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## **South African Maritime Safety Authority**

### **Feasibility and Viability Study on the Establishment of a South African Maritime Institute or University**

### **Final Report**



**Draft Version 1 – 7 October 2013**

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## Executive Summary

- This report presents the findings of the Feasibility and Viability Study on the establishment of a South African Maritime Institute or University. Learning Strategies was appointed by the South African Maritime Safety Authority (SAMSA) to undertake a Feasibility and Viability Study.
- SAMSA conducted a Maritime Skills Development Study in 2011 which identified the requirements to build the maritime economy of the country through additional quality education and skills training to close the gap between the current available and required trained population. The Maritime Skills Summit in Richards Bay in 2011 recommended investigating the establishment of a Maritime University or Institute.
- This study sets out to undertake a Feasibility Study and draw up a business plan for the establishment of a National Maritime Institute or University by assessing the nature of education required and assessing the comparative advantages and disadvantages by developing a cost benefit analysis.
- This research has been undertaken through a combination of stakeholder engagement, quantitative research and qualitative research, with assistance provided by the panel of experts identified by SAMSA and a Steering Group which has provided inputs to the process at Steering Group meetings and workshops.
- The research has been structured around the definition of the maritime sector as specified in the 2011 skills study.
- Higher education programs are offered by a number of public universities with an estimated 1200 students in various programs covering most of the maritime sub-sectors and spread across the educational hierarchy from Diplomas through Bachelor's Degrees to Masters and Doctorate programmes. The programs are however all specific to individual institutions and no sector-wide co-ordination or collaboration exists. Sub-sectors such as manufacturing/construction and operational support services appear to under-represented in terms of programs. An initial estimate places the additional higher education demand at some 600 additional students (approximately 50% increase in student numbers) with a more co-ordinated spread across the sub-sectors.
- Further education and training is provided by a broad base of public and private FET colleges. Information in this sector was difficult to obtain due to reluctance by private colleges to share information and added complexity of comparing full-time programs and short course programs. A more detailed study of this sector is known to have been undertaken by the Department of Higher Education and Training but the information was not available at the time of this report. It is estimated that there are more than 5000 FET learners in the maritime sector spread across some 35 public and private colleges.
- The supply side assessment reveals the following:
  - o Maritime studies appear to exist in isolated pockets of relatively few students in large public higher education institutions.
  - o No single higher education institution has maritime studies at a scale that can cause it to be regarded as primary dominance provider.
  - o There is no evidence of joint degrees or qualifications or foreign aligned or accredited qualifications being offered.
  - o Further education and training appear to be more at the scale required but information available precludes the practical assessment of the extent to which sector demands are being met.
  - o Education and training in the rest of Africa appears to be similarly uncoordinated. The African Union's 2050 Africa's Integrated Maritime Strategy sets a broad vision on

strategy for extensive collaboration and co-operation across the entire maritime sector with education being a priority aspect for this collaboration. Significant maritime studies appear to exist at the Regional Maritime University in Ghana and the Arab Academy of Science and Technology and Maritime Transport in Egypt. Other than these 2 institutions, maritime education and training appears to be isolated and uncoordinated.

- o The international supply of maritime education reveals a large number of institutions in various countries with a number of these as members of the International Association of Maritime Universities (AIMU). In addition, the International Maritime Organisation, an organisation of the United Nations, established the World Maritime University more than 30 years ago and this institution together with various associated institutions present high level, particularly post graduate, maritime studies to the world market.
- Priority international institutions identified through desktop research include the Korea Maritime University, Kobe University (Japan), Tokyo University of Marine Science and Technology, Shanghai Maritime University, AMET University (India), University of Tasmania and the Antwerp Maritime Academy (Belgium).
- Instances of International collaboration and co-operation were also identified through the desktop research. Case studies including the Irish Maritime and Engineering Resource Cluster (IMERC), the UNESCO Type 1 Universities focusing on marine resources and international research projects based in South Africa.
- The education and skills requirements (demand side) need to be determined to match against the supply side as set out above. The 2011 skills study commenced this process and recommended that a more detailed study be commissioned. SAMSA has commissioned an HRD study which is expected to present these requirements in more detail. These findings will be utilised to assess the skills gaps once they are available.
- A clear indication of the demand for particularly postgraduate studies is the fact that SAMSA have received 171 applications for postgraduate studies at the World Maritime University in 2013/14. To date, 26 applications have been approved for studies in Maritime Law and Policy, Maritime Education and Training, Maritime Environment and Ocean and Management, Port Management, Maritime Safety and Environmental Administration, and Shipping Management and Logistics. The number of applicants is a clear indication of the demand for high level specialist studies in the maritime sector which is not available in South Africa or Africa.
- The sector expectations do provide some insight into the requirements of the sector. From the qualitative research, including direct stakeholder engagements, the following key expectations have been identified.
  - o It is clear that South Africa does not currently meet its requirements in terms of maritime higher education;
  - o There is strong support for a focused Maritime Institute or University;
  - o This Institute or University should serve South African and regional/continental requirements;
  - o The Institute is probably best established within an existing Higher Education Institution;
  - o The focus of the Institute should cover all sub-sectors of the maritime sector with priority focus on shipping and transport, marine resources, operational support services and marine manufacturing and construction;
  - o The focus of a Maritime Institute or University should be on the full ambit of higher education from diplomas to post graduate degrees and should also address short courses and professional development;
  - o The role of the Institute extend beyond education and include co-ordination and articulation of maritime education, promotion of maritime education, research and knowledge base as well as being the centre for post graduate studies, professional development and maritime specific conversion qualifications; and



- o Funding sources should be from all key stakeholders including the Department of Higher Education and Training, Department of Transport and private sector/industry.
- Key themes identified in general views included:
  - o The need for more focus to be placed on quality education in the sector;
  - o The desire for a system which is more flexible and less bureaucratic;
  - o The need to attract experienced professionals into the education sector;
  - o The need for research and development in the sector; and
  - o The opportunity for collaboration across Africa and the benefits of higher levels of co-ordination between existing institutions in South Africa and on the continent.
- The project team was able to engage directly with the Eastern Cape Maritime Cluster. This engagement showed a strong focus on developing the maritime sector and maritime education and resulted in a proposal for the hosting of the Maritime Institute in the Eastern Cape.
- Further stakeholder engagement was held with individual institutions in the Western Cape and KwaZulu-Natal. There was unanimous support for developing the maritime sector and supporting and co-ordinating the education in this sector.
- In KwaZulu-Natal, a number of examples of previous initiatives aimed at the establishment of a maritime centre in eThekweni were noted, even the signing of recent MoUs by education Institutions to achieve this. This demonstrates clear intent to collaborate in this regard, but unfortunately limited progress due to availability of seed funding and other limitations.
- The oil and gas sector showed a clear example of a maritime sector with high demands on education provision for skills to be provided into the southern African region.
- Engagement with the newly appointed Head of the Transnet Maritime School of Excellence, Mr Herschel Maasdorp, highlighted the clear intention of the Maritime School of Excellence to engage directly and completely with SAMSA and other educational institutions to collaborate and co-operate towards achieving a comprehensive solution for maritime education in South Africa, and to service southern Africa and Africa.
- The result of the situational analysis and research, together with the inputs received from the Steering Committee highlighted the proposed strategy for an Institute or University to be as follows:
  - o The situational analysis highlighted the extent of the opportunity for South Africa to increase its role and profile in the World Maritime economy. It identified that South Africa is a net consumer of the global supply of maritime services providing only 0.5% of the global supply but consuming between 5% and 6% of global sea ton miles.
  - o The situational analysis identified the potential from growing the South African Maritime economy through a combination of addressing legislative and bureaucratic constraints to re-assessing port charges, and ensuring the provision of required skills and expertise to support the growing maritime sector.
  - o There is clear need for a focused Institute or University, probably established within an existing Institution, with opportunity to collaboration with other Institutions.
  - o The Institute needs to address the needs of South Africa and Southern Africa (region) together with continental and international collaboration and alignment.
  - o The Institute needs to provide specific education (particularly post graduate and professional development) as well as research, but needs to play an extended role in terms of co-ordination and articulation, and promotion of maritime education aimed at being seen as the knowledge centre for the maritime sector.
  - o All sub-sectors of the maritime sector need to be given prominence within the Institute or University, specifically those that have unique education requirements for the sector.

Sub-sectors such as business services and tourism are already addressed by main stream programs requiring only specialist programs in these sub-sectors.

- The detailed investigations undertaken by Professor Dan Archer of Meeting of the Minds into the eThekweni Maritime Centre, published in 2011, presented details of numerous failed or stalled attempts at establishing a national or regional maritime centre. The reasons included individual or institutional self-interest, lack of buy-in, lack of political will and support, lack of initial funding and other constraints. The report concludes that a South African Maritime Institute requires a national focus, support and buy-in by Institutions engaged in the sector, political support and political will to make it happen and appropriate funding to support the development of the initiative.
- The Feasibility Study developed a sector structure model against which to consider various structure options. The sector structure model is described as the baseline presenting the various key stakeholders and policy-making entities together with the broad base of multiple uncoordinated Institutions and Colleges providing research, education and training and skills development. All of these stakeholders and Institutions and Colleges serve to meet to a greater or lesser extent the industry requirements.
- Option 1 is the base line and “do nothing scenario”, allowing the sector to continue to provide education and training as it is with the likely result that more institutions will enter the market over time without any strong likelihood of sector-wide advocacy and co-ordination.
- Option 2 presents a model for co-ordination and advocacy in the sector through either a National Maritime Institute or through a voluntary Association of Maritime Education Institutions. Both these sub-options would meet the need for advocacy and co-ordination with the benefit of a voluntary association being a lower level of bureaucracy and formality. In both cases, however, the success will depend on the collaboration and support of existing institutions
- Option 3 considers the impact of potentially attempting to establish a standalone Institute or University. While this may be possible, it is considered unlikely that this would significantly impact the existing programs and institutional offerings and rather that such a new standalone Institution would more likely compete with existing programs and add to the already uncoordinated sector.
- Option 4 presents the concept of a National Centre for Maritime Studies and Research with this centre either being hosted within an existing institution (Option 4 A) or being a separate National Maritime Centre (option 4 B). It is also possible that Option 4 A migrate into Option 4 B where the Institute, initially hosted within an existing Institution, progressively gains an identity of its own and begins to function with increasing autonomy. The advantage of the concept of a National Centre is based on the opportunity for collaboration between Institutions and the sharing of high-level knowledge and resources drawing multiple Institutions focused on the maritime sector.
- Option 5 combines the co-ordination and advocacy role of an Institute or Association with the concept of a National Centre to present a coherent structure to meet all the needs of the sector. The National Maritime Centre would initially be hosted within an existing Institution and ideally create satellite centres in other Institutions focused on the maritime sector.
- Option 6 was added after the initial Feasibility Study to highlight the potential for the South African Maritime Institute to operate from more than one regional centre. While the activities may initially be located in one centre, the potential exists for multiple centres to support the collaboration, co-operation and infrastructure and equipment sharing to take place in the major port cities in South Africa. This direct collaboration in specific facilities may be supported by cluster co-operation in other centres where a dedicated shared facility is not required.



- Based on the outcome of the Feasibility Study, the project recommends the establishment of the South African Maritime Institute with the following vision:

To develop the contribution of the Maritime Sector  
to the economy of South Africa and Africa  
through the effective co-ordination of  
quality education and research  
by Partner Institutions

- The initial functions of SAMI include the promotion of the maritime sector, the building of a national and international brand for maritime education in South Africa, the promotion and co-ordination of research into the maritime sector, the co-ordination of education across the sector, the development of an authoritative knowledge base through participating Institutions and the co-ordination of funding in the sector for identifying and securing specialist equipment for use by partner Institutions.
- All education provision will be provided by partner Institutions who will register, train and educate students, undertake research projects and register postgraduate students, obtain capital and operational funding for the development for programmes and employ all lecturers and researchers. SAMI will work with these partner institutions to develop common programmes and facilitate the sharing of resources and equipment across the sector.
- SAMI can initially be established as a Non-Profit Company with the intention of applying for its formal establishment by the Minister of Higher Education and Training as a National Institute under the Higher Education Act, and responsible to the Department of Higher Education and Training.
- SAMI should establish a brand for maritime education in South Africa that becomes recognised nationally and internationally. Participating Institutions should be eager to co-brand their programmes and activities together with the SAMI brand.
- One of the functions of SAMI will be to ensure the provision of shared facilities either directly or through partner or host institutions. These shared facilities referred to as Regional Maritime Centres may contain a combination of facilities supporting FET programmes, undergraduate programmes, professional development and short courses, postgraduate programmes and shared office and other facilities for maritime research projects. The exact nature of a Maritime Centre will depend on the specific requirements of each region and the growth in activities of SAMI in that region.
- A detailed financial viability for the establishment of SAMI and a single Maritime Centre has identified that the annual operating costs of SAMI could range between R11 million and R19,5 million depending on the scale of operations elected by SAMI. A resource centre would require at least 2600 sqm of space to accommodate all of the potential resource centres and facilities. Up to 4500 sqm would be required for a fully functional centre with multiple Institutions operating in that centre.
- A five year forecast based on a minimum set of functions and structure for SAMI indicates an operating cost for SAMI and a single Regional Centre of approximately R15 million per annum. Various scenarios have also been developed depending on the size and nature of SAMI and the facility to be established.
- In order to make this more real and practical, a detailed business plan, contained in a separate document has been formulated for the establishment of SAMI and the first Maritime Centre in Port Elizabeth. The establishment is based on the conversion of the existing SAS Donkin facility owned by Transnet National Ports Authority. The business plan indicates a requirement of seed funding of R39 million over the next two and a half years up to the end of the 2016 financial year in March 2016.

- The overall conclusions from this study include
  - o There appears to be strong support in the maritime sector for a Maritime Institute or University to increase the focus on maritime education and to improve the co-ordination across the sector to meet the needs of the maritime sector.
  - o The extent of the education and skills gaps have yet to be clarified, awaiting the outcome of the demand side study being conducted as part of the Human Resource Development strategy currently underway.
  - o Even without the demand side information, there appears to be a strong lead for higher level education (professional development and post graduate studies across most of the sub-sectors of the marine sector).
  - o The Maritime Institute should also address the needs of collaboration and co-ordination of the sector and fulfil an advocacy role promoting maritime education.
  - o There is a strong opportunity for increased collaboration in the areas of maritime research and an opportunity to draw into a National Centre a number of existing maritime focused research studies, together with opportunity for other studies to be housed in a National Centre established by a host institution and resulting from the co-operation and collaboration of multiple institutions involved in the maritime sector.
  - o The option of establishing the South African Maritime Institute, initially as a voluntary organisation (Non-Profit Company) and in the future as a National institute under the Department of Higher Education and Training together with the establishment of initially one maritime centre, was explored in the viability study. The viability study concluded that the institute would require operational funding of approximately R11 million pa initially as seed funding. There are also various options in terms of structuring the maritime centre as a shared facility and scenarios were developed to present the cost alternatives for the centre.
  - o To make this viability more practical, the project team developed a business plan for the establishment of SAMI as a Non-Profit Company and the establishment of the first maritime centre in Port Elizabeth through collaboration with Nelson Mandela Metropolitan University. The detailed costing for the establishment of SAMI and the first maritime centre identified that the seed funding requirements amount to R6,9 million in the financial year ended 31 March 2014 increasing to R17,7 million in financial year ending 2015 and R15,6 million in financial year ending March 2016. Over the 3 financial years, the business plan indicates a required seed funding for SAMI and the first centre of R39,7 million.
  - o During the course of the business planning phase, the project team was also able to engage with the Transnet Maritime School of Excellence. This engagement was significant in that it established the clear willingness and intent of the Maritime School of Excellence to collaborate with and directly engage with the maritime sector and education Institutions engaged in the sector. The discussions highlighted the opportunity for the Transnet Maritime School of Excellence to potentially be the host of a regional shared maritime facility in eThekweni.
  - o The establishment of SAMI and the first centre requires a combination of seed funding and political will to ensure that these initiatives become a reality. SAMSA have specifically indicated their willingness and intention to support this initiative and provide some or all of the required seed funding. This specifically addresses the major issue which has resulted in so many other stalled or failed initiatives in this regard in the past. Commitment from SAMSA as the sponsoring authority significantly enhances the viability of SAMI.
  - o The business plan document, attached to this report, sets out the practical steps which could be taken to ensure SAMI and the first maritime centre become a reality in the medium term.
- Learning Strategies wishes to thank SAMSA, the steering committee and all industry stakeholders engaged to date for their co-operation and assistance.

## A Objectives and Terms of Reference

### A.1 Terms of Reference

Learning Strategies has been appointed as the service provider to the South African Maritime Safety Authority (SAMS) in terms of BID SCM/BID/12001, for the preparation of a Feasibility Study for the South African Maritime Institute or University.

This document forms the final deliverable in this project. The document sets out the results of the Feasibility and Viability Study on the Establishment of a South African Maritime Institute or University. This document summarises the contents of 3 key deliverables namely:

- The presentation on the Feasibility Study findings presented to the Steering Group on 26 July 2013.
- The Feasibility Study Report dated 1 August 2013.
- The presentation to the Steering Group of the findings from the Viability Study on 30 August 2013.

This report is supported by the Business Plan Report with contains more detail of the immediate steps required to implement the recommendations.

### A.2 Background

SAMS conducted a Maritime Skills Development Study in 2011 which was aimed at:

- a) Conducting a review of the maritime sector in South Africa, exploring trends in the supply and demand of maritime skills globally and considering opportunities for South Africa in light of global trends;
- b) Exploring policies, funding mechanisms and partnerships that would relate to skills development in the South African maritime sector;
- c) Determine the number and types of skills available in South Africa and supply and demand dynamics around the South African maritime skills; and
- d) Determine skills offering and skills development gaps in South Africa.

A comprehensive view was taken in defining the maritime sector for this study.

The research study identified what is required to build the maritime economy of the Country with regard to its skills pool. It also indicated that the current challenge for maritime industries is the need for skilled people capable of providing a quality service. Improving the quality of basic education and tertiary education in this sector will be critical to minimise the gap that exists between the trained population and the requirements in the workplace.

The Maritime Skills Summit held in Richards Bay in 2011 recommended the need to explore the possibility of establishing a standalone Maritime University or Institute with branches in all provinces of the Country and providing skills that are required to support the development and growth of this sector.

The Maritime University or Institute is proposed to be an international, academic and scientific institution covering all sub-sectors of the industry and operating as a collective organisation of interested countries in the region basing its contacts on communication of the principles of an Open University and on massive use of new information technology.

## A.3 Objectives of the Study

The objective of this study is to undertake a feasibility study and draw-up a business plan for the establishment of a national Maritime Institute or University. The study will assess whether or not a specialised/dedicated integrated maritime education and training University is required in South Africa and will make the cost benefit analysis and compare advantages, disadvantages, short-comings, strengths and opportunities of setting up a Maritime Institute or University in South Africa.

The specific deliverables set out in the Terms of Reference can be summarised as follows:

- To conduct a detailed feasibility and viability study on a specialised Maritime University or Institute covering all matters of financial viability, organisational structure, staffing, status, cost and funding, scope of services, roles and responsibilities and relationships with other education institutions.

To achieve this, the project should specifically investigate the following:

- Undertake an inventory of existing programmes and facilities relevant to the proposed Maritime University or Institute.
- Analyse data on the needs of the Country and region including prioritisation of recommendations, financial implication and potential for implementation of these recommendations.
- Define prospects for maritime academic cooperation in South Africa.
- Undertake benchmark research on maritime education, training and development.
- Define the mission and purpose of a national Maritime University or Institute.
- Unpack the best organisational model to deliver integrated maritime education and training in South Africa and regionally. This model should include aspects such as organisation structure, governance and management structures, resourcing and strategy, financing model for students, location of the headquarters as well as scheduling and timing.

In addition to the above mentioned feasibility study, a comprehensive financial viability study should be undertaken for the establishment of a standalone specialised Maritime University or Institute including:

- Costs benefit analysis.
- Comparison of the short-comings, advantages and opportunities of establishing the University or Institute.
- A comparative desktop analysis of other specialised Universities in South Africa, SADC, continentally and globally.
- Comparison of salary, benefits, office and administration running costs of similar institutions.

## A.4 Project Approach and Milestones

The project approach is broken into 3 main phases as follows:

- **Phase 0: Mobilise** – this phase has been completed with the project kick-off meeting and signing of the agreement at SAMSA on 4 June 2013 and the finalisation of the project initiation document and detailed plan.
- **Phase 1: Feasibility Study** – this phase undertakes the detailed review of existing documentation and research studies together with the development of the overall strategy for the Maritime Institute. The Maritime strategy will be based on an analysis of the 2011 Skills

Study, a comparison to international best practice, an assessment of South African options and the assessment of alternative entity structures and programme offerings.

The results of the Feasibility Study process and stakeholder engagement to that point were presented to the Steering Group on 26 July 2013 and then formalised in the Feasibility Study Report dated 1 August 2013.

- **Phase 2: Financial Viability Study** – coming out of the feasibility study, the financial viability study will test the selected option and alternatives for the Maritime Institute.

The results of the Viability Study were formalised into a financial model and presented to the Steering Group on 30 August 2013.

- **Phase 3: Final Report** – the feasibility study and viability study will be formulated into an overall final report which will pull together these 2 studies and the proposed implementation plan for the entity using the preferred entity model and operating structure.

This report is the final deliverable from this assignment.

Key dates in the project approach have been defined as follows:

Date	Activity	Location
11 June 2013	Presentation to Panel of Experts	Durban
27 June 2013	Workshop with NMMU	Port Elizabeth
28 June 2013	Strategy workshop with Steering Committee	SAMSA Pretoria
26 July 2013	Steering Committee meeting to receive Feasibility Study	SAMSA Pretoria
30 August 2013	Steering Committee meeting to receive Viability Study	SAMSA Pretoria
3 October 2013	First draft of Business Plan Report circulated	
7 October 2013	First draft of Final Report circulated	

## A.5 Steering Group

SAMSA has prepared a comprehensive list of experts and stakeholders who have been actively engaged through this project via emailed questionnaires and in certain cases telephonic conversations and even face-to-face interviews. The inputs and considerations of these experts have been obtained relating to the proposed Maritime Institute or University.

In addition, a number of these experts have been asked to form a steering group for this project. The following individuals comprise this steering group and have engaged with this process through the initial Steering Group meeting on 28 June 2013 and the second Steering Group meeting on 26 July 2013.

Out of these stakeholders, the following key individuals have been invited to form the Steering Group for this project.

Dr Engela van Staden	Department of Higher Education and Training
Samuel Kame-Domguia	African Union Commission
Professor Heather Nel	Nelson Mandela Metropolitan University
Professor Ed Snyders	Cape Peninsula University of Technology
Dr Brian Gowans	Representing Industry
Jurie Marthinus van Zyl	SAQA / QCTO
Malcolm Alexander	Transport Education and Training Authority
Commander Tsietsi Mokhele	CEO - SAMSA



Sindiswa Nhlumayo  
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## A.6 Process to Date

### A.1.1 Stakeholder Engagement and Reporting

The process to date has involved the following key activities:

- The project was officially launched with the presentation to the Panel of Experts on 11 July 2013.
- Due to the immanent mid-year break, the quantitative questionnaires were circulated to selected Higher Education Institutions on 20 June 2013.
- A workshop to address potential involvement in the future Institute or University was held with the Nelson Mandela Metropolitan University in Port Elizabeth on 27 June 2013.
- The steering group met at SAMSA mainly to assess the high level strategy of the Maritime Institute or University. The inputs from this strategic session guided the further work undertaken on the Feasibility Study.
- After circulation to the Steering Group, the qualitative questionnaire was circulated to respondents on 4 July 2013.
- A key cluster meeting was held in the Eastern Cape on 17 July 2013.
- Key engagements have been held with stakeholder groups and institutions including:
  - Department of Higher Education Training (26 June 2013 and 15 July 2013).
  - Department of Science and Technology (16 July 2013).
  - Green Cape as a case study on co-operation (18 July 2013).
  - Lawhill Maritime Centre in Simon's Town (19 July 2013).
- During the month of July, numerous of the panel of experts and other stakeholders who had responded to the qualitative questionnaire were contacted and interviewed telephonically to gather further insight into their responses.
- The second Steering Group meeting took place on 26 July 2013 at which the draft outcome of the Feasibility Study was presented.
- The steering group of 26 July 2013 recommended further stakeholder engagement which took place during the month of August including:
  - Individual engagements with members of the Western Cape cluster including Professor Edward Snyders, Head of CPUT Marine Studies at Granger Bay, Ms Deanna Collins, Director of Marine Crew Services in Cape Town and Ms Vanessa Davidson, Chief Executive Officer of Marine Industry Association of South Africa based at the Waterfront in Cape Town on Thursday, 15 August 2013.
  - Individual meetings with members of the education committee of KwaZulu-Natal Maritime Cluster including Professor Ahmed Bawa, Vice-Chancellor of Durban University of Technology, Captain Johnsen, Head of the Maritime School at Durban University of Technology and Professor Trevor Jones and Doctor Chasomeris of University of KwaZulu-Natal, held in Durban on 20 August 2013.
  - Meeting with the Department of Higher Education and Training namely Ms Gerda Magnus and Ms Aruna Singh, to assess the activities in the Further Education and Training sector, on Friday, 23 August 2013.



- International interactions also took place on 23 August 2013 with Mr Mike Brunicardi of the Irish Maritime Energy Resource Centre, as well as various teleconferences with other parties to identify the structure and progress made by IMERC.
- Industry engagement with Mr David Kibler of National Oilwell Varco (NOV) on 26 August 2013 to assess the potential and demand from the oil and gas sectors.
- Finally, one-on-one discussions with Doctor Brian Gowans, the Industry representative of the Steering Group on 28 August 2013 to assess specific inputs to the study from industry and particularly the marine manufacturing perspective.
- The final Feasibility Study findings were presented to the Steering Group at the SAMSA offices in Pretoria on 30 August 2013.
- As an immediate outcome of the Steering Group meeting, the project team was asked to meet directly with NMMU, specifically the Vice-Chancellor, Professor Derek Schwartz. This meeting took place on Tuesday, 3 September 2013 in Port Elizabeth.
- Resulting from the meeting with Professor Schwartz, a tour of potential facilities inside the old port in Port Elizabeth was arranged by the project team and included Mr Greg Duci, Head of Infrastructure at NMMU, Doctor Tommy Bornman, CEO of SAEON and 3 of his colleagues from Grahamstown, and Mr Tinus Smit of the National Ports Authority. This meeting took place on Tuesday, 10 September 2013.
- The opportunity for the establishment of a Maritime Centre in Port Elizabeth was formulated into a Business Plan Report. The first Draft of this report dated 30 September was circulated on 3 October 2013 to the Steering Committee for review.

### **A.1.2 Quantitative Research**

A quantitative research questionnaire was developed to identify the various programs currently presented by higher education institutions and other key FET colleges and private institutions.

The questionnaire was circulated on 20 June 2013 and 8 responses were received from the following institutions:

- Cape Peninsula University of Technology
- Durban University of Technology
- Nelson Mandela Metropolitan University
- University of Cape Town
- University of KwaZulu-Natal
- Lawhill Maritime Centre
- King Cole Maritime
- Maritime Crew Services

To supplement this quantitative research, the project team undertook desktop research into the programmes and student numbers engaged at other institutions as well as extensive telephone research to identify numbers of students particularly short course programs at colleges and training entities.

### A.1.3 Qualitative Research

The qualitative research questionnaire was distributed on 4 July 2013 to 88 potential respondents. A 50% response rate was achieved with 44 competent responses received. These responses have been received from the following groups:

Organisation type:	Number of Responses:
HEI	10
FET	4
School	1
Industry	15
Science	3
Government Agencies	9
NGO	2

### A.1.4 Additional Stakeholder Engagement

The final Steering Group meeting on 30 August 2013 identified the following additional stakeholders to be consulted in this process:

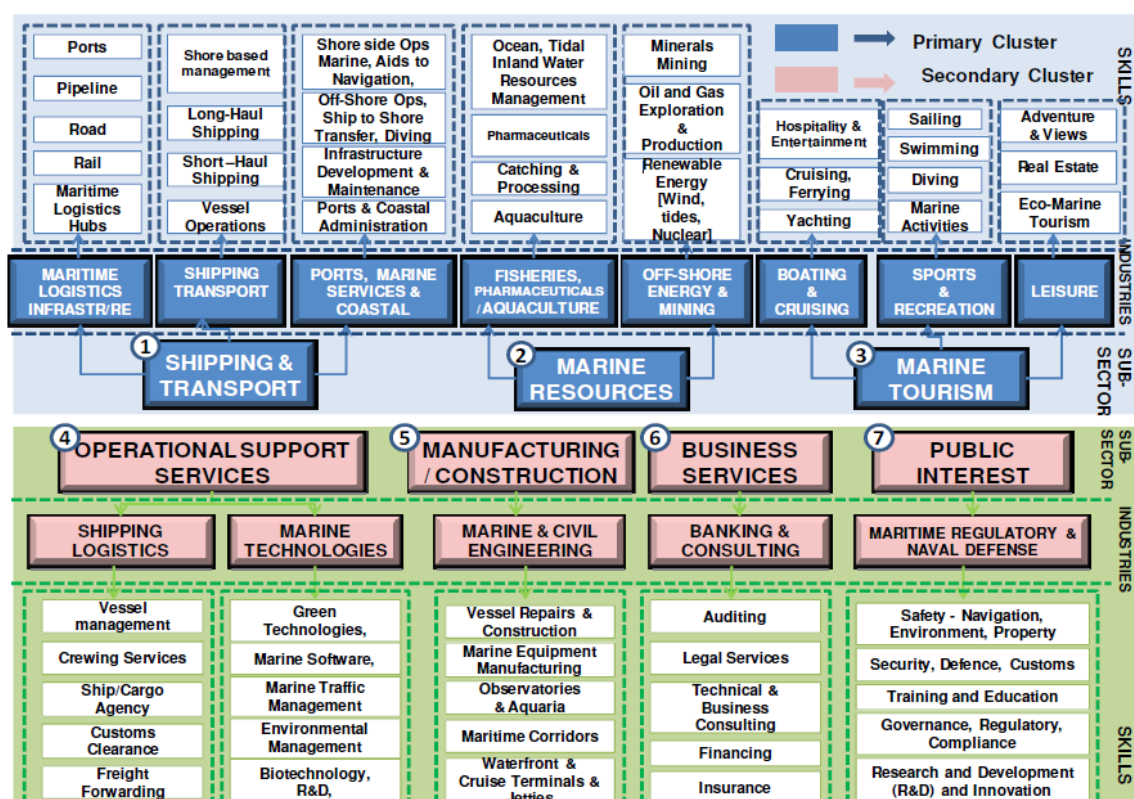
- Transnet and specifically the Maritime School of Excellence in Durban. This meeting took place in Durban on **20 September 2013** with Mr Herschel Maasdorp, the newly appointed head of the Transnet Maritime School of Excellence. The Notes of this meeting which has a profound impact on the potential for the establishment of the South African Maritime Institute are attached as **Appendix C**.
- The Department of Higher of Education and Training, with specific reference to the enrolment plans of inland Universities related to maritime scarce skills programmes. The report on enrolment plans specific to Maritime Studies was provided by the DHET on **23 September 2013**. Unfortunately, the report contained only information relating to NMMU and Mangosuthu University of Technology.
- Interaction with key inland Universities specifically University of Witwatersrand. Attempts have been made to set up these interactions, but these interactions had not yet taken place at the time of completing this report.

## B Situational Analysis

### B.1 Defining the Maritime Sector

SAMSA commissioned the development of the South African Maritime Sector Skills Development Study which was completed in 2011. This study undertook extensive analysis of the sector and developed a model of the sector which groups the activities of the sector into 7 clusters. The sector structure model as set out below provides a useful basis for analysing the supply and demand of education and training in the sector and has been adopted as the basis for this feasibility study report.

**Figure 1: South African Maritime Sector Skills Development Model**



### B.2 Supply of Education and Training in South Africa

The starting point in undertaking a Feasibility Study for the establishment of a Maritime University or Institute in South Africa is to understand the current landscape in terms of education and training provision in the country, more broadly on the continent and internationally. A detailed assessment has been undertaken of the extent of education and training in South Africa at the various broad levels of education and training, together with a desktop review of education and training in the region and continent and international models for mainly higher education provision. Each of these sections has been dealt with separately below:

## B.2.1 Higher Education Provision

The table below provides a summary of the Higher Education programs currently offered by South African public Universities. An attempt has been made to differentiate between the institutions focused primarily or specifically on maritime and the maritime sector (primary institutions) and those institutions which provide related education and programs which may support the maritime sector (secondary institutions). The secondary institutions, mainly inland Institutions, provide education programs mainly focused around transport management, logistics and transport economics. While covering aspects of maritime education these Institutions do not specifically focus on the maritime sector.

The key Institutions (primary institutions) which provide maritime specific programs are the following:

- Cape Peninsula University of Technology.
- Durban University of Technology.
- Nelson Mandela Metropolitan University.
- University of the Western Cape.
- University of Stellenbosch.
- University of KwaZulu-Natal.
- Rhodes University.

Confirmed student numbers have been received from all institutions with the exception of the University of Stellenbosch and Rhodes University. Desktop research has identified the number of post graduate students at Rhodes but an estimate has been made for the under graduate students as well as an estimate for the total number of students in the programmes at Stellenbosch.

The table below presents the detailed programs and the current student numbers engaged in these programs:

**Table 1: Current Maritime Higher Education Programs by Maritime Sector**

Institution:	Student numbers	Sector Analysis:						
		Shipping/Transport	Marine Resources	Marine Tourism	Operational Support Services	Manufacturing/Construction	Business Services	Public Interest
Cape Peninsula University of Technology	292	292						
University of Cape Town	236		220				16	
University of Stellenbosch	100							100
Nelson Mandela Metropolitan University	175		119	12			34	10
Rhodes University	117		117					
Durban University of Technology	152	49					103	
University of KwaZulu-Natal	114						114	
Total:	1186	341	456	12			267	110

**Table 2: Current Maritime Higher Education Programs by Level of Study**

Institution:	Student numbers	Doctorate Degrees	Master's Degrees	B Degrees/ Post Graduate Diplomas	Diplomas
Cape Peninsula University of Technology	292				292
University of Cape Town	236	5	36	10	185
University of Stellenbosch	100	10	10	10	70
Nelson Mandela Metropolitan University	175			9	166
Rhodes	117	26	23	18	50
Durban University of Technology	152			109	43
University of KwaZulu-Natal	114	32		12	70
Total:	1186	73	69	168	876

It is evident that there is a fair spread of higher education programmes across 7 institutions directly supporting the maritime sector. These Institutions are supported by the following secondary Institutions namely:

- University of Johannesburg.
- University of South Africa.
- University of Venda.
- University of Zululand.

In addition, all other Higher Education Institutions provide other programs and degrees which, while not directly applicable, do support the skills and requirements of the maritime sector. This is particularly relevant in the case of business services and in some cases the public interest sectors.

The spread of the programmes is clearly not consistent across the 7 clusters of the maritime sector and the individual responses to demand by the individual institutions has not necessarily created a coherent response to the requirements of the sector as a whole in terms of the levels of programmes required. This is particularly relevant to the limited number of higher level master's and doctorate programmes.

While the demand study will identify specific gaps and additional requirements, an overall perspective from numerous key stakeholders in the sector suggested that the higher education programs may need to add about 50% more students to meet the immediate demands of the local maritime sector.

## B.2.2 Further Education and Training

In this sector, care needs to be taken to differentiate between the full-time FET programmes and the occasional or short course programmes offered by various Institutions and Colleges. The offerings in this sector are also spread between public and private institutions.

To assess the current activities at this level of education, a review was first conducted of the priority FET Colleges. It was identified that only two of these Colleges have specifically focused maritime programmes namely the Port Elizabeth Public FET College and the College of Cape Town. A number of other of the SAMS identified priority FET Colleges are actively considering offering programmes in the Maritime sector but have not confirmed their involvement at this stage.

The balance of the Institutions and Colleges forming the total list of training and education providers in this sector includes a combination of Private Colleges and Academies together with FET Colleges and even Universities of Technology providing skills training. In particular, the Cape Peninsula University of Technology – Survival Centre, provides Maritime survival and safety training to some 3500 short course candidates on an annual basis.

The project team engaged directly with the Department of Higher Education and Training specifically to assess the current FET programmes addressing the maritime sector. Detailed research has been undertaken by the DHET on the FET programmes in this sector.

The DHET officials indicated that most of the maritime training in South Africa is in fact done by private providers and not by Public FET Colleges. They indicated that interest in marine training in the Public FET Colleges was declining due to funding and certification problems.

The most significant issue appears to be certification, as courses have to comply with international standards as well as fit into the National Qualifications Framework. This has proven to be difficult and has resulted in a number of FET Colleges discontinuing the programmes that they offered in the past.

The FET Colleges that are involved in marine programmes tend to prefer focusing on on-shore activities such as marine tourism and even boat building as opposed to seafarer training where international certification is required.

The table below presents the full list of identified further training and education providers in this sector:



**Table 3: FET Education and Training Providers**

Institution	Accreditation	Confirmed numbers	Estimated numbers
Port Elizabeth Public FET College	Various SETAs		100
Thekwini FEC	Various SETAs	0	
Esayidini FET College	Various SETAs		0
College of Cape Town	Various SETAs		33
EastCape Midlands College	Various SETAs		0
West Coast FET College	Various SETAs	0	
Northern Cape Rural FET College	Various SETAs	0	
South Cape College	Various SETAs	0	
Northlink College	Various SETAs	0	
Buffalo City Public FET	Various SETAs		0
Umfoloji College	Various SETAs	0	
Elangeni FET College	Various SETAs		0
Anchor Powerboat Academy	SAMSA, TETA		100
Aqua Academy	SAMSA, SADSAA		100
Cape Town Sailing Academy	SA Sailing		100
Cape Peninsula University of Technology Survival Centre	AISST, SAMSA	3500	
Concord Maritime Training	SAMSA, TETA		100
False Bay FET	MerSeta		100
Irvin & Johnson (Trawling Division)	SAMSA		100
Leading Light Academy	SAMSA		100
Marine Crew Services SA	SAMSA	127	
Maritime & Skills College	TETA		100
Offshore Survival Training Facility	TETA		100
Project Maritime Training	SAMSA TETA		100
SAMTRA (SA Maritime Training Academy)	SAMSA, TETA		100
SA Maritime School	SAMSA, TETA		100
SAS Saldanha Naval College	SAS SETA		100
School of Shipping	TETA		100
Siyaloba Training Academy	SAMSA, TETA		100
South African Institute for Skippers	SAMSA		100
Academy of Maritime Medicine	SAMSA, TETA		100
SA Coast Guard Training Institute	SAMSA	1 000	
South African Maritime School and Transport College	TETA		100
Unicorn Shipping and Training School	SAMSA, TETA	2 177	
Total:		6804	1933

### B.2.3 School Education for the Maritime Sector

It is known that there are a number of schools particularly in the Western Cape and KwaZulu-Natal offering maritime and maritime related school subjects. In particular, there is the Lawhill Maritime Centre in Simon's Town which offers maritime specific school programs to 192 candidates while the King Cole Maritime College provides maritime specific education to 22 pupils in the Eastern Cape.

There is clearly an opportunity for this level of education and potentially a demand for such education, particularly as focus on the sector and the program offerings in the FET and higher education levels are expanded.

## B.2.4 Summary of Education and Training Provision

The findings of this analysis have been summarised on 2 bases to identify the spread of programs across the 3 main provinces involved in maritime education (Western Cape, Eastern Cape and KwaZulu-Natal) as well as to summaries the education provision according to the 7 maritime sub-sectors as identified by the skills study. The tables below present this analysis:

**Table 4: Student Numbers in 2013 by Level and Province**

Province:	Student numbers	Doctorate Degrees	Master's Degrees	B Degrees/ Post Graduate Diplomas	Diplomas	FET	School Level
Western Cape	655	15	46	20	674	5625	192
Eastern Cape	175	26	23	27	216	225	22
KwaZulu-Natal	266	32		121	113	2502	
Total:	9879	73	69	168	1003	8352	214

**Table 5: Student Numbers by Maritime Sub-sector in 2013**

Level:	Student numbers	Sector Analysis:						
		Shipping/ Transport	Marine Resources	Marine Tourism	Operational Support Services	Manufacturing/ Construction	Business Services	Public Interest
Doctorates	73		31				32	10
Master's	69		43				16	10
Bachelor's								
Higher Diplomas	168		28				130	10
Diplomas	1003	419	354	12			138	80
FET/School levels	8566	8352						214
Total:	9879	8771	456	12			316	324

In both these tables, we have included both the confirmed numbers and the estimates which had been made based on desktop research and telephone calls.

It has also come to the attention of the project team that there are a number of inland Universities also providing programmes related to the maritime sector. A number of these programmes are more focused on logistics but some programmes may have a specific maritime focus. The DHET has undertaken to provide the data from these inland universities arising from their enrolment plans submitted on 30 August 2013. This report will be updated with this information once it is available.

## B.2.5 Overall Assessment of Education Supply

The overall assessment of the education supply in South Africa presents the following observations:

- Maritime studies appear to exist in isolated pockets of relatively few students within a number of large public higher education institutions in the country.
- No single higher education institution has maritime operations at a scale that can cause it to be regarded as the primary or dominant provider.

- There are limited unique or specific focus areas for individual higher education institutions. Most of the institutions are offering degrees and programs in similar fields with only limited specialisation in cases such as Stellenbosch (Military) and Rhodes (Ichthyology).

There is also no evidence of joint degrees or qualifications or foreign aligned or accredited qualifications being offered in local higher education institutions.

Information has only been obtained for the 2013 year and no trends in terms of the student numbers can be identified. It is however known that a number of institutions are considering or have implemented changes in these programs. As an example, UKZN previously offered a third year elective in Maritime Economics with involvement of between 100 and 130 students. This program was however discontinued after 2012. At the same time, Nelson Mandela Metropolitan University is engaged in its own advanced planning and approval process to scale up maritime studies and particularly to increase its maritime engineering offering. In overall terms, the higher education offerings in South Africa appear to lack co-ordination and focus that could be substantially to the benefit of the sector and the individual institutions. Furthermore, there appears to be some areas and sub-sectors where limited education focus and attention is being provided. This clearly indicates the opportunity for and potentially the need for a stronger level of co-ordination in the education provision to the sector.

At the further education and training level, there are a large number of providers meeting specific full-time and short course program needs. The demand side will determine the extent to which the full scope of needs is being met by these providers. What appears to be of most concern to industry stakeholders based on the information obtained, is the assurance of the quality of these programs in all cases.

## B.3 Education and Training in Africa

There is a strong expectation that the South African initiative to establish a Maritime University or Institute should be firmly placed within the African context and service the requirements of the African continent more broadly while integrating with other education and training providers on the continent.

As a context to this, a comprehensive strategy has been developed by the African Union titled: 2050 Africa's Integrated Maritime Strategy (2050AIM Strategy). This strategy sets out a broad vision and strategy for extensive collaboration and co-operation across the entire maritime sector on the African continent. Education and training is one of the aspects of this proposed collaboration.

*Paragraph 51:* "...As a result there are no specific models of the maritime sector human resources development footprint that would facilitate the building of a comprehensive human resources development strategic plan to direct the growth of human resources that will elevate the maritime sector as a recognized contributor to the to the continent's economy. There is therefore the need to have an integrated human resources strategy for the maritime sector to support the provision of skills taking into account gender balance in the entire maritime value chain which includes shipping and logistics, offshore activities, tourism and recreation, and safety and security."

*Paragraph 53:* "The AU shall tackle the need to protect the current employment generation levels and provide catalysts for growth and development across all sectors of the maritime industry, which includes shipping, marine resources, marine tourism and leisure, marine manufacturing and constructions, commercial support and business services and public interests. This will enable the maritime sector to act as a new employment creation driver of the continental economy."

The strategy also specifically mentions naval architecture, shipbuilding and marine engineering as areas that need to be advanced (Par 101).

While there are a number of institutions on the African continent which provide training and education which may support the Maritime sector, there are 2 specific institutions which are directly and specifically related to the sector as follows:

- **Regional Maritime University in Ghana** – this is a sub-regional tertiary institution that exists to enhance the development of the maritime transport sector and the fishing industry in member states through the maritime education of students, training of marine personnel, research and consultancy and promotion of maritime co-operation. The University offers the following diplomas and degrees:
  - o BSc Logistics Management (in collaboration with Shanghai Maritime University, China)
  - o BSc Marine Engineering
  - o BSc Marine Electrical and Electronics Engineering
  - o BSc Nautical Science
  - o BSc Computer Engineering
  - o BSc Ports and Shipping Administration
  - o Various Higher Diplomas
  - o Master of Arts in Ports and Shipping Administration

The university also has an Oil and Gas Safety Training Centre.

- **The Arab Academy of Science and Technology and Maritime transport (Egypt)** – a regional university serving the Arab world. The university consists of seven colleges:
  - o Maritime Transport & Technology
  - o Engineering & Technology
  - o Management & Technology
  - o Computing & Information Technology
  - o Graduate School of Business
  - o International Transport & Logistics
  - o Language & Communication

## B.4 International Supply of Maritime Education

There are an extensive number of maritime specific universities and training colleges and it is only possible to reference a few of these institutions in this report. The following have been identified as the most relevant and highest priority institutions:

- **International Association of Maritime Universities (IAMU)** - IAMU was founded by seven universities representing the five continents of the world (Representative Universities) in November 1999, with a shared recognition of the significance of maritime education and training in the rapid globalisation of the international shipping arena. Since then, IAMU has significantly expanded its membership, and now has 52 institutions of the world's maritime education and training universities/faculties and The Nippon Foundation as its members. The goals of the IAMU are as follows:
  - o To develop a comprehensive Maritime Education System for following generations;
  - o To establish an effective Maritime Safety Management System for the international maritime community; and
  - o Prepare and develop standardised Undergraduate Curricula and an International Certification System for Competency.

- **World Maritime University** – the World Maritime University was established more than 30 years ago and is located in Malmö, Sweden. The University was established by the International Maritime Organisation, a specialised agency of the United Nations responsible for the safety and security of shipping and the prevention of maritime pollution by ships. The WMU focuses predominantly on post graduate studies in the Maritime sector.

The courses offered by WMU include:

PhD in Maritime studies

MSC in the following:

- o Shipping management and logistics.
- o Port management.
- o Maritime safety and environmental administration.
- o Marine environmental and ocean management.
- o Maritime law and policy.
- o Maritime education and training.
- o International transport and logistics.

The university also offers a post graduate diploma in Marine Insurance.

Over the 30 years of the university's existence, the university has trained more than 3500 students from 164 countries.

- **Singapore – IMO – Third Country Training Programme**–In 1998, Singapore and the IMO signed a Memorandum of Understanding (MOU) on the Third Country Training Programme, which was the first of its kind at the time. Under this MOU, Singapore conducts and contributes to the funding of training programmes for developing IMO Member States in the Africa, Asia-Pacific and Middle East regions on matters relating to maritime safety and the prevention and control of marine pollution.

In 2012, the geographical scope of the Singapore-IMO TCTP was expanded to include Latin America and the Caribbean. To date, more than 1,400 students from 70 countries have attended a wide range of courses under the programme.

- **Korea Maritime University**– KMU is a national university for maritime study and transportation engineering. It is located in Yeongdo-gu in Busan. The university's name will be changed to "Korea Maritime and Ocean University" on September 1st, 2013. The KMU is divided into Colleges with 9 213 registered students (as at 1 April 2013). The Colleges are as follows:

- o College of Maritime Sciences
- o College of Ocean Science and Technology
- o College of Engineering
- o College of International Studies
- o College of Maritime Military

The KMU also has a Graduate School. To date the KMU has produced more than 32 000 graduates.

- **Kobe University, Japan**– Kobe University is a member of the IAMU and has academic exchange agreements with a number of other maritime universities. The university has a Faculty of Maritime Sciences and Graduate School of Maritime Sciences. It offers various Bachelor's degrees, four Master's programmes and five Doctoral programmes. The university also has a focused research programme.



- **Tokyo University of Marine Science and Technology, Japan**– A national university in Japan. The main campus (Shinagawa Campus) is located in Minato, Tokyo. The university has a Faculty of Marine Science, Faculty of Marine Technology and a Graduate School.
- **Shanghai Maritime University, China** - Shanghai Maritime University (SMU) is a multi-disciplinary university that encompasses engineering, management, economics, law, liberal arts, and science, with a special emphasis on shipping technology, economics and management. At present the university runs two post-doctoral research stations, nine doctoral programs, 44 master's degree programs, 45 bachelor's degree programs, and 12 associate degree programs. Consisting of 14 colleges, SMU has over 20,000 full-time students, of which over 16,200 are undergraduates and 2,600 are postgraduate students. Of the over 1,000 full-time teachers, 135 are professors and 45 per cent hold a doctorate.
- **AMET University, India** - AMET offers a wide range of courses, including vocational certificates at many levels, bachelor degrees and diplomas; as well as postgraduate certificates and degrees, including doctorates. AMET collaborates with other universities and colleges in the UK.
- **University of Tasmania, Australia**–The University has an Institute for Marine and Antarctic Studies (IMAS) which pursues multidisciplinary and interdisciplinary work to advance understanding of temperate marine, Southern Ocean, and Antarctic environments. The IMAS was created by the University of Tasmania Council to bring together the many strands of marine and Antarctic research currently being pursued in and around Hobart, to encourage the development of strengthened research links and exploit new research opportunities.

The Institute is independent of the University's Faculty Structure and is run by an independent Board under the leadership of an independent Chair. The IMAS has 70 academic staff members and conducts research in three areas: Fisheries & Aquaculture, Marine Ecology & Biodiversity and Ocean & Climate.

- **Antwerp Maritime Academy, Belgium** - The Antwerp Maritime Academy is the only college in Belgium offering training in Nautical Sciences and Marine Engineering. Courses are taught in Dutch and French. The Dutch section currently has 359 students, the French section 323, bringing the total to 682 students (of which 11% are female). 38% of students are foreign (non-Belgian) students from 22 different nationalities. Education at the Antwerp Maritime Academy aims at two careers: one at sea as a merchant marine officer, becoming a Captain (Master) or a Chief Engineer; the other is an on-shore career in a nautical-economic or nautical-technical function.

## B.5 Selected Case Studies

In addition to the understanding of the supply of education programmes specifically, the review identified a number of local and international case studies of research institutions and other areas of sector wide or inter-institutional collaboration which are relevant to the maritime sector. These included the following:

### B.5.1 Irish Maritime and Engineering Resource Cluster (IMERC)

IMERC is a cluster initiative established by the University College Cork (UCC) and the Cork Institute of Technology (CIT) in conjunction with the Irish Naval Service. The cluster was launched in 2010 with the vision to promote Ireland as a research and development location in the maritime and energy resource sectors.

There are initially 3 research groups under the UCC as follows:

- The Hydraulic and Maritime Research Sector (HMRC)
- Coastal and Marine Research Sector (CMRC)
- The Sustainable Energy Research Group (SERG)



CIT has been Ireland's National hub for training master Mariners in seamanship.

In the cluster, scientists and engineers are expected to collaborate, working together in an open plan facility. The institute is currently based at Ringaskiddy near Cork in the National Maritime College and the Irish Navy Service premises. The institute will soon move to the newly built National Beaufort Centre.

The strategic pillars are maritime engineering, shipping, logistics and transport, maritime safety and security and recreation.

The target is to establish 17 new research jobs by 2014 and have 5 companies incorporated by 2015 with 2 foreign direct investment clients by 2016.

The Centre was established during the Irish recession specifically to enable collaboration that would lead to doubling the maritime and fishing sector contribution to the Irish GDP. This shows the direct link anticipated between research activity and contribution to the overall economy.

The centre was established through a simple Memorandum of Understanding. Facilities were initially contributed by the College and the Navy and a purpose-built facility is now being constructed by the University.

The centre has actively attracted participation from the private sector and has seen a number of naval architects and marine engineers as well as simulation specialists joining in the collaboration.

The spin-off to the education Institutions has been the opportunity to present formal and short course programmes to the maritime sector.

This institute is clearly focused on high end research and development and the commercialisation of this research for the benefit of the sector. The cluster provides an ideal example of one component of the maritime institute or university envisaged for South Africa.

### **B.5.2 ASCLME Project (South Africa)**

The Agulhas and Somali current large marine ecosystems project is a project to assess the state of the marine environment in the West and Indian Ocean. The project initially has 5 years of funding to the value of 12 million USD from the Global Environmental Facility (GEF). The initial period of the project completes at the end of 2013 where after the project will continue under the Sapphire Project (Strategic Action Program Implementation Project).

The project is a collaboration between 9 countries including all countries from South Africa to Kenya on the mainland and Indian Ocean islands. The project is hosted by Rhodes University and led by Dr Vousden.

The project is an ideal form and shape of project to be housed in a maritime centre or institute. Such a project could benefit from being co-located with other marine and maritime research activities.

### **B.5.3 AfriCOG (South Africa)**

AfriCOG is the African Sector for Capacity Building on Ocean Governance and is currently located at Rhodes University. The objectives of the centre is to develop science based governance of the marine environment through targeted research and collaboration with public and private sector decision makers and communities, and to establish guidelines and monitor marine resource utilisation across borders.

The project boasts an alliance of over 100 international and local partners from UN agencies through to local universities. International links include a formal association with the World Maritime University and IOI. NOAA (USA) and UN IMO have confirmed their support as an

anchor for their African CB & T activities. Universities of Oxford, Wales, Southampton and Newcastle have also indicated support as an anchor for their African CB & T. In addition, AfriCOG is currently exploring a partnership-based structure with other SA universities

Funding is obtained from various sources including:

- o **UNDP IW: LEARN** up to R500K through the Centre
- o **NORHED** – negotiating up to R20m for training at MSc and PhD level in fisheries management and governance
- o **UNDP GEF SAPPHIRE (Next phase of ASCLME)** - R10m allocated to AfriCOG to develop Science-based governance practices
- o **GEF Beguile Current Commission Convention Implementation Project (starting within the next year)** – R10m allocated to capacity building and training for ocean management and governance through AfriCOG
- o Total of funding sources: R40.5m.

The project aims to deliver its first ocean governance training for middle managers in August 2013.

#### **B.5.4 UNESCO Type 1 University**

UNESCO has established 11 category 1 institutes around the world. These institutes are locally funded but apply the rules and regulations of UNESCO.

There are currently 200 MSc students from 80 countries (selected from 3000 applicants) and 100 PhD fellows, together with 200 short course participants at the different institutions worldwide.

In South Africa a program is underway to establish a category 1 institution for water education with initiatives having been started in 2012 and the submission due in August 2013, and feasibility studies to be carried out in 2014. The 5 year plan requires a budget of R122 million which would lead to a total of 60 Master's students and 10 PhD students accommodated in appropriate infrastructure.

The value of this case study shows the opportunity for establishment of a focused institute with international alliances and alignment. The important lessons are the intention to start small and achieve incremental targets in student numbers and physical infrastructure over a 5 year period.

#### **B.5.5 University of Washington Seattle**

The School of Marine and Environmental Affairs at the University of Washington in Seattle offers a Master's Degree whose focus is the human dimensions of global changes in the marine environment. An existing link exists between this School and NMMU's existing maritime offering through Prof Vlad Kacynski's work and lecturing at NMMU on a contract basis

His preliminary view is that the institute should start small, possibly within the support structure of an existing university and grow over time to become its own independent maritime institute, which is consistent with one of the possible models.

## B.6 Situational Analysis Conclusions

The current status of the education and training as well as research focus in the maritime sector in South Africa, is relatively un-coordinated and undertaken in many different units and entities in various institutions. There appears to be limited coherence and even less co-operation and collaboration across sector in South Africa.

At the same time, there appears to be sound examples of opportunities for international collaboration and international linkages as well as relevant case studies of research centres and post graduate institutes or universities which can provide valuable guidance to the South African opportunity. While there is limited maritime specific education in Africa, the 2 known major institutes together with the African Union strategy and policy provide a sound basis for establishing collaboration across Africa. The lack of maritime education and training in the southern African region makes the requirement for an at least regionally focused Maritime institute or university even more applicable.

In short, the situational analysis of education training and research clearly indicates the following:

- The need for coordination of these activities across the maritime sector in South Africa, regionally and in particular to establish continental and international linkages and alliances.
- The opportunity for improvements for the provision of education training and research through collaboration and co-ordination within the sector.
- The relatively high level of activity particularly in the training sector but also in the higher education sector but, clearly, opportunities for gaps to be filled in the service offerings.

## C Education and Skills Requirements and Gaps

### C.1 Understanding Education and Skills Requirements

SAMSA commenced the process of understanding the skills requirements and gaps through the skills study which was completed in 2011. This study attempted to identify the skills and education requirements and gaps for the sector as a whole. While the study presents an initial view of the requirements, concern was expressed in the study regarding the availability of information. The study recommended a more rigorous research process be undertaken to identify the human resource development requirements for the sector and to understand more fully the education and skills requirements and gaps.

Largely as a result of this recommendation, SAMSA has commissioned a HRD study (referred to as the Demand Side study) to identify in more detail the demand for education and training in the sector. It is intended that the results of this demand study would feed into this feasibility study for the institute or university. No information is yet available from this demand study. The findings of the demand study will be integrated into this report once received. In the meantime, the understanding of education and skills requirements is based on the findings of the skills study and the stakeholder engagement and qualitative questionnaire information which have been obtained as part of the feasibility study.

### C.2 Maritime Sector Skills Development Study

The Maritime Sector Skills Development Study was commissioned by SAMSA and undertaken by Deloitte.

The detailed findings were published in the comprehensive report dated 21 September 2011.

The key findings and outcomes from the study include:

- A definition of the maritime sector into the 7 sub-sectors being 3 primary sub-sectors (shipping and transport, marine resources and marine tourism), supported by 4 secondary sub-sectors (operational support services, manufacturing on construction, business services and public interest).
- The primary sub-sectors serve global industries and there is a need to align the skills development model with international standards.
- Shipping as the key industry in the maritime sector underpins the international economy. International trends show a global short fall in qualified seafarers with difficulties including aging maritime professional, decreasing number of recruits, limited management skills and the impact of technological innovation.
- While South Africa is positioned to exploit the demands in the shipping sub-sector, our maritime sector and specifically the education provision is not positioned to do so.

### C.3 Demand Side Study

At the time of commissioning this investigation into the Feasibility and Viability of the Maritime Institute or University, the SAMSA Centre of Excellence also engaged the professional services of BLA PAU, a specialist research company to undertake a detailed demand side survey.

This study has attempted to obtain the terms of reference for this study but no information has been forthcoming.

It is acknowledged that it will be ideal for the results of this study to be available in determining the Feasibility and Viability of a Maritime Institute or University. It is, however, believed that the research already undertaken has proven the requirement for an Institute to co-ordinate the education activities in this sector with one of its specific roles to fully understand and research the demand for maritime education and training. The Institute should therefore utilise the results of this study when they are available in the future, to promote, advise and co-ordinate the education providers to the maritime sector.

It is understood that the anticipated time for the finalisation of this report is before the end of 2013.

## C.4 Postgraduate Study Demand

During the course of this project, SAMSA has been in the process of co-ordinating a scholarship opportunity for postgraduate study to the World Maritime University. The applications that have been received have identified significant demand for postgraduate studies in this sector. To date, 171 applications have been received of which 77 applications were complete and were screened by the WMU admissions board. Of these 77, 26 were academically cleared for the intake commencing in September 2013.

A further 94 application files were incomplete and were not considered for this year's intake but may be carried for subsequent similar programmes.

The 26 approved for the 2013 intake cover the following fields:

Field	Number of Approved Applicants
Maritime Law and Policy (MLP)	9
Maritime Education and Training (MET)	7
Maritime Environment and Ocean Management (MEOM)	3
Port Management (PM)	3
Maritime Safety and Environmental Administration (MSEA)	2
Shipping Management and Logistics (SML)	2
Total	26

While there is obviously the added attraction of the scholarship that is offered, the extent of applications and the number of qualifying applicants already received for this programme shows a clear indication of the demand for a range of postgraduate programmes in the maritime sector.



## D Sector Expectations

### D.1 Sector Engagement

To understand the sector expectations and views on the potential Maritime Institute or University, 2 parallel approaches were followed:

- **Qualitative Questionnaire** – a qualitative questionnaire was prepared and distributed to 88 industry stakeholders and experts. The list included the full panel of experts as identified by SAMSA as well as other key industry stakeholders identified through the course of the project to date. To date, 44 responses have been received with the responses coming from the following broad categories:

Organisation type:	Number of Responses:
HEI	10
FET	4
School	1
Industry	15
Science	3
Government Agencies	9
NGO	2

- **Direct Stakeholder Engagement** – these engagements took place through a number of steps including:
  - o Telephonic follow-up on questionnaire responses where respondents had indicated their willingness to engage further.
  - o Cluster group meetings arranged to address multiple stakeholders participating in each cluster in a focus group session.
  - o Individual engagements, with key stakeholders were deemed necessary.

The outcome of these steps is set out below:

### D.2 Qualitative Questionnaire

The responses to the qualitative questionnaire were overwhelmingly in favour of a sector wide response to the need for education and training. The table below presents the responses to the individual questions.

#	Question	Disagree	Neutral & No Answer	Agree
1	South Africa currently meets its requirements in terms of Maritime higher education	31	10	3
2	South Africa needs a dedicated and focused Maritime Institute	2	9	33
3	The Institute should strive to serve the African continent	2	12	30
4	The Institute should be established within an existing Higher Education institution	8	11	25
5	<b>Focus of Institute</b>			
	Shipping and Transport	-	6	38
	Marine Resources	3	9	32
	Marine Tourism	12	12	20
	Operational Support Services	1	9	34
	Manufacturing/Construction	7	9	28
	Business Services	6	12	26
	Public Interest	10	14	20
6	<b>Levels of Education</b>			
	Post Graduate Degrees	4	7	33
	Bachelor Degrees	4	5	35
	Diplomas and Certificates	3	12	29
	Technical and Trade Certifications	8	11	25
	Short Specialist Courses to meet the industry requirements	4	15	25
	School Level Studies	21	12	11
7	<b>Role of the Institute</b>			
	Coordination and articulation of Maritime education	-	8	36
	Promotion of Maritime education (filling the gaps)	1	8	35
	Research and knowledge base	-	8	36
	Centre for Post Graduate studies	4	7	33
	Centre for Professional Development	1	7	36
	Centre for Conversion of Qualification to Maritime Specific Specialisation	2	15	27
8	<b>Sources of Funding</b>			
	Department of Higher Education	3	9	32
	Department of Transport	3	13	28
	Private Sector / Industry	5	18	21
	African Union	8	21	15
	Other, please specify...	2	30	12

The overwhelming response indicates that the sector is not currently meeting its needs in terms of higher education and that a dedicated and focused maritime institute is required.

### D.2.1 Need for Maritime Institute or University

There is also a very strong view that the Institute should serve the needs of the African continent.

The overwhelming majority support the concept of the Institute being established within an existing higher education institution.

### D.2.2 Focus of Maritime Institute or University

The 7 sub-sectors of the maritime sector were provided as options and all sectors were indicated as focus areas for an institute or university. The highest ranking requirement is in the area of shipping and transport followed by operational support services and marine resources.

Manufacturing and construction, business services, public interest and marine tourism all had the majority agreeing that these areas should be covered by the institute or university. From the comments attached to the questionnaire, it appears that some of these areas received less emphasis due to the fact that these areas already receive significant attention from existing institutes and colleges.

### D.2.3 Level of Education

The priority level of education is clearly higher education where 35 of the 44 respondents agree that this should be the focus and 33 respondents believe it should focus on post graduate

degrees. The diplomas, technical certificates and short courses received a majority response but less than the higher education programs.

#### **D.2.4 Role of the Institute**

The hierarchy of potential roles for the institute was provided ranging from co-ordination of the sector, promotion of the sector, research and knowledge base, centre for post graduate studies, centre for professional development and centre for conversion qualifications. All these areas received majority support with the highest priority areas being co-ordination and articulation in the sector, research and knowledge based and the centre for professional development.

#### **D.2.5 Sources of Funding**

Various potential sources were identified showing that the sector is supportive of a broad base of funding being made available for this institute from various departments including higher education, transport, industry itself and even the African Union.

#### **D.2.6 Priority Fields of Study**

The respondents were provided an opportunity to identify high priority fields of study and the following were identified:

- Naval architecture.
- Ship building.
- Boat building.
- Certified seagoing officers and ratings.
- Coastal trade qualifications.

#### **D.2.7 General Views**

From the additional comments made on the questionnaire responses, the following were identified:

- There should be more focus placed on quality education in the sector. This includes expressed concern about the qualifications and experience of lecturers.
- The existing education system is bureaucratic and inflexible and every attempt should be made to limit this as far as possible.
- Lecturing personnel earn much less than professionals earn at sea and this limits the ability to attract qualified and experienced professionals into the education environment.
- There is a strong need for research and development in the maritime sector.
- There is a need for industry specific skills development.
- There is an opportunity for collaboration across the rest of Africa.
- There should be a high level of co-ordination of existing institutions offering maritime studies.
- There is a need for conversion of qualifications to maritime specific qualifications.
- The barriers to international employment should be removed. This includes visa barriers.

## D.3 Stakeholder Engagement

To gain better insight into the requirements of the sector, the project team aimed to engage with the various maritime clusters and key stakeholders in the various areas. Unfortunately, during the feasibility stage of this project, engagement was only possible with the Eastern Cape cluster. During the viability phase and during the finalisation of this report, further engagement was arranged in the Western Cape and KZN.

### D.3.1 Eastern Cape Maritime Cluster

This took place at a meeting at the cluster in Port Elizabeth on 17 July 2013. The cluster has been in operation since the Ports and Maritime Conference in May 2013.

At the cluster meeting a number of initiatives were presented including:

- Marine research in the form of the ASCLME project dealt with below.
- Governance projects in the form of AfriCOG as well as the recently established Nelson Mandela Metropolitan University Chair in Maritime Legal research.
- Engineering projects in respect of 2 boat building initiatives and the planned expansion of maritime engineering studies at NMMU.
- Regional collaboration is underway between NMMU, Rhodes University and Fort Hare University.
- International collaboration is taking place with a number of entities including the UNESCO University in Delft and with the University of Washington, Seattle.
- The above initiatives indicated the scope of activity already taking place in the Eastern Cape and being supported by the cluster. The cluster has prepared a detailed document to motivate the Eastern Cape as a potential host of a Maritime Institute or University. This document is attached as **Appendix A**.

### D.3.2 Western Cape

While an attempt was made in August 2013 to arrange a Western Cape Cluster meeting, this was not possible. Instead, the project team met with key representatives of the Western Cape Cluster in Cape Town on 15 August 2013. Direct engagement took place with Professor Edward Snyders, the Head of the School of Maritime Studies at Cape Peninsula University of Technology, Ms Deanna Collins, the Director of Marine Crew Services and Ms Vanessa Davidson, the CEO of the Marine Industry Association of South African.

Professor Snyders noted that CPUT currently has 60 deck cadet positions and 60 engineering cadet positions. He noted, however, that CPUT currently turns away some 240 deck cadet applicants and 240 engineering cadet applicants per year.

In spite of the low number of places available at CPUT, there is, however, still a shortage of berths for the qualifying cadets. This remains the major challenge when considering expanding the seafarer training at South African Institutions.

Between 30% and 50% of the CPUT seafarer students come from outside of South Africa, mainly from West Africa, and many of them come sponsored by shipping companies with a pre-arranged berth.

The feedback received from Ms Deanna Collins of Marine Crew Services supported this view. Ms Collins specifically noted that MCS plays a significant role in the placement of trained seafarers. MCS place staff on ships at all levels from semi-skilled right through to master level.

Ms Collins raised the issue of overall advancement of the South African Maritime economy specifically vessel registration (flagging of ships) and the requirement for South African ship owners to support the development and expansion of the South African Maritime sector by employing locally trained staff. She indicated that resolving the issue of flagging ships in South Africa would go a long way to creating opportunities for seafarer cadets in South Africa.

Ms Vanessa Davidson noted that the Marine Industry Association of South Africa is a voluntary association of manufacturers and service providers particularly in the boat building and equipment sectors. She noted the requirements in these sectors are largely for skills at SAQA level 2, 3 and 4, mainly from FET Colleges. She indicated that the Marine Industry Association had been dealing with issues of accreditation and registration and funding of skills programmes.

### **D.3.3 KwaZulu-Natal Engagement**

While a meeting of the KwaZulu-Natal education cluster was not possible in August, direct engagement took place between the project team and key members of the KZN maritime education cluster including Professor Ahmed Bawa, Captain Johnsen, Professor Trevor Jones and Doctor Chasomeris, held in Durban on 20 August 2013.

The insight obtained from this engagement was the number of previous initiatives that have taken place aimed at developing a maritime centre for Durban/eThekweni. It was noted that all of these programmes have failed or stalled in one way or another. The most recent of these was a business case for establishing a maritime centre in Durban which was finalised in December 2011. This report was made available to the project team and presents a valuable piece of work focusing on the potential for a maritime centre specifically co-ordinating the Durban and KwaZulu-Natal based maritime education providers and servicing the KwaZulu-Natal market.

A MoU has been signed by various institutions in Durban but no implementation has as yet commenced on this initiative.

The key opportunity in eThekweni is the opportunity for sharing of specialist equipment and simulators used by the various education providers, and the co-location of scarce skills and expertise from the various institutions. It was acknowledged by the various institutions that their existing undergraduate programmes may continue to be presented mainly on the existing campuses with specialist modules being presented at an eThekweni Maritime Centre. Similarly, postgraduate studies would continue to be located within the existing universities but a single centre would share expertise and knowledge and provide increased opportunity for postgraduate studies in the region.

At this stage, one of the key participants in an eThekweni Maritime Centre would be the Transnet Maritime School of Excellence. Direct engagement was scheduled with this key stakeholder on 20 September 2013.

Professor Bawa highlighted the number of different programmes provided by different institutions in KwaZulu-Natal and was strongly in favour of progress being made with the establishment of a maritime centre in eThekweni. He strongly supported, however, the retention of these programmes within the existing Institutions and the role that the centre could have in sharing facilities, resources and knowledge, and the co-ordination of the sector in KwaZulu-Natal so as to present eThekweni as a foremost provider of maritime education and training.

Captain Johnsen noted that the programmes currently offered by DUT are fully subscribed but that the main problem remains placing students after their studies. He believed, however, that increased co-ordination and advocacy of the maritime sector would lead to developing further opportunities for placement of these students.



The meeting with Professor Jones and Doctor Chasomires highlighted the postgraduate programmes offered by UKZN in the maritime sector and the proposed new programme particularly around customs which is being investigated.

Professor Jones specifically highlighted the extent to which South Africa is a net consumer of global supply of maritime services indicating the significant opportunity for developing the local maritime economy.

#### D.3.4 Oil and Gas Sector Engagement

Direct engagement was held with Mr David Kibler of National Oilwell Varco (NOV). He indicated that the oil and gas sector has a significant demand for qualified resources on projects for drill ships and semi-submersibles as well as jack-up rigs. He noted that there are some 130 projects employing nearly 40 000 marine specialists and engineers. He noted that the current education programmes form a sound base but these need to be supplemented with specific safety training and accredited courses in water survival, basic drilling and introduction to oil and gas.

#### D.3.5 Transnet Maritime School of Excellence

The Transnet Maritime School of Excellence is the combination of the Transnet School of Ports and the Transnet School of Port Operations. The newly established Maritime School of Excellence is now under the responsibility of Mr Herschel Maasdorp who has been engaged by Transnet to guide the School of Excellence to a new level of contribution to Transnet and the maritime economy.

The project team was able to engage with Mr Maasdorp in Durban on 20 September 2013. Detailed notes of this critical engagement are attached as **Appendix C**.

The crucial outcome of this meeting is the clear intention of the Maritime School of Excellence to engage directly and completely with SAMSA and other educational institutions to collaborate and co-operate towards achieving a comprehensive solution for maritime education in South Africa and to service southern Africa and Africa. Mr Maasdorp noted that Transnet National Ports Authority (TNPA) has committed significant funding to maritime skills training. While the School of Excellence will deal with the skills levels, Mr Maasdorp noted the significant requirement for high level education particularly post graduate studies. He indicated an interest in funding a maritime and port operations focused MBA programme.

There is furthermore opportunity for direct collaboration between SAMI and the maritime School of Excellence even to the extent of the School of Excellence potentially hosting the regional maritime centre in eThekweni and the School of Excellence using office space from the proposed maritime centre in Port Elizabeth. This level of direct collaboration would contribute significantly to developing a coherent education and skills development programme for the maritime sector.

## **E Proposed Strategy for Institute or University**

Based on the engagement with the steering committee and the inputs received via the qualitative research and stakeholder engagement, the strategy for a maritime institute or university should be based on the following key aspects:

### **E.1 Potential of the Maritime Economy**

In defining a strategy and vision for an Institute or University, it is useful to start at assessing the potential from the gross of the maritime economy in South Africa. According to Professor Trevor Jones of UKZN, South Africa currently utilises between 5% and 6% of global sea ton miles. South African ship owners, however, only own about 0.5% of the global supply of sea ton miles. South Africa is therefore a 1:10 or 10:12 net consumer of global supply. This, Professor Jones refers to as the asymmetry that exists in the South African maritime sector. Effectively, while South Africa is a relatively large sea trading economy (in terms of cargo owned), it is a relatively small sea enterprise economy (in terms of ships owned and maritime services supplied).

Professor Jones did note that South Africa currently beneficially owns between 65 and 70 ships mainly through Grindrod (Unicorn) and Ireland View Shipping. This accounts for somewhere between 2 and 3 million dead weight tons and while it does not meet the full demand of the South African maritime economy, it does go some way towards meeting demand. The ships are, however, only beneficially owned by South African companies. The ships are in fact flagged or registered outside of South Africa due to the lack of tax dispensation and the onerous regulations and bureaucracy.

Professor Jones referred specifically to the term cabotage, which refers to the restricting of the movement of goods between local ports by local registered ships only. This legislation is in place in other countries, particularly the United States where trans-shipment between local ports is required to be in locally registered vessels. This alone would move towards addressing the development of the South African maritime economy.

The other specific item noted by Professor Jones is the high port charges from South African ports which would need to be addressed as part of the process of building a stronger South African maritime sector.

In short, there appears to be massive potential from growing the South African maritime economy through a combination of addressing legislative and bureaucratic constraints, to re-assessing port charges and ensuring the provision of the required skills and expertise to support the growing maritime sector.

### **E.2 The Need for an Institute**

The maritime sector currently does not get the priority that is warranted. At the very least, the maritime environment should be considered the 10<sup>th</sup> Province of South Africa with significant resources and economic potential. The marine sector is currently not seen as an opportunity for job creation and economic growth and attention needs to be focused on the sector to develop this potential. At this stage, South Africa is a net consumer of international maritime services whereas it could become a net contributor to the international maritime economy. Reasons for this are varied but often relate to the lack of competitiveness of our maritime services and the limited resources and skills available to the sector in South Africa.

It is clear from multiple sources that education and skills development is critical to the growth of the maritime sector. Furthermore, it is already evident that the needs of the sector are unlikely to be able to be serviced from a single institution or one central point but rather require the

collaboration of multiple institutions servicing the maritime sector across the major maritime nodes in the country.

The development of this sector as a whole will require the collaboration of industry and other stakeholders and the educational institutions, ranging from schools and colleges to local and international universities to achieve these objectives.

To move this process forward, there is clear benefit from a co-ordinating entity and a focal point for the higher level knowledge and research in the sector.

A new stakeholder engagement following the feasibility study may present a more compelling evidence of the opportunity for the maritime sector to be a more substantial contributor to the South African economy. Furthermore, the SAMSA WMU postgraduate programme has clearly highlighted the demand for postgraduate education in the maritime sector.

The further stakeholder engagement following the feasibility phase presented a stronger demand from across the board for something practical to be implemented to promote and develop the maritime economy. At the same time, this research has highlighted the number of stalled or failed attempts to establish a national or regional maritime centre or institute. While various reasons can be identified for these stalled attempts, including personal and individual institutional preferences, funding and individual agendas, there remains a strong consensus for the need for a national Maritime Institute or University to co-ordinate the activities in this sector and to develop specific activities at a national level to meet the demands of the sector.

The additional research has also highlighted the opportunity for more than one regional Maritime Centre to form part of a national Maritime Institute or University.

### E.3 Reach of the Institute or University

On this basis, it is proposed that the reach of the institute would be primarily focused on South Africa and Southern Africa but achieve international collaboration with the rest of the African continent and international universities mainly at post graduate level. The reach of the institute can be summarised as follows:

Proposed Reach	Assessment	Comment
South African	Yes	Co-ordinate all levels of study Deliver higher levels of research
Southern African	Yes	All levels of tertiary study
African Continent	Partly	Mainly for post-graduate studies
International	Yes	Particularly as the linkage between Southern Africa and the International sector

### E.4 Role of the Institute or University

The role of the institute or university in whatever form it takes will cover a broad range of services to the sector from co-ordination and promotion through research and being the knowledge base for the sector. The focal point of maritime education in the sector should bring together post graduate studies and research as well as provide continuing professional development and potentially conversion qualifications into maritime specialisations.

While the institute or university would be a knowledge hub, it would specifically not be able to play a role in policy formulation but rather service institutions that have this specific responsibility.

The role of the institute can be summarised as follows:

Proposed Roles	Assessment	Comment
Coordination and articulation of Maritime Education	Yes	Number of Institutions already offering programmes, but no coordination
Promotion of Maritime education	Yes	Strong advocacy role required Support development of qualifications
Research and knowledge base	Yes	There is no central point to coordinate information
Centre for Post Graduate studies	Yes	As a coordination centre As a focal point for high level knowledge
Centre for Professional Development	Yes	As a coordination centre As a delivery institution
Centre for conversion of Qualification to Maritime Specific Specialisation	Yes Partly	May also be offered elsewhere
Policy Formulation	No	More of a knowledge support and research base for policy making institutions

## E.5 Focus of the Institute or University

When considering the focus on the various maritime sub-sectors, it appears evident that all sub-sectors should be given the requisite attention by the institute or university. It is only in the area of businesses where the needs of the sector can largely be met by generic business education from non-maritime specific institutions. This said, however, it is clear that business education aligned to a maritime college can add additional value through interaction with maritime focused students and researchers.

Proposed Focus	Assessment	Comment
Shipping and Transport	Yes	Significant component of the Maritime Institute or University should be focused in this area
Marine Resources	Yes	Important for sustainability of resources
Marine Tourism	Yes	Opportunity for expansion and creating employment
Operational Support Services	Yes	Yes, but already addressed by institutions across the country
Manufacturing/ Construction	Yes	Potentially a big creator of employment High demand for education
Business Services	Maybe	This is more generic, available through mainstream programmes
Public Interest	Yes	Law, regulatory frameworks, safety and security

## E.6 Learning from the Past

The detailed investigation undertaken by Professor Dan Archer of Meeting of the Minds into the feasibility of an eThekweni maritime centre, published in December 2011 presented details of a number of previous failed or stalled attempts at establishing a national or regional Maritime Centre. The issues identified in that report include:

- Individual or institutional self-interest or positioning;
- Lack of buy-in by other stakeholders and institutions;
- Competition and conflict;
- The initiative not being undertaken as a national initiative;
- Lack of political will and political support;
- Funding;
- Dependency on individuals to implement;
- Departures from agreed vision; and
- Lack of leadership, co-ordination and integration.

Establishing a South African Maritime Institute or University therefore clearly requires a number of key components:

- A national perspective and national project;
- Actively developing the support and buy-in of all Institutions engaged in this sector;
- Political support and the political will to make this happen; and
- Appropriate funding to support the initiative.

It is clear that just believing that a National Maritime Institute or University is a good idea and needed is not sufficient. It will require active support and direct drive from a sponsoring authority supported by the political will to ensure that the national entity becomes a reality.



## **F Structure Options**

### **F.1.1 Options Considered**

There are probably a significant number of options which could be presented for the Maritime Institute or University. It is necessary, however, to select a number of logical options which can inform the choices and strategic direction that can be taken. The options selected are therefore probably not exhaustive but present the broad alternatives available for this initiative.

The options have also been created so that they can build on one another with the possible outcome being a combination of elements of individual options.

The first 5 structure options below were presented as part of the Feasibility Study Report on 26 July 2013. The further engagement with various stakeholders and specifically learning of the KwaZulu-Natal initiatives identified the requirement for option 6 which is has now been included.

The Various options are presented below:

### **F.1.2 Option 1: Baseline**

The baseline is the “do nothing” scenario. Not sector wide initiative is taken and individual institutes continue to meet needs individually.

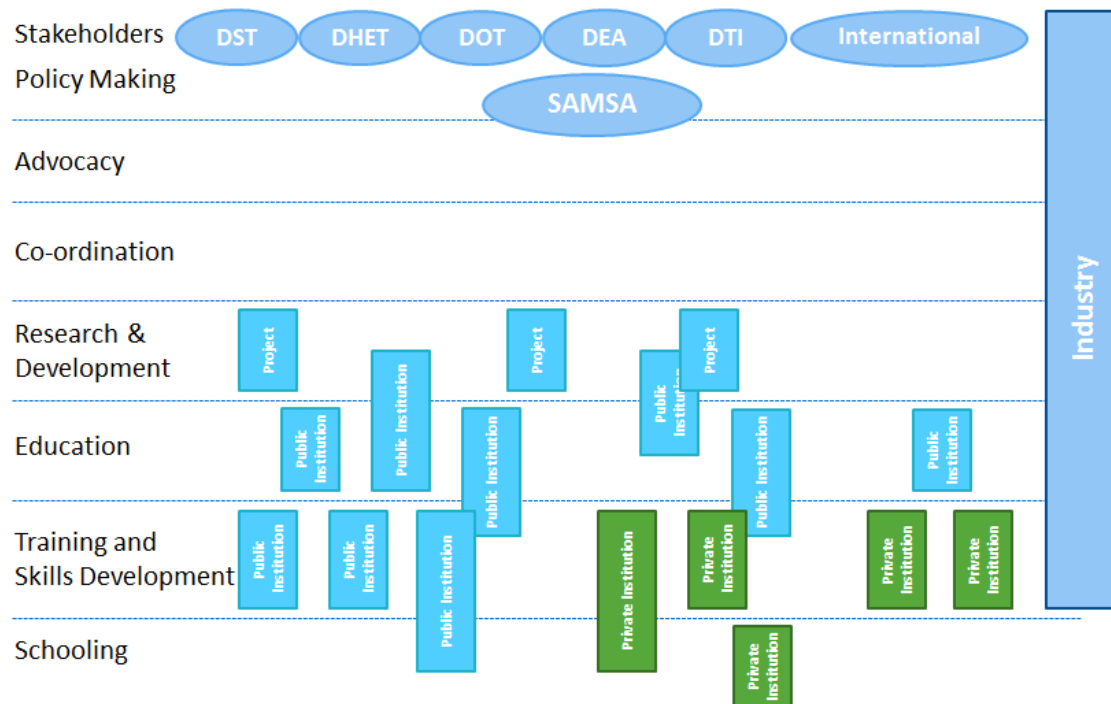
No changes are made to the sector structure or legal entities and each institution carries on as it is.

There are no additional funding requirements other than the funding of individual education and research programs at individual institutions.

Other than the obvious advantage that this option takes no effort and requires no implementation, no advantages can be seen in light of the fact that there is a clearly defined need for sector wide initiatives and development of education and training for the maritime sector. The disadvantages are therefore the continued lack of co-ordination in the sector and the limited likelihood that the identified education and training gaps will be met in the short term.

The baseline sector structure can be described by the following diagram:

**Figure 1: Option 1(Baseline) – Status Quo - Now**



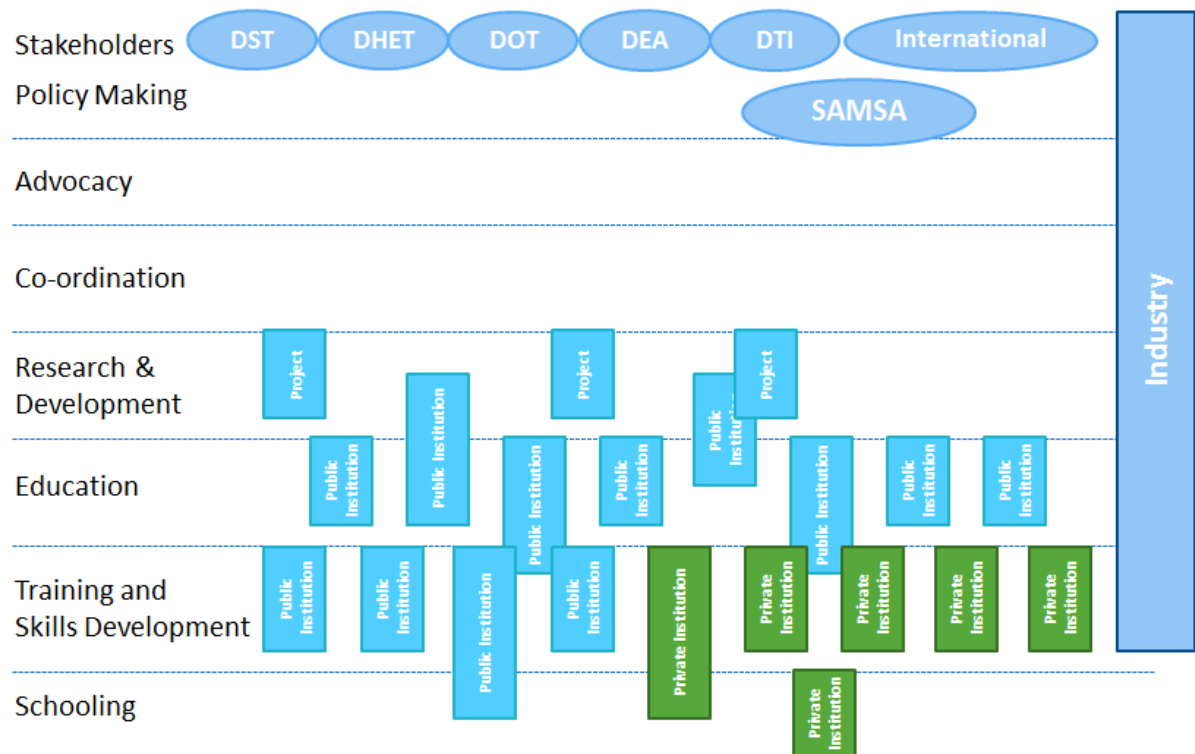
The sector from an educational perspective is a hierarchy of institutions from schools through training and skills development institutions into higher education institutions with post graduate programs and projects. Above the actual institutions is a co-ordination role from a sector perspective as well as an advocacy role. At the top of the sector are the sector stakeholders with direct interests in the development of the sector together with the policy making organisations that oversee the activities of this sector.

Depicted on the right hand side of the diagram is industry as one of the key stakeholders and direct contributed to and beneficiary from all of the relevant sectors in this model.

The generic diagram presents the fact that there are multiple individual training and education institutions across the various levels from schooling through further education and training into higher education. The baseline presents the fact that there is no sector wide co-ordination and advocacy entity for the maritime sector.

Left to its own devices, it is likely that the sector may develop only through the addition of new education and training service providers, colleges and institutions. Unless driven by the sector as a whole, there is unlikely to be any real form of co-ordination and sector wide advocacy aimed at developing the sector and ensuring the coherence of the education and training environment. The baseline in the future can be presented as follows with the addition of further training education providers.

**Figure 2: Option 1 - Baseline – Future (Hopefully)**



### F.1.3 Option 2: Co-ordination and Advocacy

The second option addresses the highest priority need that is not specifically educational for research. It is clear from the findings to date that in order to properly promote and develop education and training across the sector, there is strong belief that there is a need for a strong co-ordination and advocacy role to be undertaken for the sector as a whole. 2 alternatives have been identified:

- Option 2 A - A National Institute

This would be a national institute formed in terms of the Higher Education Act with the legislative mandate to undertake the co-ordination, promotion and support for the sector education needs and requirements. The legal and regulatory requirements for such an institute would be that it would need to be founded in terms of the Act via promulgation by the Minister of Higher Education. Accordingly, it would be responsible directly to the Department of Higher Education and the Minister.

The functional requirements for the establishment of such an institute would be a proven need and a clearly defined set of roles and functions for the national institute.

Once established, the institute may be funded from a variety of sources but ideally mainly via the Department of Higher Education and Training based on the benefit it would cede in terms of the co-ordination of the education and programs for the maritime sector.

- Option 2B – Voluntary Association of Education Institutions

As an alternative to the public institution, it may be possible for the existing institutions to voluntarily collaborate in the establishment of an association of education and training providers in the maritime sector. This association could similarly play the role of co-ordination for the sector and drive the development of programs and collaborations across the sectors. The voluntary association could equally play the advocacy role for the sector.

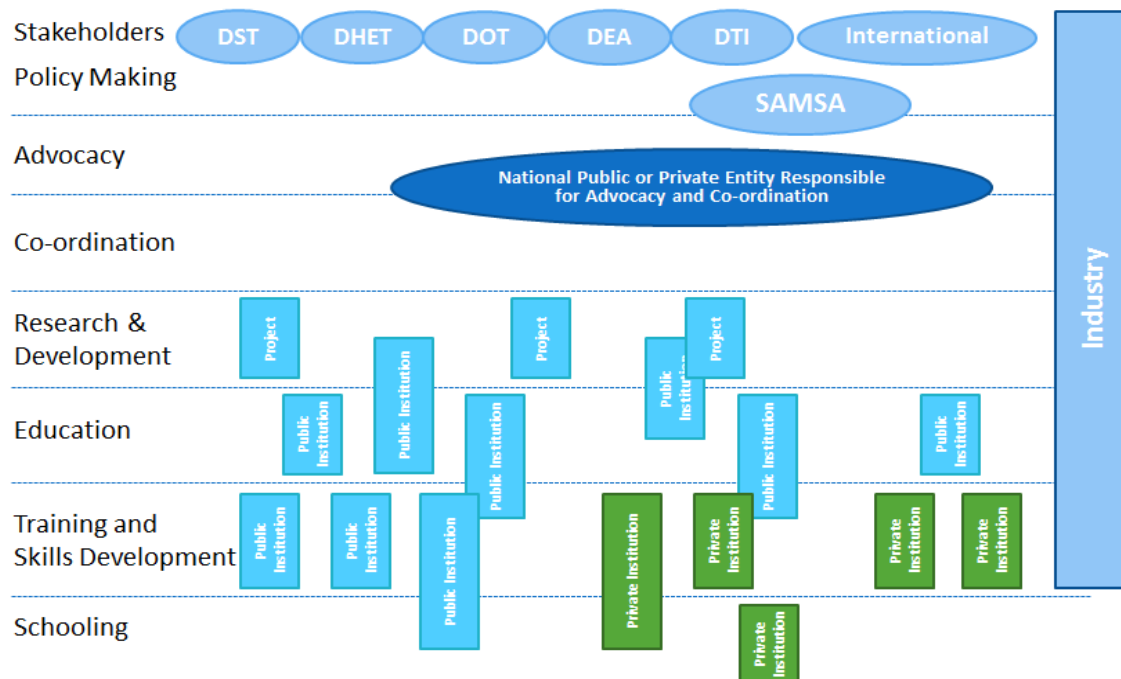
A private institution however would need to be funded from private sources probably via voluntary contributions from participating education institutions and colleges.

The advantages and disadvantages of these 2 options can be seen below:

Option	Advantages	Disadvantages
Option 2 A - National Institute	<ul style="list-style-type: none"> <li>A legislated mandate to co-ordinate the maritime education sector</li> <li>An established legal entity with potential funding to ensure the co-ordination, advocacy and drive towards collaboration in the sector.</li> </ul>	<ul style="list-style-type: none"> <li>Potentially seen as a further layer of bureaucracy</li> <li>Success will probably still depend on collaboration and support from existing institutions</li> <li>There may be some confusion between the role and responsibilities of this institute compared to a national centre for maritime research and education.</li> </ul>
Option 2 B - Voluntary Association	<ul style="list-style-type: none"> <li>Assuming the willing participation of all institutions, a high degree of co-ordination could be achieved.</li> </ul>	<ul style="list-style-type: none"> <li>Funding would need to be raised from participating membership</li> <li>Success will still depend on the collaboration and support of existing institutions.</li> </ul>

The structure of the sector with a co-ordination and advocacy entity would be as follows:

**Figure 3: Option 2 – National Public or Private Entity**



### F.1.4 Option 3: New Standalone Institute or University

One of the obvious options to consider is the establishment of a new standalone university or institute dedicated exclusively to the maritime sector.

The authority to establish a new university is vested by the higher education act in the Minister of Higher Education Act and would require the support of the Council for Higher Education. The recent developments in the higher education sector have shown the extensive consultation and the level of demand and social need to justify considering the establishment of a new separate university.

While obviously nothing is impossible, it is considered unlikely that a new standalone maritime university would be established in the short or even medium term in South Africa.

While this may not be an immediate opportunity, it may be a future outcome of selected strategies and options taken in the short and medium term.

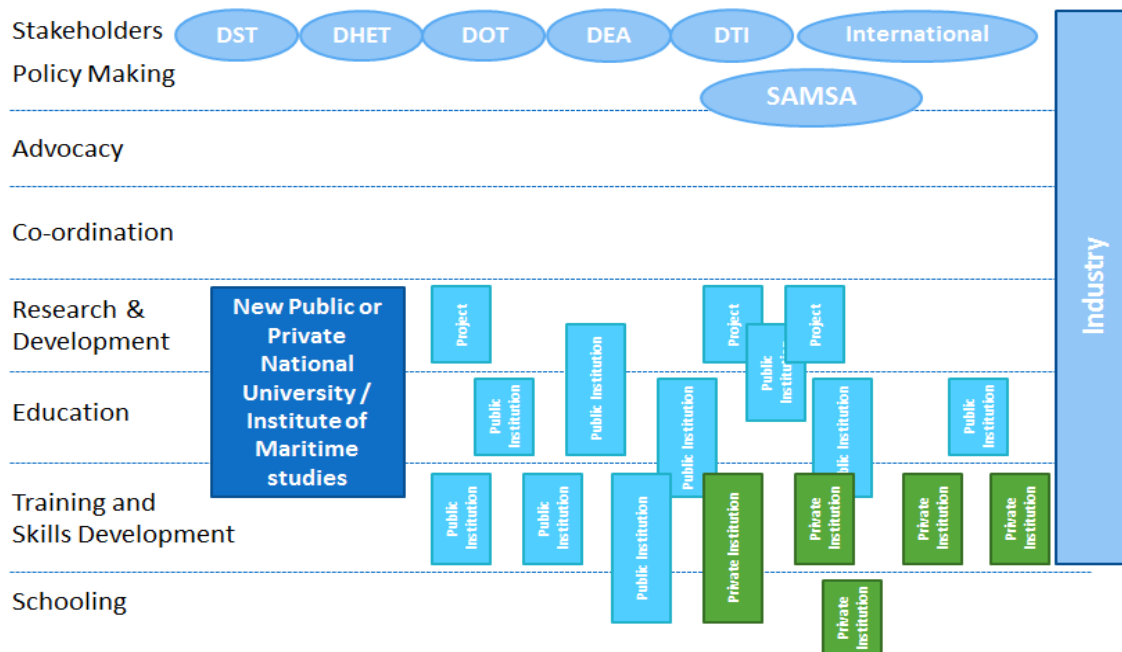
While the establishment of a standalone university would have the advantages of creating a real presence and direct focus on maritime studies and research, such an institution will not in itself achieve the objective of co-ordination and advocacy for the sector as a whole. A separate standalone institution would contribute directly to the development of the sector but is also likely to continue alongside existing maritime programs from what is offered at existing universities and colleges.

The major disadvantage would be the extended time frame likely to be involved towards the establishment of such an institution. The costs of running a separate institution are also likely to make this the most expensive option.

The structure table below indicates the view of a number of key stakeholders in the sector that the establishment of a new standalone public or even private national maritime university or institute is likely to add a further although significant entity to the current educational role players and to end up operating alongside existing role players and programs in the sector.

**Figure 4: Option 3 – New Stand-alone University or Institute**





### F.1.5 Option 4: National Centre for Maritime Studies and Research

While a new standalone University or Institute is likely to compete with existing Institutions, the option of a National Centre for maritime education and research could be founded on the basis of collaboration between existing education institutions and stakeholders. As such, it would not compete with existing programs by contribute to and promote these programs while offering the benefit of shared resources and knowledge.

There are again 2 sub-options for consideration:

- Option 4 A: - National Centre Hosted by an Existing Institution

Under this option, the existing institution may host the national centre and actively drive and contribute to the collaboration between institutions. The obvious benefit is that the centre utilises the established infrastructure and organisation of the host institution, and most likely, benefits from the investment and funding made available by this institution. The disadvantage of this option may be the perceived “ownership” of the centre by the host institution and the possible reluctance by other institutions to collaborate and actively participate in the centre.

- Option 4 B – Separate National Maritime Centre

If it is considered necessary to avoid the perception of ownership by a single institution, it may be an alternative to establish a totally separate national maritime centre as a collaboration between multiple institutions, industry and other stakeholders. The funding and support and administration costs of such a separate centre may be more significant and difficult to secure as opposed to the funding from within an established institution but is still a definite alternative worth considering.

The advantages of both these sub-options are that they can be implemented in the relatively short term and could contribute to rather than replace or compete with existing maritime programs at current institutions. The real benefit of the establishment of a national centre is the opportunity to share knowledge resources and even infrastructure for the benefit of participating institutions and the sector as a whole.

The obvious disadvantage of such a centre is that it needs to be located in one place while it well known that there are multiple instances of significant maritime education across the

country. While this could be overcome with satellite or associate campuses, it would still need to be addressed by the structure which is put in place.

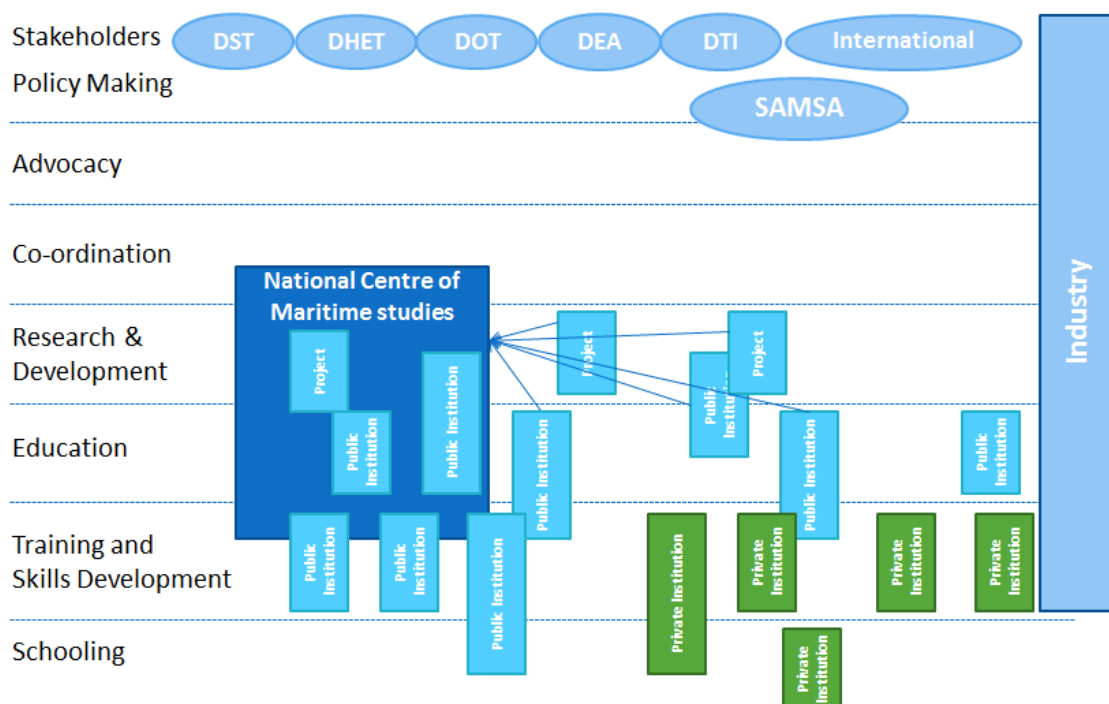
The establishment of a centre within a host institution obviously requires such a host to be found and the willingness to invest and support the establishment of the centre.

In either form, the centre would be heavily dependent on the collaboration and co-operation across the sector, especially as this would be entirely voluntary without any legislative mandate or support.

A key opportunity of the National Centre is to become the host for multiple dedicated maritime research projects and programs.

The structure of the National Maritime Centre could be presented as follows:

**Figure 5: Option 4 –National Centre in Existing Institution**

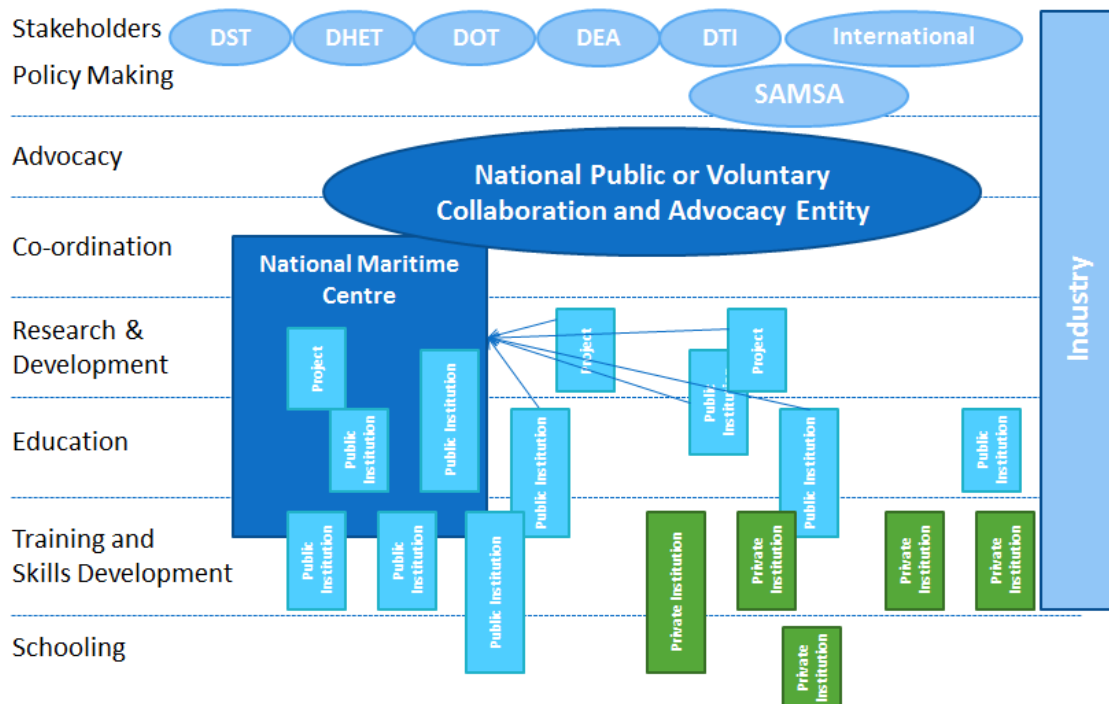


### F.1.6 Option 5: Co-ordination and Advocacy with a National Centre

This option combines one of the 2 sub-options of option 2 which establishes the structure and mechanism for sector wide collaboration and advocacy, with one of the options of option 4 which puts in place a national focused Maritime Centre. This combination option presents a holistic solution to the identified needs and requirements of the sector. It puts in place a structure which would meet the collaboration and advocacy requirements while establishing a focus centre to develop the profile and emphasis on maritime studies and education in the sector.

The structure of the sector could be presented as follows:

**Figure 6: Option 5 – National Entity and Centre in Existing Institution**



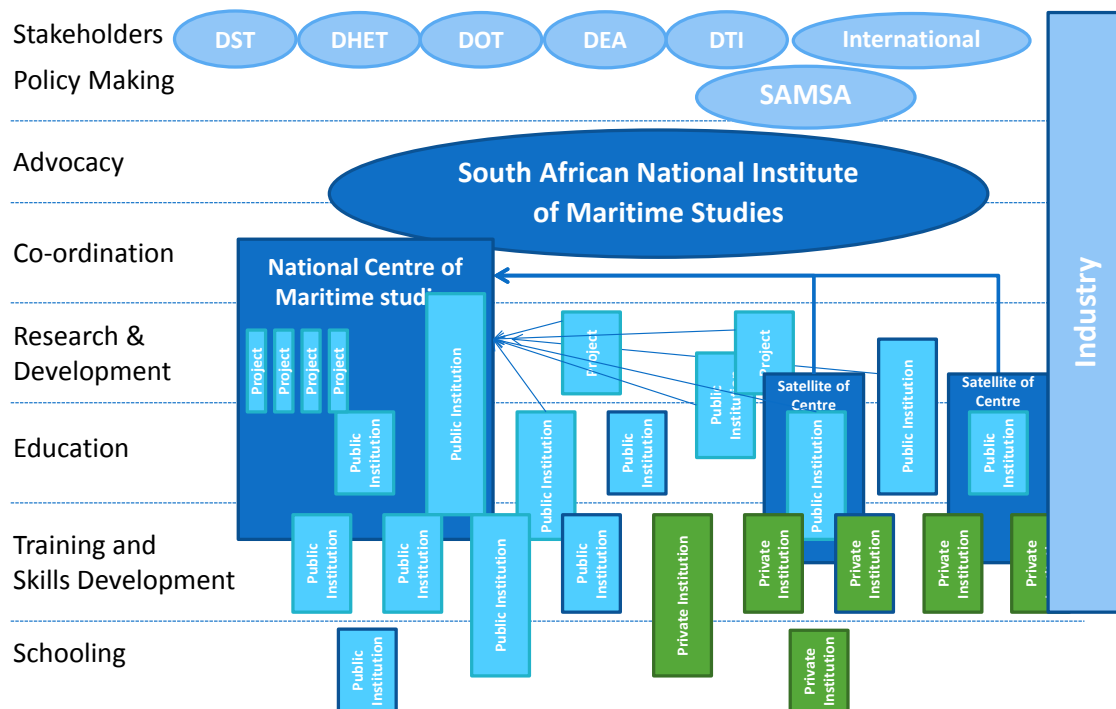
The advantages of this structure are the ability to meet the multiple identified needs and requirements of the sector ranging from collaboration and advocacy through to a focal point for education, research and knowledge in the sector. The combined entity would also have a significant opportunity to establish regional African and continental linkages as well as international linkages and accreditation.

While the location may focus on the host institution or local institutions, the use of satellite or associate campuses could address this. The national centre within a host institution is obviously heavily dependent on the contribution in terms of investment and administration support of the host institution.

This option remains as with previous options dependent in the collaboration of institutions across the sector.

A future view of this combination option may present a growing national centre with a wider breadth of programs and more collaboration with other institutions even through established associate or satellite campuses. In particular, the national centre should aim to house multiple research and development programs aimed at the maritime sector.

**Figure 7: Option 5 – National Institute and Centre in Existing Institution – Future Growth**



### F.1.7 Option 6: South African Maritime Institute as a Multi Campus Institution

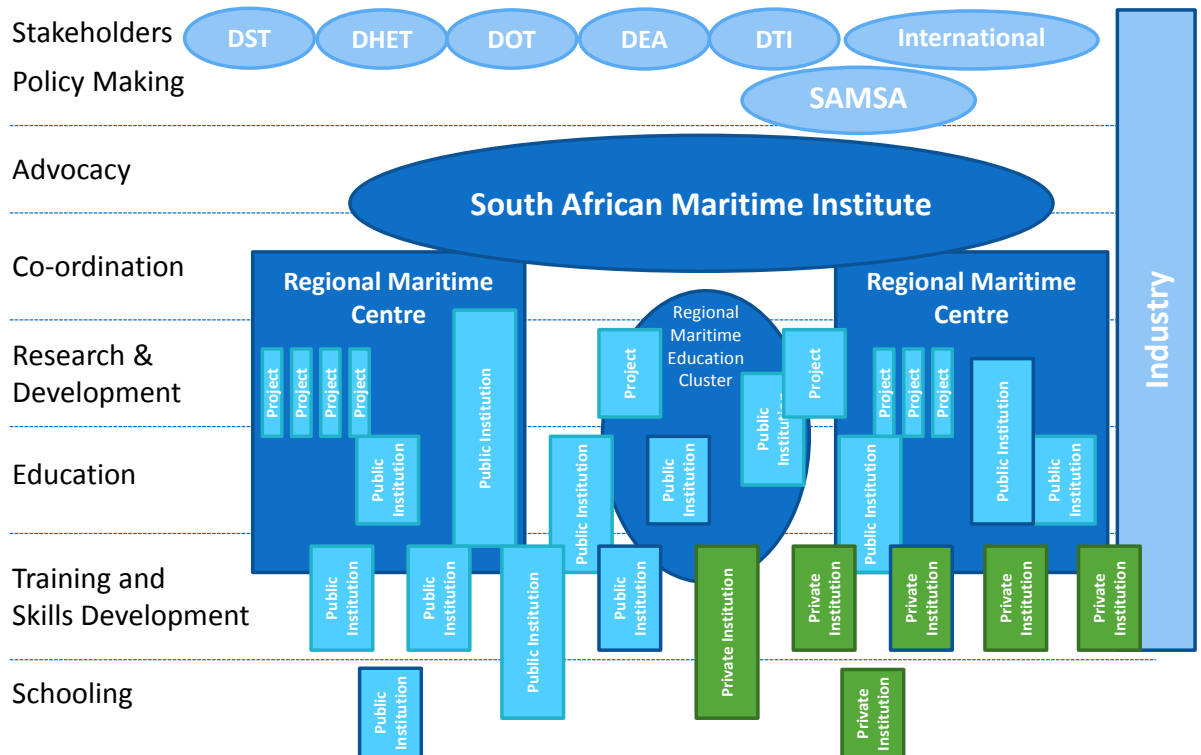
Option 5 above and even the vision for future growth on option 5 anticipated a primary centre which will also host the South African National Maritime Institute. It further envisaged that satellite centres may be established.

The outcomes of the further stakeholder engagement and the Viability Study research identified a further option which has been referred to as option 6 as the South African Maritime Institute as a multi campus Institution. Under this option, the National Institute may co-ordinate the activities of more than one significant Centre of Maritime Studies, potentially located in the major maritime centres. In addition to this, there may still be various satellite centres of the National Institute.

It is clear that the various centres may have a number of common components but are more likely to have individual specifics based on local competencies and sector demand. As an example, the Regional Maritime Centre in eThekweni may focus on ensuring co-ordination of education activities between multiple education institutions in the KwaZulu-Natal Province and the sharing of specific equipment and resources to ensure synergies in that region. A separate centre of the National Institute, possibly based in Port Elizabeth may focus on specific research in the maritime sector while at the same time ensuring the provision of postgraduate Diplomas in maritime studies and conversion courses in professional development. In effect, it does not matter necessarily where these activities take place provided a coherent and co-ordinated maritime education sector is developed in South Africa utilising the core strengths and competencies of the various higher education institutions engaged in this sector.

The structure of the National Institute with multiple Regional Centres is presented as follows:

**Figure 8: Option 6 – South African Maritime Institute as a Multi Campus Institution**



## G Vision and Strategy for SAMI

This section focuses on the design of the Institute which will meet the co-ordination, advocacy and collaboration requirements for education in this sector. For the sake of this report, this entity has been called the South African Maritime Institute (SAMI).

### G.1 Design Fundamentals

The Feasibility Study and particularly the stakeholder engagement have identified a number of design fundamentals to ensure the success of SAMI.

These include:

- SAMI must be a national initiative ensuring support and buy-in from across the entire country and adding value to all education providers in the sector;
- SAMI, however, needs to be implemented regionally to ensure that its value contribution to service providers is felt on the ground through Regional Centres;
- It is critical that no Institution in the country should feel threatened by SAMI. Instead, existing Institutions should feel confident that they are in a position to continue to provide and grow their programmes and award the qualifications knowing that SAMI is adding value to what they do at all stages;
- The collaboration between education Institutions through SAMI should be voluntary and based on the value-add to the participating Institutions;
- Seed funding will be required from a sponsoring authority both in terms of:
  - Capital funding for infrastructure and equipment using a “build it and they will come” approach; and
  - Operational costs should be recovered largely on a user pays basis. It is likely, however, that there may be a shortfall on this cost recovery certainly initially which may also need to be met by the sponsoring authority; and
- Implementation must be practical and progressive. Practical action is required through actual implementation as soon as possible.

### G.2 Vision for SAMI

A proposed vision for SAMI is as follows:

To develop the contribution of the Maritime Sector  
to the economy of South Africa and Africa  
through the effective co-ordination of  
quality education and research  
by Partner Institutions

### G.3 Functions of SAMI

The functions of SAMI focus mainly on the promotion of the sector locally and internationally and the co-ordination of activities through promoting collaboration between partner Institutions. The specific functions include:



- Promotion of the maritime sector as a significant potential contributor to GDP of South Africa;
- Building of a national and international brand for maritime education in South Africa by making South Africa and the individual Centres of maritime education known for excellence in their selected fields;
  - Marketing of maritime education – locally, SADC and Africa and internationally; and
  - Perform the role of a central applications unit particularly for applications from outside of South Africa;
- Promotion and co-ordination of research into the maritime sector, specifically in support of policy development which will contribute to developing the contribution of the maritime sector to the South African economy.
- Co-ordination of education in the sector across all levels by adding value to the activities of partner Institutions through:
  - Demand and supply analysis and co-ordination;
  - Programme development and accreditation assistance;
  - Facilitation of expertise and resource sharing;
  - Representation in international bodies and associations and management of international alliances; and
  - Development and provision of facilities including equipment for shared use by educational programmes and institutions; and
  - Attract research projects that will develop collaboration, knowledge and resource sharing;
- Become the authoritative knowledge base for the maritime sector through the expertise of specialists located in participating institutions; and
- Co-ordination of funding of the sector by identifying and securing funding for specialist equipment for use by partner Institutions and identifying research funding sources for partner Institutions.

The above functions make it clear that SAMI itself will at no time deliver individual programmes or award any qualifications. SAMI itself will also not undertake any research projects of its own accord but rather ensure that these projects are undertaken through the partner institutions.

## G.4 Functions of Partner Institutions


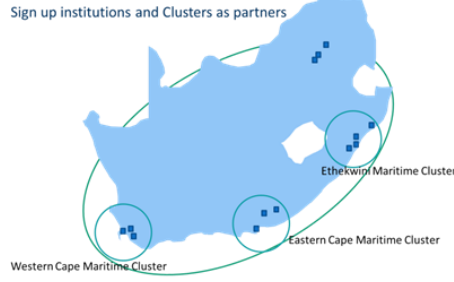
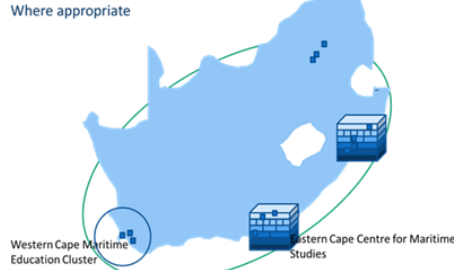

The corresponding functions of the partner Institutions working with SAMI would be as follows:

- To register, train and educate students;
- To undertake research projects and register postgraduate students;
- To obtain capital and operating funding via the normal subsidy process for programmes that are offered and research projects undertaken;
- To employ all lecturers and researchers;
- To work with SAMI for the development of common programmes where multiple partner Institutions can share the benefit; and
- To share resources and equity where appropriate and facilitated by SAMI.

In other words, partner Institutions should at no time feel that they are in competition with the Institute or for that matter in competition with other partner Institutions. A properly co-ordinated sector would focus on the strengths and capabilities of individual Institutions and ensure collaboration between Institutions where this is appropriate.

## G.5 Building SAMI

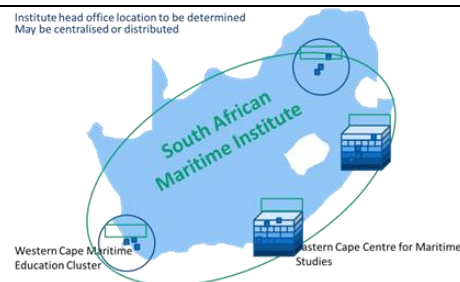
As the primary role of SAMI is the national co-ordination support and advocacy for education in the maritime sector, it is proposed that the functioning of the institute be established progressively through the following key steps:

<p>The current position in South Africa shows the existing establishment of 3 regional maritime clusters in the Western Cape, Eastern Cape and KwaZulu-Natal. These clusters operate at various levels. As an example, the eThekweni cluster has had a MoU in place for some time aimed at establishing a Maritime Centre while the Eastern Cape cluster is more recently established and has put forward a strong motivation for establishing a maritime centre.</p>	
<p>The first priority is therefore to create SAMI as a national entity. The body should be established initially as a Voluntary Association of partner maritime education Institutions who together can then determine and agree the future legal form and structure of the Institute. (Refer legal entity discussion below)</p>	<p>Sign up institutions and Clusters as partners</p> 
<p>The first development role of SAMI is to support the development of Maritime Centres creating both a physical and more direct mechanism for interaction and collaboration between maritime Institutions in each region. The business case for such a centre in eThekweni remains largely as it was at the time of the report in 2011 and requires the motivation and support of SAMI to ensure that this becomes a reality.</p> <p>The planning for a centre in the Eastern Cape is currently underway in collaboration with NMMU.</p> <p>The opportunity for a centre in the Western Cape may be considered in the future.</p>	<p>Where appropriate</p> 
<p>A significant opportunity has been identified for greater collaboration with inland Institutions involved in the maritime sector. SAMI should take an active role in promoting the establishment of an inland maritime cluster and ensure the participation of these Institutions in the activities of SAMI.</p>	

The physical location of the main office of SAMI has not yet been confirmed. The ideal location is within one of the regional Maritime Centres. To this end, the proposal for the establishment of a Maritime Centre in the Eastern Cape hosted by NMMU is receiving significant attention and is likely to be the first such centre to be established. It is therefore proposed that the planning for this centre should include provision for the offices of SAMI.

While a main location for the activities of SAMI will exist, it is expected that, operating as a national entity, SAMI will need to ensure that its activities remain focused on the national agenda.

Institute head office location to be determined  
May be centralised or distributed



## G.6 Building the SAMI Brand

One of the main priorities of SAMI will be to promote maritime education in South Africa. It is proposed that this is done through co-branding or establishing brand partnerships with existing Institutions where appropriate. In effect, SAMI should promote maritime education both locally and internationally building a brand for the South African Maritime Institute, which will be supported by the brands of the participating institutions.

No single Institution should dominate this co-branding arrangement but rather, programmes marketed at individual Institutions should be marketed as Institutional programmes co-branded with SAMI. SAMI on the other hand, when developing its brand locally and internationally, should be doing so with the permission and strength of the partner Institution brands where applicable.

There is precedence for co-branding by Institutions such as the development of the Gordon Institute of Business Science by the University of Pretoria and even the marketing of the Graduate School of Business by the University of Cape Town as a parallel brand. The ideal outcome would be that in every case where individual Institutions promote a specific programme, they do that by promoting both their institutional brand and the SAMI brand.

## H SAMI Legal Entity and Governance

It is proposed that the appropriate legal structure for SAMI is to use the structure for National Institutes as provided for by the Higher Education Act 101 of 1997 and the Higher Education and Training Laws Amendment Act (Act 23 of 2012 promulgated in December 2012). The amendment Act amends the provisions of the Higher Education Act relating to the establishment of a National Institute. The Amendment Act amends section 38 A of the Higher Education Act enabling the Minister, after consultation with the Council on Higher Education, to establish a National Institute for Higher Education as a juristic person with a specific scope or application. The National Institute for Higher Education is to be managed, governed and administered by a board and the Minister must describe the particulars of the establishment of the National Institute, its board and its specific scope or application in the Government Gazette. More importantly, Section 38 B is also amended to describe the functions of a National Institute for Higher Education as follows:

### H.1 National Institute under the Higher Education Act

- “Section 38 B:
  - (1.) The functions of a national institute for higher education relate to its specific scope and application and are to-
    - (a). Provide services to higher education within its specific scope or application.
    - (b). Advance learning within specific scope or application by ensuring collaboration and co-ordination of the work of higher education institutions and national institutes for higher education, and
    - (c). Advise the Minister on matters relating to its scope or application, or to higher education generally.
  - (2.) Subject to subsection (1) the Minister must prescribe the functions of each national institute for higher education.

The amendment of these 2 sections clearly creates a mechanism for the creation of a legal entity directly supported by the Department of Higher Education and Training and directly responsible to and reporting to the Department of Higher Education on a specific scope and mandate such as the maritime education sector.

The Department of Higher Education and Training is currently in the process of establishing two National Institutes namely:

- National Institute for the Humanities and Social Sciences; and
- South African Institute for Vocational and Continuing Education and Training.

It is, however, acknowledged that the establishment of a National Institute of this form is likely to take some time to become a reality due to the legal and consultation processes which are required. It is also suggested that in order to ensure that the National Institute becomes a reality, the requirement for such an institute can be proven by the immediate establishment of a voluntary association between Institutions offering programmes in the maritime sector.

### H.2 Voluntary Association of Maritime Education Institutions

In order to promote the establishment of SAMI as a National Institute under the Higher Education Act, it is recommended that the immediate next step is to formally establish a Voluntary Association of Maritime Education Institutions. This voluntary association should be

established as soon as possible and can be established with the specific intention of transforming into the National Institute once the Institute is promulgated.

The most logical legal structure for this voluntary association would be a Non-Profit Company (NPC) in terms of the new Companies Act (previously a Section 21 Company). Such a company can be formed relatively quickly and can provide the legal mechanism through which participating institutions can join together to achieve the initial objectives of SAMI.

The business plan document prepared as a supporting document to this final report deals with the process and steps required to initially establish the Non-Profit Company as the first legal entity to drive the activities of SAMI.

### H.3 Evolution of Maritime Centre into a National Institute

The evolution of the Maritime Centre at NMMU into a National Institute should be progressive and incremental and promoted through the funding of enabling infrastructure. It should be based on voluntary collaboration between Institutions through demonstrated value-add to Partner Institutions. The location of the Head Office is still to be determined and may be centralised or distributed across South Africa.

The following steps would have to be taken to establish a National Institute:

- The findings of this Feasibility and Viability Study will form the basis of SAMSA's recommendations for a National Institute to the DHET;
- The DHET will have to endorse the findings of the report and recommend the establishment of the Institute to the Minister of Higher Education and Training; and
- A National Institute can thereafter only be established by the Minister of Education through publication of Regulations in terms of the Higher Education Act 101 of 1997.

### H.4 Case Study: National Institute for Humanities and Social Sciences (NIHSS)

#### H.4.1 Background

The Minister of Higher Education and Training commissioned a Report for the Charter for Humanities and Social Sciences. In the Final Report dated 30 June 2011 a number of findings were set out. For the purposes of this study, the following finding is particularly relevant:

"Noting that there is an urgent need to address the perceived crisis and the real imbalances in the tertiary education system vis-a-vis the fields of Humanities and Social Sciences (HSS) we recommend that the Department of Higher Education and Training (DHET) initiate a process to:

A1 Establish an Academy/Institute whose role will be to enhance scholarship, research and ethical practice in the fields of HSS. This would, inter alia, involve advising government departments and any other stakeholders on issues affecting the HSS in the country."

#### H.4.2 Draft Regulations for the NIHSS

Following the above-mentioned report, and on recommendation from the DHET, the Minister of Higher Education and Training published draft regulations for the establishment of a National Institute for Humanities and Social Sciences in accordance with section 69 of the Higher Education Act, 1997, read with sections 38A, 38B and 38C.



In terms of the regulations, the Minister must appoint an interim Board for a period not exceeding six months, to perform the functions relating to the day to day governance of the NIHSS, which functions will focus primarily on the nominations and appointment of the members of the Board as contemplated in regulations 5 and 6.

The Scope or Application of the NIHSS is set out in regulation 3 and the functions of the NIHSS in regulation 9 and 10.

The regulations further sets out how the NIHSS should be governed (regulations 4 to 8), committees of the board (regulation 11) and delegation of the powers of the board (regulation 12).

### **H.4.3 Comments on the Draft Regulations**

The draft regulations were published on 19 June 2013 with a call for comments on the regulations. Published comments of two organisations are especially relevant for the purposes of this study. The comments of these organisations are discussed below:

#### **H.4.3.1 Higher Education South Africa (HESA)**

HESA welcomes the initiative, but has some reservations with regards to the operation of the NIHSS. HESA believes that the mandate, powers and functions of the NIHSS need to be clarified in relation to the role and functions of, amongst others, public universities and the Council on Higher Education (CHE). HESA notes that in the current form set out in the draft regulations, many of the functions of the NIHSS overlap with the statutory responsibilities of other organisations in the higher education and research environment and gives examples of overlaps. HESA proposes that the functions of the NIHSS be critically reviewed to exclude any role in advisory and training and development activities, but to rather focus on advocacy and grant-making activities.

HESA specifically mentions the following proposed functions as falling within the purview of universities and submit that they be deleted:

- Develop innovative and path-breaking curriculum in HSS;
- Strengthen a student-centred culture in the higher education system and help create an environment where critical, analytical and normative capacities of students are released;
- Provide remedial and mentoring functions to faculties in universities; and
- Advise the Minister on policy affecting teaching and research in HSS.

HESA also makes recommendations with regards to the composition of the Board, as well as the addition of an Audit and Risk committee.

Although HESA welcomes the establishment of the NIHSS, it is concerned that no indication is given of the source of funding for the work of the NIHSS. Universities would be very concerned if the funding of the NIHSS is sliced from current and future projected allocations of the DHET.

Apart from the comments on the substance of the regulation summarised above, HESA also makes two process recommendations:

- HESA would like to avail two of its Board members to support the Ministry in revising the draft regulations in a way that addresses the concerns of HESA; and
- HESA proposes that a stakeholder workshop be convened by the Minister to discuss the next version of the regulations with a focus on clarifying the relationship between the NIHSS and such bodies as the universities and CHE.



### H.4.3.2 Council on Higher Education (CHE)

The CHE welcomes the opportunity to comment on the regulations, but is concerned that its ability to comment is constrained by the fact that the regulations are not accompanied by a policy statement indicating the rationale for the establishment of the NIHSS. The CHE is aware that the establishment of the NIHSS is informed by the recommendations in the Report for the Charter for Humanities and Social Sciences. However, an accompanying policy statement would have clarified the Ministry's response to the Report and the public comments on the Report. In addition, a policy statement would have clarified the Ministry's view of the concept of a National Institute in general, given that the proposed NIHSS is significantly different in purpose and structure from the existing National Institutes for Higher Education.

The CHE also discusses at length the overlap between the functions of the NIHSS, CHE, universities and various others such as the Human Sciences Research Council (HSRC) and the National Research Foundation (NRF). It discussed the functions of various bodies in great detail and compares this to the proposed functions of the NIHSS. Most of the detail deals with the HSS in particular and is therefore not so relevant for the purposes of this Feasibility and Viability Study.

The CHE concludes that the establishment of the proposed NIHSS is premature, in particular, given the fact that there is:

- No policy clarity on the rationale for the establishment of the proposed NIHSS;
- Potential duplication and overlap between the functions of the NIHSS and the HSRC, NRF, ASSAf and CHE; and
- A blurring of lines between some of the functions of the NIHSS and the core function and responsibilities of universities in terms of teaching and learning.

The CHE believes that there is a further need for engagement to strengthen co-ordination in the development of policy between DHET and DST and, as a first step, the two departments should jointly investigate the role that the different organisations should play in strengthening the HSS.

## H.5 Draft Regulations

Should the Maritime Centre in the future evolve into a National Institute, draft regulations will be published for comment, as in the case of the NIHSS. Although this is not an immediate event, regulations have been drafted for the possible future South African Maritime Institute. The draft regulations are attached as **Appendix D**.

## I Regional Maritime Centre

### I.1 The Role of a Regional Centre

While SAMI will fulfil the national co-ordination role and drive towards collaboration on a national basis, there is a strong opportunity for Institutions providing education in the priority regions to collaborate at an even greater level through shared facilities in a Regional Maritime Centre.

The role of a Regional Centre will be to create shared infrastructure for the purpose of sharing specialist equipment, research support infrastructure and other facilities. Most importantly, however, the Centre will create a focal point for maritime education in the region developing fit for purpose facilities to support and add to the teaching and learning that will remain within the individual Institutions.

### I.2 Structure of Regional Centre

The final structure of a Regional Centre will depend on the requirements of a specific region. The facilities should be structured to promote shared use and co-location of research activities enabling expertise to work together in a maritime focused facility.

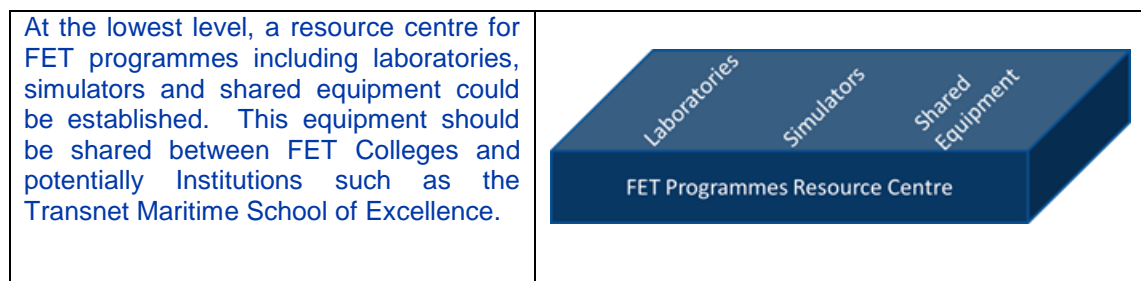
The centre should also promote the delivery of professional development and short course programmes by partner Institutions.

Undergraduate programmes and even FET programmes are most likely to remain largely located at the individual Institutions but specialist portions of these programmes may be taught at the Maritime Centre particularly where specialist equipment is required.

The centre should, as far as possible, specifically try to avoid duplication of equipment, laboratories and simulators.

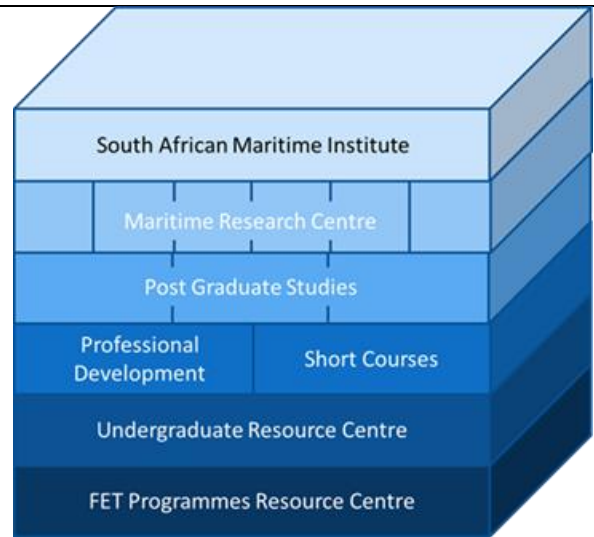
### I.3 Building a Maritime Centre

While the exact structure of the Maritime Centre in a specific region will depend on requirements, the following structure presents the possible building blocks of such a centre:



<p>Similarly, an undergraduate resource centre would also use the laboratories, simulators and shared equipment that would support and add value to undergraduate programmes. As with the FET programmes, it is unlikely that the entire programmes will be taught in the regional centre but rather portions of the programmes or blocks depending on the structure of the programme.</p>	
<p>The focal point of the activity in the regional sector will be the opportunity for the presentation by partner Institutions of professional development programmes and short courses. Ideally, the Maritime Centre should be the focal point of all these courses with courses being run by multiple partner institutions out of the regional centre.</p>	
<p>Postgraduate studies will continue to be delivered by individual Institutions but the opportunity exists for the co-location of postgraduate programmes enabling the students from multiple Institutions to work side by side in their postgraduate studies.</p>	
<p>Along with the professional development and short courses, the next highest activity would be the co-location of multiple research projects. In this regard, the regional centre will effectively offer research space on a rental basis to individual research programmes which can benefit from working side by side in a single centre. Already, the proposed centre in Port Elizabeth has a number of key research programmes eager to co-locate creating the focus on the maritime centre through these projects.</p>	

At the top level, the offices of the South African Maritime Institute being either the national office or potentially a satellite office of the Institute would represent the Institute in that region and co-ordinate the activities which take place in the regional centre.



## I.4 Business Plan for South African Maritime Centre

A comprehensive business plan has been developed in support of this final report for the establishment of the first South African Maritime Centre in Port Elizabeth. This centre will initially provide an operational base for SAMI as a Non-Profit Company leading to its formation as a National Institute of Higher Education if approved by the Minister and proclaimed through the Higher Education Act.

The first maritime centre would create a base for strategic maritime research and include a number of existing research projects in this field.

The maritime centre would work closely with NMMU as the first partner and even host institution for this centre.

The development of the centre in Port Elizabeth has been explored in detail. The results of this investigation have been formalised in the business plan document drafted as a supporting document to this final report.

Initial discussions with Mr Herschel Maasdorp, the new Head of the Transnet Maritime School of Excellence has indicated that the proposed development of the Maritime School of Excellence at the old airport in Durban may create an ideal opportunity for Transnet to host the establishment of the second maritime centre in Durban creating a location for co-operation and collaboration of the various institutions in KwaZulu-Natal engaged in maritime studies. This opportunity needs to be explored further with Transnet Maritime School of Excellence, ideally initially through a Memorandum of Understanding between SAMSA and Transnet.

## **J Financial Viability**

### **J.1 Viability Approach**

The following approach was taken to assess the financial viability of SAMI and regional centres:

- The individual components had been analysed separately so that the ultimate result can be made up of the individual components. The operating costs of SAMI have been identified together with the anticipated capital and operating costs of an individual regional centre;
- Building costs and operating norms have been assessed with the assistance of NMMU and by comparison to existing private sector norms. The NMMU cost norms are based on their current costs for educational facilities and their recent planning for new facilities;
- Space requirements have been considered based on assessing similar facilities including information obtained related to the facilities of the World Maritime University;
- The cost of the head office function of SAMI has been calculated based on a minimum and maximum human resource plan. The anticipated costs for resources operating in this function have been estimated based on equivalent comparisons at NMMU and other university feasibility models conducted in the past;
- Where possible, the costs incurred in providing educational facilities in regional centres are to be recovered on a user pays basis. It is evident however that full cost recovery may not be possible in all cases and this may require subsidy from the sponsoring authority for the operating costs of SAMI as part of its support to the maritime education sector; and
- Funding requirements have been assessed both in terms of capital funding requirements as well as on-going operating costs. No attempt has yet been made to allocate these costs between various funding sources.

### **J.2 Estimated Costs for SAMI**

The roles and functions set up for SAMI suggest that these activities could be undertaken by a relatively limited number of competent staff, potentially operating out of a single centre. During the course of this review, the project team reviewed the proposed structure of the National Institute for the Humanities and Social Sciences as well as assessing other similar co-ordination and advocacy entities. It is proposed to establish SAMI with a minimum of 10 resources, increasing to a maximum of about 20 resources when operations are at full scale. Examples were identified where more than 20 resources had been forecast for such a function. It is suggested, however, that increasing the scale of SAMI beyond 20 resources may be excessive and is more likely to result in overlap and duplication with the operations and functions of individual Institutions. The table below presents the operating cost implications for the office of SAMI on a minimum and maximum basis.



#### Staff Requirements and Costs

	Staff requirements		Estimated Package	Estimated Costs p.a.	
	Minimum	Maximum		Minimum	Maximum
CEO	1	1	R 1 500 000	R 1 500 000	R 1 500 000
Head of Department	4	7	R 1 000 000	R 4 000 000	R 7 000 000
Senior Support Staff	3	5	R 500 000	R 1 500 000	R 2 500 000
Junior Support Staff	2	7	R 250 000	R 500 000	R 1 750 000
	10	20		R 7 500 000	R 12 750 000

#### Operational Costs

	Drivers	Cost per Driver per month			
Facilities	Sqm	215	Rounded	R 516 320	R 1 032 640
Communication	Per Staff	R 1 000		R 120 000	R 240 000
Travel	Per Exec	R 2 500		R 150 000	R 240 000
Printing and Stationery	Per Staff	R 500		R 60 000	R 120 000
Finance and Admin	Estimate			R 50 000	R 50 000
Other and Contingency	Estimate	20%		R 76 000	R 130 000
				R 972 320	R 1 812 640

Total SAMI Head Office Operating Cost R 8 472 320 R 14 562 640

Marketing and Advocacy Spend R 2 500 000 R 5 000 000

Total SAMI Head Office Budget R 10 972 320 R 19 562 640

The cost of the “head office” function of SAMI is likely to be between R11 million and R19, 5 million per annum at the outset. The costs are largely human resource related costs worth between R7, 5 million and R12, 75 million being spent initially on the staff complement. Office facilities and operating costs are likely to be between R1 million and R1, 8 million. In addition, a provision has been for marketing and advertising costs to be incurred of between R2, 5 million and R5 million. Obviously, these costs would need to be carefully planned and justified on a project by project basis.

The funding of the central function of SAMI would need to be provided from multiple sources on the basis that SAMI may initially exist as a voluntary organisation. An estimate of the funding based on allocating the funding requirements between public sector institutions (50%), industry participants (20%) and participating institutions (30%) reduces the total value of the annual operating cost to each component.

#### Annual Funding

	Cost sharing	Estimated Costs p.a.	
		Minimum	Maximum
Public Sector (DOT, DHET, SAMSA)	50%	R 5 486 160	R 9 781 320
Industry Participants	20%	R 2 194 464	R 3 912 528
Participating Institutions	30%	R 3 291 696	R 5 868 792
	100%	R 10 972 320	R 19 562 640

Excl. Under-Recovery

The likely future result for SAMI after the establishment of SAMI as a formalised national institute by the Minister of Higher Education and Training, existing under the Department of Higher Education and Training, should result in the operating costs of this function being covered largely from funding sources from DHET.

## J.3 Estimated Costs of a Regional Maritime Centre

The structure of a Regional Maritime Centre will depend on the specific requirements of each centre. Based on the vision presented in the section above, a Regional Maritime Centre could



utilise facilities of between 2700 and 4500 square meters of office and education space. This space estimate is based on the following calculations:

### Space Requirements

Space Requirements	Space Driver	Space/ driver	Driver		Space in Sq Metres	
			Minimum	Maximum	Minimum	Maximum
Maritime Institute offices	Head count	20	10	20	200	400
Research Cluster	Projects	150	3	6	450	900
Post Graduate Studies	Students	10	20	50	200	500
Prof Dev and Short Courses	Students	5	30	60	150	300
Undergraduate Resource Centre	Students	5	80	120	400	600
FET Programme Resource Centre	Students	5	100	100	500	500
Common Space Factor	Space	40%			760	1 280
Facility Requirements					<b>2 660</b>	<b>4 480</b>
Lettable Space					<b>1 900</b>	<b>3 200</b>

The costs of this space would differ significantly depending on how the space is made available. In the case of the IMERC centre in Ireland, the space was initially provided by the navy and college on a minimum cost recovery basis. Similarly, in South Africa, it is possible that space may be made available by existing institutions or public entities such as Transnet National Ports Authority ("TNPA"), it is obviously possible to cost out all the various options or alternatives.

What has been done is to determine the cost based on University and private sector norms based on either a new build of a facility or on the conversion of an existing facility for either own or rent. The table below presents the range of costs identified from various alternatives.

Key Inputs	University Benchmark	1	2	3	4
		University New Build	University Conversion	Rental & Own Conversion Cost	Rental of Converted Space Cost
	R/sqm	R/sqm	R/sqm	R/sqm	R/sqm
Capital Cost Incurred by SAMI	R 22 000	R 22 000	R 5 000	R 5 000	R 0
Period to Recover Capital Costs		15 yrs	10 yrs	10 yrs	10 yrs
Monthly Capital Cost Recovery		R 122	R 42	R 42	R 0
Monthly Running Costs	R 154	R 112	R 112	R 70	R 120
Rental	R 0	R 0	R 0	R 30	R 80
Services and Utilities	R 70	R 70	R 70	R 40	R 40
Maintenance	R 84	R 42	R 42		
Total All-Inclusive Monthly Cost	R 154	R 234	R 154	R 112	R 120

The costs are based on the following:

- **University New Build** – this is based on the benchmark monthly operating costs for University facilities after halving the maintenance provision based on a new building would be structured.
- **University Conversion** – should an existing facility be identified that may require a conversion, it is likely that the capital cost would be significantly lower, estimated at R5 000 per square and recovered over 10 years for a leasehold conversion. The monthly operating cost would be the same as for the university new build but the cost including capital recovery would be less at an estimate of R154 per square meter.

Should it be possible to utilise commercial space or office facilities for example offered by TNPA as per the one example identified in Port Elizabeth, the monthly costs per square meter

could be reduced even further to approximately R120 per square meter based on either the conversion being incurred by the tenant or the lessor.

The table below presents the expected annual costs of running a minimum sized and maximum sized regional facility based on the various options for the source of the facility. The cost of the facility required at a minimum level could range between R3, 8 million and R7,5 million for a centre of approximately 2700 square metres, up to costs of between R6,5 million and R12,6 million for a full scale centre of approximately 4500 square meters.

In both cases, there is an opportunity to recover certain costs from tenants in the centre. Calculations have been made of the potential cost recovery from research projects, short learning programmes and even a usage based cost for undergraduate programmes and FET programmes. The cost recoveries will reduce the total cost of providing the facility to between R1, 8 million and R3 million for a minimum sized facility and between R3, 5 million and R5, 8 million for the full scale facility of 4500 square meters.

Until actual facilities have been identified and conversion costs or rental per square meter has been specified, it is not possible to finally assess the net costs of providing such a facility. What is evident is that provided participation and utilisation of the facility is ensured from participating Institutions and new presentation for short learning programmes, the cost of the facility may be reduced to a manageable level.

## **J.4 Five Year Forecast**

To get a more comprehensive view of the anticipated costs involved in the establishment of SAMI and at least one fully functional Regional Centre, a financial viability model has been developed to forecast costs over a 5 year period. The cost forecasts have again been on a minimum and maximum basis.

The minimum forecast projects the total cost of operating SAMI and subsidising the provision of a regional centre to range between R14, 8 million and R15, 5 million over a 5 year period. This is based on the phasing in of research projects and the build-up of the utilisation of postgraduate programmes, short learning programmes, undergraduate programmes and FET programmes.

The table below presents the minimum scenario.

**Forecast Income Statement - Minimum Scale of Operations**

	Recovery %	Min	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
<b>Income</b>							
Facility Fees Charged to Participants							
Research Projects	100%	R 1 161 720	R 697 032	R 1 219 806	R 1 536 956	R 1 882 771	R 2 118 117
Post Graduate	20%	R 103 947	R 25 987	R 54 572	R 85 951	R 120 331	R 157 935
Short Learning Programmes	10 % of fees	R 504 000	R 252 000	R 396 900	R 555 660	R 729 304	R 918 923
Under Graduate	26%	R 263 353	R 65 838	R 138 260	R 217 760	R 304 864	R 400 134
FET Programmes	13%	R 167 332	R 41 833	R 87 849	R 138 363	R 193 708	R 254 242
<b>Total Income</b>		<b>R 2 200 352</b>	<b>R 1 082 690</b>	<b>R 1 897 388</b>	<b>R 2 534 689</b>	<b>R 3 230 977</b>	<b>R 3 849 350</b>
<b>Expenses</b>							
SAMI Head Office Salaries		R 7 500 000	R 7 500 000	R 7 875 000	R 8 268 750	R 8 682 188	R 9 116 297
SAMI Head Office Operating Costs		R 972 320	R 972 320	R 1 020 936	R 1 071 983	R 1 125 582	R 1 181 861
SAMI Advocacy Costs		R 2 500 000	R 2 500 000	R 2 625 000	R 2 756 250	R 2 894 063	R 3 038 766
		R 10 972 320	R 10 972 320	R 11 520 936	R 12 096 983	R 12 701 832	R 13 336 924
SAMI Facility Costs		R 4 905 040	R 4 905 040	R 5 150 292	R 5 407 807	R 5 678 197	R 5 962 107
<b>Total Expenses</b>		<b>R 15 877 360</b>	<b>R 15 877 360</b>	<b>R 16 671 228</b>	<b>R 17 504 789</b>	<b>R 18 380 029</b>	<b>R 19 299 030</b>
<b>Net Operating Profit/(Loss)</b>		<b>-R 13 677 008</b>	<b>-R 14 794 670</b>	<b>-R 14 773 840</b>	<b>-R 14 970 100</b>	<b>-R 15 149 052</b>	<b>-R 15 449 681</b>
<b>Operating Grants Required</b>		<b>R 13 677 008</b>	<b>R 14 794 670</b>	<b>R 14 773 840</b>	<b>R 14 970 100</b>	<b>R 15 149 052</b>	<b>R 15 449 681</b>
Operating Grants Funded by:							
SAMSA	50%	R 6 838 504	R 7 397 335	R 7 386 920	R 7 485 050	R 7 574 526	R 7 724 840
Industry Participants	20%	R 2 735 402	R 2 958 934	R 2 954 768	R 2 994 020	R 3 029 810	R 3 089 936
Participating Institutions	30%	R 4 103 102	R 4 438 401	R 4 432 152	R 4 491 030	R 4 544 715	R 4 634 904
		R 13 677 008	R 14 794 670	R 14 773 840	R 14 970 100	R 15 149 052	R 15 449 681
<b>Net Surplus/Deficit</b>		<b>R 0</b>	<b>R 0</b>	<b>R 0</b>	<b>R 0</b>	<b>R 0</b>	<b>R 0</b>

At the maximum scale, utilising the full scale of SAMI from the outset as well as the larger regional centre of approximately 4500 square meters, the full operating costs of SAMI and the full scale regional centre would range between R25, 7 million and R26, 5 million over 5 years as the activities and utilisation build-up.

## J.5 Scenario Analysis

To be able to assess the likely implications of progressively implementing the structure of SAMI, possibly with the initial establishment of a voluntary association which progresses into a national institute and over time establishes regional facilities, the project team calculated the component costs of each facility as follows:

- The cost of SAMI head office and various scenarios of either new build or rented and either through an existing institution or on a commercial basis provide a range of costs for the SAMI head office between R10, 9 million and R19, 3 million.
- The cost of a resource centre depending of either new build, conversion or straight rental are likely to be between R1, 8 million for a small commercially rented centre and R6, 8 million for a new build maxi university based centre per annum.

These costs can then be built into various scenarios ranging from a single university based facility to the accommodation of SAMI head office and a regional facility, even extending that to SAMI head office and supporting the operating costs of 2 regional facilities. This analysis is presented in the table below.

SAMI Head Office							
New Build or Rented	Basis	Scale	Staff Cost	Operating Cost	Marketing and Advocacy	Facility	Total Cost
New Build	Uni	Min	R 7,500,000	R 456,000	R 2,500,000	R 786,987	R 11,242,987
New Build	Uni	Max	R 12,750,000	R 780,000	R 5,000,000	R 1,573,973	R 20,103,973
Rented	Uni	Min	R 7,500,000	R 456,000	R 2,500,000	R 516,320	R 10,972,320
Rented	Uni	Max	R 12,750,000	R 780,000	R 5,000,000	R 1,032,640	R 19,562,640
Rented	Com	Min	R 7,500,000	R 456,000	R 2,500,000	R 403,200	R 10,859,200
Rented	Com	Max	R 12,750,000	R 780,000	R 5,000,000	R 806,400	R 19,336,400

Resource Centre								
New Build or Rented	Basis	Scale	Capital	Capital w/o p.a.	Rental (annual)	Operating Costs	Cost Recovery	Total Net Cost
New Build	Uni	Min	R 58,520,000	R 3,901,333	R 0	R 3,575,040	R 3,089,618	R 4,386,756
New Build	Uni	Max	R 98,560,000	R 6,570,667	R 0	R 6,021,120	R 5,802,699	R 6,789,088
Conversion	Uni	Min	R 13,300,000	R 1,330,000	R 0	R 3,575,040	R 2,200,352	R 2,704,688
Conversion	Uni	Max	R 22,400,000	R 2,240,000	R 0	R 6,021,120	R 4,153,668	R 4,107,452
Conversion	Com	Min	R 13,300,000	R 1,330,000	R 957,600	R 1,276,800	R 1,736,707	R 1,827,693
Conversion	Com	Max	R 22,400,000	R 2,240,000	R 1,612,800	R 2,150,400	R 3,293,898	R 2,709,302
Rented	Com	Min	R 0	R 0	R 2,553,600	R 1,276,800	R 1,828,700	R 2,001,700
Rented	Com	Max	R 0	R 0	R 4,300,800	R 2,150,400	R 3,464,487	R 2,986,713

Developing a new fit for purpose maritime centre would come at a significant capital cost which cab probably only be planned for and funded through government funding cycles commencing in 2014 and beyond.

Establishing SAMI as voluntary Institute in initially rented office space providing the shared research facilities and a focal point for maritime education can however be done at a relatively low cost initially of R12,9 million per annum. This could enable the focus and development of maritime education which would further attract investment and funding for expansion of maritime activities and education through SAMI and the Regional Centres.

## J.6 Viability Study Conclusion

The calculations above and the detailed financial model supporting this analysis present the following conclusions:

- Upfront capital funding for a purpose built Maritime Institute would be significant requiring between R59 million and R99 million utilising the known University space development cost norms.
- Refurbishing an existing facility and preparing it use by SAMI and as a focal point for regional maritime education and research could be accomplished at a capital cost of between R13 million and R22 million.
- It is however also possible that existing space could be rented either commercially or from a source such as TNPA at significantly lower costs with the cost of conversion to be funded either by the landlord and repaid by way of rental or by capital grant as leasehold improvements.
- The head office costs of SAMI should it be structured as a 10 person head office team could amount to approximately R11 million while at a maximum scale of approximately 20 persons, the cost of this structure would be R19, 6 million.
- Providing space for utilisation by participating Institutions is likely to initially require some subsidy from the sponsoring entities or SAMI itself requiring the recovery of unfunded space costs of between R1, 8 million and R6, 8 million at maximum scale operations initially.
- Effectively, the required funding for SAMI and a Regional Centre is likely to be between R12, 8 million and R26, 9 million depending on a scale and available facilities.

## K Business Plan

### K.1 Business Plan Overview

In order to create a more focused document for the business plan for the establishment of SAMI and the first South African Maritime Centre, a separate business plan document has been prepared which should be read as part of this report. Set out below are key issues arising from the business plan report:

- SAMI will undertake the roles and functions as set out above including the provision of facilities through the maritime centre.
- In particular, SAMI should be the shaper and driver of the country's maritime vision through the research undertaken to support the policy framework for the maritime sector. SAMI will fulfil its role of advocacy and co-ordination in support of the vision for the development of the maritime sector.
- SAMI itself will initially be established as a Non-Profit Company with the intention of applying for proclamation as a National Institute of Higher Education under the Department of Higher Education and Training. Its roles and functions will remain similar both as a Non-Profit Company and later as a National Institute.
- While there is still some debate as to the naming of the facilities from which SAMI will operate and share with research projects and other education activities, for the meantime, the facility has been referred to the South African Maritime Centre with the clear intention of establishing more than one physical location for the centre.
- The funding of the establishment of SAMI and the first Maritime Centre will require seed funding from SAMSA. Initial indications had been received from SAMSA of their willingness to provide seed funding and if necessary co-ordinate securing additional funding from other sources.
- The location of the first centre is proposed to be in Port Elizabeth and detailed investigations had been undertaken on the feasibility of conversions of the SAS Donkin facility. While other facilities were investigated, the SAS Donkin facility which is immediately available was considered the most viable and cost effective initial solution.
- The development of this Centre will need to be undertaken in conjunction with the Nelson Mandela Metropolitan University and the final roles and responsibilities will still need to be determined between SAMSA and NMMU. The feasibility study has been developed independent of determining these roles. The NMMU may propose to undertake this establishment directly as the host institution with funding support from SAMSA.
- The initial Maritime Centre will make provision for the Head Office of SAMI as well as research facilities for a number of significant maritime research projects. Education activities will continue to be undertaken on the main campus of NMMU and other education partners.

There are some differences between the viability model prepared on the basis of what could be undertaken and the business plan prepared on the basis of intended utilisation of the SAS Donkin facility:

- The refurbishment cost in the viability model was estimated at R5,000 per sqm for a bigger area of a minimum of 2,600 sqm. The Quantity Surveyor's estimate for the actual space at SAS Donkin was just over R8,000 per sqm for a smaller area of 1,532 sqm. Both sets of calculations reflect a minimum refurbishment cost of around R13million,
- The viability model assumed a capital contribution from various stakeholders upfront that would be recovered over 10 or 15 years, depending on the scenario. The business plan assumed that SAMSA would provide a capital grant for the entire amount and that this would not be recovered from the participants.



- In the viability model, an assumptions was made that there would be recovery of operating costs from all participants at various recovery rates, with research projects bearing a 50% cost recovery rate. In the business plan, there is only a 25% cost recovery rate due to the conditions attached to the international funding of the prospective research projects.

## K.2 Implementation Plan

The implementation plan provides for the following specific activities over a period of 30 months:

Implementation Steps	Year 0 - 2014						Year 1 - 2015						Year 1 - 2015	
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12 - M18	M19 - M30	
	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Oct '14-Mar '15	Apr '15-Mar '16	
1 Approval for establishment of SAMI														
2 Project Manager Co-ordinates Planning														
3 Establishment of SAMI														
4 Lease Agreement for the facility with TNPA														
5 Sub-leases with First Tenants														
6 Building Conversion - Planning & Approvals														
7 Building Conversion - Implementation														
8 Hiring of SAMI Staff														
9 SAMI Operations - Advocacy and Co-ordination														
10 Research Projects - Implementation														

## K.3 Budget and Funding

A detailed budget for the establishment of SAMI and the provision of an initial maritime centre has been prepared. The business plan report presents in detail the assumptions and analysis undertaken. The table below presents the three year overview of the anticipated costs involved in this process.

Total 6 Months	Total 12 Months	Total 12 Months
Yr0	Yr1	Yr2
YE 31 Mar	YE 31 Mar	YE 31 Mar
2014	2015	2016

### FORECAST CASH FLOW STATEMENT

#### Receipts

Capital Grants	R 5 459 436	R 7 491 653	R 0
Loan	R 0	R 0	R 0
Cost Recovery from Participants			
Research Projects	R 0	R 189 735	R 265 629
Operating Grants	R 1 468 940	R 10 038 173	R 15 293 247
<b>Total Receipts</b>	<b>R 6 928 376</b>	<b>R 17 719 561</b>	<b>R 15 558 875</b>

#### Payments

Conversion & Refurbishment Cost	R 5 459 436	R 7 491 653	R 0
SAMI Project Management & Establishment	R 1 400 000	R 800 000	R 0
SAMI Head Office Operational Costs	R 0	R 673 200	R 1 108 800
SAMI Head Office Salaries	R 0	R 5 625 000	R 10 165 000
SAMI Marketing and Advocacy Spend	R 0	R 1 875 000	R 2 625 000
SAMC Facility Rental	R 68 940	R 275 760	R 289 548
SAMC Facility Operating Costs	R 0	R 978 948	R 1 370 527
<b>Total Payments</b>	<b>R 6 928 376</b>	<b>R 17 719 561</b>	<b>R 15 558 875</b>
<b>Net Receipts / (Payments)</b>	<b>R 0</b>	<b>R 0</b>	<b>R 0</b>

If the funding is to be provided by SAMSA, the total capital grants and operating grants required are set out below::



	Yr0	Yr1	Yr2	Total
	YE 31 Mar	YE 31 Mar	YE 31 Mar	
	2014	2015	2016	
Capital Grant for Refurbishment	R 5 459 436	R 7 491 653	R 0	R 12 951 089
Operating Grant	R 1 468 940	R 10 038 173	R 15 293 247	R 26 800 360
Total funding by SAMSA	R 6 928 376	R 17 529 827	R 15 293 247	R 39 751 449

## K.4 Business Plan Conclusion

The business plan concludes that the development of the role and contribution of the maritime sector to the South African economy will be supported by the establishment of SAMI with an advocacy and co-ordination role that will stimulate awareness of the economic opportunities in the maritime sector and promote the provision of expertise and skills to develop this sector. In addition, SAMI will ensure that the necessary strategic research is undertaken to support the policy formulation required to develop the maritime sector.

SAMSA has indicated its willingness to take the lead in the establishment of SAMI including the provision of initial seed funding. This step is essential in ensuring that SAMI becomes a reality in the short-term.

## L Conclusion

The research to date into the feasibility of a Maritime Institute or University appears to present the following conclusions:

- There appears to be strong support in the maritime sector for a Maritime Institute or University to increase the focus on maritime education and to improve the co-ordination across the sector to meet the needs of the maritime sector.
- The extent of the education and skills gaps have yet to be clarified, awaiting the outcome of the demand study being conducted as part of the Human Resource Development strategy process currently underway.
- Even without the demand side information, there appears to be a strong need for higher level education (professional development and post graduate studies across most of the sub-sectors of the marine sector).
- The Maritime Institute should also address the needs of collaboration and co-ordination of the sector and fulfil an advocacy role promoting maritime education.
- There is a strong opportunity for increased collaboration in the areas of maritime research and an opportunity to draw a number of existing maritime focused research studies into a single Shared Centre. There is further opportunity for other studies to be housed in a Shared Centres established by a host institution and resulting from the co-operation and collaboration of multiple institutions involved in the maritime sector.
- The option of establishing the South African Maritime Institute, initially as a voluntary organisation (Non-Profit Company) and in the future as a National Institute under the Department of Higher Education and Training together with the establishment of initially one Maritime Centre, was explored in the viability study. The viability study concluded that the Institute would require operational funding of approximately R11 million initially as seed funding. There are also various options in terms of structuring the Maritime Centre as a shared facility and scenarios were developed to present the cost alternatives for the Centre.
- To make this viability more practical, the project team developed a business plan for the establishment of SAMI as a Non-Profit Company and the establishment of the first Maritime Centre in Port Elizabeth through collaboration with Nelson Mandela Metropolitan University. The detailed costing for the establishment of SAMI and the first Maritime Centre identified that the seed funding requirements amount to R6,9 million in the financial year ended 31 March 2014 increasing to R17,7 million in financial year ending 2015 and R15,6 million in financial year ending March 2016. Over the 3 financial years, the business plan indicates a required seed funding for SAMI and the first centre of R39,7 million.
- During the course of the business planning phase, the project team was also able to engage with the Transnet Maritime School of Excellence. This engagement was significant in that it established the clear willingness and intent of the Maritime School of Excellence to collaborate with and directly engage with the maritime sector and education institutions engaged in the sector. The discussions highlighted the opportunity for the Transnet Maritime School of Excellence to potentially be the host of a regional shared maritime facility in eThekweni.
- The establishment of SAMI and the first Centre requires a combination of seed funding and political will to ensure that these initiatives become a reality. SAMSA have specifically indicated their willingness and intention to support this initiative and provide some or all of the required seed funding. This specifically addresses the major issue which has resulted in so many other stalled or failed initiatives in this regard in the past. Commitment from SAMSA as the sponsoring authority significantly enhances the viability of SAMI.
- The business plan document, attached to this report, sets out the practical steps which could be taken to ensure SAMI and the first maritime centre become a reality in the medium term.
- Learning Strategies wishes to thank SAMSA, the steering committee and all industry stakeholders engaged to date for their co-operation and assistance.

## APPENDICES

## **A Motivation for the Eastern Cape as Potential Host of a Maritime Institute or University**

### **SAMSA Feasibility Study for a Maritime Institute or University to be established in South Africa**

**Motivation for the proposed Maritime Institute or University to be**

**Located in Port Elizabeth, Nelson Mandela Bay**



**Eastern Cape Maritime and Industry Leaders demonstrate their solidarity at the inaugural Eastern Cape Ports & Maritime Conference hosted in Port Elizabeth from 29<sup>th</sup> – 31<sup>st</sup> May 2013**

**Motivation Prepared By: Nelson Mandela Bay Maritime Cluster**

**22<sup>nd</sup> July 2013**

## **SAMSA Feasibility Study for a Maritime Institute or University to be established in South Africa**

### **MOTIVATION**

#### **Motivation for the proposed Maritime Institute or University to be located in Port Elizabeth, Nelson Mandela Bay, prepared by the Nelson Mandela Bay Maritime Cluster (NMBMC)**

At the inaugural Eastern Cape Ports & Maritime Conference (ECPMC 2013) hosted in Port Elizabeth from 29<sup>th</sup> – 31<sup>st</sup> May 2013, maritime industry leaders set the tone for moves to tap into the province's substantial maritime resources, potential and heritage.

"The inaugural three day conference will play a strategic role in defining not only how maritime potential is harnessed, but offer insights into effectively managing the vast maritime resources of the province, its three ports and industry linked to these," said MEC Mcebisi Jonas of the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), which conceptualized and is co-sponsoring of the event with the Eastern Cape Development Corporation (ECDC).

"In most countries, the port and maritime industry makes a significant contribution to Gross Domestic Product (GDP) and is comparable in size to a number of other important industries in the economy," said Jonas. "Developing countries are especially dependent on their ports for both imports and exports, and South Africa is no exception. Moreover, the port industry has important linkages with other industries, particularly the transport chain, which has huge potential for growth in the province.

"The size of the port and maritime industry is measured in terms of production, value added, employment, earnings and capital expenditure. The unemployment levels in the Eastern Cape and the need to create jobs and diversify the economy of the region, makes it imperative to look at the role of the ports and maritime industry and how it can assist with economic development."

The conference featured various thought leaders from across industry, led by a keynote address from the Head of the African Ship Owners Association which represents 63 African countries. Also providing papers and strategic insight were speakers from Transnet, the East London Industrial Development Zone (IDZ), Coega IDZ, the Nelson Mandela Bay Maritime Cluster, Nelson Mandela Metropolitan University and a line-up of national and international guest speakers.

The conference covered a wide range of topics on port-rail integration, the strategic importance of the Eastern Cape's two industrial development zones and investment and development plans for the regional ports. The conference achieved its goal of showcasing the unique maritime assets of the Eastern Cape to the world and also to drive economic development, underpinned by logistics, through the existing ports. The conference, which was oversubscribed, achieved its purpose of bringing together international and local port operators, users, government and service providers to discuss future growth opportunities.

1.

Over 300 delegates participated in the conference which will help position the region amongst the greater port provinces in the world. ECDC rallied for the conference after it identified a business need to highlight the benefits of having three ports in one province and two ports within one city. Both East London and Nelson Mandela Bay are home to special purpose zones primed for maximizing investment. Nelson Mandela Bay, with its two ports and the Coega IDZ, is an established export and manufacturing hub with global linkages, while the East London IDZ is a prime industrial park in South Africa, renowned for its customized solutions for various industries including automotive, agro-processing and aqua-culture.

“It is imperative to test how the province can leverage on these assets to increase the economic impact of the ports,” said ECDC chief economist, Mxolisi Lindie. “The route to achieving this first step in harnessing maritime wealth, both actual and potential, is to pull together maritime industry experts in the Eastern Cape who can pinpoint the maritime opportunities that exist in the region and what is constraining those opportunities from being realized, while ensuring procurement and distribution lines are expanded and strengthened to maximize trade and investment opportunities.”

The conference unpacked opportunities for investors and the broader industry in maritime and other export and logistic intense sectors with specific reference to the deep-water port of Ngqura and the Coega and East London IDZs. “We want the industry to look at the Eastern Cape ports as the first port of call for all transport related logistics and support and as sites of increased investment opportunities in the maritime services industry directed towards the Eastern Cape Province, particularly the two IDZs,” said Mfundo Piti, CDC strategic projects manager.

One of the key outcomes of the conference was the presentation and acceptance by the delegates of the Nelson Mandela Bay Declaration i.e. the first step in the forging of a mutually beneficial co-operative alliance to connect an African Network of Maritime Clusters with the European Network of Maritime Clusters and other maritime clusters around the world over a period of time. “A European Network of Maritime Clusters is already in existence and we cannot afford to be left behind. There is a need to tap the inter-relationship between port development, maritime cluster development and the broader development of a thriving maritime industry”, said Peter Myles, Nelson Mandela Bay maritime cluster coordinator.

“The regional maritime industry is particularly excited about the event, given the “ability of the conference to deal with current challenges, chart the way forward and open up new ways of thinking around maritime opportunities,” added Myles, saying it would open the door for business-to-business discussions between the European and African maritime industries as well as between industry players across South Africa. “There is also an opportunity to boost tourism through making the conference an annual event.”

Kevin Hustler, chief executive of the Nelson Mandela Bay Business Chamber, said it would be a significant networking opportunity for the industry, but its key impact would be the focus on current issues such as the direction that carriers, ports and the industry in general were headed, and unpacking emerging, sourcing and consumer markets.

The considerable maritime assets and resources of Nelson Mandela Bay are highlighted as bullet points in the following pages.

2.



The Nelson Mandela Bay Maritime Cluster (NMBMC) and other local maritime stakeholders are unanimous in their conviction that Nelson Mandela Bay is strategically located and well equipped with resources to be the ideal location for the proposed South African Maritime Institute or University. The following bullet points confirm the considerable maritime/marine resources and assets of Nelson Mandela Bay.

### ***NMMU Maritime Educational Programs***

- Nelson Mandela Metropolitan University (NMMU) is one of only four comprehensive universities in South Africa.
- Just over 3000 international students from all over the world register to study at NMMU.
- A Chair of Law of the Sea and Development in Africa has recently been established at NMMU.
- The Department of Development Studies offers a Postgraduate Diploma in Maritime Studies.
- NMMU has a Coastal and Marine Research Unit.
- A Module on Maritime Logistics is soon to be introduced at NMMU.
- A MOU will soon be signed between SAMSA, NMMU and the World Maritime University in Sweden.
- The Department of Oceanography is being re-established, with particular emphasis on coastal physical, chemical and biological oceanography.
- A Chair in Shallow Water Ecosystems has recently been established.
- A module on Coastal & Marine Tourism is offered in the postgraduate B Com Honours Tourism Program as well as in the postgraduate Diploma in Maritime Studies program.
- NMMU in conjunction with the NMB Maritime Cluster has the resources to develop a short learning program (SLP) on *how to develop and establish a local maritime cluster* which could be offered to the African maritime nations.

### ***Algoa Bay***

- Port Elizabeth is historically a maritime city.
- Algoa Bay is rich in marine biodiversity (identified by the National Biodiversity Assessment of 2011 as a “biodiversity hotspot”).
- Algoa Bay contains most of the marine habitats with the exception of tropical coral reefs, kelp forests and mangrove swamps.
- Algoa Bay is characterized by both wind and current induced upwelling, one of only three locations in the South Western Indian Ocean.
- Algoa Bay is home to two Marine Protected Areas (Sardinia Bay and Bird Island) and plans are being made to establish the Greater Addo Marine Protected Area which has the potential to be proclaimed as a World Heritage Site.
- Numerous permanently open and temporarily open/closed estuaries drain into Algoa Bay, playing an important role in the productivity of the ecosystem.
- Algoa Bay is a perfect bay for all water sport events.
- Algoa Bay is custodian of over 300 ship wrecks.
- Algoa Bay has an established fishing industry.

3.

## **Ports**

- Nelson Mandela Bay is the only city in South Africa with two international ports and the Eastern Cape is the only province in South Africa with three international ports.
- The Port of Ngqura is the fastest growing port in the world.
- The Port of Ngqura is destined to be a major transshipment hub in Africa.
- The Port of Port Elizabeth is primed for a waterfront development.
- The waterfront development could include a maritime museum, aquarium, boat based whale and dolphin watching, Fisherman's Wharf, seafood restaurants, marina and entertainment facilities, Maritime Institute for research and development, boat building and repairs.
- The current South African Naval Station is to be upgraded to a full Naval Base and the SAS Donkin Naval Reserve Force re-instated.

## **Port Elizabeth FET College**

- PE FET College has the facilities and resources to develop and offer skills development training courses to meet the needs of the maritime sector.

## **Nelson Mandela Bay Maritime Cluster**

- The Nelson Mandela Bay Maritime Cluster (NMBMC) is one of only two maritime clusters in Africa. A maritime cluster in Mombasa, Kenya, is in the process of being established.
- The NMBMC has the support of the African Ship Owners Association (ASA) to assist with the development and establishment of maritime clusters in Africa. ASA has over 60 members from the African maritime nations.
- The Nelson Mandela Bay Declaration presented to over 300 delegates at the inaugural Eastern Cape Ports & Maritime Conference (ECPMC 2013) on 31<sup>st</sup> May 2013, is a positive response to Paragraph 13 of the Mombasa Declaration adopted by delegates who attended the Heads of Africa Maritime Administrations and Ship Registrars at their first meeting held in Mombasa, Kenya from the 3<sup>rd</sup> - 5<sup>th</sup> of October 2012. Paragraph 13 reads, "To encourage and promote the establishment of multi-stakeholder maritime development clusters at National, Regional and Continental levels, aimed at coordinating and fostering a competitive and effective African maritime development program". The NMBMC has declared its willingness to assist with the development and establishment of maritime clusters in Africa.

## **Marine Science Cluster**

- South African Environmental Observation Network (SAEON) established the Algoa Bay Sentinel Site consisting of over 100 in situ instruments measuring a suite of environmental variables. SAEON is an emerging National Facility of the National Research Foundation. The Sentinel Site is due to be expanded into the Agulhas Current over the next three years and is the best monitored coastline in Africa and possibly the southern hemisphere. SAEON Elwandle (Coastal Node) is currently based in Grahamstown but is planning to move the Port Elizabeth in the future.

- The South African Institute for Aquatic Biodiversity (SAIAB) is a National Facility of the NRF and based in Grahamstown. SAIAB hosts several coastal research vessels in the Port of Port Elizabeth. The ACEP Phuhlisa Programme (SAIAB initiative) encourages students from the Walter Sisulu University and University of Fort Hare to conduct marine post-graduate research projects in Algoa Bay and surrounds.
- BayWorld Museum & Marine Complex.
- Sustainable Seas Trust.

### ***The United Nations Development Program's Agulhas and Somali Current Large Marine Ecosystems Project***

- This is a regional Project covering all of the western Indian Ocean from Somali to South Africa and out to Mauritius and Seychelles.
- This first phase of this Project is now completed and a second phase of funding (approx. US\$ 12 million) is currently under submission to the UN Global Environment Facility for another 5 years.
- The ASCLME Project is currently located in the Eastern Cape at Grahamstown (hosted by SAIAB and ACEP with a close partnership also with Rhodes University).
- The ASCLME project proposed and developed the AfriCOG (see below) with Rhodes and UNDP and this has now been adopted as a Centre by Rhodes University.
- In its future phase ASCLME and AfriCOG will be closely associated (probably even sharing the same physical location) and ASCLME will be providing supportive funding for the development of AfriCOG and for training courses and capacity building.

### ***African Centre for Capacity Building in Ocean Science and Governance (AfriCOG)***

- The AfriCOG was recently established as a Centre within Rhodes University in Grahamstown.
- AfriCOG is expanding its partnership national to include input from NMMU, University of Fort Hare, etc.
- Regional AfriCOG is developing partnerships with the Benguela Current Commission, University of Dar Es Salaam, and other Universities and research institutes throughout Africa.
- AfriCOG already has global partners supporting it (International Ocean Institute; World Maritime University; UN International Maritime Organization, US National Oceanic and Atmospheric Administration; etc.).
- Recent discussions have focused on the possibility of AfriCOG being physically located in Port Elizabeth (alongside SAEON and other associated marine and maritime bodies) or possibly at Coega IDZ.

### ***General***

- Nelson Mandela Bay has a strong logistics sector.
- Nelson Mandela Bay has a good engineering skills base.
- Both the Port of Port Elizabeth and the Port of Ngqura have facilities that could be used for boat building. The Transnet National Ports Authority has already received one serious enquiry to build high performance luxury yachts and catamarans in the Port of Port Elizabeth harbour.

5.

## B Panel of Experts

Name:	Institution:
Mr Brian Ingpen	Head: Lawhill Maritime High School
Dr Bheki Mahlobo	Chief Director Programmes and Qualifications Branch: Vocational and Continuing Education and Training Department of Higher Education and Training
Dr Engela van Staden	Chief Director: University Academic Planning and Management Support Department of Higher Education and Training
Dr Renate du Toot	Research Manager: EE Research Focus
Ms Elise van Sly	Director: EE Research Focus
Captain John Abercrombie	Chief Examiner South African Maritime Safety Authority
Dr Aaron Nkosi	Director Department of Basic Education
Ms Meike Wetsch	Manager: Portfolio Development Coega Development Corporation
Professor (Capt Dr) Ed Snyders	Head: School of Maritime Studies and Survival Centre Granger Bay Campus
Dr Vuyelwa Toni Penxa	SAQA Research Committee
Ms Gerda Magnus	Project Manager Department of Higher Education and Training
Captain Colin Howard Johnsen	Head of Department of Maritime Studies Steve Biko Campus Durban University of Technology
Professor Shirley Walters	Director: Division for Lifelong Learning University of the Western Cape
Mr Brian Mackenzie	Registrar Occupational School, PE College
Professor Patrick Vrancken	Head of Department: Public Law/ Chair: Law of the Sea Nelson Mandela Metropolitan University
Prof CAJ van Rensburg	Director SATNO Office Central University of Technology
Dr Isabelle Ansorge	Senior Lecturer, Oceanography Department, Marine Research Institute, University of Cape Town
Mr Andy MacLennan	Chief Executive Officer, SAMTRA
Mrs Maphefo Anno-Frempong	Chief Executive Officer, Transport Education and Training Authority
Ms Sibongile Sithebe	Senior Manager: Research and Innovation, Maritime School of Excellence, Transnet Academy
Ms Deanna Collins	Director Crewing & Training, Marine Crewing Services SA (Pty) Ltd
Dr Raymond Patel	Chief Executive Officer, merSETA
Mr Karl Socikwa	Chief Executive Officer, Transnet National Ports Authority
Mr Rob Whitehead	Chairman, The Nautical Institute (Southern Africa Branch) President, The Society of Master Mariners South Africa

<b>Name:</b>	<b>Institution:</b>
Mr Mike Tsotetsi	CEO, CATHSSETA
Ms Brenda Ntombela	Head of Secretariat, Human Resource Development Council of South Africa
Ms Vivian Malaya	Project Director: Biodiversity Human Capital Development Strategy, SANBI
Ms Bianca Mokuena	Deputy Director: Monitoring and Evaluation, Industrial Development Division: Industrial Policy, the dti
Mr Isaac Maredi	Chief Director: Sector Innovation and Global Change, Department of Science and Technology
Mr Johan-MatthyGreyling	Project leader: CIWSP as facilitated by the CPSI
Dr ThabangMatobako	Development Bank of Southern Africa
Professor SechabaMahlomaholo	Research Professor in the Faculty of Education, University of the Free State
Dr WynandGoosen	Chief Executive Officer: Infomage Rims group
Mr Peter Besnard	Acting CEO, SASSOA
R Adm(JG) K.J. Watson	President: SAIMENA
Ms MmatšatšiRamawela	Chief Executive Officer: TBCSA
Ms Mary-Lou Harry	Human Resources Executive: Sea Harvest Corporation (Pty) Limited, Executive Committee Member: Bargaining Council for the Fishing Industry
Mr Adrian Strydom	Skills Programme Manager: SAOGA
Professor Graham Bradfield	Director of Shipping Law Unit, University of Cape Town
Vice. Admiral Refiloe J. Mudimu	Chief of the SA Navy
Ms Vanessa Davidson	CEO: Marine Industry Association of South Africa
Mr Michael Tatalias	Chief Executive Officer: SATSA
Mrs Valencia VuyelwaLupondwana	Head: Centre of Excellence, The Petroleum, Oil and Gas Corporation of South Africa (SOC) Ltd
Mr ECK Malan	Acting Senior Executive Manager, Institute for Maritime Technology
Captain Karl Otto	Executive Head: Centre for Sea Watch, SAMS
Mr Tau Morwe	Chief Executive Officer, Transnet
Dr Gunther Migeotte	Executive Director: ICARUS MARINE
Mr Otto de Vries	Chief Executive Officer: ASATA
Mr Lucas Williams	Directorate: Socio-Economic Development, Department of Agriculture and Fisheries
Mr David Logan	CEO, South African Association of Freight Forwarders
Dr Brian Gowans	Martech
Mr Alan D.M. Romburgh	Head: Cape Town Hotel School, Cape Peninsula University of Technology

<b>Name:</b>	<b>Institution:</b>
Dr C.J Augustyn	Chief Directorate: Fisheries Research & Development, Department of Agriculture and Fisheries
Mr John K. Filitz	Industrial Policy, Industrial Development Division, the dti
Dr Pedro Monteiro	Systems and Climate, CSIR Natural Resources and the Environment
Andrew Thomas	President: SA Branch, The Institute of Chartered Shipbrokers
Mr Christo Smit	Partner: Triton Naval Architects
Mr Dave Phelp	Research Group Leader, Built Environment, Council for Scientific and Industrial Research (CSIR)
Ms Vanessa Maitland	Contract Maritime Archaeologist
Mr Adnan Awad	Director, International Ocean Institute - Southern Africa
Dr IrajAbedian	Chief Executive: Pan-African Capital Holdings (Pty) Ltd
Professor Trevor Jones	Head of School: Economics and Finance, University of Kwazulu-Natal
Mr BhekiNtshalintshali	Deputy General Secretary, COSATU
Mr Dennis George	General Secretary, Federation of Unions of South Africa (FEDUSA)
Mr ZenzoMahlangu	General Secretary, SATAWU
Dr David Vousden	Regional Director, Agulhas and Somali Current Large Marine Ecosystems Project
Brig Gen Malcolm Kinghorn	King Cole Maritime



## C Engagement with Transnet Maritime School of Excellence

# NOTES

### SOUTH AFRICAN MARITIME INSTITUTE

### MEETING WITH MR HERSCHEL MAASDORP, EXECUTIVE HEAD MARITIME SCHOOL OF EXCELLENCE

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## 1 Purpose of the Meeting

Chris Elfick met with Mr. Herschel Maasdorp, the newly appointed Executive Head of the Maritime School of Excellence for Transnet in Durban on 20 September 2013. The purpose of the meeting was to explore opportunity for collaboration between Transnet and the proposed Maritime Institute for South Africa.

## 2 Background

Mr. Maasdorp indicated that he has recently been appointed as the Executive Head of the Maritime School of Excellence. This School of Excellence brings together the former School of Ports and the School of Port Operations for Transnet into a single entity. The objective of the school is to supply the entire Southern Africa with Maritime skills. He indicated that MoUs are already in place with countries such as Namibia, Tanzania and Mozambique.

He noted that the Transnet market demand study Ports and Ports Infrastructure includes addressing maritime services and skills development.

He acknowledged that this School of Ports may in the past have been a stumbling block in co-operation around maritime skills but gave the assurance that co-operation in the future is both essential and desirable.

## 3 South African Maritime Institute and Regional Centres

Chris Elfick explained the current proposals in terms of the establishment of the South African Maritime Institute and the establishment of regional Centres to drive co-operation and collaboration. Chris Elfick noted the proposals in terms of the regional Centre in Port Elizabeth hosted by NMMU. He also noted that in the Western Cape, a number of individual entities are in operation with opportunity for collaboration in the future. Mr. Maasdorp noted SAMTRA and the simulator which it has in place.

Chris Elfick indicated that one of the key outcomes of this meeting was to establish the scope for co-operation with the Maritime School of Excellence in terms of establishing a regional Centre in KwaZulu-Natal.

## 4 KZN Regional Centre

Mr. Maasdorp indicated that he was aware of the various stalled processes in the past. He indicated that the maritime education proposals for eThekweni had suffered from personal agendas, individual objectives and lack of commitment in the past. He noted that the City of Durban had in the past attempted to play a dominant role in the establishment of the eThekweni Maritime Centre.

He also noted the confusing initiative currently being undertaken by the Sharks Board in terms of the establishment of a Centre of Excellence.

Mr. Maasdorp noted that Transnet National Ports Authority (TNPA) certainly has the biggest budget in SA for Maritime skills training. He noted budget numbers in excess of R100 million. He noted that the School of Excellence has been mandated to enter into MoUs with all service providers. He also noted that TNPA will be looking to fund higher level education programs such as an MBA in Maritime and Ports Management.

Mr. Maasdorp also noted that the Maritime School of Excellence is working closely with the Port Management Association of East and Southern Africa (PMAESA) in providing skills from the School of Excellence.

Mr. Maasdorp noted that Transnet has a budget of R1,1 billion per annum for skills development. He noted that he had just ordered a R100 million simulator and that there was opportunity for the use of this simulator for research as well as teaching.

## 5 MSoE as Host of Centre

The Maritime School of Excellence will be located at the old Durban Airport and will officially be opened in December 2013. The entire School of Excellence is being restructured and transformed and will run on “military lines” with uniforms etc.

The discussions then moved to the extent to which the Maritime School of Excellence could be a host of the Maritime Centre in the KwaZulu-Natal area. Mr. Maasdorp indicated that this was not only a possibility but in his view an essential requirement. He believed that the investment being made by Transnet in the Maritime School of Excellence will ensure that there are research capabilities, high-end knowledge infrastructure and significant opportunity for collaboration in the maritime field with other service providers in the Province.

Mr. Maasdorp also noted that the Maritime School of Excellence is required to have branches in all major ports and that he believes the Maritime Centre in the Eastern Cape would be the perfect location for the School of Excellence branch in that area. A close collaboration is therefore required between the South African Maritime Institute and the Maritime School of Excellence.

## 6 Key Decisions and Actions

1. The Transnet MSoE intends to collaborate with all of the education service providers in areas of infrastructure, knowledge sharing, equipment and simulators and other areas.
2. A MoU must initially be put in place between Transnet MSoE and SAMSA. This MoU would then transfer to SAMI once established.
3. Transnet MSoE is also eager to enter into MoUs with the education service providers in KwaZulu-Natal specifically and believes there is an opportunity to host the regional Centre for eThekweni.
4. There is immediate demand for postgraduate studies and the Transnet MSoE is prepared to sponsor the establishment of a MBA program in Maritime and Port Management.
5. The first week of December 2013 will see the launch of the MSoE. This may be an opportunity for establishing and formalising the co-operation with SAMI and other education providers.

**Chris Elfick**  
**23 September 2013**

## **D Draft Regulations for the South African Maritime Institute**

### **DEPARTMENT OF HIGHER EDUCATION AND TRAINING**

### **HIGHER EDUCATION ACT, 1997 (ACT NO. 101 OF 1997)**

### **CALL FOR COMMENTS ON THE DRAFT REGULATIONS FOR THE ESTABLISHMENT OF A SOUTH AFRICAN MARITIME INSTITUTE**

## SCHEDULE

### CHAPTER 1

#### DEFINITIONS

##### Definitions

- 1** In these Regulations, any word or expression to which a meaning has been assigned in the Act bear the meaning so assigned and, unless the context indicates otherwise –

“**DHET**” means the Department of Higher Education and Training;

“**SAMI**” means the South African Maritime Institute established in terms of section 38A of this Act and Regulation 2; and

“**SAMSA**” means the South African Maritime Safety Authority.

### CHAPTER 2

#### ESTABLISHMENT, SCOPE OR APPLICATION

##### Establishment of SAMI

- 2** (1) The South African Maritime Institute is hereby established as a juristic person, in accordance with the scope or application as contemplated in Regulations 2 and 3.
- (2) The physical location and official address is \_\_\_\_\_
- (3) The Minister must appoint an interim board for a period not exceeding six months, to perform the functions relating to the day to day governance of the SAMI, which functions of the interim board will focus primarily on the nominations and appointment of the members of the board as contemplated in regulations 5 and 6.
- (4) The Minister may extend the period referred to in sub regulation (3) once for a further period not exceeding six months.

- (5) The members of the interim board contemplated in sub regulation (3) are appointed by the Minister and shall consist of –
- (a) The chairperson; and
  - (b) five other members.
- (6) The members of the interim board must co-opt not more than two experts in relevant fields, who will not have voting rights.
- (7) The appointment of the members of the interim board contemplated in sub regulation (3), must be appointed from persons who –
- (a) have the requisite skills to govern and project manage the composition and the appointment of the board contemplated in regulation 5;
  - (b) are conversant with the higher education landscape; and
  - (c) understand the challenges of the maritime sector.

### **Scope or Application of Regulations**

- 1** The scope or application of the SAMI will be to advance and co-ordinate scholarship, research and expansion in the field of maritime studies within and through the existing public universities and those to be established or declared in future as public universities.

## **CHAPTER 3**

### **GOVERNANCE**

#### **Governance**

- 2** (1) The SAMI is governed by a board.
- (2) The board consists of a chairperson and not more than 12 ordinary members with voting rights.
- (3) Notwithstanding the provisions of sub regulation (2), the board may from time to time, co-opt for a period determined by the board, not more than 4 experts in relevant fields, who will not have voting rights.

## Nomination and Appointment Process of Board Members

- 1 (1) The nominations of chairperson, board members and co-opted members must be undertaken in such a manner as to ensure, insofar as is practically possible, that –
  - (a) the functions of the South African Maritime Institute in terms of these regulations are performed according to the highest professional standards;
  - (b) the membership taken as a whole
    - (i) is broadly representative of the higher education sector, including members drawn from among organisations representing academics, university management staff, appropriate government departments, the state research system and others with interest in the maritime sector;
    - (ii) has knowledge and understanding of, and is committed to higher education;
    - (iii) appreciates the role of the maritime sector in the social and economic development in the country; and
  - (c) due attention is given to representivity on such relevant grounds as race, gender and disability.
- (2) At least three months before the expiry of the term of office of the members of the board, the chief executive officer of the SAMI must, in publications which at least include the Government Gazette, invite nominations for the appointment of board members for the forthcoming term of office from organisations and persons involved in education and training and the general public.
- (3) The Minister must consider the nominations contemplated in sub regulation (2), and from the persons so nominated, the Minister must appoint –
  - (a) 10 members of the board; and
  - (b) the chairperson of the board, who is appointed by the Minister and may be from outside of the nominations received.
- (4) At least three of the members contemplated in sub regulation (3)(a) must be appointed from academic and management staff in public higher education institutions.



- (5) If the Minister receives no nominations or an insufficient number of nominations within the period specified in the invitation from the chief executive officer, the Minister may appoint the required number of persons who qualify to be appointed in terms of the regulations.

## **Vacation of Office**

- 1** A person ceases to be a member of the board if he or she –
- (a) resigns by giving written notice to the Minister;
  - (b) is absent from three consecutive meetings of the board unless there are exceptional circumstances which may be submitted in writing to the board and accepted by the board as a valid reason for the non-attendance;
  - (c) is declared insolvent;
  - (d) is removed from an office of trust by a court of law;
  - (e) is convicted of an offence involving dishonesty or an offence for which the sentence is imprisonment without the option of a fine; or
  - (f) is declared unfit to attend to his or her personal affairs by a court of law.

## **Filling of Vacancies**

- 2** If a member vacates his or her office, the resultant vacancy must be filled by nomination and appointment in accordance with regulation 5.

## **Terms of Office of Chairperson and Members**

- 3** (1) The chairperson and appointed members of the board –
- (a) hold office for a renewable period of four years; and
  - (b) may only serve a maximum of two consecutive terms.
- (2) The term of office of co-opted members is determined by the board.

# **CHAPTER 4**

## **FUNCTIONS**

## Functions

- 1** The functions of the SAMI contemplated in section 38B(1) of the act are to –
  - (a) Promote the maritime sector as a significant potential contributor to GDP of South Africa;
  - (b) Build a national and international brand for maritime education, making South Africa and individual centres known for excellence in selected fields;
  - (c) Co-ordination of education in the sector across all levels by adding value to the activities of participating institutions;
  - (d) Development and provision of facilities, including equipment, for shared use by educational programmes and institutions to attract research projects that will develop collaboration, knowledge and resource sharing; and
  - (e) Become the authoritative knowledge base of the maritime sector through the expertise of specialists located in participating institutions.

## Additional Functions

- 2** Notwithstanding regulation 9, the SAMI may in addition perform the following functions to –
  - (a) promote the integrity, reputation and recognition of the maritime sector within the higher education community and society at large;
  - (b) advance post graduate and under graduate scholarships through a variety of innovations, including collaborative supervision of doctoral students by two or more universities, which could include South African universities collaborating with universities outside South Africa;
  - (c) provide scholarships for post graduate students studying in the maritime field;
  - (d) dynamise the fields of research and teaching in the maritime field through a range of catalytic projects;

- (e) develop innovative and ground breaking curriculum in the maritime field;
- (f) establish committees, subject to the provisions of Chapter 5.

## **CHAPTER 5**

### **COMMITTEES**

#### **Committees**

- 1** (1) The board must establish the following committees –
  - (a) an executive committee;
  - (b) an academic committee;
  - (c) an international advisory committee; and
  - (d) a finance committee.
- (2) The board may establish any other committee as may be required for the SAMI to perform its functions as contemplated in Chapter 4 of these regulations.

#### **Delegations**

- 2** The board may on such conditions and for such period of time as it may determine, delegate any of its powers under this Act, to any committee or person employed by the SAMI.

#### **Short Title and Commencement**

- 3** (1) These regulations are called the draft Regulations for the Establishment of a South African Maritime Institute, 20\_\_.
- (2) These regulations come into operation on a date the Minister appoints the interim board and which date must be published by Notice in a Government Gazette.
- (3) Different dates may be determined under sub regulation (2) in respect of different provisions of these regulations.