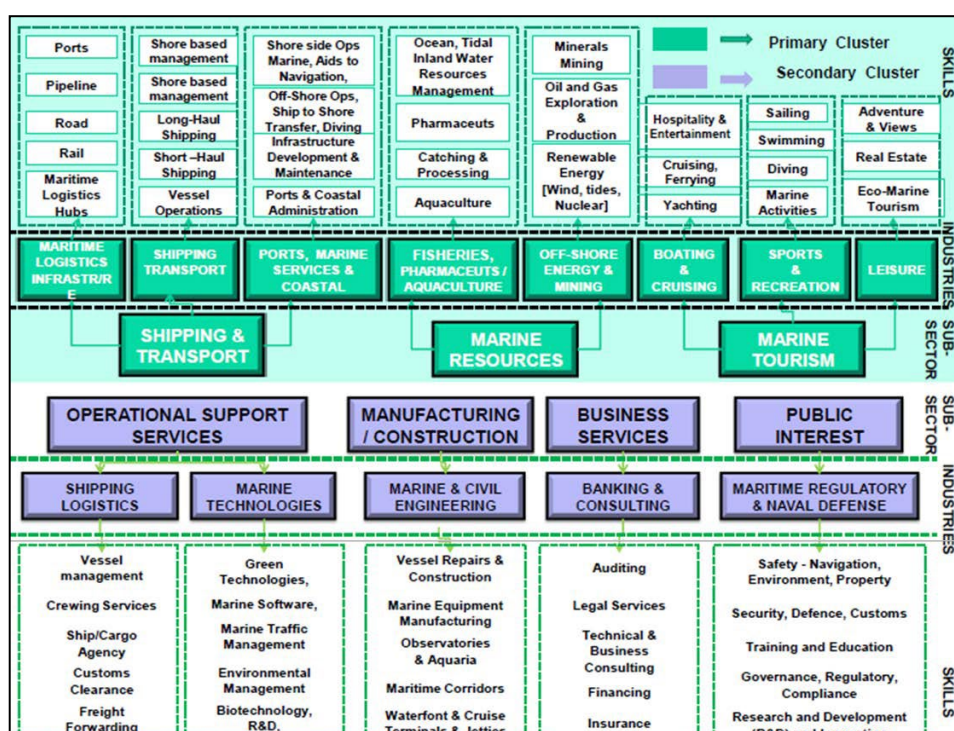


Figure 16: SAMSA / Deloitte Maritime Sector Cluster Model, 2011.

Source: SAMSA and Deloitte, 2011. *Maritime Sector Skills Development Study*.

The report states that a comprehensive skills development strategy for the maritime sector

would need to incorporate skills development requirements in all seven clusters. The three primary industries are each equally important for growth of South Africa's maritime sector. The study has revealed the need for additional research focused on each of the primary industries to better understand the skills supply and demand dynamics and accurately determine the number of skills required so as to better inform the maritime skills development strategy. It was found that for each industry the key challenge is the gap in middle-management and supervisory skills and each industry has emphasised the gap between schooling / formal training structures and what is being demanded in the workplace.

The study has analysed the social context within which the maritime sector finds itself, trends influencing maritime skills, legal and policy frameworks governing the maritime industry, funding mechanisms and collaborative partnerships, undertaken a 'SWOT' analysis and the formulated a set of conclusions and recommendations.

Once an understanding of the maritime sector footprint was provided and the Maritime Sector Skills Development Model was refined by SAMSA, a second survey was conducted with companies identified within each sector that are regarded as providing significant maritime skills and employees.

Sixteen companies were purposively sampled and contacted telephonically to ask about numbers within the company. Documentary evidence provided further insights on numbers (annual reports reviewed).

The table alongside indicates that the total employment within the South African Maritime Sector is estimated at 116,364. It is noted that this number is indicative since organisations and companies contacted were purposively sampled because of their eminence within the Sector.

Limitations exist in that there may be substantially more companies within each maritime cluster/industry that have not been included since at the time of the study there was not a database of every company within the maritime sector in South Africa.

Table 22: SAMSA / Deloitte Employment Estimate for the SA Marine Economy

Clusters & Industries	Total Employment	Companies included in the survey
Shipping	61,912	Companies Included: <ul style="list-style-type: none"> • South African Association of Shipping Operators and Agencies • National Ports Authority • Transnet Ports Terminals • Transnet Freight Rail
Marine Resources	29,442	Companies Included: <ul style="list-style-type: none"> • Food and Agriculture Organisation • Petro SA • Forest Oil • Pioneer Engineering • South African Oil and Gas Alliance
Marine Tourism	2,372	Companies Included: <ul style="list-style-type: none"> • Department of Tourism • Cruise Tourism Study • Diving Companies
Operational Logistics	1,013	Companies Included: <ul style="list-style-type: none"> • South African Association of Shipping Operators and Agencies
Manufacturing	13,700	Companies Included: <ul style="list-style-type: none"> • Cape Town Boatbuilding and Technology Initiative • Marine Technologies
Business Services	113	Companies Included: <ul style="list-style-type: none"> • Private Training Providers

Public Services	7,812	Companies Included: <ul style="list-style-type: none"> • SAMSA • Department of Transport • Petroleum Agency South Africa • Ports Regulator • South African Navy • TETA • UCT • DUT • CPUT
TOTAL EMPLOYMENT	116,364	

Source: SAMSA and Deloitte, 2011. *Maritime Sector Skills Development Study*.

17.8 The History & Role of NMBMC

The following extract has been taken directly from a website and is reproduced verbatim as a record of the NMBMC history and functioning since its establishment in 2012.

[CMR = Coastal & Marine Research, Institute for.]

1. “Historical Background

On the 15th February 2012, a consultative meeting was held at the Summerstrand Hotel to consider the feasibility of establishing a maritime cluster in Nelson Mandela Bay as the first step towards the development of a fully-fledged maritime industry. This meeting was a joint initiative of the Nelson Mandela University, Nelson Mandela Bay Business Chamber, and Nelson Mandela Bay Municipality. The historic meeting was attended by 80 local maritime stakeholders and authorities. There was unanimous support for the establishment of a local maritime cluster and since then the Nelson Mandela Maritime Cluster (NMBMC) has never looked back. The cluster continues to make progress and strives to develop into a relevant maritime cluster model for Africa.

The maritime industry, in broadest terms, includes all enterprises engaged in the business of designing, constructing, manufacturing, acquiring, operating, supplying, repairing and/or maintaining vessels, or component parts thereof: of managing and/or operating shipping lines, stevedoring and customs brokerage services, shipyards, dry docks, marine railways, marine repair shops, shipping and freight forwarding services, coastal and marine tourism, and similar enterprises.

There are six key attributes that facilitate innovation and competitiveness of the ocean economy: Building an educated and skilled workforce; becoming a leader in knowledge creation and innovation; developing linkages, clusters and networks to become a more integrated and networked local economy; fostering enterprise formation and business growth; becoming a globally focused and internationally integrated economy; and creating a business environment and infrastructure base that facilitates business success. Subsequently, the South African International Maritime Institute (SAIMI) has been established and is currently seated at NMMU. SAIMI was officially launched in 2014 at the African Maritime Domain Conference (AMD 2014) convened at the Boardwalk Conference Centre in Port Elizabeth. The conference was attended by about 300 participants including 30 AU member countries.

2. Cluster Definition

A cluster is defined as a population of geographically concentrated and mutually related business units, associations and public (private) organizations centered round a distinctive economic specialization. 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 cluster population consists of business units, associations, public-private organizations, and public organizations. Associations are defined as organizations that provide services to members'. Associations are included in the 'population', if they are 'cluster specific', i.e. if the majority of their members is included in the cluster population. Public and public-private organizations (such as education or research institutes) are included in the population if they engage in cluster specific activities. Fourthly, clusters are 'centered around' a particular *economic specialization*, that can be regarded as the 'core' of the cluster. The notion of a core is implicit in most studies on clustering. Fifthly,

clusters consist of business units and associations that are a part of, or relatively strongly related to, the core of the cluster. Such relations are in general both economical and social.

3. Remodeling the NMBMC

NMBMC is currently in the process of transforming from a voluntary association of coastal and ocean stakeholders into a legal entity with a bank account for the transfer of support funding. NMBMC will make every effort to apply for external sources of funding earmarked specifically for maritime research and development projects. Based on nearly five years of experience, NMBMC is busy with remodeling the cluster to make it more relevant and effective. The remodeling will create a two-way conduit of communications between the NMBMC, cluster partners and friends of the cluster. By way of an explanation the definition of friends of the cluster is an existing group of stakeholders, forum or conglomerate that meets regularly as an association to discuss issues of mutual interest and concern. Such a group, already established as an association in its own right, in many respects assumes the characteristics of a cluster or sub-cluster. In effect they accept the advantages and benefits of forging a mutually beneficial collaborative alliance with NMBMC.

The intention of NMBMC is not to duplicate or replicate the work of cluster partners and friends but rather to seek ways and means of strengthening the mutually beneficial cooperative alliance. Preferably NMBMC partners and friends should represent their subscribing or associated members. An institution of higher learning as a cluster partner would logically represent all those units within the institution that have either a direct or indirect association with the ocean economy and maritime sector.

The core function and role of NMBMC will therefore focus on the following areas:

- Coordinating four scheduled NMB Maritime Cluster committee meetings a year;
- Assisting with the implementation of Operation Phakisa in the Eastern Cape Province by involving the participation of the ocean business community;
- Supporting an annual or bi-annual maritime summit and exhibition in the Eastern Cape Province;
- Investigating cluster-to-cluster and business-to-business matchmaking events and opportunities for collaboration within Africa and internationally;
- Assisting with the establishment of a Regional Ocean Council (ROC) in Africa affiliated to the World Ocean Council (WOC);
- Motivating for funds and resources to compile a maritime directory of all maritime and marine related firms (small and large) located in Nelson Mandela Bay i.e. manufacturing, service providers, suppliers, boat building and construction, etc;
- Assisting with the development of maritime clusters in the Eastern Cape Province;
- Facilitating the development of maritime clusters in Africa leading to a collaborative alliance of maritime clusters connecting the port cities of Africa with the small island developing states of Africa over a period of time.

4. The Ocean Business Community

The ocean business community includes all enterprises engaged in the business of designing, constructing, manufacturing, acquiring, operating, supplying, repairing and/or maintaining vessels, or component parts thereof, as well as managing and/or operating shipping lines, stevedoring and customs brokerage services, shipyards, dry docks, marine railways, marine repair shops, shipping and freight forwarding services. They also include coastal and marine tourism role players, academic and scientific institutions, the fishing industry, as well as other relevant organs of State and civil society structures.

The main purpose of the cluster is to improve synergies between the myriad of interlocking role players in order to maximize the developmental impact of coastal and ocean activities while identifying and contributing to the resolution of conflicts of interest in a transparent, responsive and consultative manner e.g. to minimize the potential conflicts of interest in the Algoa Bay maritime domain (ocean space) under the jurisdiction of the responsible authorities. This will require marine spatial planning (MSP) of which a framework for South Africa is currently work in progress with assistance from GIZ. NMBMC will fully support the public participation process.

5. Cluster Matchmaking

NMBMC has been accepted as a member of the European Cluster Collaboration Platform (ECCP) which allows for non-European membership. ECCP organizes European cluster matchmaking events in European countries with the aim to foster cooperation between clusters from across Europe and beyond. These matchmaking opportunities provide an excellent opportunity for NMBMC to connect with European maritime clusters mainly to dialogue on cluster-to-cluster and business-to-business opportunities for collaboration. Cluster matchmaking events offer a unique opportunity for NMBMC to explore possible common areas of interest for cooperation and complementarities in terms of sectoral, value chain, and market focus for maritime SMEs with a large panel of European and international clusters. The purpose of matchmaking is to develop cluster collaborations and thus creating greater possibilities for maritime SMEs and companies to grow through opportunities such as access to new markets or to new products and services.

NMBMC has declared 2017 the Year of Ocean Business as the Port Elizabeth based local maritime cluster explores opportunities to develop ocean business within the IORA maritime domain and also by forging mutually beneficial cooperative alliances with maritime clusters in other parts of the world. NMBMC will continue to negotiate with the Indian Ocean Rim Association (IORA) to convene an ocean business convention. The Indian Ocean is a huge maritime domain and it would make sense to convene a pilot project in the Western Indian Ocean (WIO) maritime domain before extending the concept of a maritime cluster alliance to other regions within the IORA ocean space. It is estimated that some 60 million people in the WIO islands and Eastern African coastal communities rely on the coastal environment for goods and services. Coastal and island communities are largely dependent on fishing, shipping and tourism for their livelihoods. A number of previous initiatives in the WIO region, that either failed or lost support, were driven by public sector authorities without sufficient interest and involvement by business. The main role of the public sector authorities is to create the enabling environment in which the private sector can flourish. This requires participation and involvement in joint decision making.

Matchmaking events are considered to be one of the most cost effective methods of making new business contacts and networking. The mission of matchmaking events is to connect small business with government and large businesses. In 2012, according to Cluster Collaborators, some 75,000 face-to-face appointments organised at matchmaking events resulted in US\$6 – US\$7 billion dollars in contracts. Matchmaking events are specific events organised with the purpose of meeting possible business partners in a sequence of short arranged meetings, enabling the participants to introduce themselves and look for possible areas of cooperation. Partnerships and investment opportunities can also connect researchers and academics with business partners and with universities from around the world.

6. Towards an Alliance of Maritime Clusters in Africa

There is growing evidence to support a business case for unlocking the ocean business and investment potential of Africa via an alliance of maritime clusters. Developing collaborative business opportunities between coastal and ocean stakeholders requires the development of triple helix partnerships. The African Union incorporates 54 member states of which 37 states are coastal countries. There are virtually no maritime clusters in Africa and hence most inter-governmental collaboration is based on political decisions and not sound business decisions. There is a huge window of opportunity to develop maritime clusters in Africa. An Alliance of Maritime Clusters in Africa could be the vehicle for connecting emerging maritime clusters in Africa with an alliance of maritime clusters in the developed countries such as the Blue Tech Cluster Alliance which represents maritime clusters in eight countries around the world. To develop maritime clusters in Africa requires capacity-building training programs incorporating cluster facilitation and business skills development in the port cities and small island developing states (SIDS) of Africa. The only barrier to the implementation of maritime cluster development in Africa is support funding for the implementation of capacity-building training programs. Training material has already been developed and these programs could easily be customized for port cities and small island developing states in Africa.

7. Looking to the Future

NMBMC has adopted the Quadruple Helix Innovation Cluster Model which adds a fourth helix to the Eurocentric Triple Helix Model i.e. civil society which includes local communities. According to the Quadruple Helix Innovation Theory (QHIT), a country's economic structure lies on four pillars/helices: Academia; Firms, Government and Civil Society and economic growth is generated by the clustering and concentration of talented and productive people. Creative cities and knowledge regions are thus considered the true engines of economic growth. Academia and Firms, together with Technological Infrastructures of Innovation, provide the integrated innovation ecosystem where all forms of creativity can rise. In turn, Governments provide the financial support and the regulation system for the definition and implementation of innovation activities. NMBMC looks forward to supporting the NMU Ocean Sciences Campus and will in future arrange all its committee meetings and workshops at the campus to create even greater opportunities for collaboration between the ocean business community, government authorities, ocean sciences, and civil society.

Peter Myles

Chair: Nelson Mandela Bay Maritime Cluster

14th September 2017"

(Website accessed on 29.01.19.

[https://oceansciences.mandela.ac.za/Engagement/Mandela-University-CMR-History-Role-of-NMBMC\)](https://oceansciences.mandela.ac.za/Engagement/Mandela-University-CMR-History-Role-of-NMBMC)

17.9 The Port Elizabeth (NMB) Declaration – 2013



We, representatives of the maritime industry who attended the inaugural Eastern Cape Ports & Maritime Conference, convened in the City of Port Elizabeth, Nelson Mandela Bay, South Africa on 30th May 2013, having come together to deliberate on key issues impacting on the maritime sector have agreed this declaration;

Recognizing that the maritime industry, in broadest terms, includes all enterprises engaged in the business of designing, constructing, manufacturing, acquiring, operating, supplying, repairing and/or maintaining vessels, or component parts thereof: of managing and/or operating shipping lines, stevedoring and customs brokerage services, shipyards, dry docks, marine railways, marine repair shops, shipping and freight forwarding services, coastal and marine tourism, and similar enterprises;

Recognizing that clusters promote the fullest development of the potential of the maritime sector, with their emphasis on cross-industry linkages and complementarities;

Acknowledging that in less than half a decade cluster development has become a common factor for economic development agencies in over forty countries around the world hence '*Clusters are the building blocks of a productive, innovative economy*';

Recognizing that maritime clusters can maximize competitive advantages especially when there is strong interrelationship between port development and maritime cluster development;

Mindful of the Mombasa Declaration agreed at the inaugural meeting of the Heads of Africa Maritime Administrations and Ship Registrars held in Mombasa, Kenya in October 2012, we do hereby support the resolution taken to encourage and promote the establishment of multi-stakeholder maritime development clusters at National, Regional and Continental levels, aimed at coordination and fostering a competitive and effective African maritime development program;

Acknowledge the European Network of Maritime Clusters and strive to develop an inter-continental relationship with the ENMC as and when the African Network of Maritime Clusters has been established;

Conscious of the need to establish and strengthen cooperation in order to coordinate efforts to harmonize shipping, ports and inland waterways policies, regulations and procedures in intra-Africa relations, accept that international inter-cluster collaboration offers access to new, complementary knowledge, new collaboration partners and new markets;

Recalling the Decision of the 15th Ordinary Session of the Assembly held in Kampala, Uganda in July 2010 in which the Assembly lent its support to the efforts being made

towards the early development and adoption of the 2050 Africa's Integrated Maritime Strategy (2050 AIM-Strategy);

Recognizing that opportunities to increase competitiveness come not from a single asset or an investment, but from the combination of people, place, investment and attitude;

Supporting the International Maritime Organization (IMO) objectives for safe, secure and efficient shipping on clean oceans;

Supporting the Paris Declaration of 10th February 2012 at which Mediterranean countries and the European Union called for the adoption of a strategic policy framework supporting a "blue" economy, a version of the Green Economy that is applied to seas and oceans;

Recognizing that the call for the "blue" economy is underlined by the fact that the world's marine ecosystems provide essential food and livelihoods to millions of people and **acknowledging** that a switch to the more sustainable Green Economy model could unlock the vast potential of the marine-based economy while at the same time significantly reduce ocean degradation while alleviating poverty;

Accepting that UNEP defines the Green Economy as one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities (*UNEP Green Economy in a Blue World, 2012*);

Recognizing that the time has come to rethink how the oceans should be managed because they are a key pillar for many countries of their economic and social development, and are vital in the fight against poverty;

Concerned that too many of these essential natural resources are being degraded by unsustainable use, putting the ecosystems services they provide, such as food security and climate regulations for instance, at risk;

Concerned by the increasing risks to sustainable development associated with Africa's maritime domain threats and vulnerabilities to include: illegal, unreported and unregulated fishing, dumping of all sorts of marine pollutants, arms and drugs trafficking, human trafficking, illegal oil bunkering, piracy and armed robbery at sea, etc;

Recognizing the importance of inter-agency and cross-border cooperation in the development and implementation of maritime policies, particularly in the areas of safety, security, protection of the marine environment and maritime labour;

Conscious of the interdependence between Africa's economic development and sustainable policies for the exploitation, protection and preservation of Africa's marine environment;

Conscious also of the need for enhancement of wealth creation from Africa's maritime domain and take full advantage of the wealth of opportunities laying there for Africa's socio-economic development.

Recognizing that the development of an integrated approach to maritime affairs, consistent with other sectoral policies, contributes to the enhancement of Africa's capacity to maximize the sustainable use of the oceans, seas and coasts, while at the same time ensuring safety of people and the health of oceans and seas;

Stressing the importance of promoting dialogue, enhanced cooperation and exchange of best practices on maritime affairs at regional and international level; **Recalling** that all activities in the oceans and seas, including those undertaken in the framework of the IMP,

should be carried out in line with the legal framework set out by the United Nations Convention on the Law of the Sea (UNCLOS) and other relevant existing international conventions.

A DYNAMIC MARINE AND MARITIME AGENDA FOR GROWTH AND JOBS

Affirm that Africa's seas and oceans offer unexplored areas for innovation, sustainable growth and employment;

Stress that the 2050 Africa's Integrated Maritime Strategy (2050 AIM-Strategy) should be backed by a dynamic agenda for seas and oceans that supports the growth, competitiveness and job-creating potential towards a sustainable blue economy;

Call on African Institutions to support sustainable development of marine and maritime activities within the framework of a Cohesion Policy, without prejudice to the outcome of the ongoing negotiations;

Taking into account the above, confirm and work towards shared goals for an African Marine and Maritime Agenda, notably to:

Enhance the competitiveness of the African shipping sector, and increase the share of short sea shipping in intra-African trade, while developing the African ports infrastructures and services;

Maximize opportunities for innovation in the African shipbuilding and marine equipment industry in order to improve the environmental performance of ships, diversify into emerging sectors and exploit the increasing demand for recreational crafts;

Supporting the development of a highly diversified and sustainable coastal and maritime tourism in Africa, including maritime and coastal heritage, nautical, cruise and leisure activities, by addressing the issues of competitiveness, seasonality, product diversification, connectivity, improved infrastructure and skills;

THE BLUE ECONOMY FOR SMART, SUSTAINABLE AND INCLUSIVE GROWTH

We reaffirm that growth can be boosted by coherent and effective public policy that sets out the conditions necessary for the full development of the blue economy. It should reduce administrative and regulatory burdens and remove bottlenecks for innovation and investment. We therefore call for involved parties to:

Enhance innovation and marine and maritime research to ensure targeted and cross-cutting research aiming at realizing the high growth potential of the blue economy;

Stress the importance of improved maritime governance including increased cooperation, at the appropriate level, among the competent authorities performing functions ensuring cleaner, safer and more secure seas and oceans;

Implement suitable management, prevention and adaptation practices, in order to enhance the resilience of coastal areas, marine ecosystems and maritime activities, **to the impacts of climate change**;

Enhance marine and maritime careers and their attractiveness by bridging the gap between education, science and industry, ensuring relevant training, and promoting a safety culture and appropriate labour mobility;

Ensure that local communities, the workforce in peripheral regions of Africa and civil society, are **participating in and benefit from the development of innovative activities** especially through African maritime clusters and cooperation with social partners;

Enhance sectoral and cross-sectoral cooperation, exchange best practices and promote dialogue at international, national and regional level, between maritime clusters;

Accept that developing and establishing an African Network of Maritime Clusters (ANMC) over a period of time will require capacity building and to this end develop an intensive maritime cluster short learning program (SLP) to be offered at a Maritime Institute dedicated to serving African maritime nations.

We therefore resolve to **strengthen and sustain** inter-cluster collaboration in addressing maritime challenges and opportunities at all levels as well as enhanced cross-border and sub-regional cooperation.

Further:

We endorse the proposal to develop and establish an African Network of Maritime Clusters.

30th May 2013

17.10 NMB Maritime Members and Friends

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Explanatory Note:

NMBMC welcomes established conglomerates of like-minded associates with a direct or indirect interest in the ocean economy. Partners can be either a formal, semi-formal or informal entity. NMBMC is not a membership-based structure whereby members pay an annual subscription. NMBMC is a partnership-based structure but has created a friends-of-the-cluster category. However, friends of the cluster are welcome to apply to become a partner. The benefits of partnerships are derived from participating in NMBMC activities such as cluster-to-cluster trade missions, business-to-business matchmaking events, maritime conferences, exhibitions and events. These opportunities will only be offered to partners.


The invitation to friends is based on improving communications, cooperation and collaboration. NMBMC does not wish to duplicate or replace any established group of associates but rather would hope to strengthen each partnership by providing assistance, advice, advocacy, lobbying, strategic intervention or sourcing of funds for coastal and marine research and also maritime related projects. The identified friends will receive invitations to attend NMBMC partnership meetings for the sharing of knowledge, information and experiences. It is hoped that each cluster partner or friend will nominate and send one or more representatives to the quarterly partnership meetings and will also participate in the annual NMB Maritime Summit.

Acronyms:

CDC	Coega Development Corporation
CMR	Institute for Coastal & Marine Research
BCMC	Buffalo City Maritime Cluster

DOT	Department of Transport
DAFF	Department of Agriculture, Forestry and Fisheries
DEA	Department of Environmental Affairs (National)
DEDEAT	Department of Economic Development, Environmental Affairs & Tourism (Provincial)
ECDC	Eastern Cape Development Corporation
ECSECC	Eastern Cape Socio Economic Consultative Council
NDT	National Department of Tourism
ECPTA	Eastern Cape Parks & Tourism Agency
NMBT	Nelson Mandela Bay Tourism
NMBMC	Nelson Mandela Bay Maritime Cluster
NMBBC	Nelson Mandela Bay Business Chamber
NMU	Nelson Mandela University
NSRI	National Sea Rescue Institute
NAFCOC	National African Chamber of Commerce & Industry
PEMBBA	Port Elizabeth Metropolitan Bed & Breakfast Association
PMAESA	Port Management Association of Eastern & Southern Africa
SAAFF	South African Association of Freight Forwarders
SAASOA	South African Association of Ship Operators & Agents
SAEON	South African Environmental Observation Network
SAMSA	South African Maritime Safety Authority
SANP	South African National Parks
SANBI	South African National Biodiversity Institute
SAIMI	South African International Maritime Institute
SAMPA	South African Maritime Professionals Association
SAOGA	South African Oil & Gas Alliance
TNPA	Transnet National Ports Authority
WESSA	Wildlife & Environmental Society of South Africa

17.11 NMBMC Indicative Operating Budget – Source & Application of Funds

Client Name:		SAIMI																
Project Name:		NMBMC																
Capital & Operating Costs Budget		6/4/2019 16:59																
6/4/2019 16:59		Project	1	2	3	4	5	6	7	8	9	10	11	12	Dec-20	Dec-21	Dec-22	
APPLICATION OF FUNDS		Totals	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Year 1	Year 2	Year 3	
Salaries & Retainers																		
- Project Director / Chairperson		1,505,772	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	480,000	501,600	524,172	
- Financial Director		859,329										30,000	30,000	30,000	90,000	376,200	393,129	
- Marketing Manager		791,108							25,000	25,000	25,000	25,000	25,000	25,000	150,000	313,500	327,608	
- Bookkeeping - Mgmt Accounts		427,732			12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	120,000	150,480	157,252	
- Directors Cost Recovery		376,443			30,000			30,000			30,000			30,000	120,000	125,400	131,043	
- Secreterial Fees (SLA's)		891,108			25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	250,000	313,500	327,608	
Salaries & Retainers		4,851,491	40,000	40,000	107,000	77,000	77,000	107,000	102,000	102,000	132,000	132,000	132,000	162,000	1,210,000	1,780,680	1,860,811	
Operating Expenses		7,855,466	9,500	23,800	11,900	18,233	102,633	170,333	24,933	106,533	265,933	120,533	174,033	256,233	1,284,599	3,213,147	3,357,720	
Operating Costs - Totals		12,706,956	49,500	63,800	118,900	95,233	179,633	277,333	126,933	208,533	397,933	252,533	306,033	418,233	2,494,599	4,993,827	5,218,531	
Capital Expenditure / Other:		4,440,000	-	-	-	1,800,000	-	-	-	-	-	-	-	-	1,800,000	1,200,000	1,440,000	
Operating Costs & Capex: Totals		17,146,956	49,500	63,800	118,900	1,895,233	179,633	277,333	126,933	208,533	397,933	252,533	306,033	418,233	4,294,599	6,193,827	6,658,531	
Project Costs:																		
Maritime Collaboration / Matchmak ing		712,500	-	-	-	-	-	-	-	-	-	150,000	-	-	150,000	225,000	337,500	
Information Portal: Reports, Data etc.		1,662,500	-	-	-	100,000	250,000	-	-	-	-	-	-	-	350,000	525,000	787,500	
Value Chain Analysis		1,900,000	-	-	-	-	-	-	400,000	-	-	-	-	-	400,000	600,000	900,000	
Investigate Coast & Marine Tourism		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
National Collaboration (SAMSA etc.)		1,900,000	-	-	-	-	-	-	-	-	-	-	400,000	-	400,000	600,000	900,000	
Ocean Governance Support		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ocean Energy Potential - Oil & Gas		1,187,500	-	-	-	-	-	250,000	-	-	-	-	-	-	250,000	375,000	562,500	
Enterprise Development - SMME		2,500,000	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000,000	1,500,000	
Training & Skills Development		2,375,000	-	-	100,000	-	100,000	-	100,000	-	100,000	-	100,000	-	500,000	750,000	1,125,000	
Maritime Industry Promotion		2,375,000	-	-	-	-	-	-	-	-	-	-	-	500,000	500,000	750,000	1,125,000	
Maritime Manufacturing		1,900,000	-	-	-	-	-	-	-	-	400,000	-	-	-	400,000	600,000	900,000	
Other & Ancillary		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other & Ancillary		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Project Expenditure - Sub Total		16,512,500	-	-	100,000	100,000	350,000	250,000	500,000	-	500,000	150,000	500,000	500,000	2,950,000	5,425,000	8,137,500	
Total Costs Per Period		33,659,456	49,500	63,800	218,900	1,995,233	529,633	527,333	626,933	208,533	897,933	402,533	806,033	918,233	7,244,599	11,618,827	14,796,031	
Cumulative Costs - Project Life		33,659,456	49,500	113,300	332,200	2,327,433	2,857,066	3,384,400	4,011,333	4,219,866	5,117,799	5,520,333	6,326,366	7,244,599	7,244,599	18,863,426	33,659,456	
SOURCE OF FUNDS		Totals													Year 1	Year 2	Year 3	
Cash / Equity (Project Sponsor)		11,000,000	2,000,000												2,000,000	4,000,000	5,000,000	
Cash / Equity (Partners)		13,000,000	2,000,000												2,000,000	5,000,000	6,000,000	
Loans / Debt		1,000	1,000												1,000			
Subscription Revenue		6,000,000																
Grants / Donations Received		5,000,000	2,000,000		1,000,000		2,000,000						5,000,000		4,000,000			
Promoters Sweat Equity		-													-			
Funds For Period		35,001,000	2,001,000	2,000,000	-	1,000,000	-	2,000,000	-	-	2,000,000	-	-	-	9,001,000	11,000,000	15,000,000	
Cumulative Funds Secured			2,001,000	4,001,000	4,001,000	5,001,000	5,001,000	7,001,000	7,001,000	7,001,000	9,001,000	9,001,000	9,001,000	9,001,000	9,001,000	20,001,000	35,001,000	
Cash as Bank - Surplus / (Deficit)		1,341,544	1,951,500	3,887,700	3,668,800	2,673,567	2,143,934	3,616,600	2,989,667	2,781,134	3,883,201	3,480,667	2,674,634	1,756,401	1,756,401	(618,827)	203,969	
Inflation Rate Used:		4.5%													-			
CASHFLOW:																		
Source of Funds:			2,001,000	2,000,000	-	1,000,000	-	2,000,000	-	-	2,000,000	-	-	-	9,001,000	11,000,000	15,000,000	
Aplication of Funds:			49,500	63,800	218,900	1,995,233	529,633	527,333	626,933	208,533	897,933	402,533	806,033	918,233	7,244,599	11,618,827	14,796,031	
Net Cash Flow:			1,951,500	1,936,200	(218,900)	(995,233)	(529,633)	1,472,667	(626,933)	(208,533)	1,102,067	(402,533)	(806,033)	(918,233)	1,756,401	(618,827)	203,969	
Closing Bank Balance:			1,951,500	3,887,700	3,668,800	2,673,567	2,143,934	3,616,600	2,989,667	2,781,134	3,883,201	3,480,667	2,674,634	1,756,401	1,756,401	1,137,574	1,341,544	

Major Assumptions:															
1. Operational Structure and Entity:- The NMBMC will operate as a Non-Profit Organisation (NPO), and raise adequate project funding from a donor or sponsor organisation. The NPO will manage its affairs in a manner that it does not go into Overdraft or require emergency funding.		2. Operational Expenditure:- Operational expenditure shall be incurred in accordance with an agreed to staff organogram and salary scales, SLAs or external services will be sourced via the NPO 'Procurement Policy', and capital expenditure shall also be so procured.				3. Projects and Programs:- Programs and projects will be agreed by the Project Leader or Chairperson, in consultation with the Sponsor and Advisory or Steering Team. External experts or consultants will be engaged through the NPO procurement process.				4 Budget and Expenditure allocations:- - Salaries & Retainers:- Max of 20% of budget, - Operating Expenses:- Max of 25% of Budget, this includes all travel arrangements, - Capital Expenditure:- Not to exceed 15% of budget, - Project Expenditure:- Always to exceed 50% of the budget. - Bank account:- To always hold R 1 million in cash, advance planning to ensure this.					
Travel Budget Assumptions															
Travel Units Per Month:-		Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Year 1	
Local Flights						4	4		4	6	4	4	4	30	
Local Car Hire							2			2		2		6	
Local Hotel Nights						8	8		8	8	8	8	8	56	
Local Per Diem Rates (S & T)						4	8		8	8	8	8	8	52	
International Flights (Long Haul)						3	2		2	4	4	4	4	23	
International Flights (Short Haul)						4	4		4	6	4	4	4	30	
International Transport							4			6			4	14	
International Hotel Nights							10			21		20	21	72	
International Per Diem (S & T)							28			21		20	21	90	
Rate Per Unit & Monthly Costs:															
Rate/Unit															
Local Flights		4,500	-	-	-	-	18,000	18,000	-	18,000	27,000	18,000	18,000	18,000	135,000
Local Car Hire		750	-	-	-	-	-	1,500	-	-	1,500	-	1,500	-	4,500
Local Hotel Nights		1,000	-	-	-	-	8,000	8,000	-	8,000	8,000	8,000	8,000	8,000	56,000
Local Per Diem Rates (S & T)		350	-	-	-	-	1,400	2,800	-	2,800	2,800	2,800	2,800	2,800	18,200
International Flights (Long Haul)		18,000	-	-	-	-	54,000	36,000	-	36,000	72,000	72,000	72,000	72,000	414,000
International Flights (Short Haul)		12,000	-	-	-	-	-	48,000	-	-	72,000	-	-	48,000	168,000
International Transport		1,400	-	-	-	-	-	5,600	-	-	8,400	-	-	5,600	19,600
International Hotel Nights		2,000	-	-	-	-	-	20,000	-	-	42,000	-	40,000	42,000	144,000
International Per Diem (S & T)		500	-	-	-	-	-	14,000	-	-	10,500	-	10,000	10,500	45,000
Sub-Total; Travel and Accommodation			-	-	-	-	81,400	153,900	-	64,800	244,200	100,800	152,300	206,900	1,004,300
Travel Plans for the first year:-															
Event 1:-		Event 2:-				Event 3:-									
- Meeting or Convention attended		ENMC Annual Meeting				TMA Annual Convention									
- Purpose of meeting		Update members of progress and 'Match Making'				Networking strategy.									
- Benefit to NMBMC		Part of the ENMC and international Maritime community				Africa and IORA collaboration									
- Project Sponsor / Champion		SAIMI				Transnet									
- NMBMC delegation to attend		Mr. Myles, ABC, XYZ, I23 [Four delegates]				Mr. ABC, XYZ, I23 [Three delegates]									
- Country and Town of event		France, Paris				San Diego, California									
- Dates of event		From 10 June to 15 June 2019				From 20 August to 25 June 2019									
- Days travel required		Two days				Two days									
- Days attendance required		Seven days [7 x 4 delegates = 28 days accommodation]				Seven days [7 x 3 delegates = 21 days accommodation]									
Person motivating the trip:-		Mr ABC				Mr 123									
Board resolution athouring the trip:-		Resolution 123 of meeting on 10 February 2019.				Resolution 135 of meeting on 1 April 2019.									

17.12 An Overview of the Proposed Methodology

The work packages required in order to complete the brief as undertaken above are as follows.

17.12.1 Maritime Cluster ‘Best Practice’ – Legal and Operational

Review ‘Maritime Cluster’ best practice, to include the European Network of Maritime Clusters (ENMC), their *modus operandi*, their membership base and composition, how maritime clusters function from an institutional and legal perspective, their operational structures, administration and secretarial issues and general engagement with their members and the maritime community at large.

Generally to gain a comprehensive insight into the legal and operational structures of well-functioning maritime clusters globally.

17.12.1.1 The European Network of Maritime Clusters (ENMC)

The ENMC is a confederation of maritime clusters and equivalent organisations of various EU member states that represents and promotes the European maritime sector, the development of the European Blue Economy, and a European maritime narrative. The ENMC is a member of the World Ocean Council.

The World Ocean Council (WOC) has been working to advance global ocean business community leadership and collaboration for developing industry-driven solutions to ocean sustainable development. This includes encouraging Ocean/Maritime Clusters to focus on sustainable development and facilitating international interaction among Ocean/Maritime Clusters to address ocean sustainable development.

A more detailed exposition of the WOC work on fostering maritime clusters, with the NMBMC being an integral part of the program and having been studied in a recent case study, is attached hereafter as Appendix 0.

17.12.1.2 Port Elizabeth Declaration.

A series of ‘Port Elizabeth Declarations’ have been made over the past few years and it will need to be established what this refers to and how it is relevant.

17.12.1.3 African Network of Maritime Clusters (ANMC).

The dream as enunciated by Mr Peter Myles, the current Chairperson of the NMBMC, is to establish local maritime clusters in the maritime nations of Africa and then to link them via a network of maritime clusters i.e. African Network of Maritime Clusters (ANMC). Thereafter to link the ANMC with the European Network of Maritime Clusters (ENMC). The Nelson Mandela Bay Maritime Cluster (NMBMC) model is seen as being feasible because it is a voluntary association of coastal and ocean stakeholders and therefore does not depend on grant funding for survival.

This position statement needs to be investigated to understand the dynamics and logistical implications of achieving this.

17.12.1.4 Peter Myles: Maritime Clusters and the Ocean Economy.

Peter Myles is a renowned tourism and ocean economy consultant resident in the Port Elizabeth area of the NMB, who has written a book called ‘Maritime Clusters and the Ocean Economy: An Integrated Approach to Managing Coastal and Marine Space.’ This book will

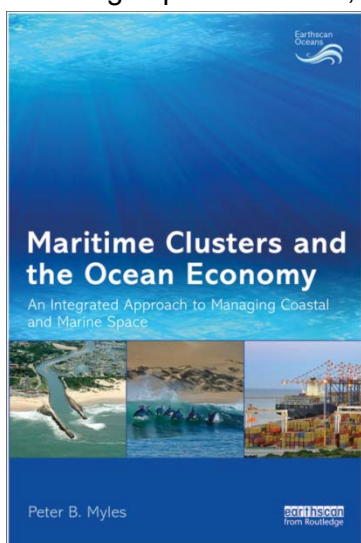
be traversed and meetings setup with Mr Myles in order to extract the relevant information and apply the lessons learned.

An extract from the Tournet website provides the following insight into the book:

‘Over the last decade the concept of clustering has become a central idea for analyzing the competitiveness of nations, industries and firms. This book shows how the cluster concept can be usefully applied to the study of maritime activities.



Such activities, including shipping, shipbuilding and port and maritime services, are clearly geographically concentrated in a number of maritime clusters. However, as the author shows, these are having to compete with other uses of the coasts and oceans including capture fisheries, marine aquaculture, offshore energy and tourism. Sound



governance and planning is therefore required to manage the competing claims for ocean space. The book shows how competing industries and other stakeholders can cooperate and benefit from an integrated approach to the development of maritime clusters.

The contribution of approaches such as integrated coastal zone management and innovations such as ocean business councils, as well as coordinated networks of maritime clusters are reviewed. Case studies are included from around the world, including detailed examples of the development of the Nelson Mandela Bay Maritime Cluster in South Africa and from Poland in the Baltic Sea.’ (Website: <https://www.tournetafrica.com/> Accessed on 29.01.19)

17.12.2 The Competiveness of Cluster’s Theory – a Maritime Perspective

A business cluster is a geographic concentration of interconnected businesses, suppliers, and associated institutions in a particular field. Clusters are considered to increase the productivity with which companies can compete, nationally and globally.

The term industry cluster, also known as a business cluster, competitive cluster, or Porterian cluster, was introduced and the term cluster popularized by Michael Porter in *The Competitive Advantage of Nations* (1990).

Please see **Appendix 2** for a more detailed exposition of **cluster theory**.

The generally accepted cluster theory for all industry and maritime industry specifically will be applied and tested against the NMBMC situation.

17.12.3 Distil a Set of Maritime Cluster ‘Best Practice’ Guidelines

Distil a set of guidelines for maritime cluster ‘Best Practice’. This would entail investigations into certain of the following clusters and resources:

- a. The European Network of Maritime Clusters,
- b. The African Network of Maritime Clusters,

- c. Peter Myles on maritime clusters and the ocean economy, and
- d. Any other current, useful and relevant works on maritime clusters.

17.12.4 Establish the Current Status and Situation within the NMBMC

Derek Zimmerman is currently a member of the NMBMC and therefore has a good understanding of the current status and functioning of the cluster. This would however be supplanted by primary research and an objective overview of the cluster. Issues which would be investigated are as follows:

- a. The membership base in numbers, economic sector composition and levels of economic activity by GVA and employment,
- b. Their primary business and *modus operandi*,
- c. The number and form of meetings per year, agendas and minutes of meetings,
- d. Workshops, presentations and information disseminated to members,
- e. Any other membership benefits provided in the past,
- f. The current legal structure and institutional relationships, if any,
- g. Institutional relationships with members, partners and service providers, and
- h. Any other information of relevance.

Peruse the various practice notes, agendas and minutes of meetings, policy documents, stakeholder presentations and any other information available or provided to gain an overall perspective and overview of the purpose and functioning of the NMBMC. Distil this information into a concise Vision and Mission statement, ideally with a coherent set of strategies and tactics to achieve these objectives.

The objectives of the NMBMC in the Terms Of Reference for the current brief are stated to be:

- Facilitate the development of an African Network of Maritime Clusters (ANMC).
- Presentation and Adoption of the Port Elizabeth Declaration.
- Establish a Maritime Institute at NMU.
- Engage with the European Network of Maritime Clusters (ENMC).
- Connect Africa with Europe and the rest of the world via an international network of maritime clusters.

These objectives would be factored into the overall statement of the Vision, Mission and Objectives of the cluster.

17.12.5 Undertake a Review of the Existing 'Business Case' of the NMBMC

A review of the current operating model of the NMBMC will be undertaken in order to understand how they have been functioning since 2012, which parties or individuals have provided funds or services to the cluster, what the value of these services were, and whether they were compensated or remunerated for these services. It will most likely be found that services were provided without compensation and that a value needs to be put on these going forward, if they are deemed to be useful or necessary goods or services.

Inherent in this exercise will be the gaining of a full understanding of the existing structure and functions of the NMBMC, as well as the entities or individuals which have been

performing these functions. A high level operating structure and budget will be compiled in order to gain an understanding of the past functioning of the cluster. This budget needs to be seen in the context of the objectives of the cluster and the actual targets or objectives achieved.

This exercise will culminate in a 'current situation' or status quo report for the NMBMC.

17.12.6 Undertake Stakeholder Engagement to Determine the Cluster Objectives

The process up to here will have established international best practice for the operation of maritime clusters, as well as the status quo of the actual functioning of the NMBMC. This process may have highlighted certain shortcomings and/or opportunities for doing things differently which may lead to enhanced functionality or results. These views need to be tabulated and workshopped with all relevant stakeholders.

A chapter in the final report together with a presentation needs to be prepared in order to engage meaningfully with all relevant stakeholders.

The input and feedback from stakeholders needs to be documented and incorporated into the proposed 'Operating Model' for the NMBMC.

17.12.7 Formulate a Revised 'Operating Model' for the NMBMC

The 'Operating Model' or budget will essentially be the revised or new 'Roadmap' for the operation of the NMBMC. As such it will mirror the activities and resources that are required to deliver on the objectives formulated above. These budgets will include the following:

- A budget or programme of events or outputs in the format of an activities calendar,
- A staffing and operational budget in order to realistically be able to meet and provide the deliverables of the annual calendar,
- A staff organogram and remuneration schedule,
- A facilities plan which accommodates the above elements by way of offices, lecture or meeting venues, parking availability and the like, costed per annum,
- An administration budget to include capital items like computers and tablets, overhead projectors etc., as well as telecommunications, printing and stationary, staff welfare and general office expenses,
- A separate capital expenditure budget if required,
- A financing sourcing budget for the securing of grant, donor or loan funding as determined by the policy decision above,
- An estimate of the total source of funds, ideally to match the total expenditure budgets, and
- All of these budgets summarised into a coherent operating budget over a five-year period.

This process will require extensive interaction with either SAIMI, and/or the anticipated cluster operator, and/or the anticipated cluster partners as determined in the steps above.

At this point the NMBMC strategic partner organogram and operating structures will have been established and provide insight into the most appropriate or useful legal or institutional structure to be used, as per the following section.

17.12.8 Formulate a Comprehensive Legal or Institutional Structure for the NMBMC

In South African law and commercial practice there are a range of different legal structures which can be used to house or operationalise the legal entity which will manage the cluster. Without going into too much detail at this early stage, these entities could be:

- A Non Profit company or organisation,
- A cooperative structure,
- A company in terms of the Companies Act of 2008,
- A Business Trust.

A 'non-profit' company is a company that was previously recognised in terms of section 21 of the Companies Act of 1973. The Companies Act of 2008 provides for the regulation of non-profit companies in Schedule 2. Briefly stated, such companies must have at least one of their stated objectives a public benefit object or an object relating to one or more cultural or social activities or communal or group interests (See paragraph 1 of Schedule 2 of the Act).

All assets and income of a non-profit company must be used to further the company's stated objective.

A non-profit company is not required to have members but the provisions of the Memorandum of Incorporation can provide that the company has members. Two categories of members are provided for, namely voting and non-voting members. Voting members of a non-profit company will each have at least one vote. The incorporators of a non-profit company are its first directors and its first members, if its Memorandum of Incorporation provides for it to have members.

Documents and policies that would probably need to be considered:

- The legal structure to be used by the NMBMC, Trust, Cooperative, Non-Profit Company or Organisation etc.,
- The Memorandum of Incorporation, to govern the business and affairs of the cluster, if applicable,
- The process for the appointment of members and/or directors,
- A Board Charter with powers and functions of the board,
- A Procurement Policy,
- An Operating Policy to regulate administrative and secretarial functions,
- A Financial Policy, including bookkeeping and auditing policy, as well as guidelines for the sourcing and control of funds secured,
- An Audit Committee policy document and committee,
- Employment contracts and conditions for permanent employees, and
- Any other policies or documents that are deemed to be appropriate and useful for the transparent and proper management of the maritime cluster.

17.12.9 Conclusion on Methodology

The methodology as proposed above assumes an unfettered access to both the past personnel of the NMBMC, as well as to the proposed new or current personnel for the revised NMBMC.

With proper engagement between all relevant parties and the flow of work and outputs as proposed above, this methodology will deliver a sensible project plan which can be accepted by all role-players and implemented.

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